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ECOLOGICAL STUDIES IN THE BAYS AND OTHER WATERWAYS NEAR LITTLE EGG INLET AND IN THE OCEAN IN THE VICINITY OF THE PROPOSED SITE FOR THE ATLANTIC GENERATING STATION, NEW JERSEY

Progress Report for the Period January-December 1974

VOLUME ONE

FISHES

by

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EXPERIMENTAL STUDIES

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August 1975

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INTRODUCTION

In September 1971, Ichthyological Associates, Inc. began an ecological study of ocean sites off Long Beach Island and Little Egg Inlet, New Jersey, for Public Service Electric and Gas Company. After 1 March 1972, sampling was restricted to the ocean in the vicinity of the proposed Site of the Atlantic Generating Station (AGS) and in the bays, rivers, and waterways from Manahawkin Causeway, Long Beach Island, to Atlantic City. The above areas are subsequently referred to as the study area. The vicinity of the Site is defined as an area from Holgate, Long Beach Island to off Brigantine Inlet and from the beach to approximately 6 miles from shore.

The AGS is to be located approximately 2.8 statute miles off the coastline (off Little Egg Inlet) at approximately 39°-28'-20" N latitude and 74°-15'-20" W longitude. Two 1150 MWe nuclear generating units will be placed on floating barges and protected by a large semicircular, rubble-mound breakwater. The area encompassed by the breakwater and plants is subsequently designated the Site.

The first objective of the study was to identify and describe the biota of the area both spatially and temporally. Subsequently, we attempted to determine if the Site was unique biologically, or if it supported particular concentrations of organisms. This has been done in part by comparing organisms found in a transect (inshore-offshore) across the Site with one both north and south of the Site. These two latter transects will later serve as control areas. A transect from

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the Mullica River through Great Bay to Little Egg Inlet has also been sampled to determine utilization of adjacent estuaries and movements of organisms between estuaries and the inshore ocean.

Additional samples for zooplankton and ichthyoplankton were taken inshore off Brant Beach, approximately 10 miles north of the Site; approximately 8 miles offshore of Brant Beach; and about 8 miles offshore of Little Egg Inlet. These areas are referred to as north and offshore of the study area. These collections were taken to help determine the extent of estuarine influence in the vicinity of the Site.

Regular sampling during 1975 was reduced to a monitoring program for juvenile and adult fishes, ichthyoplankton, zooplankton, and benthos. Fishes and macroinvertebrates were also collected for behavioral studies at the Brigantine Experimental Laboratory.

This progress report mainly covers the period January through December, 1974. Volume one includes the results of the 1974 sampling program for fishes and a section on the laboratory design and experimental procedures utilized at the Brigantine Experimental Laboratory. Volume two contains data on epifauna, marine algae, benthic invertebrates, protoplankton, and zooplankton. The section on protoplankton discusses results from collections made from May 1972 to April 1973. Data from individual collections for all programs are given in the Appendix Tables at the end of each volume. Results of a quantitative vegetation study along Great Bay Boulevard are included in Volume three. Ecological studies done previously in the area by Ichthyological Associates, Inc.

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and others are discussed in Thomas et al. (1972), Thomas and Milstein (1973), and Ichthyological Associates, Inc. (1974).

Data for many of the sections are summarized by month and by season. Seasonal classifications are based on water temperature and are as follows: winter (January-March), spring (April-June), summer (July-September), and fall (October-December).

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SUMMARY

1. Biological studies were done in the vicinity of the proposed Atlantic Generating Station approximately 2.8 statute miles southeast of Little Egg Inlet.

2. Collections of fishes and invertebrates were taken in the Great Bay-Mullica River estuary; Little Egg and Beach Haven inlets; the ocean in the vicinity of the Site; and for plankton , in the ocean 10 nautical miles north of the Site and 8 nautical miles offshore.

3. The report mainly discusses and gives the results of the 1974 sampling programs; results for protoplankton are for studies conducted from May 1972 to April 1973.

4. Physicochemical parameters taken with biological collections were summarized for the Site, Little Egg Inlet, and Great Bay.

   a. Mean bimonthly surface temperatures ranged from 2.8 to 23.3 C at the Site, 2.5 to 25.0 C in Little Egg Inlet, and 0.6 to 25.7 C in Great Bay. The water column at the Site was stratified from May through August. The largest average difference between surface and bottom temperatures was in June (3 C).

   b. Surface salinities ranged from 27.5 to 31 ppt at the Site, 20 to 31 ppt in the Inlet, and 12 to 28 ppt in Great Bay. At the Site, bottom salinities were usually slightly higher than surface values.

   c. Mean bimonthly surface dissolved oxygen concentrations ranged from 12.1 ppm (winter) to 6.9 ppm (summer) at the Site, and 13.5 ppm to 6.6 ppm in Great Bay.

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5. Seine collections were made twice monthly, from January through November at 10 regular stations. Four stations were sampled again at night once monthly. Three low salinity satations were sampled in the spring and early summer.

   a. More than 45,400 specimens of 53 species were collected with 15- and 25-ft seines. The five most common species were the Atlantic silverside, mummichog, tidewater silverside, banded killifish, and striped killifish.

   b. Samples from mud-sand bottom stations had the highest frequency of occurrence of silversides and killifishes and the most stable population levels of all habitat types examined.

   c. At Great Bay and Little Egg Harbor stations, more species were taken at night than during the day while fewer were taken at Brigantine stations at night.

   d. The highest daytime species diversity value was for collections in the Mullica River followed by that for Great Bay, Little Egg Harbor, and the Brigantine bays.

   e. Twenty-four hour and day/night studies with a 250-ft beach seine and 15-ft common seine were taken once monthly from January through September in Absecon Inlet. The five most common species collected were the Atlantic menhaden, Atlantic silverside, bluefish, windowpane, and bay anchovy. Diversity values were consistently greater for collections at night than during the day.

6. A 25-ft trawl program for demersal fishes and macroinvertebrates was conducted in the vicinity of the Site and the Great Bay-Mullica River estuary.

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a. Seventy-six species and 1,149 specimens/coll. (n/coll.) were taken in 186 daytime samples in the vicinity of the Site. The first five species ranked by numerical abundance were the bay anchovy (86% of the total catch), weakfish (5%), red hake (3%), spotted hake (2%), and silver hake (1%).

b. The five species which occurred most frequently were the window-pane (taken in 73% of all collections), spotted hake (62%), bay anchovy (55%), red hake (54%), and smallmouth flounder (51%).

c. The species diversity value for all collections in the vicinity of the Site was 0.74. Diversity values were 1.37 in winter, 1.80 in spring, 1.07 in summer, and 0.25 in fall.

d. The n/coll. declined markedly from shallow areas (5 to 19 ft) to deeper areas (40 to 59 ft). Species diversity was 0.56 at 5 to 19 ft, 0.75 at 20 to 39 ft, and 1.32 at 40 to 59 ft. These differences were largely due to variations in the catch of the bay anchovy.

e. No significant differences were found for n/coll. between Little Egg Inlet and Holgate transects or for n/coll. between the Little Egg Inlet and Brigantine transects.

f. The total number of collections, species, and specimens by season was as follows: winter (42 collections, 37 species, 128 n/coll.); spring (41, 37, 255); summer (51, 49, 857); and fall (52, 50, 2,968). Seasonal summaries were based on combining data for January-March (winter), April-June (spring), July-September (summer) and October-December (fall).

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g. Some 185 collections in the vicinity of the Site yielded 7.6 kg of specimens/coll. The first five species by weight were the red hake, bay anchovy, silver hake, weakfish, and windowpane.

h. Results of a replicate trawl study to examine sampling variability were tested using two-factor analysis of variance for the number of species and specimens taken. For species, the station effect was significant while date and interaction effects were non-significant. For specimens, all effects were significant. Coefficients of variation and 95% confidence limits were calculated.

i. Day-night trawl comparisons were made for collections taken in the vicinity of the Site. The n/coll. and number of species for collections taken at night was significantly greater than those during the day. Species diversity was 1.08 for daytime collections and 1.75 for night collections.

j. A comparison was made of the distribution and relative abundance of demersal fishes in the Great Bay-Mullica River estuary and in the vicinity of the Site. The n/coll. for the vicinity of the Site was significantly greater than that for the estuary only in fall and for 1974. The greatest differences in n/coll. occurred during summer and fall when many more bay anchovy were taken in the vicinity of the Site.

k. The weight of fishes taken was significantly greater in the vicinity of the Site than in the estuary during fall and for 1974. The weight/coll. in the vicinity of the Site was greater than that in the estuary during all months except March and July.

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1. Temporal distribution patterns and migrations of some common fishes in the vicinity of the Site and the Great Bay-Mullica River estuary were discussed in relation to water temperature.

7. Collections were made with a 16-ft semiballoon trawl in the Great Bay-Mullica River estuary, Little Egg Harbor, behind Brigantine, and in Little and Big Sheepshead creeks.

   a. Fifty-three species and about 38 n/coll. were taken in 154 hauls.

   b. The five most numerous species were the bay anchovy, white perch, spotted hake, blueback herring, and red hake.

   c. The largest n/coll. (69.6) was taken in summer, followed by that in spring (55.2), fall (16.9), and winter (16.1).

   d. Catches in Great Bay were dominated by the bay anchovy and were largest in summer, followed by those in spring, fall, and winter.

   e. In Great Bay, the n/coll. was greatest and diversity values lowest in the inner Bay. The n/coll. decreased from the Inlet to the middle Bay while diversity values increased.

   f. Catches in the creeks were generally similar in species composition to those in the bays.

   g. A replicate trawl program to examine sampling variability (16 x 16-ft trawls) was concluded in March. Two-factor analysis of variance was performed for the number of species and specimens taken in various time periods. Coefficients of variation and 95% confidence limits were calculated.

   h. A paired trawl program to determine gear efficiency (16 x 25-ft trawls) was concluded in April. The 25-ft trawl took significantly more specimens and species than the 16-ft trawl.

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8. A longline program for sharks was conducted from 23 May to 2 October at 11 locations in the ocean and at one in Great Bay.
   a. Sixty-two specimens of six species were taken in 16 collections. The dusky shark (38 specimens) and smooth dogfish (12 specimens) composed 81% of the total catch. Four other species (12 specimens) made up 19% of the total catch.
   b. The dusky shark and sandbar shark ranked first (44%) and second (37%) by frequency of occurrence in the collections.
   c. The species composition was similar to the catch in 1973 (Thomas et al. 1974).
9. A nightlighting study was conducted on 19 August and 16 September to determine those fishes and macroinvertebrates which would be attracted to lights at the proposed AGS.
   a. Fishes collected or observed in the vicinity of the Site included the bay anchovy, halfbeak, rough silverside, Atlantic silverside, bluefish, and butterfish. Macroinvertebrates collected included epitokes (sexually modified, spawning adults) of the polychaete, Nereis succinea; brief squid; crab, Portunus gibbesi; blue crab; and lesser blue crab.
   b. The American eel, Atlantic needlefish, rough silverside, Atlantic silverside, and bluefish were the fishes taken or seen in Great Bay. Macroinvertebrates collected included Nereis and blue crab.
10. Collections were made with a 900-ft gill net from February through November at the Site, off Little Beach, off Holgate, and in Great Bay.
   a. A total of 2,215 specimens of 35 species was taken in 40 sets.
   b. The five most numerous species were the Atlantic menhaden, smooth dogfish, weakfish, American shad, and spiny dogfish;

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they accounted for almost 75% of the total weight of fishes taken.

c. The largest collections were taken off Little Beach, followed by those in Great Bay, off Holgate, and at the Site.

d. Fishes which dominated collections were the Atlantic menhaden and smooth dogfish off Little Beach; the Atlantic menhaden in Great Bay; the smooth dogfish off Holgate; and the weakfish and smooth dogfish at the Site.

e. Most fishes were adults and specimens collected were generally larger than those taken by other sampling gear.

11. A total of 26 lobster pot collections was taken in the vicinity of the Site between January and October. These yielded 1,952 specimens of fish and macroinvertebrates in 37 taxa which weighed 130 kg.

a. Rank by weight was as follows; rock crab (63% of the total weight), black sea bass (12%), spider crab (6%), and starfish (5%).

b. From February through August, the rock crab dominanted the catches; several juveniles were taken in July.

c. Most black sea bass were taken in August and October.

d. Starfish were common from February through October.

12. Eighty-six surface, midwater, bottom, and oblique tows with 0.5-m nets, a 1.0-m net, and a 0.1-m^2 Bongo sampler were made in the vicinity of the Site for ichthyoplankton. Densities for the year averaged 3.2 eggs/m^3 and 3.1 larvae and young/m^3.

a. In the vicinity of the Site, eggs of the bay anchovy (81%), searobins (4%), Atlantic mackerel (2%), and windowpane (2%) comprised the majority of eggs collected. Most eggs (90%) were collected in June and July.

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b. High densities of larvae were collected from January through March and from June through August. The larvae of the sand lance (93% of all larvae collected for the year) dominated. They were most abundant during winter; engraulids and gobiids were most common during summer.

c. From late May through August, most eggs and larvae collected in the vicinity of the Site were of species generally associated with estuarine waters. In other months, eggs and larvae of neritic species dominated collections.

13. Ichthyoplankton at stations north and offshore of the study area were more typically neritic during the period May through October than those collected at the Site. Although the species composition 2.5 miles off Brant Beach was somewhat more estuarine than at the offshore stations, the overall species composition of ichthyoplankton at Brant Beach was more typically neritic than estuarine.

14. One hundred and two surface, bottom, and oblique tows with 0.5-m nets and a 0.03-m^2 Bongo sampler were made for ichthyoplankton in Little Egg Inlet, Great Bay, and the Mullica River. Densities for the year averaged 9.9 eggs/m^3 and 1.9 larvae and young/m^3.

a. In the bays, eggs of the bay anchovy comprised 90% of the eggs collected. Some 83% of all eggs were collected in June and July.

b. Substantial densities of larvae were collected in January and from June through August. The larvae of engraulids (74% of all larvae collected for the year) dominated. Engraulids, northern pipefish, and gobiids dominated the summer catch; sand lance were most common in January.

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15. Commercial fishermen used otter trawls, gill nets, and pots in the vicinity of the Site.

    a. Excluding Atlantic menhaden, New Jersey commercial finfish landings in 1974 increased by over 3 million lb. from 1973.

    b. The total poundage of fishes landed in Atlantic County was greater than 2.1 million lb , an increase of almost 0.5 million lb from 1973.

    c. The five most abundant fishes landed in Atlantic County were the summer flounder, scup, silver hake, striped bass, and weakfish.

16. Sport fishing is a major year-round recreational activity in the area.

    a. Data from charter boats, Rand's Boats, and surf fishermen indicated that most fish were taken from May through August.

    b. The major fishes caught in Great Bay were summer flounder and black sea bass.

    c. The dominant sport fishes in the vicinity of the Site included Atlantic mackerel, weakfish, and bluefish.

17. In summary, species accounts are presented for common fishes taken by all types of gear.

    a. More than 296,760 juvenile and adult fishes of 118 species were collected for the year.

    b. Forty-six species were each represented by 100 or more specimens and each is discussed.

    c. The five most numerous species (bay anchovy, Atlantic silverside, weakfish, red hake, and spotted hake) comprised 85% of all specimens taken.

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8. Construction of the Brigantine Experimental Laboratory is near completion.

a. The laboratory includes offices; a flow-through saltwater system which delivers a total of 70 gallons a minute of hot, ambient, and cold salt water throughout the laboratory; and a holding facility with nine fiberglass tanks ranging from 50 to 530 gallons. A series of experimental systems are used for behavioral studies and are described in detail.

b. An investigation of some behavioral and physiological responses of high salinity estuarine and marine fishes was initiated in December 1974. These studies include work in temperature preference and avoidance responses, cold shock potential, and swimming capabilities.

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PHYSICOCHEMICAL DESCRIPTION OF THE STUDY AREA

David L. Thomas and Richard P. Smith

The physiography, sediments, water temperature, salinity, dissolved oxygen and carbon dioxide concentrations, pH, tides, and currents of the area were discussed by Thomas et al. (1972). Thomas and Milstein (1973) compared water temperature and salinity in 1972 for various localities throughout the study area. Temperatures and salinities in Great Bay and the Mullica River were compared with earlier findings of Durand and Nadeau (1972). Sediments in the Site vicinity were also described. Physicochemical data collected in 1973 at the Site, Little Egg and Beach Haven inlets, Great Bay, and the Mullica River were presented in Thomas et al. (1974). A detailed discussion of the temperature, salinity, currents, sea surface elevation, waves, and water chemistry in the study area and Site-inlet exchange can be found in E.G.&G., Environmental Consultants (1974 and 1975).

This report presents physicochemical data collected in the ocean offshore of the Site and at the Site, in Little Egg Inlet, and in Great Bay. Data taken with each biological collection are included in Appendix Tables 1 to 6.

Materials and Methods

Surface and bottom water temperature, salinity, and dissolved oxygen were measured while taking biological collections. Niskin bottles (1.7 liter) were used to obtain subsurface samples; 9 liter

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(10 qt.) plastic buckets were used for surface sampling. Upon retrieval of the sample, temperature (nearest 0.5 C) and dissolved oxygen (nearest 0.1 ppm) were measured using a Yellow Springs Instrument Model 51A dissolved oxygen meter. Forty-eight (48) ml of the sample was retained in a twice-rinsed capped vial for salinity (nearest 0.5 ppt) determination in the laboratory. An American Optical Instrument refractometer with salinity and refractive index scales was used. Water transparency (nearest 0.5 ft) was measured with either a 20-cm or 30-cm diameter secchi disc.

Results

Temperature

The annual temperature variation in the vicinity of the Site is about 20 C, with a high usually in late August and early September, and a low in February. Moored sensors in the vicinity of the Site at depths of 5.5 meters recorded a high temperature of 25.4 C on 4 September 1973 and a low of 1.8 C on 14 January 1974 (E.G.&G., Environmental Consultants 1975). The maximum surface temperature observed by E.G.&G. was 26.9 C on 31 August 1973.

Ranges and means of water temperatures taken bimonthly (first and second halves of the month) during this study are presented for the Site, Little Egg Inlet, and Great Bay (Tables 1-3) and compared in Figure 1. The minimum mean surface temperature at the Site was 2.8 C (1-15 February) while the maximum was 23.3 C (16-31 August). The range of surface temperatures was 2.0 to 25.0 C. During January and

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February, bottom temperatures often averaged as much as 0.5 C higher than surface values. By early May, surface values were about 1 C higher than those at the bottom. During June, there was an average of 3 C difference between top and bottom. There was little difference in September and by late October, bottom waters were slightly warmer than surface waters (Table 1, Fig. 2).

In the Inlet, the minimum temperature was 0.0 C (during the period 1-15 January) and the maximum was 31.2 C (16-31 July). Differences between top and bottom temperatures were less than at the Site; the maximum bimonthly mean difference was 2.0 C (16-31 July).

Bimonthly mean temperatures (surface) in Great Bay varied from a low of 0.6 C (1-15 January) to a high of 25.7 C (1-15 August). Very little difference was observed between top and bottom temperatures. In contrast to the ocean, temperatures in the Bay warmed more rapidly in the spring, were higher during the summer, and cooled quicker during the fall (Fig. 1).

Salinity

E.G.&G., Environmental Consultants (1975) stated that the seasonal salinity cycle at the Site appeared to be more dependent on river runoff than the direct evaporation/precipitation effects. They reported that maximum average surface salinities of 31.4 ppt were observed in the ocean during mid-December and minimum surface values of 28.4 ppt occurred during mid-January.

Salinities taken in this investigation during 1974 ranged from 27.5 to 31 ppt at the Site, 20 to 31 ppt in the Inlet, and 12 to 28 ppt

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in Great Bay (Tables 1-3, Fig. 3). Salinities in Great Bay varied widely during the year but those in the Inlet were more like those at the Site. Bottom salinity values at the Site were usually higher than surface values. The bimonthly means showed the greatest difference during the period 1-15 February; surface values averaged 28.3 ppt and bottom values averaged 30.3 ppt.

Oxygen

Oxygen values were highest during the winter and lowest in the summer (Tables 1-3). At the Site, the bimonthly mean dissolved oxygen values at the surface ranged from 12.1 ppm (1-15 February) to 6.9 ppm (1-15 September). Bottom mean values ranged from 11.2 ppm (1-15 February) to 5.9 ppm (1-15 July). Bimonthly mean values in Great Bay ranged from 13.5 ppm (1-15 February) to 6.6 ppm (1-15 August, 1-15 September).

Offshore Collections

Temperature, salinity, and oxygen values for collections taken 6-8 miles offshore are given in Table 4. Salinity was usually higher than that at the Site (Fig. 3). In general, offshore water temperatures warmed more slowly in the spring and cooled more slowly in the fall than did those at the Site (Fig. 1).

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FISH

FISHES TAKEN BY SEINE

Richard C. Bieder

Introduction

Many sport and commercial fishes utilize the shore zone for a feeding and nursery area, and it is the primary habitat for many forage fishes. Seines were utilized to sample the shore zone since 1972.

Our objectives regarding fishes were to (1) determine their relative abundance and distribution with respect to diurnal and seasonal movements; (2) define the importance of the shore zone in their life histories; and (3) determine the importance of time of day and tide to their distribution.

Materials and Methods

Ten regular stations (Table 5, Fig. 4) were sampled twice monthly from January through November. Night samples were taken at stations 0002, 0003, 0016, and 0018 once monthly from January through November. Low salinity stations 0006, 0008, and 0024 were sampled in spring and early summer to determine the distribution of young of clupeids and striped bass.

A 15-ft common seine and a 25-ft bag seine were used at all regular stations. The former was 15 x 4 ft with 1/8-inch stretch mesh; the latter was 25 x 4 ft with a 4 x 4-ft bag and 1/4-inch stretch mesh.

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A 250 x 10-ft beach seine with 1/2-inch stretch mesh and a 10 x 10-ft bag was used in 24-hour and day/night studies at station 0023 in a cove in Absecon Inlet, Brigantine. A 400 x 10-ft beach seine of 1-inch stretch mesh with a 10 x 10-ft bag of 1/2-inch stretch mesh was used periodically at an ocean beach on Brigantine. All nets were made of nylon. Standard seining procedure at all regular stations was to take two hauls with a 25-ft seine and three shorter hauls with a 15-ft seine. Approximately 100 yards of shoreline were covered at each station. In 1972 and 1973, more stations were sampled than in 1974. Sufficient data were collected from tidepools and some more distant stations, and these were dropped from the seine program in 1974.

Studies were conducted at Absecon Inlet during the day and at night with the 250-ft beach seine in January and March; 24-hour studies were done in February and from April through September (Table 6). The small catches for the 24-hour study in February indicated a reduced day/night sampling schedule would provide sufficient data to adequately monitor populations in winter.

The beach seine was set in a semicircle from shore with a boat and pulled to the beach by hand or truck. A 15-ft seine was used to collect small specimens along the adjacent shoreline (Table 7). The sampling date for each 24-hour study was chosen so that collections corresponded with mid-tides. Five samples were taken at 6-hour intervals beginning between 0730 and 0900 hours the first day and ending between 0730 and 0900 hours on the second day.

Species were ranked by number and frequency of occurrence. The Shannon-Weaver Species Diversity Index (Pielou 1966a,b; McIntosh 1967)

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was used to analyze catch data. Results were similar to those obtained by using Brillouin's Species Diversity Index (Pielou 1966a).

Results

Small Seines

More than 45,400 specimens of at least 53 species were collected with 15- and 25-ft seines in 1974 (Table 8 through 18). Species composition and physicochemical parameters for each collection are given in Appendix Tables 7 to 14. The seasonal distribution of the catch was as follows: winter (January-March) 19.5 n/coll. and 16 species; spring (April-June) 112.3 and 36; summer (July-September) 285.1 and 39; and fall (October-December) 237.5 and 19. The Shannon-Weaver Species Diversity Index was computed for each station and for major areas (Table 19).

The 10 numerically most abundant fishes were the following: Atlantic silverside (23,562+ specimens), mummichog (4,931+), tidewater silverside (4,539+), banded killifish (3,979+), striped killifish (2,237+), sheepshead minnow (1,939+), bay anchovy (1,307+), Atlantic menhaden (1,120), fourspine stickleback (337+), and white perch (275). All but the Atlantic menhaden and white perch were forage fishes. Seasonal differences in the composition of the five most common fishes were noted (Table 20). All species which ranked among the first five in any season were included in the 10 listed above.

The Atlantic silverside was common or abundant year-round. It was least common in winter when more were taken in deeper water by trawl.

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Young were abundant in the shore zone in summer and large collections (216.5+ n/coll.) were taken then.

The spring and summer peaks of abundance for mummichog and striped killifish were generally due to the abundance of young. Both were less common in winter, possibly because they buried themselves in the sediment and were less susceptible to capture.

Both the banded killifish and tidewater silverside occurred primarily in low salinity areas. The tidewater silverside moved into areas of higher salinity during fall as water temperatures declined. Both were taken year-round at several low salinity stations. The number of specimens of banded killifish taken in spring was high due to increased sampling in the Mullica River.

Two stations from each type of habitat sampled were analyzed for frequency of occurrence of fishes. Habitats selected were shallow sand beaches (stations 0003 and 0040, Table 21), mud-sand shore (stations 0002 and 0016, Table 22), and wave-swept sand beaches (stations 0018 and 0021, Table 23). Temperature and salinity data for one representative station of each habitat are presented in Figs. 5 and 6. Seasonal catch statistics for major areas are given in Tables 10, 14, 15, and 24-27.

Shallow sand beach (Table 21).

The Atlantic silverside ranked first (75%) by frequency of occurrence, and was collected in 41 of 55 collections. Other fishes collected frequently were the tidewater silverside (35%), the striped killifish (29%), and the mummichog (25%). All of the above were year-round residents and were taken as young and adults. The bay anchovy ranked fifth (22%) and was taken mostly as young. It did not occur in winter.

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Mud-sand bottom (Table 22).

The rank by frequency of occurrence in mud-sand collections was the Atlantic silverside (79%), the striped killifish (77%), mummichog (61%), and the tidewater silverside (33%). All occurred year-round as young and adults. The bay anchovy (18%) was not taken in winter and occurred primarily as young.

Wave-swept sand beach (Table 23).

The Atlantic silverside ranked first (66%) in frequency and was taken in 37 of 56 collections. Florida pompano and northern kingfish both ranked second (16%); these occurred most commonly in areas of swift current or in the surf.

Both mummichog and tidewater silverside occurred in 11% of the collections. The striped killifish was taken in 9% of the collections, and the bay anchovy and sheepshead minnow in 5%. Young and adults of the silversides and killifishes were taken, but only young of the bay anchovy, Florida pompano, and northern kingfish were collected.

All habitats were dominated by silversides and killifishes and these were year-round residents. Of the habitats examined mud-sand bottom stations had the most stable population levels and the highest frequency of occurrence of silversides and killifishes. Other species increased in abundance markedly in spring and summer as water temperatures rose. The spot, which was very common in 1973, was not collected in large numbers in 1974. The most frequently collected warm water fish was the Florida pompano. Occasionally, sub-adults of predatory species were

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collected. Most adult predatory fishes either avoided collection by the small seine or did not enter shallow water. Young clupeids (predominantly Atlantic menhaden) were taken in large numbers at low salinity stations in spring. Young striped bass were taken only in a single collection from Cavileer's ramp (station 0008) on the Mullica River on 30 May 1974.

Night collections were made at the same tidal stage as day samples. Diversity values therefore reflected day versus night differences rather than tidal influences. At station 0003 (Great Bay) and 0002 (Little Egg Harbor), diversity values at night (1.21, 0.92) were slightly lower than during the day (1.37, 1.16). More species were collected at night but the Atlantic silverside was very abundant and thus the diversity value was depressed. At Brigantine stations, fewer species were collected at night than during the day. The Atlantic silverside was less numerous at night at station 0018 and the striped killifish was more abundant during night at station 0016. Diversity values at station 0016 were 0.69 during the day and 0.85 at night; at station 0018 they were 1.10 during the day and 1.70 at night.

Collections in the Mullica River had the highest diversity value (2.01) but this area was sampled extensively only in spring when killifishes and silversides were not abundant. Great Bay had the second highest daytime diversity (1.33), followed by that for Little Egg Harbor (1.16), and the Brigantine bays (0.98). The relatively high diversity value in Great Bay was due to the variety of species taken and the relatively low abundance of the Atlantic silverside at night. Dominance by Atlantic silverside characterized collections in the Brigantine bays and Little Egg Harbor. More species were taken in Brigantine than in Little Egg Harbor,

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but greater dominance of Atlantic silverside in Brigantine reduced the diversity value there.

24-hour Study

Results of day/night and 24-hour beach seine collections taken at station 0023 in Absecon Inlet from January through September are given in Table 6. Physicochemical data and species composition for each collection are presented in Appendix Tables 15 and 16.

Twenty-eight species that were not taken by small seine were collected by the beach seine. Large juveniles and adults of some species were common. Small fishes and young of others were often observed going through the large mesh of the beach seine.

The five most common species collected by day were Atlantic menhaden (2,231 specimens, 97.0 n/coll.), Atlantic silverside (1,321+, 57.4+), bluefish (377, 16.4), windowpnae (145, 6.3), and bay anchovy (131+, 5.7+). All but the bay anchovy were most common in summer; it was taken in large numbers in April, May, and June.

Night collections took fewer specimens and a smaller n/coll.; fewer Atlantic menhaden and Atlantic silverside accounted for most of this difference. The most common species were windowpane (480 specimens, 30.0 n/coll.), bay anchovy (366+, 22.9+), spotted hake (283, 17.7), blueback herring (266, 16.6), and Atlantic silverside (255, 15.9). All of the above, except the blueback herring, ranked among the 10 most common fishes collected during both day and night. Only one blueback herring was collected during the day.

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The Atlantic menhaden schools; the collection of over 2,000 in one set accounted for its rank as first in daytime. Over 200 blueback herring were taken in one night collection, which resulted in its high rank.

Daytime diversity values for each season and for the year were lower than for those at night (Table 19). Night collections in winter contained three times as many species as did day samples. The largest difference in number of species was in March. In April and May, night collections had more species than day samples. In June, day/night samples had similar numbers of species. Night collections in summer (diversity 2.89) consisted of fewer species, but day samples included a preponderance of Atlantic menhaden and Atlantic silverside, and a resultant lower diversity value (1.55).

Concurrent collections taken with a 15-ft seine (Table 7) had lower diversity values than those taken with the beach seine (day, 0.07 vs. 1.74; night 1.31 vs. 2.68). Large numbers of the Atlantic silverside in day collections reduced the diversity values. Dominance by threespine stickleback in spring and by the Atlantic silverside year-round lowered night diversity values. Few fishes were taken year-round in collections with the 15-ft seine.

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FISHES TAKEN IN THE VICINITY OF THE SITE AND THE GREAT BAY-MULLICA RIVER ESTUARY WITH 25-FT TRAWL

Charles B. Milstein

Introduction

Collections with a 25-ft trawl for demersal fishes and macroinvertebrates were made to determine (1) their spatial and temporal distribution, (2) relative abundance, (3) year-class fluctuations, (4) relative biomass, and (5) sampling variability.

Materials and Methods

A 25-ft semiballoon trawl with a 25-ft headrope and 31-ft footrope made by the Marinovich Trawl Company was employed for all collections. It had two, 3-ft x 1.5-ft wooden doors, each of which weighed about 35 lb. The net had a 1.5-inch nylon stretch mesh body and a 1.25-inch stretch mesh codend with a 0.5-inch nylon stretch mesh innerliner. The innerliner captured some larval fishes.

A warp length to depth ratio of 6:1 was used for all tows. Boat speed was maintained at approximately 2 knots. Each haul lasted 15 minutes. The area covered (4,700 m^2) was calculated by multiplying the distance traveled (about 0.5 nautical miles) by the effective fishing width of the net. This width equalled about 16.8 ft or 67% of the headrope length (S. Marinovich, personal communication).

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The trawl was designed to collect demersal and epibenthic organisms. Occasionally, juveniles and adults of semidemersal and pelagic species were common in the catch. Schools of Atlantic herring, Atlantic menhaden, bluefish, striped bass, and Atlantic mackerel generally avoided the trawl or were distributed in the water column above it. Observations of the location and relative size of schools were recorded.

The ocean, from the Holgate Peninsula of Long Beach Island to Brigantine Inlet, seaward to a distance of about 5 nautical miles, was divided into 13 sampling regions and a total of 60, one square mile quadrats (Fig. 7). This area is referred to as the vicinity of the Site. Each region was defined and recognized by some combination of depth, permanent buoy, distance from the inlets, or distinct marine topography (i.e. submerged sand ridge). A description of each region and its sediments was given previously by Thomas and Milstein (1973).

In 1974, regular sampling was conducted at the following stations: 9-11 along a transect 0.3-2.3 nautical miles off the Holgate Peninsula in line with the Holgate Tower, 5-8 on a transect located 1.0 to 4.0 nautical miles off Little Egg Inlet, and 12-14 on a transect located 0.8 to 3.6 nautical miles off Brigantine Inlet (Table 28, Fig. 8). The three Holgate transect stations and the four Little Egg Inlet transect stations were usually sampled on the first cruise of each month. The four Little Egg Inlet and three Brigantine Inlet transect stations were generally sampled on the second cruise of each month.

Starting in February, stations 1-4 in the Great Bay-Mullica River estuary (referred to as the estuary) were sampled once per month (Fig. 8). Collections were also made at stations 5-8 in the vicinity of the Site on or about the same dates as when those were taken in the

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estuary. Stations 1-8 (on a transect from the Mullica River mouth through Great Bay to a distance of about 4 nautical miles from shore) provided samples to compare long- and short-term movements of organisms between the estuary and ocean.

A replicate trawl program to examine sampling variability was conducted at stations 5-8 once per month during April and from July through November, 1974. Simultaneous hauls were made by two parallel running boats.

A comparison of day versus night catches were made once per month during June, July, September, October, and November, 1974. Trawls were made at stations 6-8 during the day and were repeated after dark.

Trawl hauls were generally made in a northeast or southwest direction (except in the estuary) to sample a narrow depth range. This procedure allowed analysis of species distribution by depth.

Large catches were generally subsampled and a representative series of each species was preserved. The remaining individuals of each species were counted, sometimes measured, and returned to the water. The total weight of each species from each haul was recorded.

The Shannon-Weaver Species Diversity Index (McIntosh 1967 and Pielou 1966a, b), Wilcoxon's signed rank test, Friedman's test, two-factor analysis of variance, Student's "t" test, and F test were applied to the catch data. All tests were performed at a probability level of $P \leq 0.05$.

Results and Discussion

In the discussion, n equals the number of specimens and n/coll.

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equals the number of specimens per collection. The frequency of occurrence of a species (f) equals the number of collections in which the species appeared, and n/f equals the number of specimens per collection in which the species appeared. Data for individual collections are presented in Appendix Table 17 for the vicinity of the Site and Appendix Table 18 for the estuary.

Numbers of Fishes in Trawl Collections in the Vicinity of the Site

Seventy-six species and 1,148.9 n/coll. were taken in 186 daytime samples (Table 29).

Specimens of 10 species comprised 99.1% of those taken; by rank, these were the bay anchovy (86% of the total catch), weakfish (5%), red hake (3%), spotted hake (2%), silver hake (1%), butterfish (0.7%), silver anchovy (0.5%), windowpane (0.4%), white hake (0.3%), and northern pipefish (0.2%). Seven of the 10 most numerous species were collected in all seasons. The silver anchovy and weakfish were not taken in winter. The white hake was absent in fall. The conger eel, striped cusk-eel, lined seahorse, black sea bass, rock gunnel, sand lance, smallmouth flounder, and winter flounder were taken year-round.

The 10 most frequently occurring species were the windowpane (taken in 73% of all collections), spotted hake (62%), bay anchovy (55%), red hake (54%), smallmouth flounder (51%), silver hake (39%), northern pipefish (37%), butterfish (32%), northern searobin (31%), and weakfish (30%).

Except in winter and early spring, the bay anchovy generally dominated collections in which it occurred and ranked first by numerical

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abundance and by n/f. Other species which were numerous also ranked high by n/f. For example, the weakfish ranked second and the red hake third both by numerical abundance and by n/f. The silver hake, spotted hake, silver anchovy, northern pipefish, and white hake also ranked among the first 10 species by numerical abundance and n/f. The silver perch and sand lance, which were occasionally numerous, ranked 17th and 14th by numerical abundance and 9th and 10th by n/f.

Species diversity for all collections was 0.74; it was 1.37 in winter, 1.80 in spring, 1.07 in summer, and 0.25 in fall.

Seasonal and yearly distributions of the demersal fish community by depth are given for three depth intervals sampled (Table 30). The n/coll. was greatest in shallow areas (5 to 19 ft). Collections at 5 to 19 ft produced 2,303.5 n/coll. or 1.9 times the n/coll. at 20 to 39 ft (1,182.9 n/coll.), the next most productive area. Collections at 40 to 59 ft yielded 243.6 n/coll. These differences were largely due to variations in the number of the bay anchovy; at 5 to 19 ft (2,019.3 n/coll.) it was twice that at 20 to 39 ft (1,014.9 n/coll.) and at 40 to 59 ft it was only 162.1 n/coll.

The number of species taken at depths of 5 to 19 ft (53) and at 40 to 59 ft (49) was similar although fewer collections were made in the shallower area. The most species (66) were taken at 20 to 39 ft; this was due in part to the greater sampling effort there.

Species diversity values were 0.56 for collections at 5 to 19 ft, 0.75 at 20 to 39 ft, and 1.32 at 40 to 59 ft. They reflected the varying abundance of the bay anchovy in the three areas.

Seasonal differences in diversity for collections made at the three depth intervals were mostly influenced by seasonal changes in

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abundance of the bay anchovy and other common species such as the hakes and the weakfish.

During winter, diversity was similar in all areas. In spring, diversity declined at 5 to 19 ft when large collections of bay anchovy were made. Diversity increased in the other two depth intervals. Diversity decreased in all areas in summer when the bay anchovy and weakfish were common. In fall, diversity values at 5 to 19 ft (0.12) and 20 to 39 ft (0.27) were the lowest found in any season. At 40 to 59 ft, diversity (1.71) increased substantially.

Of the 10 most numerous species, some displayed fairly well defined distributions by depth. The greatest number of bay anchovy were collected at 5 to 19 ft. Few specimens were taken at depths greater than 39 ft in the vicinity of the Site during spring and summer. In spring, adults migrated into the nearby bays and waterways. In the late summer and fall, young and adults moved out of estuarine areas and were abundant in the vicinity of the Site.

Young and juvenile red hake were common in collections from all three areas. Catches indicated a movement of red hake inshore in winter and offshore in spring and summer. In the fall, young which migrated from offshore areas were most numerous (8.7 n/coll.) at 40 to 59 ft and decreased in abundance with decreasing depth.

Spotted hake (young and juveniles) and silver hake (young, juveniles, and adults) were most common at depths of 20 to 39 ft.

Young and juvenile butterfish were most numerous in all seasons at 40 to 59 ft except during spring when more were taken at 20 to 39 ft.

The depth distribution of the silver anchovy generally paralleled that of the bay anchovy.

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Young, juvenile, and adult windowpane were relatively common throughout the year at all depths sampled but the n/coll. at 5 to 39 ft was larger than at greater depths.

Most white hake taken were young. None were taken in fall; a few were collected in winter. Most were taken at depths of 20 to 39 ft.

The northern pipefish, an estuarine form, was most numerous in nearshore ocean waters and it declined in abundance with increasing depth. Adults were common at 5 to 19 ft in winter and spring. When temperatures declined in the bays and waterways, it moved out of these areas into warmer inshore ocean waters.

Collections were made during one day each month on the Little Egg Inlet and Holgate transects. On another day in the month, the Little Egg Inlet and Brigantine transects were sampled. For collections made on the same days, the n/coll. on the Holgate transect was 1.3 times greater than that on the Little Egg Transect (Table 31). The n/coll. was 2.9 times more (Wilcoxon's test; not significant; 32 collections) on the Brigantine Transect than that on the Little Egg Transect (Table 32).

Seasonal Summaries

Winter (January-March)

A total of 37 species and 123.8 n/coll. was taken in 42 trawl samples (Table 29). In the vicinity of the Site, the least n/coll. captured was in February when bottom water temperatures (2.0 to 3.8 C; 35.6 to 38.8 F) were lowest (Table 33). Species diversity was 1.39 in March, 1.30 in February, and 1.06 in January.

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In order of numerical abundance, the first five species (85% of specimens) were the red hake, windowpane, silver hake, alewife, and Atlantic silverside. Together, the red hake and windowpane comprised 76% of the specimens. The red hake was taken most frequently. Others which occurred often were the blueback herring, spotted hake, smallmouth flounder, and winter flounder.

The red hake was represented mostly by young and juveniles which orignated from offshore spawning. Some Atlantic silverside overwintered in the vicinity of the Site. Young, juvenile, and adult silver hake and windowpane were well represented in the catches. The alewife taken were all young.

Some species such as the blueback herring, alewife, Atlantic silverside, white perch, and striped bass were collected predominantly in winter. The latter two periodically were numerous in the vicinity of Little Egg Inlet where they were taken by commercial trawlers in January and February.

The abundance of fishes in winter (Table 30) was similar at 5 to 19 ft (139.9 n/coll.) and 20 to 39 ft (142.2 n/coll.). Fewer were taken at 40 to 59 ft (94.7 n/coll.). Substantial numbers of blueback herring, red hake, spotted hake, and windowpane were taken at 5 to 39 ft; fewer were collected at 40 to 59 ft. Species diversity was about equal for the three depths.

Winter hauls along the Little Egg transect yielded 1.3 times the n/coll. than did those on the Holgate transect (Table 31) but this difference was not significant (Wilcoxon's test; 9 collections). Substantially larger catches of red hake were made on the Little Egg transect.

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The n/coll. on the Little Egg transect was 1.4 times that on the Brigantine transect (Table 32). This difference (not significant; 9 collections) was due primarily to greater catches of red hake.

Spring (April-June)

A total of 41 samples yielded 37 species and 255.4 n/coll. Winter forms were gradually replaced by spring and summer species. The n/coll. in June (171.9) was the lowest for any spring month. The n/coll. (365.1) and number of species (27) taken in May was the highest for any spring month. The species diversity was 1.49 in April, 1.61 in May, and 1.19 in June.

Bottom water temperature ranged from 5.5 to 10.0 C (41.9 to 50.0 F) in April and from 9.0 to 15.0 C (48.2 to 59.0 F) in May. It increased to 20.0 C (68.0 F) by mid-June.

The five most numerous fishes taken were the bay anchovy, red hake, silver hake, spotted hake, and windowpane. The first three species comprised 73% of all specimens. All five occurred frequently; the spotted hake was present most often. Other species which were taken often included the little skate, northern searobin, smallmouth flounder, and winter flounder.

The herrings and red hake declined substantially in n/coll. from April to June. The smooth dogfish, scup, northern searobin, and nine other species first appeared in spring. The bay anchovy, silver hake, spotted hake, white hake, and windowpane substantially increased in n/coll. Young of the spotted and white hakes from offshore areas gradually replaced the red and silver hakes.

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Collections at 5 to 19 ft, where large numbers of bay anchovy were taken, yielded the greatest n/coll. (462.9). Hauls made at 40 to 59 ft produced only 95.4 n/coll., one of the lowest values for the three depth intervals sampled during any season. Species diversity was 1.12 at 5 to 19 ft, 1.74 at 20 to 39 ft, and 1.78 at 40 to 59 ft.

Catches along the Little Egg Inlet transect yielded 306.3 n/coll. compared to 288.4 n/coll. taken on the Holgate transect. The difference in n/coll. (not significant; 8 collections) was due primarily to larger numbers of bay anchovy and red hake.

Collections taken on the Brigantine transect yielded 246.2 n/coll. compared to 190.6 n/coll. on the Little Egg transect. This difference (not significant; 6 collections) was due mostly to larger numbers of silver hake.

Summer (July-August)

Fifty-one trawl hauls produced 49 species and 856.9 n/coll. (Table 29). The most species (39) and n/coll. (1,572.6) were taken in September (Table 33). The n/coll. was substantially lower in June (326.5) and August (444.8) because major recruitment of bay anchovy into the inshore ocean did not begin until September.

Bottom water temperatures were slightly higher in July than in June. In August, they ranged from 15.3 to 24.1 C (59.5 to 75.4 F). The latter value was the highest bottom water temperature recorded during trawling. Bottom water temperatures remained high in September and ranged from 17.0 to 22.0 C (62.6 to 71.6 F).

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The five most common species in summer were the bay anchovy, weakfish, spotted hake, butterfish, and white hake. The latter four species were represented largely by young. The first two comprised 89% of all specimens taken. All five species were collected frequently; the bay anchovy appeared most often. Other fishes which occurred frequently included the smooth dogfish, northern pipefish, spot, northern searobin, striped searobin, smallmouth flounder, and windowpane.

Twenty species first appeared during summer. These included a number of migratory forms such as the bluefish and northern kingfish. Ten species were collected only in summer; these included some transient, warm-water fishes such as the clearnose skate, spiny butterfly ray, bullnose ray, short bigeye, and spotted goatfish. The sandbar shark, inshore lizardfish, snakefish, gag, and short bigeye were taken for the first time since the trawl study began in 1972.

Fourteen species, including the bay anchovy, weakfish, butterfish, and northern puffer, were more abundant during the summer than the spring. Conversely, 19 species decreased in abundance. These were mostly winter and spring forms such as the herrings (Alosa spp.), silver hake, red hake, and winter flounder; the latter three had generally moved to cooler offshore waters by summer.

The greatest n/coll. (2,930.0) was taken at shallow depths where the bay anchovy was abundant (Table 30). Catches in the intermediate zone yielded 384.2 n/coll. while samples in the deepest zone had 644.8 n/coll. Species diversity was 0.74 in the shallow zone, 1.61 in the intermediate zone, and 0.44 in the deep zone.

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Catches were large along both Holgate and Little Egg transects in summer (Table 31); n/coll. was only slightly greater along the latter (not significant; 6 collections). Species diversity was low in both areas.

Collections on the Brigantine transect were more productive than those on the Little Egg transect (Table 32). The n/coll. for Brigantine samples was 1.5 times that of Little Egg samples (not significant; 9 collections). Diversity was 0.56 for Brigantine and 1.73 for Little Egg. The larger n/coll. for Brigantine was due primarily to greater catches of the bay anchovy; most other species were more numerous on the Little Egg transect.

Fall (October-December)

A total of 52 collections produced 50 species and 2,967.7 n/coll. (Table 29). Samples in November yielded the highest n/coll. (5,381.0) and lowest species diversity (0.14) of any month in 1974 (Table 33). December samples had the lowest n/coll. (115.3) and highest diversity (1.45) during fall.

Bottom water temperatures ranged from 16.0 to 19.2 C (60.8 to 66.6 F) in October, from 10.0 to 13.5 C (50.0 to 56.3 F) in November, and from 5.4 to 7.5 C (41.4 to 45.5 F) in December.

The five most numerous species were the bay anchovy, weakfish, silver hake, silver anchovy, and butterfish. The bay anchovy comprised 96% of all specimens and appeared most frequently. Other species which were taken regularly included the spotted hake, smallmouth flounder, and windowpane.

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Emigration of fishes from the bays and waterways, which began in September, contributed to the large n/coll. in the vicinity of the Site. In addition, fishes moving south past the vicinity of the Site also contributed to the large fall catches.

The spiny dogfish, American eel, cunner, northern sennet, bay whiff, and striped burrfish were taken only in fall trawl samples (Table 29); these were taken in small numbers. The bay whiff was collected for the first time since the trawl study began.

Twenty-four fishes were more abundant in fall than in summer. Species which increased in n/coll. included the bay anchovy, silver anchovy, silver hake, silver perch, and sand lance. Twenty-nine species decreased in abundance. These included the smooth dogfish, spotted hake, white hake, weakfish, butterfish, northern searobin, and striped searobin.

The largest n/coll. (3,806.5) for any depth during any season was taken at 5 to 19 ft during fall (Table 30). The n/coll. decreased to 3,262.2 at 20 to 39 ft and was only 128.1 at 40 to 59 ft. Species diversity was highest (1.71) in the latter zone, 0.27 at 20 to 39 ft, and 0.12 at 5 to 19 ft. The 0.12 diversity value was the lowest for any depth zone in any season. The bay anchovy dominated the catches from all three areas.

The n/coll. was 6,239.6 for the Holgate transect and 3,078.7 for the Little Egg transect (Table 31). The difference was due almost entirely to larger catches of the bay anchovy and weakfish at the Holgate transect. This difference in n/coll. was not statistically significant (6 collections).

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Catches on the Brigantine transect were 12.8 times greater than those on the Little Egg transect due also primarily to the differences in catch of the bay anchovy. This difference was not significant (9 collections).

Weights of Fishes Taken in Trawl Collections in the Vicinity of the Site

The total weight of the catch may be used to make conservative estimates of the standing crop of demersal fishes when other factors, such as the availability of a species and its vulnerability to gear, are considered (Edwards 1968).

Some 185 trawl collections yielded 7.6 kg/coll. (Table 34). The first 10 species by weight (88% of total) were the red hake, bay anchovy, silver hake, weakfish, windowpane, spotted hake, smooth dogfish, little skate, winter flounder, and northern searobin. All were common.

The same general trends were shown by monthly values of weight/coll. (Table 34) and n/coll. (Table 33). The peaks in weight/coll. of fishes which occurred in April (13.3 kg/coll.) and May (13.6 kg/coll.) were due largely to substantial numbers of little skate, hakes, windowpane, and winter flounder.

During October (11.0 kg/coll.), the third largest weight/coll. was taken. The bay anchovy (28%) and weakfish (58%) made up most of the weight. One large haul of adult weakfish comprised 41% of the weight for October. Weights in January (2.6 kg/coll.), February (4.7), June (3.1), and December (3.6) were low and corresponded to the small n/coll. However, in August and November, weight/coll. decreased from

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those values found in July and October while n/coll. increased. The decline in weight/coll. in August was due mostly to a decrease of spotted hake while the increased n/coll. was mostly a result of greater weakfish catches. In November, weight/coll. decreased mostly due to a substantial decline of weakfish; n/coll. increased markedly because of large catches of bay anchovy.

Replicate Trawl Program

Two simultaneous replicate hauls were made at each of four stations (5-8) on six occasions. Three of the total 48 replicates were aborted. The data were considered in two groups of 12 pairs of replicates for two-factor analysis of variance (ANOVA). The first group contained data on replicate hauls taken on six days at two stations (Table 35) and the second group had data for three days at four stations (Table 36).

The number of species and specimens taken in each replicate haul is shown along with its respective log (number + 1) value. Log transformations were performed to attempt to normalize the data for ANOVA (Silliman 1946). One was added to each number to eliminate zero values. The log (number + 1) transformations generated distributions skewed to the right; this was most noticeable for the species data. Snedecor (1934) considered ANOVA to be an appropriate statistical test for moderately skewed distributions.

The data for species and specimens in each group were first examined utilizing Wilcoxon's signed rank test and the Student's paired "t" test for differences between the 12 replicate pairs. No

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significant differences ($P \leq .05$) were demonstrated. In each group, the F test was employed to examine possible differences between the variance of one replicate series with that of the other series for the species and specimens data. No significant differences were found.

The ANOVA results for species for six dates and two stations are given in Table 37. The two stations represented somewhat different habitats; station 5 was nearest the Inlet and station 8 was farthest from the Inlet. The F value for station effect was signficant. The effects of date and station x date interaction were not significant. Perhaps this was because while the species composition of the fish fauna changed throughout the year, the number of species remained fairly uniform.

The ANOVA results for specimens for six dates and two stations are shown in Table 38. All the effects were significant.

The results of the ANOVA for the data group with three dates and four stations are given in Tables 39 and 40. For species, the station effect was significant (Table 39). The F value for date (4.28) was not significant at $P \leq .05$ but was significant at $P \leq .10$. However, the station x date interaction was significant. For specimens, all effects were significant (Table 40).

The variability between hauls was analyzed using the method described by Silliman (1946). The 95% confidence limits (fiducial limits of Silliman 1946) were calculated from the estimates of the standard deviation (the square root of the mean square of the deviation term) of the log (number + 1) of species and specimens in each data group. It was assumed that the number of species or specimens from

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one haul would not differ from that of another 95% of the time unless the number from one was outside the confidence limits of the other.

The ANOVA species data from six dates and two stations (Table 37) gave confidence limits of 45% to 222%. Therefore, to be considered significantly different ($P \leq .05$), the number of species taken in one haul would have to be somewhat less than one-half or slightly more than double that of another haul. The confidence limits for specimens from this data group (Table 38) were 19% to 527%.

For the data group from three dates and four stations (Table 39), the confidence limits for species were 52% to 191%. The limits for specimens were 23% to 429% (Table 40).

The coefficent of variation (CV) was calculated for the log (number + 1) values of species and specimens. The standard deviation used in the CV equalled the square root of the mean square deviation from ANOVA. For species, CV equalled 19% for the data group with six dates and two stations (Table 35) and 16% for the other group (Table 36). For specimens, CV was 15% for the data from six dates at two stations (Table 35), and 13% for the other group (Table 36).

The confidence limits for number of specimens were much wider than those for species. The number of species collected differed somewhat between hauls. However, the patchy distribution of the fishes, particularly for a common schooling form such as the bay anchovy, frequently resulted in greatly differing numbers of specimens being taken in the two replicate hauls.

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Day-Night Comparisons

Fifteen trawl collections were made by day and again at night in the vicinity of the Site (Table 41). The n/coll. and the number of species for night collections was significantly greater (Wilcoxon's test) than for those during the day (Fig. 9). Species diversity was 1.08 for day and 1.75 for night collections.

Data were sufficent to statistically compare day/night catches of 15 species. Two species, the weakfish and butterfish, had significantly greater n/coll. during the day. Nine, including the silver anchovy, red hake, spotted hake, striped cusk-eel, northern searobin, striped searobin, smallmouth flounder, windowpane, and northern puffer were greater at night (Table 41). The n/coll. of four species showed no significant differences while the differences in n/coll. of some others were substantial (Fig. 10). For example, the n/coll. of the striped cusk-eel, a nocturnal species, was 10.5 times greater at night. Conversely, that of the butterfish was 11.6 times greater during the day.

Comparison Between Fishes taken in the Great Bay-Mullica River estuary and the Vicinity of the Site

A comparison was made of the distribution and relative abundance of demersal fishes in the estuary with those taken in the vicinity of the Site. A total of 44 trawl collections was taken in the estuary and 65 collections were made in the vicinity of the Site on or about the same dates (Table 42). The n/coll. for the vicinity of the Site was significantly greater (Wilcoxon test) than that for the estuary in

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fall (12 collections) and for 1974 (44 collections). During the other seasons, no significant differences were observed. The greatest differences in n/coll. (Fig. 11) occurred during summer and fall when greater numbers of bay anchovy were taken in the vicinity of the Site (Fig. 12). Species diversity was higher in the vicinity of the Site during all seasons except winter.

The n/coll. for the estuary (Table 43) and vicinity of the Site (Table 44) were calculated by month and for 1974. Most of the major differences, particularly during September, October, and November, were attributed to differences in abundance of the bay anchovy. In February, the lowest n/coll. (8.5) and fewest species (10) were taken in the estuary for the year. In the vicinity of the Site, it (169.5) was considerably higher due to the moderate numbers of red hake and sand lance as well as the greater number of species collected. During December, the second lowest n/coll. (14.5) was found in the estuary. That (157.0) in the vicinity of the Site in December was the third smallest of the year, although the bay anchovy, silver hake, and red hake were common. The n/coll. was greater in the estuary during March and from June through August.

The distribution of fishes in the two areas was examined in detail by tabulating the catch by station for each season (Tables 45 and 46). In winter and summer, the greatest n/coll. was taken at station 5, which is located landward of the Site (zone 5150). It was also high at that station during spring and fall. The catches at stations 3 (zone 1045) and 4 (zone 1015) in Great Bay were moderate to low during all seasons.

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The n/coll. at each station for all collections was statistically compared using Wilcoxon's test with 11 samples for each station (Table 47). The catch at station 4 (zone 1015) was significantly less than that at all of the other stations sampled except for station 8, which is located seaward of the Ridge (zone 5450). No significant difference was demonstrated between the catches at stations 4 and 8.

The weight of fishes was compared for each area by season and for 1974. It was significantly greater in the vicinity of the Site than that in the estuary for 1974 (40 collections) and for fall (12 collections). No significant differences were demonstrated in other seasons.

Monthly and total weight/coll. in 1974 were calculated for the two areas (Tables 48 and 49). The total catch of 9.9 kg/coll. in the vicinity of the Site was 1.9 times that in the estuary (5.1 kg/coll.). The monthly weight/coll. in the vicinity of the Site was greater than that in the estuary during all months except March and July. During March, large catches of white perch were taken in the Mullica River. In July, one adult bluntnose stingray, which was collected in Great Bay, added substantially to the weight/coll. Major differences in weight/coll. between the two areas occurred during February, November, and December. In February, in the vicinity of the Site (7.1 kg/coll.), it was 5.5 times that in the estuary (1.3 kg/coll.). In November and December in the vicinity of the Site, it was 11.9 and 8.3 times greater than that in the estuary.

The weight/coll. at each station for all 1974 samples was compared using 11 collections for each station (Table 50). The catch at station 3 (zone 1045) was significantly less than that at stations 1 (zone 1510)

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and 4 (zone 1015). At the other stations it was not significantly different. The weight/coll. was found to be significantly different at fewer stations than the n/coll. (Table 47). The latter was affected more by an abundant species such as the bay anchovy.

Water Temperature and Distribution of Fishes in the Vicinity of the Site and Great Bay-Mullica River Estuary

Temporal distribution patterns and migrations of fishes in relation to water temperatures are based on information presented in the various sections of the fish program described herein. Some common species are discussed below.

Of the sharks, skates, and rays collected, only the smooth dogfish and little skate appeared frequently. The dogfish occurred from late May to early November and was most numerous from June to August. The little skate occurred from mid-February to mid-June and from mid-October to December. It was absent during periods of high summer water temperatures.

Adult American shad were taken by gill net in the vicinity of the Site and in Great Bay in mid-April. Bottom water temperature in the ocean at that time was 9 to 10 C (48.2 to 50 F) and in Great Bay was 12 to 13 C (53.6 to 55.4 F). The adults were last collected at both localities in early May when bottom water temperature was 13 to 14 C (57.2 F). Small numbers of young were taken in the ocean during winter and spring.

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Young of the alewife and blueback herring were common in the inshore ocean during winter. The more demersal habit and possibly reduced activity of these young herrings during the cold months apparently made them vulnerable to the trawl. They were most numerous in late February and March when bottom temperatures ranged from about 3.0 to 6.5 C (37.4 to 43.7 F).

Adult Atlantic menhaden were first taken in the vicinity of the Site and in Great Bay during mid-April. Bottom water temperature was then 10 C (50 F) in the ocean and 12 C (53.6 F) in the Bay. Schools were observed at the surface from June to early October but less frequently than in 1973 or 1972. Adults were last taken in the vicinity of the Site in early November when bottom temperature was 12.5 C (54.5 F).

The bay anchovy was collected in the vicinity of the Site over the temperature range of 5.0 to 24.1 C (41.0 to 75.4 F). It was taken in all months except February when bottom temperature was coldest. Few were taken during January, March, and April but the n/coll. increased in May as large numbers moved into the area as water temperatures rose. By June, n/coll. decreased due possibly in part to movement into the bays. A major movement from the bays, from September to November, coincided with decreasing bay and ocean water temperatures. The bay anchovy was most numerous in the ocean during this period and young comprised a major part of the collections.

The silver hake was most numerous in mid spring, the red hake was most common during late winter and early spring, and the spotted hake was most numerous in early summer. These species occurred year-round.

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The white hake was taken in January and from April through August. It was rare after mid-August when bottom water temperature was highest.

Some striped bass remained in the study area throughout the year. Schools of migrating striped bass generally appeared in the vicinity of the Site during mid-March when bottom temperature reached approximately 6 C (43 F). It was taken by sport fishermen around the inlets in spring and early summer. Schools reappeared in late September in the vicinity of the Site when surface temperature was approximately 20 C (68 F). It was common there from October until December when surface temperature declined to 9 C (48.2 F). Some striped bass entered Great Bay in the fall and overwintered in the Mullica River. During January and February, 1974, bass were concentrated around Little Egg Inlet and off Little Beach.

The bluefish appeared in May and was common to abundant until November when water temperatures were 9 to 10 C (48.2 to 50.0 F).

All members of the drum family which were common in the vicinity of the Site, arrived in spring. Adult weakfish were present from mid-April through late November. A silver perch adult was collected by seine in Absecon Inlet in early May and the spot was taken by seine in May. The migration both out of the bays and southward along the coast began in August and continued through the fall. The three species were collected in substantial numbers during this period.

Northerly migrating Atlantic mackerel generally appeared in mid-April when surface water temperature in the vicinity of the Site was 7 to 8 C (44.6 to 46.4 F). It was present in large schools until

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early May. Southerly migrating schools were located from 10 to 20 nautical miles offshore in December when the bottom temperature in the vicinity of the Site was 7 C (44.6 F).

The butterfish first appeared in late April. It was most numerous in the trawl catches in September and the largest commercial landings for Atlantic County were reported in August and September. It was last taken in trawl samples in mid-November.

The northern searobin appeared earlier in spring than the striped searobin; the former species was most numerous in June. The n/coll. for the striped searobin was substantially greater in summer than in spring and it was most numerous in September. Some specimens of the northern searobin were collected in the vicinity of the Site until mid-November and some striped searobin were taken until early December.

The longhorn sculpin occurred from January to March and in December at water temperatures of 3.2 to 5.5 C (37.8 to 41.9 F). The n/coll. was about equal during each of these months.

Several species of flounder were year-round residents or occurred during most months in the vicinity of the Site. The smallmouth flounder was most numerous in November. The windowpane was most common in May. The winter flounder was collected occasionally in winter as adults moved into the bays and vicinity of the Site to spawn. The largest collections were made in May as adults moved offshore. By June, bay bottom waters reached approximately 20 C (68 F) and ocean bottom waters were about 15 C (59 F) by which time most adults had left the area. However, young and juveniles were taken in the shore zone of the bays in late spring and summer.

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The summer flounder first appeared in early May and some were periodically collected by trawl through November. It was commonly taken by sport fishermen in the bays and inlets. It was most numerous in trawl catches in the vicinity of the Site during September and November as it moved offshore.

The yellowtail flounder was present in February and March within a narrow temperature range (2-5 C or 35.6 to 41.0 F).

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FISHES TAKEN IN THE BAYS, CREEKS, AND MULLICA RIVER WITH 16-FT TRAWL

Donald J. Danila

Introduction

Since 1972, trawls were used to determine the spatial and temporal distribution and relative abundance of fishes in the Great Bay-Mullica River estuary and neighboring bays. The importance of estuarine areas to local fishes was evaluated. This report covers the period from 14 January to 25 November 1974.

Materials and Methods

The sampling areas were subdivided into zones in 1972. Fewer zones were sampled in 1974 than previously because of redundancy in catch and similarity in habitat between some zones. Zones sampled included five in Great Bay, three in Little Egg Harbor, two in the Mullica River, two in the intracoastal waterway behind Brigantine, three in Little Sheepshead Creek, and two in Big Sheepshead Creek (Fig. 13). Detailed zone descriptions were given in Thomas and Milstein (1973).

Samples were generally taken once monthly in each zone; the data are given in Appendix Tables 19-23.

Paired trawl programs were conducted from May 1973 through April 1974 in Great Bay (zones 1010, 1050, and 1080), and the Mullica River

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(zone 1510); the data for 1974 are given in Appendix Tables 24-25 and the data for 1973 in Thomas et al. (1974).

A 16-ft semiballoon trawl was used for most collections. It had a 16-ft headrope, 19-ft footrope, and 2 x 1-ft doors. The nylon trawl had a 1.5-inch stretch mesh body and 1.25-inch stretch mesh codend fitted with a 0.5-inch stretch mesh inner liner. A 25-ft trawl, used for the gear efficiency study, was described on page 26.

Bottom hauls were made at a constant engine rpm for 10 minutes in the bays and for 5 minutes in the creeks. Boat speed was estimated at 2 to 3 knots depending upon wind and current. A minimum 5:1 ratio of warp length to water depth was maintained. An average haul covered approximately 2,500 m^2.

Paired hauls were made simultaneously by two boats running parallel to one another approximately 30 ft apart; either two 16-ft trawls or, a 16-ft and 25-ft trawl were used.

The Shannon-Weaver Species Diversity Index (McIntosh 1967, and Pielou 1966a, b) was used in the analysis of catch data. Paired trawl data were analyzed by Wilcoxon's signed rank test (Tate and Clelland 1957) and by two-factor analysis of variance. All statistical analyses were tested at a probability level of $P \leq .05$.

Results

More than 5,800 specimens of 53 species were taken in 154 hauls. The five most abundant fishes were the bay anchovy (3,122 specimens, 53.5% of total), white perch (556, 9.5%), spotted hake (359, 6.2%), blueback herring (351, 6.0%), and red hake (305, 5.2%). Other common

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fishes were the Atlantic silverside, northern pipefish, weakfish, and hogchoker (Table 51).

The number of specimens per collection (n/coll.) was 69.6 in summer (July-September), 52.2 in spring (April-June), 16.9 in fall (October-December), and 16.1 in winter (January-March).

In winter, the four most common fishes were the white perch (6.7 n/coll.), blueback herring (3.7), Atlantic silverside (1.9), and red hake (1.4).

In spring, the bay anchovy (23.2 n/coll.), spotted hake (9.1), red hake (6.2), hogchoker (4.5), and blueback herring (3.8) were common. The blueback herring was abundant in the few collections in which it occurred (45.7 n/f).

The bay anchovy (59.0 n/coll.) dominated catches in summer. Weakfish (3.4) and spot (2.2) were also common.

In fall, collections were composed mostly of the bay anchovy (6.6 n/coll.), white perch (4.5), and Atlantic silverside (3.0).

The catch of bay anchovy, spot, weakfish, and winter flounder was less in 1974 than in 1973, but that of the blueback herring, red hake, and spotted hake increased. The latter group accounted for a larger catch in the spring of 1974 than in 1973. The catches during summer and fall were considerably less in 1974, mostly because of smaller catches of bay anchovy and spot.

The Atlantic menhaden, bay anchovy, northern pipefish, white perch, tautog, windowpane, winter flounder, and hogchoker were present throughout the year. The blueback herring and the hakes were taken in winter and spring. The alewife and Atlantic silverside were taken in fall and winter. The drums were taken mostly in summer.

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The n/coll. of fishes, by month, for each area is given in Tables 52-55. The bay anchovy was most common from April through July, and from September through October. It was taken in relatively small numbers in most areas in August, except in the Mullica River where it was abundant only in August. The blueback herring was taken mostly in March and April. The hakes were taken predominantly in April and May. The weakfish was caught in large numbers in Great Bay during July. In the Mullica River, large numbers of the white perch were taken in March and November, and large numbers of the hogchoker were collected in May and June.

Great Bay

More than 2,600 specimens of 45 species were taken in 71 collections in Great Bay. The n/coll. was 36.9 and species diversity was 1.78 (Table 56).

The bay anchovy (21.3 n/coll.) dominated the catch. The blueback herring, red hake, spotted hake, Atlantic silverside, white perch, and weakfish were also taken in large numbers. Fewer bay anchovy and spot, and more red hake and spotted hake were collected in 1974 than in 1973.

Catches in summer were the most productive (89.2 n/coll.). The bay anchovy comprised 89% of the catch (79.1 n/coll.) and accounted for the low diversity (0.54). Collections during the fall (14.8 n/coll., 1.31 diversity value) were also dominated by the bay anchovy (8.7 n/coll., 59% of total).

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In spring, collections (52.7 n/coll.) were most diverse (1.97). The bay anchovy, red hake, and spotted hake comprised more than three quarters of the catch.

In winter (11.2 n/coll., 1.78 diversity value), the blueback herring (4.9 n/coll.) dominated the catch. The Red hake, Atlantic silverside, and white perch were also taken.

The distribution of fishes was examined for the inner Bay (zones 1065 and 1080), middle Bay (1045), and Inlet (1010 and 1200). The middle Bay (9.2 n/coll.) and Inlet (22.5) were less productive than the inner Bay (56.9). Diversity values were 1.38 for the inner Bay, 2.07 for the middle Bay, and 1.85 for the Inlet (Tables 57-59).

The diversity value for summer in the inner Bay was low (0.42), which reflected the large catch of bay anchovy (176.3 n/coll.). Many spotted hake, white perch, and weakfish were also taken in inner Bay samples.

The diversity value for the middle Bay was mostly influenced by the high value in spring (2.13); other seasons had low values. Catches in the middle Bay were sparse and consisted mostly of bay anchovy and spotted hake.

In the Inlet, the red hake, bay anchovy, and blueback herring were the most common fishes taken during the year. Collections were the largest in spring.

Other Bays and Mullica River

Data from collections taken in Little Egg Harbor, in the intracoastal waterway behind Brigantine, and the Mullica River are given

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in Tables 60-62. Sampling in these areas was less intense than in Great Bay. Brigantine (47.8) and the Mullica River (43.4) had larger values of n/coll. than did Little Egg Harbor (28.6).

The bay anchovy dominated collections from Brigantine, particularly during summer and fall, when it composed most of the catch. Other common fishes were the Atlantic silverside, spotted hake, and spot.

The white perch dominated collections in winter and fall from the Mullica River. Large numbers of the hogchoker were taken in spring and large numbers of the bay anchovy were collected in summer.

Collections from Little Egg Harbor differed from other areas; catches in spring were largest and those in fall were smallest. The bay anchovy made up 61% of the spring catch and 94% of the summer catch. The blueback herring was also collected commonly in winter and spring.

Creeks

Almost 800 specimens of 20 species were taken in 33 collections in Little Sheepshead Creek (Table 63). More than 740 specimens (21 species) were taken in 21 collections in Big Sheepshead Creek (Table 64).

Catches of the bay anchovy in 5-minute hauls in Big Sheepshead Creek (31.0 n/coll.) and in Little Sheepshead Creek (21.5) were large in comparison with the bays. Most specimens were taken during spring; the rest were captured during summer. Largest numbers occurred in Little Sheepshead Creek in September and in Big Sheepshead Creek in May (Tables 65-66).

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Other common fishes were the Atlantic silverside, taken in fall, and spring; the spotted hake, taken in spring; and the spot, collected in summer.

No major differences in species composition were found between the creeks and the bays.

Paired Trawl Programs

Replicate Trawl Program

A replicate 16-ft trawl program was begun in May 1973 and concluded in March 1974. The objective of the program was to determine sampling variability.

Two-factor analysis of variance (ANOVA) was performed using three data groups of zones and dates. The groups were so organized because zone 1050 was not sampled after September 1973 and zone 1510 was sampled from December 1973 to March 1974. Zones 1010, 1065, and 1080 were sampled for the entire period (Table 67). The groups included one for the period May through September, another for December through March, and the third for May through March (year).

The ANOVA performed on the number of specimens taken is given in Tables 68-70. The number of specimens taken in each haul was converted to its log (number + 1) in an attempt to normalize the data. One was added to each number to eliminate zero values. The F values generated by the ANOVA showed that zone, collection date, and interaction effects were significant for the period May-September and the year. This was expected since the zones represented different

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habitats and the number of specimens taken fluctuated substantially with the date of collection. However, work in Long Island Sound by Richards (1963) indicated that of the factors analyzed, collection date was not significant. Richards concluded that the changes in abundance of each species over time concealed seasonal fluctuations in the number of specimens taken. Since little overwintering of fishes occurred within the Great Bay-Mullica River estuary, fluctuations in the number of specimens collected were more distinctive than those for Long Island Sound. In the period December-March, only the collection date factor was significant. Catches were sparse from December through February; the larger catches in March may account for the difference.

Coefficients of variation were calculated for the three data groups using number of specimens taken in each haul. Large temporal differences in the values were obtained. The values were 20.7% for May-September, 65.3% for December-March, and 30.8% for the entire program. The high value obtained for December-March was a result of predominately small collections but with occasional large catches of herrings, Atlantic silverside, and white perch.

Richards (1963) obtained a slightly greater coefficient (39.3%) for her entire study period. The smaller trawl and shorter tows (as discussed in Taylor 1953) and the use of simultaneous, parallel hauls rather than repeated hauls (as used by Richards) were probably responsible for the lower coefficient in the present study. The difference in coefficients between Richards' study and ours was not as great as reported in a preliminary analysis of the data (Thomas et al.

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1974: 68) because December-March data were not available for the earlier analysis.

Confidence limits (fiducial limits of Silliman 1946) were calculated from the estimate of the standard deviation. It was assumed that the number of specimens of one haul would not differ from that of another 95% of the time unless the number of specimens for one haul was outside the confidence limits of the other.

Confidence limits determined for the entire period were such that a catch of any one haul would have to be either one-sixth or six times that of another to be significantly different. In the months May-September, a catch had to be one-fourth or four times another to demonstrate a significant difference and in the months December-March, one-eighth or eight times another. These data demonstrated that large differences in catches often occurred between areas because of the schooling nature of some fishes and patchiness of fish aggregations.

A similar series of analyses was conducted on the number of species captured (Tables 71-73). In the months May-September, zone was the only significant factor because of the different habitats sampled (from Inlet to inner Bay). In the months December-March, collection date, zone, and interaction effects were significant. Few species were present in January and February, but many new ones entered the area in March. Over the entire year there were significant differences in the number of species among zone, collection date, and interaction effects.

The coefficients of variation (CV) for species collected during the periods May-September (34.6%), December-March (34.9%), and the

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year (29.5%) differed less than those for specimens. The value obtained for the entire year was less than the CV (44.3%) reported for Long Island Sound by Richards (1963).

Confidence limits for the number of species were similar for the period December-March and the year (about one-half or twice as many species implied significance). During the period May-September, about two-fifths or two and one-half times more species indicated significance. Greater fluctuations occurred in the period May-September when more species were present than during the rest of the year.

The Wilcoxon signed rank test was used to determine if the difference in catch between replicate hauls was significant. In those zones sampled throughout the program (1010, 1065, and 1080), no significant difference was demonstrated for specimens or species between replicate hauls.

Gear Efficiency Program

A trawl program was conducted to determine relative gear efficiencies of the 16-ft and 25-ft trawls. Parallel hauls were made from May 1973 through April 1974 in zones 1010, 1050, 1065, and 1080. In December 1973 zone 1510 replaced zone 1050 (Table 67).

A linear regression of the log (number + 1) transformed catches of the 16-ft trawl to the 25-ft trawl showed a correlation coefficient of 0.85 (Table 74). However, the patchiness of fish populations was evident from the data. For example, in almost one-half of the paired trawls more bay anchovy were taken in the 16-ft trawl than in the 25-ft trawl, although the total number taken was much larger (5,776 vs

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2,313) in the 25-ft trawl (Table 75). The winter flounder was taken in only 5 collections (6 individuals) with the 16-ft trawl, but was captured in 21 collections (58 individuals) with the 25-ft trawl. Catches of the northern pipefish, white perch, weakfish, spot, and windowpane were greater with the 25-ft trawl. The number of specimens for those fishes collected less frequently varied randomly between the two trawls.

The Wilcoxon signed rank test was applied to the data and the results showed that the 25-ft trawl caught significantly more specimens and species than the 16-ft trawl. Ratios of the number of specimens and species per collection taken by the 16-ft trawl to those taken by the 25-ft trawl for each pair of hauls are given in Table 76. Four of the 44 pairs had zero values. Although mean catch ratios were determined for total specimens and species, the large standard deviations produced made their usefulness for comparing the catch of 16- and 25-ft trawls doubtful. The fluctuations of the ratios of specimens exemplified the variability in distribution of naturally occurring fish populations.

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LONGLINE COLLECTIONS FOR SHARKS

Charles B. Milstein

Introduction

Sharks other than the two small demersal species, smooth dogfish and spiny dogfish, were not taken in 1972. However, larger pelagic species were reported to frequent the area by Fowler (1959). A longline program was initiated in July 1973 to determine the species composition and distribution of these sharks in the vicinity of the Site.

Materials and Methods

The longline and shark tagging programs for 1973 were described in Thomas et al. (1974). In 1974, these programs were conducted from 23 May to 2 October. A new longline was employed which consisted of 600 ft of 3/8-inch diameter nylon line. Thirty hooks were used which were attached to leaders. Each 3/32-inch diameter stainless steel wire leader was 6 ft long and equipped with a snap. The leaders were attached at about 20-ft intervals to the longline as it was lowered into the water by hand. Each end of the longline was held on the bottom by a 10-lb anchor. A flag at the surface marked each end.

Hooks were baited with whole, frozen Atlantic menhaden. The longline was placed on the bottom at 11 locations in the ocean and at one location in Great Bay (Fig. 14). It was usually set at one location for 2.5 to 5.5 hours during the day. On 2 July, it was set in the afternoon

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and picked up the following morning. It was retrieved by hand and the catch removed. Occasionally, the longline was reset either at the same, or at a different location.

Sharks judged to be in good condition were usually tagged. Tags were supplied by John G. Casey of the National Marine Fisheries Service (NMFS) Laboratory, Narragansett, Rhode Island. The tagging procedure utilized was described in Thomas et al. (1974).

Results

Sixteen collections were made at 12 locations (Table 77). The location at the weather tower was sampled most frequently because of its proximity to the Site and the protection offered by the tower against disturbance of the longline by boating and fishing activities. The species composition and physicochemical data for each collection are presented. The number of specimens, sex composition, size range (total length in mm), and weight range (in kg.) are listed for each species.

Sixty-two specimens of six species were taken. The dusky shark (38 specimens) and smooth dogfish (12 specimens) comprised 81% of the total. Three other species of shark were represented by 11 specimens (18%) and one bluefish (1%) was taken.

The dusky shark and sandbar shark ranked first (44%) and second (37%) by frequency of occurrence in the collections. Except for the 23 May and 2 October samples when few fishes were taken, both species were taken throughout the sampling period. The smooth dogfish was present in collections from June to October. A white shark was collected on 4 June and two tiger sharks were taken during July. A large adult

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bluefish was captured in June. The species composition of the catch in 1973 (Thomas et al. 1974) was similar to that in 1974. However, the smooth hammerhead (3 specimens) was captured only in 1973 and the white shark (1 specimen) was taken only in 1974. All the sharks were juveniles except for the smooth dogfish which were mostly adults (Table 77). Four dusky sharks were tagged and released.

Discussion

The dusky shark, sandbar shark, and smooth dogfish were among the three most abundant species in both 1973 and 1974 and comprised most of the catch. Collections with other gear also indicated that these three species were among the dominant sharks in the study area. However, from observations of the sport fishery, the spiny dogfish was periodically abundant from late fall to spring.

Some of the sharks taken in the longline program possibly reproduced in the study area. Gravid smooth dogfish were commonly collected by gill net from May to June and young were taken through the summer. Small individuals of the sandbar shark which were captured were of a size typical of newborn specimens (Bigelow and Schroeder 1948). Although only two adult female sandbar shark were taken (in 1973), local sport and commercial fishermen reported that adults are usually common in May and June. Some specimens of the dusky shark collected in the study area were newborn judging by sizes given by Casey (1964).

The longline catches were only partially representative of the species composition of sharks in the area. For example, no hammerhead sharks were collected in 1974, although individuals were observed at

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the surface several times during the summer. Adult sandbar shark were collected only twice but they are known to frequent the area.

To date, six species of sharks have been collected by longline; an additional species, the spiny dogfish, was taken by other gear. Other species reported from the area by Fowler (1959) and Casey (1964) were discussed in Thomas et al. (1974).

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NIGHTLIGHTING FOR FISHES AND INVERTEBRATES

Charles B. Milstein, James J. Gift, Marc C. Wyllie

Introduction

The objectives of the nightlighting study were to (1) qualitatively determine the species composition and relative abundance of fishes and macroinvertebrates attracted to lights after dark in the vicinity of the Site and Great Bay; (2) examine their behavior in and about the light field; and (3) relate the observations to possible situations near lights of the proposed Atlantic Generating Station (AGS).

Materials and Methods

A bank of three spotlights and five floodlights (150 watts each, 1200 watts total) was arranged in a horizontal array on a wooden frame mounted on the transom of the boat. The lights were powered by a portable, gasoline driven, 110-volt AC electric generator. They were fastened about 8 ft above the deck and faced downward and away from the stern. The spotlights were positioned at the center of the light array and the floodlights were located to each side of the spotlights. The frame was mounted so that the center of the light field hit the water surface about 4 ft behind the boat. Larger organisms were visible in the light field as far as approximately 15 ft from the stern.

Observations were made on 19 August and 16 September at the weather tower southwest of the Site (zone 5260) and in Great Bay off

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Oyster Creek (zone 1080). At the former, the boat was anchored and a line was attached to the tower to position the boat. The lights were turned on about 1/2 hour before sunset. The total time spent nightlighting on each date at this location was from 2-1/2 to 3 1/4 hours. Later, the boat was anchored at the Great Bay station where nightlighting was conducted for 1 hour.

Fishes and macroinvertebrates not captured with dip nets were observed, identified, and their numbers estimated. The time of arrival of different species in the light field and behavioral observations were recorded.

Results

Unless otherwise specified, the results are a composite for the two trips.

Weather Tower

Fishes collected or observed included the bay anchovy, a halfbeak, rough silverside, Atlantic silverside, bluefish, and butterfish. The bay anchovy, rough silverside, and young of the bluefish occurred occasionally, while the others were uncommon.

Macroinvertebrates collected included epitokes of the polychaete, Nereis succinea; brief squid; crab, Portunus gibbesi; blue crab; and lesser blue crab. Nereis was common and the other species were uncommon.

Fishes and macroinvertebrates were first observed from 35 to 50 minutes after the lights were turned on. This corresponded approximately to the time of sunset. On 19 August, groups of 10 to 20 bay anchovy

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appeared first. On 16 September, a school of 5 to 10 bluefish arrived first. Other fishes and macroinvertebrates followed shortly thereafter.

The species displayed different behavioral patterns in the light field. The blue crab swam directly into the brightest portion of the light field. Nereis swarmed in groups throughout the lighted area. The bluefish usually stayed at the periphery and made periodic feeding forays into the brighter areas. On one occasion, the light inadvertently went out for about 2 minutes. The anchovy schools dispersed but returned to the light field in smaller numbers about 30 minutes after the lights were turned on.

Great Bay

The American eel, Atlantic needlefish, rough silverside, Atlantic silverside, and bluefish were the fishes taken or seen in Great Bay. The rough silverside was common and the other fishes were scarce. Only 49 rough silverside were collected in all the other samples taken by all gear from 1972 to 1974. However, it was one of the dominant fishes at both of the nightlighting stations.

Macroinvertebrates collected included Nereis which swarmed in small groups. Young and adults of the blue crab were common. A diamondback terrapin was also seen.

The rough silverside was attracted immediately after the lights were turned on. Shortly thereafter, Nereis and small bluefish were evident; the latter swam rapidly in and out of the light field. On 14 August, the day before our second trip, Capt. Ken Wilson nightlighted from about 0330 to 0430 hours in Great Bay at approximately the same

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location. He observed a small shark (Carcharhinus sp.) and some silversides, bluefish, weakfish, and squid.

Discussion

Various nightlighting arrangements and procedures have been employed to experimentally attract, concentrate, and guide fishes for harvesting. In the Gulf of Maine, Wickham (1971a) used a submerged, 1000-watt mercury vapor lamp and he reported that attraction of fishes to the light on different nights depended on variables such as their biological rhythm, water turbidity, and ambient light level. Larger catches were made on nights with a new moon than during a full moon. Over 50 species were collected in purse seine sets around the light; the Spanish sardine, Atlantic thread herring, and scaled sardine comprised 50% or more by weight of the fishes in 71% of the catches. These and other schooling species usually arrived at the light field in large numbers while others were attracted gradually.

In our study, the lights were above the surface. We hoped to approximate lighting conditions at the AGS. Our light array provided considerably less light penetration through the water column than that generated by an underwater light. Wickham (1971a) also noted that underwater lamps were more effective and efficient in attracting fishes than lights suspended above the surface.

In another nightlighting study, Wickham (1973) observed that coastal pelagic forage fishes were attracted and occupied areas of high light intensity. The predatory forms occurred at the periphery of the light field and made rapid feeding forays into the high light areas. Such activity was observed in the present study for the rough silverside, a forage fish, and the bluefish, a predatory species.

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Wickham (1973) investigated attraction to light of fishes associated with a research platform in the Gulf of Mexico. He noted, however, that at times the fish would not follow a moving underwater lamp through areas of pronounced temperature and salinity gradients, turbidity, or strong currents. The lamp was most effective when it was turned on at least 1 hour before sunset. Without the lamp fish schools moved away from the platform toward the setting sun. When the lamp was turned on after sunset, only small numbers of fishes were attracted.

In the present study, the lights were turned on for relatively short periods at the two stations. Wickham (1971a) made some of his collections throughout the night which allowed for the aggregation of large numbers of fishes in and around the light field.

The studies of Wickham (1971a, b and 1973), Bullis and Thompson (1967), and Bullis and Roithmayr (1971) have shown that in the marine environment, nightlights attract a wide variety of fishes. The proposed breakwater for the AGS would create one of the largest artificial reefs on the Atlantic coast (Thomas et al. 1972, 1974). The attractive effects of the breakwater and lights of the AGS should serve to aggregate a variety of fishes and macroinvertebrates.

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GILL NET COLLECTIONS FOR FISHES

Donald J. Danila

Introduction

Most pelagic, larger semidemersal, and demersal fishes are able to avoid trawls. The distribution and abundance of these fishes was examined by use of a 500-ft gill net from March 1973 through January 1974 (see Thomas et al. 1974), and a 900-ft gill net since February 1974.

Materials and Methods

Collections were made from February through November in four areas: within 1 nautical mile of the Site, the nearshore areas off both Little Beach and Holgate, and the inner portion of Great Bay (Fig. 15). Collections were made in all areas once a month. At times in spring (April-June) and summer (July - September) several collections were made in Great Bay (Appendix Tables 26-29).

The 900-ft gill net was manufactured by the Nylon Net Company and consisted of three, 300 x 12-ft panels of 3.25, 4.5, and 5.5-inch monofilament stretch mesh. The net had braided polypropylene float and lead lines with attached plastic floats and lead weights. After March, approximately two-thirds of the weights were removed; this allowed the net to drift with the current while remaining vertical in the water column.

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The net was fished at the bottom for one-half hour. Collections were made in depths of 30 to 40 ft at the Site, and in depths of about 15 to 20 ft off Holgate. The net was fished from the surface to bottom in all collections made in Great Bay and for most collections taken off Little Beach.

Results

A total of 2,215 specimens of 35 species was caught in 40 sets (Table 78). The five most abundant species were the Atlantic menhaden (884 specimens, 39.9% of total), smooth dogfish (363, 16.4%), weakfish (221, 10.0%), American shad (172, 7.8%), and spiny dogfish (115, 5.2%).

Most Atlantic menhaden were taken in Great Bay in spring and summer and off Little Beach during fall (October-December). The Atlantic menhaden is a schooling species and some collections took approximately 50 to 180 individuals.

All but one smooth dogfish were taken in the ocean. It was captured in about equal numbers in the three ocean areas during spring and summer. Almost one-third of all specimens were collected off Little Beach in May. Large adults, including gravid females, were taken mostly in spring. Young were taken in summer.

Most weakfish (120 specimens) were taken at the Site in fall. The remainder were taken off Little Beach (46) from spring through fall, off Holgate (34) in fall, and in Great Bay (21) in spring.

All of the American shad were collected in spring from off Little Beach (85), off Holgate (41), and in Great Bay (40).

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The spiny dogfish was taken primarily at the Site and off Holgate in fall. Gravid females were taken in spring.

The total yearly catch was 66.7 n/coll. off Little Beach, 56.7 in Great Bay, 54.4 off Holgate, and 43.0 at the Site. Seasonally, the largest catches off Little Beach were in spring (104.0) and fall (115.5). In Great Bay, most fishes were taken during spring (114.4). Catches decreased off Holgate from spring (80.5) to fall (52.0), but increased at the Site from spring (37.0) to fall (97.5). Catches in all areas sampled during winter (February-March) were small.

Collections made off Little Beach were dominanted by the smooth dogfish, American shad, and Atlantic menhaden in spring, and by the Atlantic menhaden in summer and fall. The Atlantic menhaden and smooth dogfish made up 37.2% and 21.1% of the catch.

The Atlantic menhaden dominanted collections from Great Bay and was taken in all seasons except winter. The 569 specimens (43.8 n/coll.) comprised 77.2% of the total catch taken in Great Bay.

Collections off Holgate consisted mostly of the smooth dogfish, alewife, American shad, and Atlantic menhaden in spring. Almost two-thirds of the catch in summer were smooth dogfish; more than half of the catch in fall were spiny dogfish and weakfish.

At the Site, the smooth dogfish dominanted the catch in spring (37.8%) and summer (53.7%). The spiny dogfish was common in spring (18.9%) and fall (26.7%). The weakfish comprised one-half of the catch in fall. Weakfish and smooth dogfish made up one-half of the yearly total.

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Weights of fishes were taken for almost all collections. The smooth dogfish (610.7 kg), weakfish (230.7), spiny dogfish (229.2), Atlantic menhaden (225.2), and American shad (161.0) accounted for almost three-quarters of the total weight (Table 83). The weights generally reflected the total number taken, except that relatively few individuals of the sandbar and dusky sharks, the rays, and the goosefish comprised 19.0% of the total weight.

Most fishes (62% of total catch) were taken in the 3.25-inch mesh (Table 84). This included 81% of the Atlantic menhaden, 72% of the weakfish, 55% of the smooth dogfish, and 50% of the spiny dogfish, as well as most herrings, bluefish, and butterfish. Fishes taken in the 4.5-inch mesh (24%) included more than half of the American shad and striped bass, and about one-third of the smooth and spiny dogfishes. The 5.5-inch mesh took only 14% of the total catch, but included one-third of the American shad. Substantial numbers of Atlantic menhaden and smooth dogfish were taken in this mesh, but most of these fishes were taken in the smaller meshes. Larger fishes such as sandbar and dusky sharks, rays, Atlantic sturgeon, goosefish, and Atlantic cod were taken in the larger meshes. The striped searobin and flounders were caught equally in all mesh sizes. The lined sea horse and northern pipefish settled onto the net and were not caught in the mesh.

Discussion

The size of specimens of most fishes collected by the gill net was generally larger than was taken by other sampling gear. The trawls and seines took mostly young and juvenile specimens while the gill net captured mostly adults. Strictly demersal species such as the little

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skate, searobins, and flounders were better represented in trawl catches and were only taken incidentally by gill net. The cownose ray, Atlantic sturgeon, and Spanish mackerel were taken only by gill net.

In winter, fishes which would normally be vulnerable to gill nets were generally uncommon. Some over-wintering striped bass were present in the inshore areas of the ocean and in the Bay. During spring, the herrings (Alosa spp.) were common and the Atlantic menhaden was abundant in the inshore areas and the Bay. The smooth dogfish was abundant in the ocean from spring through early fall. Other sharks, weakfish, and searobins were taken in spring.

In summer, the rays, bluefish, and butterfish were taken in the ocean. The latter two were also collected in fall.

The spiny dogfish was common in the ocean during fall. It was rarely taken in 1973. The weakfish reached maximum abundance in this season. Most warm water fishes such as the sharks and rays left the area in October. In the Bay a significant decrease in the catch in fall was apparently the result of emigration of fishes as water temperatures declined.

Many of the fast-swimming predators such as large sharks, striped bass, bluefish, little tunny, and Atlantic mackerel were probably able to avoid the gill net. Few or no specimens were taken when they were observed to be common locally.

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LOBSTER POT COLLECTIONS FOR FISHES AND INVERTEBRATES

Gerald J. Miller

From January through October, 1974, lobster pots were used to determine the species composition and relative abundance of fishes and macroinvertebrates which are expected to inhabit the AGS breakwater. This program is described in Thomas and Milstein (1973) and in Thomas et al. (1974).

Sets of three pots each were located near the Site just seaward of the Ridge, and near the weather tower approximately 0.5 nautical miles southwest of the Site. Each pot was approximately 46 x 22 x 26 inches, and was constructed of wooden slats set 3/4 inches apart.

Pots were emptied once a month from February through May, and twice a month in June, July, and October. In August, the pots were checked three times. In late August, the pots were destroyed by shipworms, and they were replaced in September.

A total of 26 collections was taken in the vicinity of the Site between January and October (Table 85). These yielded 1,952 fish and macroinvertebrates of 37 taxa which weighed 130.0 kg. The rock crab (63%), black sea bass (12%), spider crab (6%), and starfish (5%) comprised 86% of the total weight.

At the weather tower, 13 collections yielded 678 specimens of 25 taxa which weighed 40.4 kg (Appendix Table 30). The rock crab (64%), black sea bass (17%), and spider crab (10%) accounted for 91% of the weight.

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Thirteen collections seaward of the Ridge yielded 1,274 specimens of 34 taxa which weighed 89.6 kg (Appendix Table 31). The rock crab (63%), black sea bass (10%), and starfish (6%) composed 79% of the weight.

Friedman's test (Tate and Clelland 1957) was used to test for differences (at $P \leq 0.05$) between pots in a set and between stations. Numbers of the most common species in each pot of the same set were tested. No significant differences between the pots of a set were found at either station.

The 10 most abundant species for the year were ranked by total number collected for each station. No significant differences were found between the stations. Species from each station were ranked by total number collected for each sampling date on which they appeared. No significant difference was found between the number of rock crab, black sea bass, big hermit crab, and starfish at either station.

From February through August, the rock crab dominanted the catches; several juvenile rock crab were taken in July. Few rock crab were taken in October. The number of black sea bass increased in August and October. The starfish was common from February through October.

The most common species taken were the rock crab, starfish, and black sea bass. These and the American lobster, spider crab, tautog, cunner, and the attached forms described in the section on epifauna are expected to be the dominant organisms present on the AGS breakwater.

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ICHTHYOPLANKTON

Thomas R. Tatham and David P. Swiecicki

Introduction

Samples were taken throughout the year to determine the spatial and temporal distribution of ichthyoplankton in the study area. Collections were made north and offshore of the study area to help determine the extent of estuarine influence in the vicinity of the Site.

Materials and Methods

Collections were made in Absecon and Little Egg Inlets, Little Egg Harbor, Great Bay, the Mullica River, and the ocean in the vicinity of the Site. Additional samples were taken inshore off Brant Beach, approximately 10 miles north of the Site; approximately 8 miles offshore of Brant Beach; and about 8 miles offshore of Little Egg Inlet. These three stations are referred to as north and offshore of the study area. All stations are described in Table 86 and shown in Fig. 16.

Surface collections were taken with 1.0- and 0.5-m plankton nets. Midwater and bottom collections were taken with 0.5-m plankton nets. Oblique collections in Little Egg Inlet and the bays were made with a 0.03-m^2 (20.0-cm dia.) Bongo sampler. Oblique collections were made in the ocean with a 0.1-m^2 (38.7-cm dia.) Bongo. Occasionally, oblique collections were made with a 0.5-m plankton net. All nets were of 0.5-mm mesh.

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The types and frequency of ocean collections taken from January through November are summarized in Table 87. Surface, midwater, and bottom collections were taken following the procedure described in Thomas et al. (1974). Similarly, deployment of gear for oblique tows followed the procedure for midwater and bottom sampling in the ocean (Thomas et al. 1974). Oblique tows were made by lowering and raising the gear through the water column. Tow time for all ocean collections was approximately 15 minutes except when clogging necessitated shorter tows. Most replicate oblique samples were preserved and analyzed. Nets were towed at 1.5 to 2.5 knots.

The types and frequency of collections taken in Little Egg Inlet, Great Bay, and the Mullica River from January through November are summarized in Table 88. Surface and bottom collections were taken following the procedure described in Thomas et al. (1974). Tow time for surface and bottom collections was approximately 5 minutes. Oblique tows in the Inlet, Bay, and River were made with the aid of a boom, hand winch, and 17 kg. depressor. Most replicate oblique samples taken in Little Egg Inlet were preserved and analyzed. In the Bay and River, replicate oblique samples were taken at all stations. Tow time for oblique collections was approximately 10 minutes. Nets were towed at 2 to 4 knots.

From 12 March through 10 April, Little Egg Harbor and Absecon Inlet were sampled for the larvae of winter flounder. Absecon Inlet was sampled approximately weekly to monitor movement of larvae into and out of Absecon Bay. Surface collections were made at night on late ebb and flood tides with a 1.0-m plankton net suspended from the

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end of the Atlantic City fishing pier (old Brigantine Bridge). On 15 March, simultaneous surface and bottom collections were made with 0.5-m plankton nets. Nets were deployed for 30 minutes. In Little Egg Harbor, simultaneous surface and bottom collections were made with 0.5-m plankton nets during March to determine larval abundance. Replicate oblique samples were taken with a 0.03-m^2 Bongo on 8 April. Each tow in Little Egg Harbor was for 5 minutes.

For most collections, the volume of water sampled was determined with a digital flowmeter (General Oceanics Model 2030) centered in the mouth of the net. Usually only one net of the Bongo was metered. There was no significant difference between the volumes filtered through either net in 22 collections.

Collections were preserved in 5% formalin in the field and later stained with Rose Bengal to facilitate removal of ichthyoplankton. In the laboratory, eggs and larvae were removed from the samples, identified, and enumerated. Collections with large numbers of eggs were subsampled with a Folsom Sample Splitter. When larvae of a species were abundant, the collection was first sorted to remove all larvae of other species prior to subsampling with the splitter. Fish eggs were stored in 5% formalin and larvae kept in 40% isopropanol.

Some eggs and larvae were not identified, due in part to inadequate descriptions in the literature, while others were identified only to genus or higher taxon (Table 89). Specimens damaged beyond recognition were listed as unidentified larvae.

Standard length was measured for specimens with a hypural plate and notochord length (Smith and Fahay 1970) was measured for specimens without one.

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Wilcoxon's signed rank test (Tate and Clelland 1957) was used to test differences in the volumes of water filtered through the two nets of the Bongo sampler and in the catch between two stations and two levels of the water column. Friedman's test of differences (Tate and Clelland 1957) was used to test differences between the catch at three or more stations. A significance level of $P \leq .10$ was used.

Results

Bays

Data from Great Bay, the Mullica River, and Little Egg Inlet are summarized in Tables 90 through 92 respectively; data from individual collections are presented in Appendix Tables 32 through 37. Data obtained from these areas during summer and fall, 1973 are presented in Tables 93 through 95 and Appendix Tables 38 through 44 but are not discussed in this report.

Most eggs were collected from May through July in the Bay, Inlet, and River (Fig. 17). The eggs of the bay anchovy were predominant. Densities of bay anchovy eggs ranged from 18 to 56/m^3 in the Bay and River, and 10-25/m^3 in the Inlet. The eggs of tautog (0.1-5.6/m^3), cunner (0.1-1.6/m^3), and searobins (0.1-0.8/m^3) were common in the Inlet and Bay.

Most larvae were taken in the Bay, River, and Inlet during June and July (Fig. 18). Engraulid larvae were dominant (0.8-22.4/m^3); in all areas, highest densities occurred in July. The larvae of northern pipefish (0.1-0.9/m^3), weakfish (0.01-0.6/m^3), and gobies (0.1-0.3/m^3) were common.

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Winter flounder larvae were present in the Bay (0.08/m^3) and Inlet (0.16/m^3) in March and April. The limited data from Absecon Inlet collections proved inadequate to determine patterns of movement of winter flounder larvae through the Inlet. No correlation was found between maximum catch and tide (Appendix Table 45). Data from Little Egg Harbor were insufficient for a comparison of winter flounder densities with those in Great Bay during 1974 (Appendix Table 45).

Ocean

Data from the vicinity of the Site and north and offshore of the study area are summarized in Tables 96 through 99. Data from individual collections are presented in Appendix Tables 46 through 54.

In the vicinity of the Site, most eggs were taken in June and July (Fig. 17). The eggs of the bay anchovy were abundant (24.5-37.8/m^3); the eggs of tautog (0.3-0.5/m^3) and searobins (0.5-2.8/m^3) were common. Atlantic mackerel eggs were common (2.1-3.9/m^3) in late April and early May. Windowpane eggs were taken during April (0.8/m^3), May (0.7/m^3), and October (0.7/m^3).

At stations north and offshore of the study area, most eggs, primarily those of the Atlantic mackerel (26.3/m^3), were collected in May (Fig. 17). During summer, the eggs of bay anchovy (0.4-0.9/m^3) and searobins (2.9-3.9/m^3) were common. The eggs of windowpane were collected in May (1.2/m^3), October (1.5/m^3), and November (1.3/m^3).

For June and July, densities of eggs in the vicinity of the Site were greater than north and offshore of the study area (Fig. 17). Large numbers of bay anchovy eggs were taken only in the vicinity of the Site.

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During May and from August through November, densities of eggs, primarily those of Atlantic mackerel, searobins, and windowpane, were greater north and offshore of the study area.

In the vicinity of the Site, the greatest densities of larvae were found in winter and from June through August (Fig. 18). Sand lance larvae accounted for the high densities (1.1-8.1/m^3) during winter; maximum density occurred in January. From June through August, engraulid and gobiid larvae were predominant. The greatest densities of engraulid larvae were in June (1.7/m^3) and July (1.5/m^3), while gobiid larvae were most abundant during August (1.2/m^3).

The larvae of winter flounder were present in March (0.05/m^3) and April (0.1/m^3). Atlantic mackerel larvae were collected in May (0.05/m^3). Weakfish larvae were taken in June (0.05/m^3) and July (0.05/m^3), while the larvae of searobins were present in September (0.1/m^3).

North and offshore of the study area, the greatest densities of larvae were found in July and August, although substantial numbers were also taken in September and October (Fig. 19). Engraulid (0.1-2.5/m^3), ophidiid (0.04-0.5/m^3), weakfish (0.5/m^3), searobin (0.1-1.1/m^3), and smallmouth flounder larvae (0.03-1.3/m^3) were predominant. The larvae of sand lance were common (0.8/m^3) in March. Atlantic mackerel larvae were taken in May (0.1/m^3) and June (0.1/m^3). Windowpane larvae were present during October (0.1/m^3) and November (0.1/m^3).

From May through September, densities of those larvae spawned primarily in the ocean were greater offshore of the study area (8 miles off Brant Beach and 8 miles off Little Egg Inlet) than north of the study area (2.5 miles off Brant Beach) or at the Site. The engraulids

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were the only larvae collected in approximately equal densities at all stations. The lack of data from north and offshore of the study area during January and February prevents comparison of larval abundance in different areas during this period.

Discussion

As in 1972 and 1973, most fish eggs in the study area were collected from May through August (Thomas and Milstein 1973 and Thomas et al. 1974). These were predominantly eggs of the bay anchovy.

As in 1973, the greatest densities of larvae in the study area were during winter and from June through September (Thomas et al. 1974). In winter, most were larvae of the sand lance. These were largely confined to ocean waters. The most numerous larvae from June through September were engraulids and gobiids. Densities of engraulid larvae were generally greater in the Bay and River than in the vicinity of the Site.

From late May through August, most of the eggs and larvae collected in the vicinity of the Site were those of species generally associated with estuaries. The larvae of winter flounder are estuarine and were common in the vicinity of the Site during March and April. However, it is not known whether these eggs and larvae originated in the bays or were spawned in the vicinity of the Site. In either case, the vicinity of the Site was characterized primarily by estuarine forms during these months. In other months, eggs and larvae of neritic species dominated collections (Figs. 20 and 21). Occasionally, the densities of some neritic ichthyoplankton were greater at the Site than they were either north or offshore of the study area.

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Although relatively few collections were made north and offshore of the study area, it appears that the ichthyoplankton collected there from May through October were more typically neritic than those collected at the Site. Although the species composition of ichthyoplankton at the station 2.5 miles off Brant Beach was somewhat more estuarine than the offshore stations, it was overall more neritic than estuarine.

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COMMERCIAL FISHERY

H. Keith Hoff

Introduction

The ocean off New Jersey supports a year-round commercial fishery in the area from the surf zone to the edge of the continental shelf. Commercial fishermen use otter trawls, gill nets, fyke nets, purse seines, and pots. These methods except fyke nets were described previously (Thomas et al. 1972, Thomas and Milstein 1973, and Thomas et al. 1974). This report analyzes the 1974 finfish catch made by commercial boats landing in New Jersey and in Atlantic County alone.

New Jersey Finfish Landings

New Jersey commercial finfish landings totaled more than 135 million lb in 1974. Excluding Atlantic menhaden, the catch of five of the six fishes landed in excess of 1,000,000 lb increased from 1973 to 1974 (Table 100). These were the scup (increased by more than 3,069,000 lb), silver hake (572,000 lb), summer flounder (407,000 lb), weakfish (123,000 lb), and bluefish (115,000 lb). The dollar value of Atlantic menhaden ranked first, summer flounder ranked second, and scup ranked third. The catch of Atlantic menhaden from 1971 to 1974 ranked first each year by dollar value and poundage. It decreased by over 47 million lb from 1973 (154,483,250 lb) to 1974 (107,307,501 lb). The total mid-Atlantic (Cape Cod to Cape Hatteras) catch of Atlantic

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menhaden also declined in 1974 (personal communication, Robert Chapoton, National Marine Fisheries Service). The New Jersey landings for Atlantic menhaden are not representative of the fish taken off the New Jersey coast. For example, commercial boats from Port Monmouth, New Jersey fished from Boston Harbor, Massachusetts to the Virginia Capes, Virginia in 1974. Most of the Atlantic menhaden catch included in New Jersey landings was recorded at Port Monmouth.

Atlantic County Finfish Landings

The Atlantic County landings totaled 2,129,284 lb (1.6% of New Jersey landings), which is an increase of almost 0.5 million lb from 1973 (Table 101). Summer flounder (31.5% of the total catch) and scup (16%) were the dominant fishes, both in total catch and dollar value.

Gill net landings accounted for 7.2% in 1974 (Table 102). The total gill net catch declined by almost 100,000 lb from 1973. Bluefish (46.2% of the total catch) and weakfish (35.6%) ranked first and second in dollar value. From 1973 to 1974, weakfish and bluefish declined in total catch by 61% and 22%, respectively.

Commercial fyke netting in bays, thorofares, and the Mullica River has increased in the past few years. Most fishing occurred in winter and spring. The catch included winter flounder (50.7% of the total catch), white perch (48%; first in dollar value), alewife (1.2%), and American shad (0.1%) (Table 108). This information was provided by Eugene A. LoVerde, National Marine Fisheries Service.

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The combined landings at McGarrigel and Son's Fish and Starn's Marina, Atlantic City, New Jersey, accounted for 27.3% of Atlantic County landings and 0.4% of New Jersey landings in 1974 (Tables 103 and 104). The most important fishes landed at these docks were summer flounder, scup, striped bass, and weakfish.

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SPORT FISHERY

H. Keith Hoff

Introduction

Sport fishing occurs throughout the year in the study area but is most intense from April through early November. Fishing is done from private, rented, and charter boats throughout the area; along the banks of the Mullica River and some creeks and thorofares; and in the surf.

Sport fishing in the area was described previously (Hamer 1972, Thomas et al. 1972, Thomas and Milstein 1973, and Thomas et al. 1974). This report covers the results of a creel census for fishes from charter boats, rented boats, private boats, and by fishermen who utilized Sea Horse Pier during 1974.

Materials and Methods

The following data were obtained: number of fish per angler trip (n/t), number of fish per angler hour (n/h), number of fish per boat (n/b), and the kinds of sport and non-sport fishes taken by fishermen.

Data were collected from fishermen who used Rand's U-Drive Boats on Great Bay Boulevard from June through August. Interviews with fishermen who used rented and private boats were conducted between 1200 and 1630 hours on randomly chosen days. All anglers who rented boats were interviewed and those using private boats were interviewed when time permitted. Those fishermen who used rented boats fished in

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Great Bay and those using private boats fished in Great Bay and in the ocean from the inlets to approximately 8 miles from shore. Fork length of the major sport fishes was recorded.

From March through November, personnel associated with two charter boats berthed at Leeds Point kept daily records of the number of each sport fish taken and the location of the catch (ocean or bay). These boats fished in Great Bay, the intracoastal waterway behind Brigantine and Holgate, and the ocean from Brant Beach to Little Beach and to a distance of 20 miles from shore.

From May through September, the proprietor of the Sea Horse Pier recorded the daily catch.

Sport fishes taken on hook and line by Ichthyological Associates biologists were measured and included in length-frequency analyses.

Results

Rand's U-Drive Boats

The 585 anglers who rented boats on 27 survey days from June through August, fished 2,794 angler hours and caught more than 2,429 fish of 16 species (Table 105). They averaged 4.0 n/t (fish per angler trip) and each boat averaged 10.9 n/b (fish per boat). The black sea bass (1,004+ specimens) was most numerous and was taken at a rate of 1.7 n/t (Table 106). Summer flounder (709+) ranked second in total landings from June through August (1.2 n/t) and most were taken in July.

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Private boat fishermen (3,098 angler hours), interviewed on 27 days, landed more than 2,430 fish (14 species). The n/t was 4.4 and the n/b was 12.3. Summer flounder ranked first and more than 1,230 were caught (2.2 n/t). The largest mean n/t of summer flounder occurred in July (2.9 n/t). Black sea bass (573+) ranked second in total catch with a mean n/t of 1.0.

The combined catch of important sport fishes taken on 27 days by rented and private boats from June through August included summer flounder (1,947+), black sea bass (1,577+), bluefish (94+), and weakfish (50+). The monthly mean fork length of summer flounder was as follows: 334.7 in June, 351.5 in July, and 363.4 in August (Table 107). The fork length of black sea bass (9) and bluefish (8) ranged from 135 to 260 and 256 to 400 mm, respectively. The mean fork length of weakfish (18) was 424.4 mm.

The mean fork length of fishes taken angling by Ichthyological Associates biologists were as follows: Atlantic mackerel (51) 356.4 mm, bluefish (26) 513.5 mm, and weakfish (56) 342.9 mm.

From March through November, 1,643 fishermen made 278 trips on the two charter boats for a total of 12,455 angler hours (Tables 108 and 109). They landed more than 20,400 fish and averaged 73.6 fish per boat (n/b), and 12.5 fish per angler trip (n/t). The most common fishes taken were the summer flounder (5,801 specimens), Atlantic mackerel (5,768), weakfish (3,250), and bluefish (2,561). The summer flounder dominated the catches in June (90.4% of total monthly catch (9.7 n/t) and July (82.0%, 8.8 n/t). The largest catches of weakfish were made in September (84.9% of total monthly catch) and October (49.4%).

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The mean n/t of weakfish from May through November was 2.0. Bluefish dominated the catch in August (44.5%) and the mean n/t was 1.6.

Sea Horse Pier

The catch from the Sea Horse Pier was representative of those fishes likely to be taken in and just beyond the surf zone (Table 110). From May through September, 6,242 fishermen used the pier. Most fish were taken in August and the catch consisted mostly of weakfish and bluefish. More weakfish (3,095+) were landed than any other fish from May through September. The average catch was 0.7 n/t.

Discussion

Summer flounder, black sea bass, weakfish, and bluefish were the major fishes taken from boats. Summer flounder was the most sought after fish by boat fishermen and most were taken in the inlets. Charter boat parties fished for black sea bass when fishermen desired that species, when other species were not available, or when bad weather did not permit other types of fishing. Most weakfish and bluefish were taken by charter and private boat fishermen. The speed and range of the boat affected the ability to find and catch these two fishes. Rented boats were generally not sufficiently mobile to make significant catches of weakfish and bluefish.

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FISHES - SPECIES ACCOUNT

David L. Thomas

A total of more than 296,760 juvenile and adult fishes of 118 species was collected by a variety of gear during 1974 (Table 111). The number of specimens and species by season were as follows: winter, 9,168 (51 species); spring 31,255+ (78); summer, 81,288+ (91); and fall, 175,083+ (73). Sampling intensity was somewhat less during winter and fall. The life history stage of each species collected since January 1972 and alphabetical listings by both common and scientific name are given in Tables 112, 113, and 114.

Forty-six species were represented by 100 or more specimens. These are discussed briefly below in order by their numerical abundance. Length-frequency data are given for some of the more important species (Tables 115 to 126). Other information about many of these species is included in previous sections on fishes.

Fewer samples were taken during 1974 than in 1973. The number of seine collections and the number of 16-ft trawl hauls in the bays were about half the number taken in 1973. However, more 25-ft trawl hauls were taken in Great Bay in 1974 than in 1973. In the ocean, about 18% more hauls were made in 1974 than in 1973; this included 15 hauls taken at night in 1974. Fewer specimens of shore zone fishes, such as the killifishes and silversides, were taken because fewer seine collections were taken in 1974.

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1. The bay anchovy (202,261+ specimens) is an important forage fish. It comprised 68% of the fish collected in 1974. Most were taken in the ocean by trawl (92%); the remainder were taken in the bays by trawl (7%) and in the shore zone by seine (1%). It was collected in the spring (4%), summer (19%), and fall (77%). The number per collection increased in ocean trawl collections from 1973 (140 n/coll.) to 1974 (983 n/coll.) but decreased in bay trawl collections from 1973 (76 n/coll.) to 1974 (20 n/coll.). For collections made both day and night in the ocean, significantly more specimens were taken at night (260 n/coll.) than during the day (59 n/coll.). Eggs and larvae were abundant in the bays and the vicinity of the Site during June and July.

2. The Atlantic silverside (25,666+) is an important forage fish. It comprised 9% of the fish collected in 1974. It was collected mostly by seine (98%) and was taken in winter (3%), spring (14%), summer (71%), and fall (12%). Although the total number collected was less than was taken during 1973, the number per collection in small seine collections was higher in 1974 (82 n/coll.) than in 1973 (40 n/coll.). Only a few larvae were taken in the plankton program as most stay in the shore zone. Most spawning was from May to July.

3. The weakfish (10,831+) is an important sport and commercial species. It ranked third in numerical abundance in the sport catch in 1974 and fifth (poundage) in the commercial landings for Atlantic County. It comprised 4% of all specimens taken during 1974. It was collected during the spring (1%), summer (79%), and fall (21%). In the ocean, most were taken by trawl (93%) and it increased in abundance

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there from 14.7 n/coll. in 1973 to 52.7 n/coll. in 1974. However, in 16-ft trawl collections in the bays, it decreased slightly from 1973 (1.4 n/coll.) to 1974 (0.8 n/coll.).

Most larvae were collected north and offshore of the Site from late June through July. Some were also collected at this time in Great Bay and the Mullica River.

4. The red hake (8,209) comprised 3% of all fish collected in 1974. It was taken during the winter (52%), spring (41%), summer (2%), and fall (6%). Most were taken by trawl in the ocean (88%) and in the bays (11%). An average of 37 n/coll. was taken in the ocean by trawl during 1974. Few eggs and larvae were collected. Most spawning apparently takes place offshore of the Site in spring and continues possibly into early summer. The smallest young (20-30 mm) were taken in August, September, and October (Table 115).

5. The spotted hake (5,777) comprised 2% of all specimens collected in 1974. It was taken during the winter (4%), spring (48%), summer (37%), and fall (11%). It was collected by trawl in the ocean (77%) and bays (17%), and in the shore zone by seine (7%). In a day-night series of trawl collections in the ocean, significantly ($P \leq .05$) more were taken at night (78 n/coll.) than during the day (10 n/coll.). Few eggs and larvae were collected. Most spawning is offshore in the fall. Length-frequency data for 2,440 specimens are presented in Table 116.

6. The mummichog (4,941+) was taken by seine in winter (1%), spring (20%), summer (31%), and fall (48%).

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7. The tidewater silverside (4,540+) was taken in the shore zone by seine in winter (5%), spring (10%), summer (25%), and fall (60%).

8. The Atlantic menhaden (4,333) is an important commercial species. The landings in New Jersey during 1974 (107 million lb) were lower than in 1973 (154 million lb). In the study area it was taken in all seasons but most were collected during the spring (35%) and summer (60%). It was taken predominately by seine (78%) and gill net (20%). The seine took mostly young specimens whereas the gill net took larger juveniles and adults. Length frequencies of 1,167 specimens are presented in Table 117. The first young were taken in March and they were most common in April, May, and June. Only a few eggs were collected; all were taken in the ocean during May and November.

9. The banded killifish (3,979+) was taken by seine in fresh and low salinity waters in winter (11%), spring (43%), summer (11%), and fall (35%).

10. The silver hake (3,075) is an important commercial species. It ranked third in landings (poundage) for Atlantic County in 1974. It was collected in winter (7%), spring (52%), summer (3%), and fall (39%). All but 7 specimens were taken in the ocean by trawl. Most adults were collected from December through May; the smallest young were taken in September and October (Table 118).

11. The striped killifish (2,263+) was taken in winter (4%), spring (67%), summer (19%), and fall (9%). All but two were taken by seine.

12. The sheepshead minnow (1,939+) occurs in the area throughout the year but it was taken by seine primarily in the spring (3%), summer (15%), and fall (81%).

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13. The windowpane (1,816) was collected in winter (16%), spring (50%), summer (22%), and fall (12%). It was taken by trawl in the ocean (66%) and bays (8%), and in the shore zone by seine (34%). Fewer were taken by trawl in the ocean in 1974 (4.9 n/coll.) than in 1973 (16.6 n/coll.). Length-frequency distributions of 1,175 specimens are presented in Table 119. Most spawning apparently took place offshore of the Site. Eggs were taken almost exclusively in the ocean and they were common in spring and again in October. Larvae were collected in the ocean in May, June, October, and November.

14. The butterfish (1,536) was taken predominately during the summer (60%) and fall (38%). Most were taken by trawl in the ocean (96%); the rest were collected by gill net (4%). The number taken by trawl in the ocean in 1974 (8 n/coll.) was double that in 1973 (4 n/coll.). In day-night collections in the ocean, 0.1 n/coll. were taken at night while 15 n/coll. were taken during the day. Larvae and young of the butterfish occurred occasionally in collections in the ocean during the summer. No eggs were collected.

15. The white perch (1,364) was taken in the winter (57%), spring (27%), summer (6%), and fall (10%). It was collected mostly in the bays by trawl (76%) and by seine (20%). It usually was found in the lower Mullica River and upper portions of Great Bay during the winter. However, during January 1975, large numbers were collected in the ocean about 0.5 nautical miles off Little Beach.

16. The silver anchovy (1,064+) was taken by trawl in the ocean during the summer (20%) and fall (80%). All were young. Only 16 specimens were taken during 1972 and 1973.

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17. The northern pipefish (956) was collected in the winter (25%), spring (51%), summer (17%), and fall (6%). It was taken by trawl in the ocean (47%) and bays (41%), and in the shore zone by seine (11%). Young were common in Great Bay, Mullica River, and in the vicinity of the Site.

18. The blueback herring (839) was taken in the winter (49%) and spring (51%). It was collected by trawl in the ocean (15%) and bays (53%), and in the shore zone by seine (32%). No spawning was found in local tributaries and the young may be from the Hudson River and other estuaries north of the study area.

19. The white hake (828) was taken in the winter (1%), spring (35%), and summer (65%). It was collected mostly by trawl in the ocean (95%) and bays (4%). Most specimens ranged between 30 and 170 mm (Table 120).

20. The northern searobin (760) was collected during the spring (23%), summer (44%), and fall (32%). It was taken by trawl in the ocean (87%) and bays (11%). The catch by trawl in the ocean decreased from 1973 (3.5 n/coll.) to 1974 (1.5 n/coll.). In day-night trawl collections in the ocean, significantly ($P \leq .05$) more were taken at night (25 n/coll.) than during the day (2.2 n/coll.). Searobin eggs were collected from June through September and larvae were collected primarily in August and September. Most were taken in the ocean and greatest densities were found offshore and north of the study area.

21. The smallmouth flounder (746) was collected in the winter (7%), spring (20%), summer (36%), and fall (36%). It was taken by trawl in the ocean (84%) and bays (8%), and in the shore zone by seine

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(8%). In day-night trawl collections in the ocean, significantly more were taken at night (19 n/coll.) than during the day (2.1 n/coll.). No eggs were identified but they may occur. Larvae were abundant in August and September primarily north and offshore of the study area.

22. The spot (652) was taken in the winter (1%), spring (10%), summer (81%), and fall (9%). It was taken by trawl in the ocean (40%) and bays (20%), and in the shore zone by seine (39%). This species shows large yearly variations in abundance. During 1973, it ranked third in abundance and over 21,000 specimens were taken. The number taken by a large beach seine decreased from 113 n/coll. in 1973 to 4.6 n/coll. in 1974. In trawl hauls taken in the ocean, it decreased from 6.5 n/coll. in 1973 to 1.4 n/coll. in 1974. All were young.

23. The smooth dogfish (633) was taken in the spring (49%), summer (45%), and fall (6%). It was collected by gill net in the ocean (57%), by trawl in the ocean (26%) and bays (12%), and in the shore zone by seine (3%).

24. The striped cusk-eel (587) was taken in the spring (19%), summer (71%), and fall (10%). It was collected by trawl in the ocean (83%) and bays (9%), and in the shore zone by seine (7%). Only 125 specimens were taken in the previous 2 years. It was apparently more numerous in 1974 but much of the difference was due in large part to trawl collections at night in the ocean. It averaged 14 n/coll. at night but only 0.1 n/coll. during the day.

25. The bluefish (567) is an important sport and commercial fish and it ranked fourth by relative abundance in the sport catch. It was taken in the spring (8%), summer (84%), and fall (8%). It was collected

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by trawl in the ocean (6%) and bays (2%), in the shore zone by seine (82%), and in the ocean and bays by gill net (10%). The number taken by large beach seine decreased from 38 n/coll. in 1973 to 11 n/coll. in 1974. Most specimens collected were young (Table 121). Larvae were taken at all ocean stations during July but primarily were north and offshore of the study area.

26. The striped searobin (518) was taken during the spring (8%), summer (77%), and fall (15%). It was collected by trawl in the ocean (74%) and bays (5%), in the shore zone by seine (12%), and by gill net (9%).

27. The winter flounder (464) was taken in the winter (25%), spring (37%), summer (35%), and fall (3%). It was taken by trawl in the ocean (30%) and bays (26%), and in the shore zone by seine (42%). During the summer, most specimens were young which were collected in the shore zone by seine. Young ranged in length from 65 to 125 mm in August; few were collected after September (Table 122). It has declined in abundance over the last 3 years and in 1974 the sport catch was low. It decreased in abundance in trawl collections in the ocean from 2.9 n/coll. in 1972, to 1.9 n/coll. in 1973, to 0.7 n/coll. in 1974. Larvae were taken most commonly in March and April. The greatest densities were usually in Newmans Thorofare, the Inlet, and the vicinity of the Site.

28. The hogchoker (414) was taken in the winter (2%), spring (77%), summer (18%), and fall (3%). Most were collected in the bays by trawl (97%).

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29. The fourspine stickleback (361+) was taken mostly during winter (30%) and spring (69%). Most were taken in the shore zone by seine (95%).

30. The black sea bass (340) was collected in winter (1%), spring (31%), summer (36%), and fall (32%). It was taken in the ocean by lobster pot (40%), by trawl in the ocean (15%) and bays (36%), and in the shore zone by seine (8%). It ranked fifth by relative abundance in the sport catch for 1974. The smallest young were collected in September (Table 123). Of the few larvae which were taken, most were from north and offshore of the study area.

31. The striped bass (307) was taken most commonly in winter (23%) and spring (76%). Most were taken by haul seine (80%) in the lower Mullica River and in inner Great Bay. It ranked fourth in the commercial landings (poundage) in Atlantic County for 1974. The biology of this species in the study area was described in Thomas et al. (1974: 132-139).

32. The alewife (301) was collected in the winter (63%), spring (30%), and fall (7%). It was taken by trawl in the ocean (48%) and bays (20%), in the shore zone by seine (16%), and in the bays and ocean by gill net (16%). Spawning occurred in spring in fresh and low salinity waters of tidal creeks.

33. The sand lance (288) was collected in winter (39%), spring (14%), summer (2%), and fall (45%). It was taken by trawl in the ocean (92%) and bays (7%). It is an important food for the striped bass and bluefish in the fall. Larvae were collected primarily in the ocean and were abundant during January ($8/m^3$), February ($1/m^3$), and March ($1.4/m^3$).

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34. The silver perch (286) was collected in the spring (1%), summer (36%), and fall (63%). It was taken by trawl in the ocean (60%) and bays (27%), and in the shore zone by seine (13%). Its numbers have decreased over the last 3 years. In collections made by trawl in the ocean, 2.4 n/coll. were taken in 1972, 1.7 n/coll. in 1973, and 0.9 n/coll. in 1974.

35. The white mullet (260) was collected by seine in the winter (17%), spring (21%), and summer (62%). Most were young.

36. The American shad (200) was taken during winter (11%) and spring (89%). Adults (86%) were taken by gill net during April and May (Table 124). The young were taken by trawl in the ocean (8%) and bays (2%), and in the shore zone by seine (5%). Young taken from January through May possibly originate in the Hudson River; there is no known local spawning.

37. The oyster toadfish (191) was taken in the winter (4%), spring (66%), summer (20%), and fall (10%). Most were collected by trawl in the bays (99%).

38. The northern puffer (184) was collected in the spring (1%), summer (84%), and fall (15%). Most were taken by trawl in the ocean (90%). It formerly was more common.

39. The northern kingfish (177) was taken in summer (89%) and fall (11%). It was collected by trawl in the ocean (45%) and bays (2%), and in the shore zone by seine (53%).

40. The summer flounder (171) was collected during the spring (23%), summer (52%), and fall (25%). It was taken by trawl in the ocean (46%) and bays (22%), in the shore zone by seine (19%), and by gill net (12%).

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It ranked first in the commercial landings (poundage) for Atlantic County and first by relative abundance in the sport catch for 1974. More young were taken during the summer of 1974 than in the previous 2 years. Five young taken in July ranged from 125 to 160 mm TL (Table 125). A few eggs were collected north and offshore of the study area. A few larvae were taken in the ocean during fall. Most spawning is offshore of the study area during fall.

41. The American eel (149) was collected during the winter (24%), spring (60%), and summer (15%). It was taken by seine (72%) and by trawl in the bays (28%).

42. The Florida pompano (143) was taken mostly during the summer (99%) by seine (100%). It was collected predominately in the surf and in the inlets. No eggs or larvae were collected.

43. The striped anchovy (130) was taken in the spring (2%), summer (41%), and fall (58%). It was collected by trawl in the ocean (85%) and bays (9%), and in the shore zone by seine (6%).

44. The threespine stickleback (118) was taken in winter (93%) and spring (7%). It was collected by trawl in the ocean (3%) and bays (31%), and in the shore zone by seine (66%).

45. The spiny dogfish (117) was taken in the spring (22%), and fall (78%). Most were taken by gill net in the ocean (98%). It generally occurs more commonly offshore of the Site.

46. The planehead filefish (116) was taken in the spring (2%), summer (96%), and fall (3%). It was collected by trawl in the ocean (31%) and bays (32%), and in the shore zone by seine (37%).

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The five most numerous species comprised 85% of all specimens taken in 1974. The bay anchovy and Atlantic silverside comprised 77% of the catch and are two of the most important forage species. The weakfish and red hake comprised 7% of the catch taken and are both important commercial species. The numerical abundance given for each species is reflective of the sampling gear, sampling frequency, and areas sampled. Some species such as the weakfish have increased markedly in our catches over the last 3 years. Others such as the winter flounder and silver perch have substantially decreased while some such as the spot and silver hake were variable from year to year. The variations in yearly abundance of a species are influenced by a variety of factors both locally and over its range.

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EXPERIMENTAL STUDIES

J. J. Gift and M. C. Wyllie

Renovating of a building to house the Brigantine Experimental Laboratory of Ichthyological Associates, Inc. was started in 1974. The 2,400-sq ft Laboratory has offices, a flow-through water system, a fish holding facility, and various other partitioned rooms which enclose experimental systems. The Laboratory is located on Bonita Tideway and has excellent dock and mooring facilities.

In early 1975, an extensive investigation of the behavioral and physiological responses of some high salinity estuarine and marine organisms was initiated. Descriptions of the laboratory saltwater system, the experimental systems, and general programs are presented in the following sections.

The flow-through saltwater system consists of dual stainless steel intake pumps, an automated rapid rate sand filter station, and three saltwater head tanks. A distribution system delivers hot, ambient, and cold salt water throughout the lab. A 554,000 BTU/hour hot water boiler, a 60-ton chiller, and pneumatic temperature controls, coupled with teflon heat exchangers, provide temperature control for 20 gallons/minute (76 liters/minute) of hot salt water at 22 C above incoming ambient temperatures; 40 gallons per minute (151 liters/minute) of controlled ambient temperature salt water held within $\pm$ 3 C of ambient temperature; and 5 gallons/minute (19 liters/minute) of cold salt water 17 C below ambient temperature.

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The ambient temperature water provides flow-through conditions in nine holding ranks ranging from 50 to 530 gallons (189-2,006 liters) located in the laboratory holding room. The holding facility has insulated walls which maintain air temperature near controlled ambient water temperature. Lighting is provided by a bank of incandescent bulbs and two individual banks of flourescent lights connected to timing clocks. The lighting is maintained at seasonal day lengths. Sunrise and sunset are simulated by sequentially controlling the periods each separate bank of lights are on and off. Hot and cold running salt water are also available in the holding facility permitting acclimation of marine organisms to temperatures above and below ambient when required by specific research programs. All experimental systems also operate on a flow-through basis and utilize the three temperature saltwater lines which run throughout the laboratory.

Marine organisms used in the laboratory studies are collected from surrounding waters by seines, lobster pots, specialized traps, and modified trawls. The organisms are returned to the laboratory in insulated vessels and placed in the laboratory holding facility at the collection temperature. For most of the studies, the organisms are tested without any additional artificial acclimation. They are held for a few days at their collection temperature and then run in the appropriate experimental systems. They are tested over an ambient range of temperatures to evaluate the effect of acclimation temperature on the various responses studied. In the experimental programs where acclimations to other than ambient temperatures are required, the organisms are placed in particular holding tanks and held for 1 week or longer at the artificial acclimation temperatures prior to testing.

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All tests are run on selected high salinity estuarine and marine species. The four general objectives of the current research program at the Laboratory are as follows. The first is to determine temperature preference responses. These will be examined in both horizontal and vertical fixed temperature gradient systems. In addition to determining short-term temperature preference responses, the vertical preference system will also be utilized to determine final temperature preferenda. The second objective is to determine the temperature avoidance responses. In addition to determining straight temperature avoidance responses, the effects of phototaxis and substrate preference on the avoidance responses will be evaluated. Thirdly, the potential for equilibrium loss or mortality due to cold shock of the selected fishes held at various acclimation temperatures will be determined. Lower lethal temperature limits and lower equilibrium loss limits will also be determined. Fourthly, determinations will be made of the maximum sustained swimming speeds of selected species over a range of ambient temperature and salinity conditions. The effects of light level on swimming speed will also be evaluated.

This proposed research program has been developed to provide the necessary behavioral and physiological laboaratory data needed to assist in planning the cooling water and other systems and to evaluate the impact of the Atlantic Generating Station on the surrounding fish and macroinvertebrate populations.

The following important fish species were selected for intense study: Atlantic menhaden, bay anchovy, red hake, black sea bass, bluefish, and winter flounder. Additional species will

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be tested as they become available and as time permits. All studies will be conducted in salinities ranging from 23 to 30 ppt, at a pH of 7.6 to 8.3, and at saturated oxygen conditions. These water quality parameters will be monitored and recorded for each study. The effects of fish size will be evaluated. In studies of temperature preference, temperature avoidance, and swimming speed, the effects of light level will also be determined.

Physical data will be analyzed by multiple regression analysis to determine the significant effects of acclimation temperatures and the other physical and chemical parameters on these behavioral responses. The regression equations will be useful in predicting the behavioral responses of the species studied when they encounter thermally altered areas.

The following sections include descriptions of the experimental systems and the basic experimental procedures to be used in the research programs underway at the Laboratory.

Temperature Preference Studies

Horizontal Temperature Preference Apparatus

The preference apparatus is modified from a design originally described in Meldrim and Gift (1971). A schematic of the apparatus is shown in Fig. 22. It consists of a trough 16 ft (488 cm) in length, 9 inches wide (23 cm), and 9 inches (23 cm) deep with curved end screens. The bottom is constructed of 24 gauge, Type 316 stainless steel. Water is introduced into the head box at one end of the trough from the overhead saltwater lines. As the water flows down the trough, it is heated

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by three banks of infrared light bulbs located beneath the stainless steel bottom, to form a stationary horizontal gradient. Each bank consists of four, 250-watt bulbs connected to a dimmer switch and a temperature regulator. The trough is partially enclosed with 1/4-inch (0.6-cm) plywood for light control. Lighting is provided by four Durotest vita lites in flourescent dimming balasts. These are connected to a dimmer switch to provide variable light levels to the apparatus.

Initially, the apparatus is filled with salt water of the acclimation temperature to a depth which will permit horizontal, but restrict vertical movement. Fish are then placed in the trough without any temperature gradient. Observations are made via overhead mirrors every 5 minutes for a 30-minute period. This provides a control for position effects. Upon completion of this control, the thermal gradient is established extending approximately 10 C above and below the acclimation temperature. Observations are then made at 10-minute intervals for the remaining portion of the preference study. The temperature at the position of each fish is recorded using one of 23 thermisters placed at 8-inch intervals along the trough. The test is concluded when the same temperature is selected continuously for 20 minutes.

Vertical Temperature Preference Apparatus

A schematic drawing of the apparatus is shown in Fig. 23. It consists of an 8-ft (244 cm) high, 3-ft (91 cm) diameter fiberglass tank with a 1 x 7-ft (30 x 213 cm) viewing window. Water is introduced into a head box at the top of the tank, flows through the tank, and exits at the bottom. The water depth of 7 1/2 ft (229 cm) is maintained by an external standpipe.

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The tank is filled with salt water of ambient temperature. The gradient is then established by introducing warm salt water at the top and cooling it as it runs down through the tank. The water is cooled by a 100-ft (30.5 m) long, 1/2-inch (1.3 cm) polyethylene coil through which chilled water is pumped from a 1-HP Dunham Bush refrigeration unit. The rate of flow of warm salt water through the tank and the rate and temperature of the chiller water flowing through the coil are all regulated to establish a vertical temperature gradient in the tank. Lighting is provided by two, 40-watt flourescent Durotest vita lites suspended over the tanks.

Initially, the tank is filled with salt water of the acclimation temperature of the test species. The test organisms are introduced and observed at 5-minute intervals for a 1-hour control period to determine if any light or pressure gradients are influencing their distribution in the tank. After the control period, a gradient is established which extends approximately 10 C above and below the acclimation temperature. Visual observations are made every 10 minutes. The temperature at the position of each fish is then recorded using one of 11 thermisters hung at 9-inch (23 cm) intervals in the tank. The test is concluded when the same temperature is selected continuously for 20 minutes.

In addition to determining short-term temperature preferences, this apparatus will also be utilized to estimate final temperature preferendum. In the latter studies, the observations of organisms in the vertical tank will be continued intermittently for a 7-day period. By observing the organism's distribution in the vertical gradient for this 7-day period, it is possible to observe successive acclimation in the vertical gradient and selection of a final temperature preferendum.

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Thus, the temperature preference program will provide measurements of short-term temperature preferences in both horizontal and vertical temperature gradients as well as a determination of a final preferendum in the vertical system.

Temperature Avoidance Studies

The avoidance apparatus is a modification of a system first described in Gift (1971). A schematic drawing is shown in Fig. 24. It consists of two, 24-ft (9.3 m) long, 2-ft (0.6 m) wide, marine plywood tanks enclosed in an insulated room for temperature and light control. The experimental zone in the tanks is 20-ft (6.1 m) long, 2-ft (0.6 m) wide, with rounded ends to eliminate corners which cause abberant behavior with some pelagic species. Salt water is introduced into baffled zones in the upper ends of the tank from a pair of water manifolds. One manifold contains ambient temperature water. The second manifold is supplied by a pneumatic 316 stainless steel mixing valve which mixes ambient and hot salt water. This mixing valve is controlled by a programable temperature controller which can be set to deliver progressively warmer water with rates of temperature increase ranging from 0 to 14 C/hour (0-25 C/hour). A 2 to 3-C (3.6-5.4 F) gradient, which extends from end to end, will be established in the experimental tank. The successively warmer water introduced into the tank will simulate a continuously moving gradient. One of the two tanks can be run continuously at ambient temperature as a control. Both tanks can also be operated with identical moving gradients, utilizing artificial substrates or additional light gradients in one of the tanks to evaluate the influence of these

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factors on the temperature avoidance response. Lighting is provided over each tank by banks of five Durotest vita lites in flourescent dimming balasts. These dimming balasts are connected to dimmer switches to provide variable light level control to each experimental tank.

Initially, a standard experimental procedure will be developed for determining straight temperature avoidance responses of the principle species under study. This procedure will include preliminary studies of the effects of different rates of temperature increase on the avoidance responses of the selected species. An evaluation of the results of these preliminary studies will permit the selection of a standard rate of increase for the temperature avoidance studies.

In these studies, both tanks will be filled with salt water of the acclimation temperature. Fish will than be randomly placed in the tanks at their acclimation temperature for a 1-hour period to permit accomodation to the tanks. Subsequently, one tank will be randomly selected as a control and programable temperature controls will be set to deliver a constantly increasing temperature gradient to the second experimental tank. Observations of fish distribution in both tanks will be made at 10-minute intervals via overhead mirrors. The temperatures at the position of each fish will be recorded using the temperature printout from 24 thermisters placed at 22-inch (56 cm) intervals along the sides of each tank. Each study will be terminated when an avoidance response is determined as demonstrated by the confinement of the experimental organisms in the cooler end of the gradient.

After standard temperature avoidance data have been generated for all appropriate seasons of the year, additional studies will be conducted

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to evaluate the effect of phototaxis and substrate preference on the temperature avoidance response. Bluefish will be utilized for the phototaxis experiments and black sea bass for the substrate tests.

Preliminary investigations will be conducted to evaluate whether bluefish exhibit a positive phototaxis. This will be determined by running both tanks continuously at the acclimation temperature with the control tank with a low, homogeneous light level over the entire tank and the experimental tank with a single high level light source at one end.

The general experimental procedure for the phototaxis study will be similar to the standard experimental procedure except that identical temperature gradients will be run down both experimental tanks. It will then be possible to determine if a positive phototaxis alters the normal avoidance response to stressful temperatures. If bluefish do not exhibit a strong positive phototaxis, other pelagic species will be surveyed to select an appropriate species for these studies.

The effects of substrate preference will be evaluated by creating an artificial substrate of irregular shaped concrete blocks and placing this in the warm end of one of the gradient tanks. The second tank will have no irregular substrate in it and thus will present a homogeneous habitat. Specimens of black sea bass will be placed in each tank at their acclimation temperature and will be allowed to acclimate to the tanks for a 24-hour period. The temperature gradients will then be established in both tanks and the temperature increased at a constant rate until an avoidance response is obtained for the fish in each tank. It can then be determined whether substrate preference affects the avoidance response of a species to stressful temperatures.

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Cold Shock Studies

Marine organisms to be used in the cold shock studies will be collected in the field and placed in holding tanks at the field collection temperature. The temperature in the holding tanks will then be adjusted to temperatures of 5, 10, 15, and 20 C at rates not to exceed 5 C/day. The fish will be held at these acclimation temperatures for periods of at least 2 weeks. During the acclimation period, the fish will be fed a diet of minced clam, brine shrimp, or Purina trout chow as required by specific dietary needs. No species will be fed within 24 hours of use in the cold shock apparatus. Care will be taken to select normal disease-free individuals for study. Due to the physical constraints of the cold shock apparatus, the maximum size of test fishes will be approximately 10 inches (250 mm) in total length.

A schematic diagram of the cold shock apparatus is shown in Fig. 25. This apparatus contains eight, 50-liter tanks and eight, 25-liter tanks. Depending on the size of the experimental organisms, 5 or 10 individuals will be placed in each tank. When a study is started, 4 of the 16 tanks will be maintained at the acclimation temperature as controls, 4 tanks will be dropped to near freezing (0-1 C) by running water directly from overhead chilled salt water lines, and two groups of 4 tanks each will be maintained at different intermediate temperatures by mixing salt water of the acclimation temperature and chiller (0-1 C) salt water. Temperatures will be maintained by continuously flowing aerated water of the appropriate temperature through each tank.

Test organisms will be observed continuously during the first hour of exposure, every hour during the next 4 hours, and then twice a day

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for a total of 7 days (168 hours). Time to equilibrium loss (turning belly up) and death (cessation of opercular beating) will be recorded for each organism.

The equilibrium loss and mortality data recorded in each test will be plotted and the temperatures which cause 50% loss of equilibrium and 50% mortality will be estimated by graphical interpolation. This will be done for each acclimation temperature and for time periods of 1, 4, 24, 48, 96, and 168 hours. The temperatures which cause other percent (10%, 20%) equilibrium loss and mortality will also be estimated from the graphs. The time of equilibrium loss and death will be recorded for each test and used to estimate the effects of short exposures to reduced temperatures.

Swimming Performance Studies

The sustained swimming performance of the selected group of marine fishes will be determined over a range of ambient temperatures and at salinities ranging from 23 to 30 ppt. The effect of light level on swimming performance will also be evaluated.

Two types of swim speed apparatus will be used to determine the maximum sustained swimming speeds of the test fishes. A description of each apparatus and the basic procedures to be followed in the study follow.

Modified Beamish Respirometer

The apparatus which will be used for most of the swimming performance studies is a 9.8 gallon (37-liter), oval tunnel respirometer modeled after

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one used by F. W. H. Beamish, of the University of Guelph (Farmer and Beamish 1969, Beamish 1970) and described in Hocutt (1973). A schematic drawing of the apparatus appears in Fig. 26. The test apparatus has been further modified by placing it in a water bath which surrounds all portions of the plexiglass enclosure except for the pump head. Since the apparatus is no longer used for respiration studies, air-saturated salt water of the test temperature is run both around the apparatus in the water bath and slowly through the apparatus during each study. This permits control of water temperature to within ± 0.5 C during a test run. The test chamber has been further modified by covering the forward position of the chamber to provide a darkened reference area in which the test fish can maintain itself.

A centrifugal pump and variable speed transmission produces a maximum velocity of 4.5 ft/sec (137 cm/sec) through the test chamber. The apparatus is calibrated with the use of an Ott flowmeter in 0.1 ft/sec (3.05 cm/sec) intervals.

The procedure to be followed for determining the maximum sustained swimming speed is similar to the methods described in Brett (1964, 1965, and 1967). An initial series of tests were performed to select appropriate exposure times to each velocity as well as appropriate velocity increments which will permit both accurate determination of a sustained swimming speed and the maximum number of studies to be conducted in a working day.

The methodology developed for the sustained swimming speed test is as follows. The test organism is placed in the experimental chamber. The initial water velocity of 0.5 ft/sec (5.7 cm/sec) is maintained for a 10-minute period. After this introductory period, the velocity

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through the chamber is increased 0.1 ft/sec (3 cm/sec) for successive 10-minute periods until a velocity is reached which results in impingement of the test fish on the rear screen in the test chamber. Maximum sustained swimming speed will be calculated for each fish using the following formula:

Maximum sustained speed = last speed sucessfully negotiated + (time at new increment x increment of speed).

All standard test are conducted at a light level of 30-ft candles (323 lux). After the effects of temperature and size are documented for a species using the standard experimental procedure, the effects of very low light levels on swimming speed will be evaluated.

All experimental data will be analyzed by multiple regression analysis to determine the significance of such variables as acclimation temperature, fish size, and other physical or chemical parameters on swimming-speed.

MacLeod Swimming Speed Apparatus

A second swim speed apparatus will be used to determine comparative swimming speeds of some small individuals (< 100 mm in total length) of the selected species. The apparatus is a slight modification of a design orginally described by MacLeod (1967) and used by Tatham (1971) in a study of the swimming speeds of low salinity estuarine species. A schematic drawing of the apparatus, adapted from King (1969), is presented in Fig. 27. It consists of a stationary oval channel,

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3.5 inches (9 cm) wide, 5.1 inches (13 cm) deep with a center circumference of 8.0 inches (198 cm). Water is circulated by two paddle wheels propelled by a Zero-max variable speed motor at velocities up to 1.65 ft/sec (46 cm/sec). The metal channel is painted with off-white epoxy paint with the exception of a black area under a dark cover which provides an orientation point for the fish. The oval chamber is mounted in a flow-through water bath which permits temperature control to within $\pm$ 0.5 C. Water velocity in the test chamber is calibrated by counting the laps travelled in the chamber by a small neutral density object during a measured time interval at fixed current velocities.

The standard methodolgy of MacLeod (1967) will be followed. For each test, a group of four to six fish is placed in the test chamber. During an initial orientation period of 1 minute, the channel velocity is increased until a velocity is reached that causes some of the fish to lose their place and fall back. This velocity is held constant for a 3-minute test period. The water velocity and the total number of laps lost by the group of fish during the 3-minute period are recorded. Maximum swimming speed is calculated in the following manner:

$$S_{max} = \frac{M - L}{M} \times V$$

Where, S_{max} = maximum swimming speed for a specific time period--usually 3 minutes (in m/min)

M = maximum distance possible (in laps) if no laps were lost by the group of fish

L = the total distance lost (in laps) by the group of fish

V = the current velocity for the 3-minute period (m/min)

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M, the maximum distance possible in laps, is calculated using the following formula:

$$M = \frac{N \times T \times V}{C}$$

where, N = number of fish tested
T = time period in minutes
V = current velocity in m/min
C = circumference of the channel (1.98 meters)

Utilization of these formulas permit the calculation of an average maximum swimming speed for the group of fish tested.

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GLOSSARY

Abbreviations

f - frequency of occurrence; the number of times a species occurred in collections

n/b - number of fish caught by sport fishermen per boat

n/coll. - number of specimens per collection

n/f - number of specimens per collection in which the species occurred

n/h - number of fish caught per angler hour

n/t - number of fish caught per angler trip

Adults - those individuals that are sexually mature

Catch frequency - the percentage of collections in which a species was taken (frequency of occurrence/number of collections)

Charter boat - a boat and captain hired by a party of fishermen, usually on a daily basis

Demersal - refers to fishes found on or near the bottom

Epitokes - sexually ripe, free swimming form of the atokes of some polychaete families

Estuarine and Marine - zooplankters which propogate in estuarine and coastal (inner) neritic waters

Euryhaline marine - zooplankters which are found in estuaries but whose maintenance there is dependent on a continuous supply from the ocean

Glaucothoe - post-larval stage of hermit crabs (Paguridae)

Infauna - invertebrates which burrow into the bottom substrate

Juvenile - a stage in the life of a fish which starts when the body form first approximates that of the adult and terminates with attainment of sexual maturity

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Macroinvertebrate - an invertebrate which is retained in a 1-mm mesh net

Neritic - water over the continental shelf

North and offshore of the study area - inshore off Brant Beach, approximately 10 miles north of the Site; approximately 8 miles offshore of Brant Beach; and about 8 miles offshore of Little Egg Inlet.

Notochord length - the distance "from the anterior edge of the head or tip of the snout to the tip of the notochord" (Smith and Fahay 1970)

Outlier - a value that is anomalously far from the regression line

Ovigerous - egg bearing, gravid

Pelagic - fishes which are distributed in the water column; inhabiting the open ocean

Phi (Ø) - a geological term which indicates particle size; the negative log of the grain size in mm

Phi size finder - a block of plastic inlayed with samples of sand in 1/2 Ø intervals from 0.0 to 4.0 Ø

Private boat - boats which are owned by individual fishermen

Seasonal classifications - these are based on water temperature and are as follows: winter (January-March), spring (April-June), summer (July-September), and fall (October-December).

Semidemersal - fishes found near the bottom and occasionally higher in the water column

Site - the area encompassed by the breakwater and plants (39°28'20" N latitude and 74°15'20" W longitude)

Stenohaline - zooplankters which characterize open (outer) neritic waters; they occur only infrequently near the mouths of estuaries

Study area - an area which includes the ocean in the vicinity of the proposed Site of the Atlantic Generating Station (AGS) and in the bays, rivers, and waterways from Manahawkin Causeway, Long Beach Island, to Atlantic City.

U-Drive boat - boat rented by a party of fishermen from a local marina

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Vicinity of the Site - an area of the ocean from Holgate, Long Beach Island to off Brigantine Inlet and from the beach to approximately 6 miles from shore

Warp - rope or line used to tow a net

Young - fishes which are young-of-the-year (0+ year class)

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Frederick W. Hamer; Candidate for B. S. Stockton State College (left 15 March 1974)
Thomas Stonehouse; Candidate for B. S. Stockton State College (left 4 October 1974)

Summer Help:

Peggy A. Crosson (left 15 October 1974)
Elizabeth R. Hager (left 15 October 1974)
Michael R. Piotrowski; B. S. Cornell University (left 28 August 1974)

Administrative Assistant

Linda N. Dill; A. S. Atlantic Community College

Secretaries:

Anne L. Cassetta; A. S. Atlantic Community College
Roberta E. Fish; A. S. Atlantic Community College
Joanne B. Rosenberg, Candidate for A. S. Atlantic Community College (left 8 March 1974)

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Table 1. The mean ($\bar{X}$) and range (R) of air temperatures, and surface and bottom water temperatures, salinities, and oxygen values for all collections taken at the Site (zones 5250, 5255, 5257, 5258, and 5259), off Little Egg Inlet, New Jersey in 1974.

		TEMPERATURE						
			Water (C)		Salinity (ppt)		Oxygen (ppm)	
Month		Air (C)	Surface	Bottom	Surface	Bottom	Surface	Bottom
January 1-15	N	5	5	5	5	5	5	5
	$\bar{X}$	3.2	3.8	4.2	28.1	28.8	10.8	10.6
	R	0.0-5.5	2.5-5.0	3.5-5.0	28.0-28.3	28.0-30.0	10.3-11.2	10.3-10.8
January 16-31	N	6	6	6	6	6	5	5
	$\bar{X}$	7.4	5.0	5.0	29.2	30.0	10.5	10.6
	R	6.0-9.5	4.5-6.5	4.0-6.0	27.5-30.0	30.0	10.1-10.9	10.4-10.7
February 1-15	N	5	5	5	5	5	3	3
	$\bar{X}$	6.1	2.8	3.2	28.3	30.3	12.1	11.2
	R	2.0-8.5	2.0-3.0	2.0-4.0	27.5-29.0	29.5-31.0	12.0-12.4	11.0-11.3
February 16-28	N	5	5	5	5	5	5	5
	$\bar{X}$	4.7	3.7	4.0	28.3	29.6	10.4	10.0
	R	1.0-7.5	3.5-4.0	3.8-4.0	27.8-29.0	29.0-30.0	9.2-11.4	9.6-10.4
March 1-15	N	7	7	7	7	7	5	5
	$\bar{X}$	6.9	5.2	4.6	29.0	29.6	10.6	10.4
	R	2.0-12.0	3.0-7.2	3.0-7.2	28.0-30.0	29.0-30.0	9.3-11.4	9.2-11.4
March 16-31	N	3	3	3	3	3	3	3
	$\bar{X}$	1.2	5.2	5.0	29.8	29.9	9.6	9.8
	R	(-1.5)-5.0	5.0-5.5	5.0	29.5-30.0	29.8-30.0	8.5-10.8	8.4-10.6
April 1-15	N	4	4	4	4	4	4	4
	$\bar{X}$	10.9	7.5	7.2	29.5	30.4	9.9	10.1
	R	8.0-13.5	6.0-9.0	6.5-8.0	29.0-30.0	30.0-31.0	9.0-10.4	9.2-10.8
April 16-30	N	2	2	2	2	2	2	2
	$\bar{X}$	12.5	9.7	9.3	30.2	30.3	9.6	9.3
	R	12.5	9.5-10.0	9.2-9.5	30.0-30.5	30.2-30.5	9.6	9.2-9.4
May 1-15	N	5	5	5	5	5	5	5
	$\bar{X}$	14.1	12.5	11.6	30.1	30.5	9.3	9.0
	R	9.5-18.0	9.0-14.0	9.0-13.8	29.5-30.5	30.0-31.2	9.0-9.7	8.6-9.6
May 16-31	N	4	4	4	4	4	4	4
	$\bar{X}$	17.5	15.0	12.9	29.4	30.0	8.2	7.9
	R	16.0-20.0	15.0	11.0-14.5	27.5-30.0	28.0-31.0	7.4-8.6	7.5-9.1
June 1-15	N	7	7	7	7	7	7	7
	$\bar{X}$	21.1	18.9	16.9	29.1	29.6	8.0	8.1
	R	19.0-24.0	16.0-21.0	15.2-18.2	28.0-30.0	28.5-30.5	6.8-9.5	7.2-10.4
June 16-30	N	5	5	5	5	5	5	5
	$\bar{X}$	23.0	20.3	16.3	29.7	30.2	7.7	6.4
	R	21.3-24.5	19.2-21.5	15.5-17.0	29.0-30.0	30.0-30.3	7.0-8.3	5.2-7.8
July 1-15	N	13	15	11	15	11	15	11
	$\bar{X}$	25.4	22.5	19.5	29.6	30.0	7.7	5.9
	R	22.5-28.0	20.0-24.5	17.0-24.0	29.0-30.0	29.5-30.5	7.1-8.3	4.4-7.4
July 16-31	N	6	7	7	7	7	7	7
	$\bar{X}$	22.7	21.5	19.5	30.0	30.0	7.7	6.6
	R	21.0-25.0	20.5-22.3	18.7-22.3	29.5-30.3	30.0-30.3	7.0-9.0	6.0-8.7
August 1-15	N	7	7	7	7	7	7	7
	$\bar{X}$	23.9	20.7	17.6	30.1	30.5	7.7	5.9
	R	22.0-26.0	19.0-24.2	15.8-19.9	30.0-30.5	30.0-31.0	6.8-8.8	3.5-9.0
August 16-31	N	6	6	6	6	6	6	6
	$\bar{X}$	25.3	23.3	20.4	30.3	30.6	8.5	7.6
	R	23.0-28.0	21.0-25.0	19.0-21.5	30.0-31.0	30.0-31.0	7.2-11.4	6.9-9.3
September 1-15	N	9	9	9	9	9	9	9
	$\bar{X}$	21.4	21.4	20.7	29.6	30.1	7.5	6.7
	R	17.5-25.5	20.5-22.5	17.0-22.0	28.5-31.0	29.5-31.0	6.5-9.0	4.4-8.4
September 16-30	N	6	6	6	6	6	6	6
	$\bar{X}$	18.2	20.6	19.9	30.1	30.2	6.9	6.8
	R	13.5-23.0	18.5-25.0	18.9-21.5	29.5-31.0	30.0-31.0	4.3-7.9	4.6-7.6
October 1-15	N	9	9	9	9	9	9	9
	$\bar{X}$	17.3	16.7	16.4	30.3	30.3	7.7	7.4
	R	15.0-18.0	16.0-19.0	16.0-19.0	29.9-30.5	30.0-30.5	6.8-9.0	6.4-8.6
October 16-31	N	3	3	3	3	3	3	3
	$\bar{X}$	9.0	13.8	14.1	30.3	30.3	8.4	8.5
	R	7.0-13.0	13.0-15.5	13.2-15.8	30.0-31.0	30.0-31.0	7.0-9.1	7.4-9.0
November 1-15	N	8	8	8	8	8	8	8
	$\bar{X}$	13.8	12.6	12.4	30.1	30.2	8.4	8.2
	R	8.0-17.0	10.5-15.0	10.5-14.0	29.5-30.5	30.0-30.5	7.8-8.8	7.9-8.9
November 16-30	N	4	4	4	4	4	4	4
	$\bar{X}$	10.4	9.8	10.2	30.0	30.2	9.4	9.4
	R	10.0-11.5	9.0-10.7	9.5-11.3	30.0	30.0-30.5	9.3-9.7	9.2-9.6
December 1-15	N	1	1	1	1	1	1	1
	$\bar{X}$	2.0	6.8	6.0	30.0	30.5	9.2	9.2
	R							

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Table 2. The mean ($\bar{X}$) and range (R) of air temperatures, and surface and bottom water temperatures, salinities, and dissolved oxygen values for all collections taken in and near Little Egg Inlet (zones 1010, 1025, 5050, 5060), New Jersey in 1974.

Month		TEMPERATURE			Salinity (ppt)		Oxygen (ppm)	
		Air (C)	Water (C) Surface	Water (C) Bottom	Surface	Bottom	Surface	Bottom
January 1-15	N	11	11	11	11	11	11	11
	$\bar{X}$	4.8	2.5	2.6	24.5	26.5	10.7	11.1
	R	1.5-9.5	0.0-5.0	(-0.2)-5.0	20.0-28.0	24.0-30.0	10.0-11.2	10.0-11.8
January 16-31	N	4	4	4	4	4	4	4
	$\bar{X}$	6.5	3.6	4.2	27.0	27.7	11.0	10.8
	R	3.0-10.0	2.0-5.0	2.7-6.0	23.0-28.9	26.0-28.9	10.6-11.7	10.2-11.3
February 1-15	N	7	8	8	8	7	8	8
	$\bar{X}$	6.4	2.6	3.3	25.1	27.3	12.1	11.3
	R	5.0-8.0	2.0-6.0	2.5-6.0	22.0-27.0	27.0-28.0	10.1-14.0	9.4-13.0
February 16-28	N	5	5	5	5	5	5	5
	$\bar{X}$	4.6	3.1	2.9	27.8	27.8	11.0	11.2
	R	2.0-6.0	2.5-4.0	2.5-4.0	26.5-29.3	26.5-29.3	10.8-11.4	11.0-11.6
March 1-15	N	7	7	7	7	7	7	7
	$\bar{X}$	8.1	6.1	5.9	26.4	27.1	10.2	10.1
	R	5.0-10.0	4.8-7.0	5.0-7.0	20.0-30.0	20.0-30.0	8.8-11.1	8.8-11.2
March 16-31	N	9	9	9	9	9	9	9
	$\bar{X}$	4.7	5.3	5.3	27.8	28.6	10.1	10.0
	R	(-0.5)-9.0	4.0-6.5	4.0-6.5	22.0-30.0	24.0-30.0	8.6-11.2	8.7-11.2
April 1-15	N	2	2	1	2	2	1	1
	$\bar{X}$	11.1	7.6	8.0	27.0	28.9	10.0	9.8
	R	9.2-13.0	6.7-8.5		24.0-30.0	27.5-30.3		
April 16-30	N	10	11	11	11	11	11	11
	$\bar{X}$	13.0	10.3	10.2	27.7	29.0	9.2	9.1
	R	9.0-17.0	7.8-13.0	8.5-12.0	22.0-30.8	27.5-30.8	8.5-10.0	8.0-10.6
May 1-15	N	6	6	6	6	6	6	6
	$\bar{X}$	18.7	14.5	14.1	27.1	28.7	7.9	7.7
	R	13.0-21.0	10.8-16.5	11.0-15.0	25.0-30.0	28.0-30.0	7.5-8.8	7.2-8.4
May 16-31	N	7	7	7	7	7	7	7
	$\bar{X}$	22.2	15.2	14.9	30.0	30.0	8.1	7.8
	R	14.4-28.0	14.5-17.0	14.0-16.0	30.0	30.0	7.2-9.0	7.0-8.6
June 1-15	N	7	8	8	8	8	8	8
	$\bar{X}$	22.9	20.0	20.3	27.6	28.2	6.8	6.7
	R	18.5-26.0	17.0-22.0	18.0-22.0	25.0-30.0	26.0-30.0	5.8-8.0	5.9-7.5
June 16-30	N	2	3	3	3	3	3	3
	$\bar{X}$	19.5	19.2	18.4	29.8	29.8	7.8	7.5
	R	17.0-22.0	18.5-20.0	18.0-19.0	29.5-30.0	29.5-30.0	7.4-8.4	6.8-8.3
July 1-15	N	6	6	6	6	6	6	6
	$\bar{X}$	27.6	21.8	21.7	28.7	28.8	6.6	6.4
	R	25.0-30.0	20.5-24.0	20.0-24.0	27.0-30.0	27.0-30.0	6.1-7.3	6.0-7.3
July 16-31	N	5	5	5	5	5	5	5
	$\bar{X}$	26.3	25.0	23.0	29.0	29.0	5.9	5.6
	R	24.0-26.5	22.0-31.2	21.0-24.0	28.0-30.0	28.0-30.0	5.3-10.1	5.1-6.3
August 1-15	N	11	11	10	11	10	11	10
	$\bar{X}$	26.4	22.5	22.7	29.4	29.5	7.2	7.4
	R	21.5-32.0	18.3-26.5	19.5-26.0	28.0-30.5	27.0-30.5	5.4-9.0	5.3-10.7
August 16-31	N	2	2	2	2	2	2	2
	$\bar{X}$	27.5	24.6	23.9	29.0	29.5	6.1	5.9
	R	26.0-29.0	22.2-27.0	22.8-25.1	28.0-30.0	29.0-30.0	6.0-6.2	5.4-6.5
September 1-15	N	6	6	6	6	6	6	6
	$\bar{X}$	23.3	22.1	22.2	27.3	29.7	7.3	7.2
	R	19.0-24.5	20.0-23.5	20.5-23.0	20.0-31.0	27.5-31.0	6.8-8.4	6.6-7.8
September 16-30	N	6	6	6	6	6	5	5
	$\bar{X}$	22.3	20.1	20.1	29.5	29.6	6.7	5.9
	R	14.0-27.0	16.5-21.5	16.5-21.5	28.0-30.0	28.0-30.0	6.0-7.5	5.0-7.0
October 1-15	N	2	2	2	2	2	2	2
	$\bar{X}$	16.5	15.2	15.2	29.0	29.8	9.4	9.0
	R	13.0-20.0	13.5-17.0	14.0-16.5	28.0-30.0	29.5-30.0	8.6-10.2	8.2-9.8
October 16-31	N	6	6	6	6	6	6	6
	$\bar{X}$	9.1	8.2	8.4	28.4	29.1	8.5	8.7
	R	6.0-14.0	7.0-11.0	7.0-11.0	26.5-30.0	27.5-30.5	8.0-9.2	7.6-9.6
November 1-15	N	5	5	5	5	5	5	5
	$\bar{X}$	16.0	12.5	12.4	29.4	29.4	8.7	8.6
	R	13.0-19.8	10.5-15.0	10.5-15.0	28.0-30.0	28.0-30.0	7.4-9.6	7.6-9.4
November 16-30	N	1	1	1	1	1	1	1
	$\bar{X}$	14.0	6.3	6.0	26.5	27.0	10.4	11.4
	R							
December 1-15	N	1	1	1	1	1	1	1
	$\bar{X}$	6.0	6.0	6.0	31.0	31.5	8.8	9.8
	R							

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Table 3. The mean ($\bar{X}$) and range (R) of air temperatures, and surface and bottom water temperatures, salinities, and oxygen values for all collections taken in Great Bay (Inner Bay zone 1075), New Jersey in 1974.

Month		TEMPERATURE Air (C)	Water (C) Surface	Water (C) Bottom	Salinity (ppt) Surface	Salinity (ppt) Bottom	Oxygen (ppm) Surface	Oxygen (ppm) Bottom
January 1-15	N	6	6	6	6	6	6	6
	$\bar{X}$	3.7	0.6	0.2	16.4	20.8	12.7	13.1
	R	2.0-7.5	0.2-1.0	0.0-0.5	12.0-26.5	17.5-26.5	12.2-13.4	12.5-13.4
January 16-31	N	3	3	1	3	1	3	1
	$\bar{X}$	7.0	2.7	5.5	18.5	24.0	11.7	11.5
	R	5.0-11.0	1.0-6.0		18.0-19.2		11.4-11.8	
February 1-15	N	5	5	4	5	3	5	4
	$\bar{X}$	2.3	1.3	1.2	21.3	21.5	13.5	13.5
	R	(-2.5)-7.0	0.2-2.0	0.2-2.0	19.5-24.5	20.5-22.0	12.6-14.6	12.3-14.6
February 16-28	N	1	1	1	1	1	1	1
	$\bar{X}$	4.0	3.3	3.5	26.5	24.0	12.0	10.8
	R							
March 1-15	N	4	6	5	6	5	6	5
	$\bar{X}$	9.7	8.9	7.1	23.1	24.8	10.9	10.9
	R	2.0-15.0	4.2-20.0	4.2-10.0	19.0-26.5	20.5-26.5	10.2-11.9	10.1-11.9
March 16-31	N	6	6	3	6	3	6	3
	$\bar{X}$	5.4	6.2	6.5	19.0	22.0	10.7	10.3
	R	2.0-11.0	5.6-7.0	6.0-7.5	15.0-20.5	20.0-23.5	10.0-11.1	9.8-10.7
April 1-15	N	2	2	2	2	2	1	1
	$\bar{X}$	12.5	9.5	8.7	16.7	18.7	10.2	10.1
	R	12.0-13.0	9.0-10.0	8.5-9.0	15.5-18.0	17.5-20.0		
April 16-30	N	4	5	4	5	4	5	4
	$\bar{X}$	13.5	12.4	12.0	18.1	19.4	9.6	9.7
	R	9.5-21.0	11.5-14.2	11.0-14.0	13.5-23.0	14.0-25.0	9.0-10.4	8.9-10.7
May 1-15	N	5	5	5	5	5	5	5
	$\bar{X}$	14.2	14.4	14.0	23.4	23.9	9.0	8.7
	R	13.0-15.0	13.5-15.2	13.0-15.1	22.0-25.0	22.0-25.5	8.2-9.8	8.0-9.4
May 16-31	N	3	3	3	3	3	3	3
	$\bar{X}$	19.8	18.8	18.5	22.3	25.2	8.3	7.5
	R	10.0-25.5	16.0-20.5	17.5-19.0	21.5-23.5	23.5-26.0	8.1-8.5	7.2-8.0
June 1-15	N		1	1	1	1	1	1
	$\bar{X}$	-	20.8	20.2	20.0	23.0	8.5	7.3
	R							
June 16-30	N	5	6	6	6	6	6	6
	$\bar{X}$	23.8	23.0	22.9	22.9	23.7	7.8	7.1
	R	17.0-28.0	20.0-24.5	20.0-24.2	21.0-25.5	22.0-25.0	6.8-9.1	6.2-8.3
July 1-15	N	2	3	3	3	3	3	3
	$\bar{X}$	26.5	24.4	24.2	25.0	23.7	7.5	7.4
	R	26.0-27.0	23.2-26.0	23.0-26.0	23.0-27.0	22.0-25.0	6.6-8.0	6.6-8.0
July 16-31	N	3	4	4	4	4	4	4
	$\bar{X}$	25.8	24.0	23.9	25.5	26.0	7.6	6.8
	R	25.5-26.0	23.0-25.1	23.0-24.5	24.0-28.0	24.7-28.0	6.6-9.4	6.3-7.6
August 1-15	N	4	4	2	4	2	4	2
	$\bar{X}$	27.2	25.7	26.4	25.1	24.2	6.6	6.5
	R	25.5-29.5	24.5-26.9	26.0-26.9	24.0-26.0	24.0-24.5	6.3-7.4	6.1-7.0
August 16-31	N	8	8	7	8	7	8	7
	$\bar{X}$	26.9	25.2	25.2	24.4	24.6	6.9	6.5
	R	24.5-31.0	24.0-27.6	24.0-27.3	20.0-28.0	20.0-28.0	5.6-8.6	5.5-8.9
September 1-15	N	2	2	2	2	2	2	2
	$\bar{X}$	24.0	22.2	22.0	19.2	20.5	6.6	6.6
	R	20.0-28.0	22.0-22.5	21.1-23.0	16.5-22.0	19.0-22.0	6.0-7.3	5.3-8.0
September 16-30	N	5	5	5	5	5	3	3
	$\bar{X}$	18.5	19.2	18.8	22.8	23.7	6.9	6.6
	R	15.0-25.0	16.0-22.0	16.0-22.0	21.0-24.5	22.0-27.0	6.8-7.0	6.0-7.0
October 1-15	N	2	2	2	2	2	2	2
	$\bar{X}$	19.9	15.1	15.2	22.7	23.7	8.2	8.3
	R	17.3-22.5	14.2-16.0	14.0-16.5	22.0-23.5	23.5-24.0	8.0-8.4	8.2-8.4
October 16-31	N	3	3	3	3	3	3	3
	$\bar{X}$	8.8	7.5	7.7	22.3	23.5	9.2	9.6
	R	3.5-12.0	7.0-8.0	7.0-8.0	20.0-25.0	20.5-25.0	9.1-9.2	9.1-10.5
November 1-15	N	2	3	3	3	3	3	3
	$\bar{X}$	17.0	14.5	14.3	24.7	25.2	8.2	8.6
	R	11.0-23.0	12.0-16.8	12.0-16.0	22.0-26.0	22.0-27.5	7.6-9.1	8.2-9.1
November 16-30	N	2	2	2	2	2	1	1
	$\bar{X}$	12.7	6.2	6.1	25.7	25.7	11.4	11.8
	R	12.0-13.5	6.0-6.5	6.0-6.2	24.5-27.0	24.5-27.0		
December 1-15	N	1	1	1	1	1	1	1
	$\bar{X}$	6.5	4.0	4.0	28.0	28.0	10.0	10.5
	R							

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Table 4. The mean ($\bar{X}$) and range (R) of air temperatures, and surface and bottom water temperatures, salinities, and oxygen values for all collections taken Offshore (zones 5850, 4940, 4340, 5620, 5650), New Jersey in 1974.

		TEMPERATURE						
			Water (C)		Salinity (ppt)		Oxygen (ppm)	
Month		Air (C)	Surface	Bottom	Surface	Bottom	Surface	Bottom
February 1-15	N	1	1	1	1	1	1	1
	$\bar{X}$	1.5	3.5	4.0	29.7	29.9	9.8	9.8
	R							
March 16-31	N	4	4	4	4	4	4	4
	$\bar{X}$	(-0.9)	4.9	4.5	30.0	30.0	9.6	9.4
	R	(-0.5)- (-1.0)	4.5-5.0	4.0-5.0	30.0	30.0	8.6-12.0	8.4-11.2
May 1-15	N	4	4	4	4	4	4	4
	$\bar{X}$	13.9	11.7	11.0	30.6	30.7	10.1	9.0
	R	12.0-15.0	11.0-13.0	10.2-13.0	29.5-31.0	30.0-31.0	9.8-10.6	8.0-10.1
May 16-31	N	1	1	1	1	1	1	1
	$\bar{X}$	15.0	15.5	14.0	30.0	30.5	9.0	7.8
	R							
June 1-15	N	6	6	6	6	6	6	6
	$\bar{X}$	18.6	16.9	15.2	28.7	29.7	10.8	9.1
	R	18.0-19.5	16.5-17.3	14.2-16.0	28.0-30.0	29.0-30.0	10.2-11.1	8.6-9.4
July 1-15	N	4	4	4	4	4	4	4
	$\bar{X}$	28.0	20.9	16.9	30.0	30.1	6.7	5.3
	R	27.0-29.0	18.7-23.0	16.1-17.5	30.0	30.0-30.5	5.5-8.2	5.0-5.8
August 1-15	N	4	4	4	4	4	4	4
	$\bar{X}$	25.8	22.9	18.4	30.0	30.1	7.9	6.0
	R	25.0-27.2	21.7-23.5	17.3-21.0	30.0	30.0-30.1	7.3-8.3	4.8-7.0
September 1-15	N	3	3	3	3	3	3	3
	$\bar{X}$	23.3	21.8	21.4	30.2	30.3	6.8	6.1
	R	22.0-24.0	21.3-22.2	20.5-22.0	30.0-30.5	29.5-31.0	6.6-7.0	6.0-6.4
September 16-30	N	1	1	1	1	1	1	1
	$\bar{X}$	12.5	20.0	-	31.0	-	5.5	-
	R							

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Table 4. (cont.)

Month		TEMPERATURE			Salinity (ppt)		Oxygen (ppm)	
			Water (C)					
		Air (C)	Surface	Bottom	Surface	Bottom	Surface	Bottom
October 1-15	N	3	3	3	3	3	3	3
	$\overline{X}$	19.5	17.2	16.8	30.0	31.3	8.6	9.3
	R	19.0-20.0	16.5-18.0	16.5-17.0	30.0	31.0-32.0	8.0-9.5	8.8-10.0
November 1-15	N	3	3	3	3	3	3	3
	$\overline{X}$	17.4	15.0	15.0	30.2	30.5	7.1	6.7
	R	16.3-18.0	15.0	15.0	30.0-30.5	30.5	6.4-7.9	6.2-7.0
December 1-15	N	4	4	4	4	4	4	4
	$\overline{X}$	7.2	6.7	7.0	30.2	30.1	9.8	9.6
	R	5.0-8.0	6.0-7.0	7.0	30.0-30.5	30.0-30.5	9.6-10.4	9.4-9.8

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Table 5. Description of permanent seine stations sampled during 1974 in the vicinity of Little Egg Inlet, New Jersey.

SEINE STATION #0001: Great Bay, Old Coast Guard Station

Area sampled: Approximately 30 feet of beach at the tip of Great Bay Boulevard. Several pockets and channels in mud banks sampled. Depth to approximately 4 feet at low tide.

Prominent shore features: Great Bay Boulevard 30 yards from beach, Old Coast Guard Station 1/2 mile south of site. Mud-peat banks, vegetated with short Spartina.

Beach and bottom composition: Peat covered with detritus, mud-peat banks. Mud and sand bottom with several snags.

Slope of beach: Very slight at beach, banks steep.

Shore vegetation: Beach becomes progressively covered with Spartina alterniflora back from waters edge. At road, Myrica pensylvanica (bayberry), Solidago sempervirens (seaside goldenrod) and various grasses predominate on quartzy sand soil.

Aquatic vegetation: Ulva lactuca (sea lettuce) often found floating and accumulating at beach. Fucus sp. occasional.

Current: Usually slow in protected cove.

Clarity Usually clear but occasionally clouded with detritus.

SEINE STATION #0002: Little Egg Harbor, near mouth of Big Thorofare, Great Bay Boulevard

Area sampled: Approximately 100 yards of beach and bank on north side of bridge. Water along bridge abutment sampled at low tide. Depth to 4 feet.

Prominent shore features: Broad sand-gravel beach, Great Bay Boulevard bridge and abutment.

Beach and bottom composition: Sand-gravel beach, plus small areas of mud-peat bank north of beach. Bottom approximately 60% sand, 40% mud-clay.

Slope of beach: Slight at beach, steeper at mud-peat bank. Drops off rapidly 10 to 15 feet from shore.

Shore vegetation: No vegetation from beach to road. Mud-peat bank has small amount of S. alterniflora. East of beach, marshy area with S. alterniflora, Baccharis halimnifolia (groundsel) and Solidago giving way to grass, Iva frutescens (marshelder) and Phragmites communis.

Aquatic vegetation: Some Ulva, large areas of S. alterniflora often partially exposed at low tide.

Current: Slow to moderate, often swept by waves.

Clarity: Water usually clear.

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Table 5. (cont.)

SEINE STATION #0003: Great Bay, Graveling Point

Area sampled: Approximately 100 yards of beach, 35 yards of inlet to Great Bay Marina. Depth to approximately 4 1/2 feet.

Prominent shore features: Sand beach, concession stand and fence 150 feet from shore. Old barge wreck on opposite end of beach from sampling site.

Beach and bottom composition: Sand-gravel beach, mud 25%, sand 75% on bottom. Offshore, clay-mud (hard). Inlet: sand grading to mud-silt.

Slope of beach: Slight off beach, steep drop 5-10 feet offshore in inlet.

Shore vegetation: None on beach. At inlet, S. alternifora is dominant giving way to Phragmites, Iva, Solidago, and two grasses further from shore.

Aquatic vegetation: S. alterniflora occurs to about 15 feet into water. Some floating Ulva.

Current: Moderate current, occasionally swept by waves.

Clarity: Water occasionally clear to bottom, usually to 2 or 3 feet.

SEINE STATION #0005: Mullica River, north of Cramer's Dock near Garden State Parkway Bridge

Area sampled: Approximately 75 yards of shore line and 20 feet across boat launch ramp. Depth to approximately 4 feet.

Prominent shore features: Mud-clay banks, boat ramp, road 25 feet from site.

Beach and bottom composition: Along banks, bottom of mud-clay. Sand-gravel bottom at boat launch ramp.

Slope of beach: Bank drop 2-3 feet. Bottom drop is steep approximately 10-15 feet from shore. Slope moderate on boat ramp.

Shore vegetation: Spartina patens on shore, succeeded by Rhus copallina (winged sumac), Solidago, Baccharis, grass and Smilax sp. (greenbrier) 20 feet from shore. North of site, clear area with Phragmites and Chenopodium.

Aquatic vegetation: S. patens submerged at high tide, Ruppia sp. (ditch grass, one specimen), some Ulva present.

Current: Slight to moderate

Clarity: Tannic brown, normally low visibility.

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Table 5. (cont.)

SEINE STATION #0006: Mullica River at Clark's Landing

Area sampled: Approximately 100 feet along beach, 100 feet along bank. Depth to about 4 1/2 feet.

Prominent shore features: Road leading to site, dense bushes along bank.

Beach and bottom composition: Sand beach and bottom. Mud bottom along bank.

Slope of beach: Slight along beach, more steep along bank with holes and drop offs.

Shore vegetation: Abundant Myrica, Chamaecyparius thyoides (Atlantic white cedar), Smilax, Myrica, and two grasses.

Aquatic vegetation: Juncus sp. dominant.

Current: Slight to moderate.

Clarity: Tannic brown, usually slightly turbid.

SEINE STATION #0008: Mullica River at Cavileer's Boat Launching Area, Lower Bank

Area sampled: Approximately 100 feet along sand beach, 25 feet on boat launching ramp. Depth to approximately 4 1/2 feet.

Prominent shore features: Boat launching ramp and dock. Road just behind site.

Beach and bottom composition: Sand and peat beach, bottom sandy with some mud.

Slope of beach: Slight

Shore vegetation: Solidago, Cephalanthus occidentalis (button bush), Hieracium sp. (hawkweed), Ambrosia artemisiifolia (ragweed), and three grasses present.

Aquatic vegetation: Dominant species are Peltandra and Juncus.

Current: Still to slow.

Clarity: Water usually tannic brown, but clear.

SEINE STATION #0016: Brigantine, beach north of Brigantine Golf Course

Area sampled: Approximately 100 yards along beach. Depth to 4 1/2 feet.

Prominent shore features: Brigantine Golf Course Clubhouse, dirt parking lot and road, wood pilings at boundaries of station.

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Table 5. (cont.)

Beach and bottom composition: Fine sand with some gravel, silt and clay.

Beach slope: Slight, width at MLW 30 yards from grass.

Shore vegetation: S. alterniflora is common. Ambrosia, Myrica, Rumex sp., Solidago, and grasses occur behind beach.

Aquatic vegetation: Phragmites normally common, Ulva and Fucus occasional.

Current: Still to slow, calm to choppy depending on weather conditions.

Clarity: Clear to turbid brown depending on weather conditions.

SEINE STATION # 0018: Brigantine, Sea Horse Pier

Area sampled: Approximately 50 yards under pier, approximately 50 yards along jetty. Depth to 4 feet.

Prominent shore features: Sea Horse Pier and stone-wood jetty adjacent to pier; station bordered by bulkhead and Brigantine Avenue.

Beach and bottom composition: Fine sand, some shell hash.

Slope of beach: Slight, beach width at MLW approximately 100 yards to bulkhead and dunes.

Shore vegetation: Ammophila on dunes.

Aquatic vegetation: Fucus litter occasional.

Current: Slow to fast, surf 0.5 to 5 feet depending on weather.

Clarity: Clear to turbid brown depending on surf.

SEINE STATION #0021: Brigantine, mouth of Brigantine Inlet, north end of Brigantine

Area sampled: Approximately 200 yards along beach. Depth to approximately 4 1/2 feet.

Prominent shore features: None. Bare sand beach and dunes.

Beach and bottom composition: Fine sand with moderate amount heavy minerals and some shell hash.

Beach slope: Slight; width at MLW approximately 300 yards to dune margin.

Shore vegetation: Unvegetated beach. Ammophila on dunes, Phragmites sparse.

Aquatic vegetation: Ulva and Fucus occasional with some Zostera litter.

Current: Slow to fast, surf 0.5-3 feet dependent on weather conditions and tidal cycle.

Clarity: Normally clear, turbid in surf.

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Table 5. (cont.)

SEINE STATION #0022: Reed Bay, Brigantine Wildlife Refuge, west pool outlet

Area sampled: Approximately 50 yards; 25 yards on each side of channel from flood gate. At low tide, approximately 50 yards across mouth of channel from flood gate. Depth to 4 1/2 feet.

Prominent shore features: Gravel banks on both sides of channel. Flood gate at end of channel. Dike road behind flood gate.

Beach and bottom composition: Beach of gravel, channel bottom of thick mud. Sand bar across mouth of channel.

Slope of beach: Steep banks, moderate slope in channel.

Shore vegetation: S. alterniflora, Phragmites and Solidago behind gravel on beach. S. alterniflora, clumps of Phragmites, and Myrica on opposite bank.

Aquatic vegetation: Ulva occasional.

Current: Dependent on tidal cycle.

Clarity: Water usually very turbid.

SEINE STATION #0023: Brigantine, Absecon Inlet, lagoon on south end of Brigantine

Area sampled: 100 yards along bank. Depth to approximately 8 feet.

Prominent shore features: "Ocean Harbor" development.

Beach and bottom composition: Fine sand, small amount of shell hash. Thick mud beyond sand.

Beach slope: Moderate; beach width at MLW approximately 25 yards to margin of dune.

Shore vegetation: Ammophila dominant with some Solidago.

Aquatic vegetation: Ulva, Fucus, Enteromorpha and Agardhiella usually attached and unattached. Phragmites litter at high water mark.

Current: Water usually still.

Clarity: Water usually somewhat turbid.

SEINE STATION # 0024: Nacote Creek, spillpool at Port Republic

Area sampled: Approximately 100 yards along sand beach on north side of pool. Approximately 25 yards along bank and into creek east of beach.

Prominent shore features: Sand beach, dam and spillpool walls, bridge over spillpool.

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Table 5. (cont.)

Beach and bottom composition: Sand beach and bottom on north side of pool. Sand and peat banks border creek.

Slope of beach: Moderate at sandy beach, steep banks bordering creek. Irregular bottom of rocks and stumps in creek.

Shore vegetation: Along dam, Sassafras albidum (sassafras), Alnus sp. (hard alder), Acer rubrum (red maple), Prunus virginiana (choke cherry), Comptonia peregrina (sweet fern), Alanthus altissima (tree-of-heaven), Prunocerasius maritima (beach plum), Campsis radicans (trumpet creeper), Pinus rigida, Chanaecyparius, Myrica, and Rhus occur. On and behind beach and along creek, Catalpa bignonoides, Trylolium agrarium (hop clover), Scirpus sp. (3-square), Hosta japonica, Asclepias sp. (milkweed), Peltandra, Phragmites, Solidago, Ipomoea sp. (morning glory), Ambrosia, Rubus sp. (dewberry). Pinus rigida and several grasses occur.

Aquatic vegetation: Scirpus emergent, with Utricularia sp. (bladder wort) usually common.

Current: Slight to moderate.

Clarity: Tannic brown, normally clear.

SEINE STATION #0034: Big Sheepshead Creek, beach at Great Bay Boulevard road bridge.

Area sampled: Approximately 100 yards along beach and coves. Depth to 3 1/2 feet.

Prominent shore features: Hill rising behind beach to road. Bridge pilings to left of beach. Parking spot on top of hill just behind station.

Beach and bottom composition: Mud-sand bottom, mud-peat marshland behind beach. Bottom approximately 60% sand, 40% mud.

Slope of beach: Slight. Drop off approximately 15 feet from shore.

Shore vegetation: S. alterniflora on beach and peat bank. Rapid succession to upland forms as hill rises behind beach to road.

Aquatic vegetation: Some detritus, little Ulva floating, Fucus sp. on banks.

Current: Dependent on tidal cycle, usually rapid.

Clarity: Usually clear.

SEINE STATION #0040: Turtle Cove, Brigantine Wildlife Refuge.

Area sampled: Approximately 100 yards of beach. Depth to 3.5 feet.

Prominent shore features: Road (dike) behind beach. East Tower (for bird-watching) 1/8 mile west of station. Boathouse at far end of beach.

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Table 5. (cont.)

Beach and bottom composition: Coarse sand and gravel, mud-sand bottom.

Slope of beach: Slight, width at MLW approximately 100 feet.

Shore vegetation: Seaside goldenrod, rabbits-foot clover, narrow-leaved plantains, peppergrass, bayberry, yarrow and common goldenrod at roadside. On beach face, seaside goldenrod, sea rocket and Ammophila common, Distichlis and Mexican tea occasional.

Aquatic vegetation: Ulva and detritus, occasionally abundant.

Current: Slow to still.

Clarity: Normally turbid.

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Table 6. Total number of species and specimens collected with 250-ft seine in day/night and 24-hr collections in 1974 at a cove off Absecon Inlet, New Jersey.*

	WINTER								SPRING							
	Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Mustelus canis	-	-	-	-	-	-	-	-	-	-	-	-	16	2.67	2	0.33
Raja erinacea	-	-	-	-	-	-	-	-	4	0.44	2	0.22	6	1.00	3	0.50
Alosa aestivalis	1	0.20	1	0.20	11	2.75	2	0.50	-	-	-	-	255	42.5	4	0.67
Alosa pseudoharengus	-	-	-	-	2	0.50	1	0.25	-	-	-	-	28	4.67	3	0.50
Alosa sapidissima	-	-	-	-	7	1.75	2	0.50	-	-	-	-	2	0.33	2	0.33
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	4	0.67	3	0.50
Clupea harengus	-	-	-	-	3	0.75	2	0.50	2	0.22	2	0.22	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	1	0.11	1	0.11	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	112	12.44	3	0.33	322+	53.67+	6	1.00
Pollachius virens	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	2	0.33
Urophycis chuss	-	-	-	-	116	29.00	2	0.50	-	-	-	-	22	3.67	2	0.33
Urophycis regius	-	-	-	-	2	0.50	1	0.25	90	10.00	5	0.56	280	46.67	5	0.83
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	10	1.67	3	0.50
Hyporhamphus unifasciatus	-	-	-	-	-	-	-	-	2	0.22	1	0.11	-	-	-	-
Strongylura marina	-	-	-	-	-	-	-	-	2	0.22	1	0.11	1	0.17	1	0.17
Fundulus heteroclitus	-	-	-	-	-	-	-	-	3	0.33	2	0.22	2	0.33	2	0.33
Fundulus majalis	2	0.40	2	0.40	1	0.25	1	0.25	8	0.89	1	0.11	4	0.67	2	0.33
Membras martinica	-	-	-	-	-	-	-	-	1	0.11	1	0.11	6	1.00	1	0.17
Menidia menidia	127	25.40	4	0.80	26	6.50	3	0.75	204	22.67	9	1.00	179	29.83	5	0.83
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	4	0.67	1	0.17
Gasterosteus aculeatus	-	-	-	-	12	3.00	2	0.50	-	-	-	-	1	0 17	1	0.17
Hippocampus erectus	-	-	-	-	-	-	-	-	4	0.44	3	0.33	3	0.50	1	0.17
Syngnathus fuscus	-	-	-	-	-	-	-	-	2	0.22	2	0.22	-	-	-	-
Morone saxatilis	-	-	-	-	1	0.25	1	0.25	-	-	-	-	1	0.17	1	0.17
Centropristis striata	-	-	-	-	-	-	-	-	6	0.67	2	0.22	20	3.33	4	0.67
Pomatomus saltatrix	-	-	-	-	-	-	-	-	11	1.22	2	0.22	8	1.33	2	0.33
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Astroscopus guttatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Prionotus carolinus	-	-	-	-	-	-	-	-	1	0.11	1	0.11	-	-	-	-
Myoxocephalus aenaeus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	2	0.33
Etropus microstomus	-	-	-	-	-	-	-	-	1	0.11	1	0.11	17	2.83	4	0.67
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	0.11	1	0.11	2	0.33	1	0.17
Scophthalmus aquosus	-	-	-	-	10	2.50	1	0.25	53	5.89	8	0.89	388	64.67	6	1.00
Pseudopleuronectes americanus	3	0.60	1	0.20	5	1.25	3	0.75	8	0.89	4	0.44	28	4.67	6	1.00
Monacanthus hispidus	-	-	-	-	-	-	-	-	1	0.11	1	0.11	1	0.17	1	0.17
Number of collections		5				4				9				6		
Total species		4				12				21				31		
Total specimens (n)		133				196				517				1617+		
Specimens/collection (n/coll)		26.60				49.00				57.44				269.50+		

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Table 6. (cont.)

	SUMMER								TOTAL							
	Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Mustelus canis	-	-	-	-	6	1.00	3	0.50	-	-	-	-	22	1.38	5	0.31
Raja erinacea	-	-	-	-	-	-	-	-	4	0.17	2	0.09	6	0.38	3	0.19
Anguilla rostrata	1	0.11	1	0.11	1	0.17	1	0.17	1	0.04	1	0.04	1	0.06	1	0.06
Alosa aestivalis	-	-	-	-	-	-	-	-	1	0.04	1	0.04	266	16.63	6	0.38
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	30	1.88	4	0.25
Alosa sapidissima	-	-	-	-	-	-	-	-	-	-	-	-	9	0.56	4	0.25
Brevoortia tyrannus	2231	247.89	1	0.11	41	6.83	5	0.83	2231	97.00	1	0.04	45	2.81	8	0.50
Clupea harengus	-	-	-	-	-	-	-	-	2	0.09	2	0.09	3	0.19	2	0.13
Anchoa hepsetus	5	0.55	2	0.22	-	-	-	-	6	0.26	3	0.13	-	-	-	-
Anchoa mitchilli	19+	2.11+	2	0.22	44	7.33	3	0.50	131+	5.70+	5	0.22	366+	22.88+	9	0.56
Synodus foetens	4	0.44	3	0.33	4	0.67	2	0.33	4	0.17	3	0.13	4	0.25	2	0.13
Pollachius virens	-	-	-	-	-	-	-	-	-	-	-	-	2	0.13	2	0.13
Urophycis chuss	-	-	-	-	-	-	-	-	-	-	-	-	138	8.63	4	0.25
Urophycis regius	-	-	-	-	1	0.17	1	0.17	90	3.91	5	0.22	283	17.69	7	0.44
Urophycis tenuis	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Rissola marginata	1	0.11	1	0.11	22	3.67	5	0.83	1	0.04	1	0.04	32	2.00	8	0.50
Hyporhamphus unifasciatus	-	-	-	-	-	-	-	-	2	0.09	1	0.04	-	-	-	-
Strongylura marina	12	1.33	4	0.44	5	0.83	2	0.33	14	0.61	5	0.22	6	0.38	3	0.19
Fundulus heteroclitus	3	0.33	3	0.33	2	0.33	1	0.17	6	0.26	5	0.22	4	0.25	3	0.19
Fundulus majalis	1	0.11	1	0.11	8	1.33	3	0.50	11	0.48	4	0.17	13	0.81	6	0.38
Membras martinica	1	0.11	1	0.11	-	-	-	-	2	0.09	2	0.09	6	0.38	1	0.06
Menidia beryllina	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Menidia menidia	990+	110.00+	8	0.89	50	8.33	6	1.00	1321+	57.43+	21	0.91	255	15.94	14	0.88
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	4	0.25	1	0.06
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	13	0.81	3	0.19
Fistularia tabacaria	2	0.22	2	0.22	-	-	-	-	2	0.09	2	0.09	-	-	-	-
Hippocampus erectus	10	1.11	4	0.44	-	-	-	-	14	0.61	7	0.30	3	0.19	1	0.06
Syngnathus fuscus	8	0.89	4	0.44	6	1.00	3	0.50	10	0.43	6	0.26	6	0.38	3	0.19
Morone saxatilis	-	-	-	-	1	0.17	1	0.17	-	-	-	-	3	0.19	3	0.19
Centropristis striata	1	0.11	1	0.11	-	-	-	-	7	0.30	3	0.13	20	1.25	4	0.25
Epinephelus nigritus	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Pristigenys alta	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Pomatomus saltatrix	366	40.67	9	1.00	38	6.33	6	1.00	377	16.39	11	0.48	46	2.88	8	0.50
Caranx hippos	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Trachinotus carolinus	31	3.44	5	0.56	16	2.67	3	0.50	31	1.35	5	0.22	16	1.00	3	0.19
Trachinotus falcatus	8	0.89	3	0.33	11	1.83	1	0.17	8	0.35	3	0.13	11	0.69	1	0.06
Trachinotus goodei	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.06	1	0.06
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Cynoscion regalis	2	0.22	1	0.11	20	3.33	3	0.50	2	0.09	1	0.04	20	1.25	3	0.19
Leiostomus xanthurus	120	13.33	4	0.44	60	10.00	4	0.67	120	5.22	4	0.17	60	3.75	4	0.25
Menticirrhus saxatilis	46	5.11	6	0.67	20	3.33	5	0.83	46	2.00	6	0.26	20	1.25	5	0.31
Tautoga onitis	3	0.33	1	0.11	-	-	-	-	3	0.13	1	0.04	1	0.06	1	0.06
Tautogolabrus adspersus	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Mugil curema	22	2.44	2	0.22	11	1.83	3	0.50	22	0.96	2	0.09	11	0.69	3	0.19
Sphyraena borealis	7	0.78	3	0.33	20	3.33	4	0.67	7	0.30	3	0.13	20	1.25	4	0.25
Astroscopus guttatus	1	0.11	1	0.11	2	0.33	1	0.17	1	0.04	1	0.04	3	0.19	2	0.13
Prionotus carolinus	3	0.33	1	0.11	2	0.33	1	0.17	4	0.17	2	0.09	2	0.13	1	0.06
Prionotus evolans	17	1.89	4	0.44	43	7.17	3	0.50	17	0.74	4	0.17	43	2.69	3	0.19
Myoxocephalus aenaeus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.13	2	0.13
Citharichthys spilopterus	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Etropus microstomus	28	3.11	4	0.44	7	1.17	3	0.50	29	1.26	5	0.22	24	1.50	7	0.44
Paralichthys dentatus	11	1.22	4	0.44	16	2.67	6	1.00	12	0.52	5	0.22	18	1.13	7	0.44
Scophthalmus aquosus	92	10.22	8	0.89	82	13.67	5	0.83	145	6.30	16	0.70	480	30.00	12	0.75
Pseudopleuronectes americanus	68	7.56	8	0.89	71	11.83	5	0.83	79	3.43	13	0.57	104	6.50	14	0.88
Lactophrys quadricornis?	1	0.11	1	0.11	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Monacanthus hispidus	34	3.78	2	0.22	7	1.17	2	0.33	35	1.52	3	0.13	8	0.50	3	0.19
Sphoeroides maculatus	9	1.00	4	0.44	1	0.17	1	0.17	9	0.39	4	0.17	1	0.06	1	0.06
Chilomycterus schoepfi	8	0.89	3	0.33	2	0.33	2	0.33	8	0.35	3	0.13	2	0.13	2	0.13
Number of collections	9				6				23				16			
Total species	42				32				47				47			
Total specimens (n)	4173+				621				4823+				2434+			
Specimens/collection (n/coll)	463.67+				103.50				209.70+				152.13+			

* Seasonal totals we given for winter (January - March), spring (April - June), summer (July - September), and fall (October - December).
\+ A number followed by a + indicates a conservative estimate.

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Table 7. Seasonal catch statistics of fishes collected by 15-ft seine during day/night and 24-hr collections at a cove off Absecon Inlet, Brigantine in 1974.

	WINTER								SPRING							
	Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	-	3	0.50	1	0.17
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Fundulus heteroclitus	-	-	-	-	2	0.50	2	0.50	2	0.22	2	0.22	3	0.50	3	0.50
Fundulus majalis	-	-	-	-	-	-	-	-	1	0.11	1	0.11	-	-	-	-
Menidia menidia	16	3.20	2	0.40	31	7.75	3	0.75	13	1.44	3	0.33	7	1.17	4	0.67
Gasterosteus aculeatus	-	-	-	-	1	0.25	1	0.25	-	-	-	-	69	11.50	2	0.33
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	2	0.33
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Mugil curema	-	-	-	-	1	0.25	1	0.25	2	0.22	1	0.11	1	0.17	1	0.17
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Number of collections		5				4				9				6		
Total species		1				4				4				11		
Total specimens (n)		16				35				18				91		
Specimens/collection (n/coll)		3.20				8.75				2.00				15.17		

	SUMMER								TOTAL							
	Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	-	3	0.19	1	0.06
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	2	0.13	1	0.06
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Fundulus heteroclitus	4	0.40	3	0.30	-	-	-	-	6	0.25	5	0.21	5	0.31	5	0.31
Fundulus majalis	1	0.10	1	0.10	1	0.17	1	0.17	2	0.08	2	0.08	1	0.06	1	0.06
Menidia menidia	2647+	264.70+	10	1.00	80	13.33	6	1.00	2676+	111.50+	15	0.63	118	7.38	13	0.81
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	70	4.38	3	0.19
Fistularia tabacaria	1	0.10	1	0.10	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.13	2	0.13
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Pomatomus saltatrix	-	-	-	-	1	0.17	1	0.17	-	-	-	-	2	0.13	2	0.13
Trachinotus carolinus	5	0.50	1	0.10	4	0.67	2	0.33	5	0.21	1	0.04	4	0.25	2	0.13
Trachinotus falcatus	5	0.50	2	0.20	4	0.67	4	0.67	5	0.21	2	0.08	4	0.25	4	0.25
Menticirrhus saxatilis	1	0.10	1	0.10	1	0.17	1	0.17	1	0.04	1	0.04	1	0.06	1	0.06
Mugil curema	4	0.40	1	0.10	2	0.33	2	0.33	6	0.25	2	0.08	4	0.25	4	0.25
Paralichthys dentatus	1	0.10	1	0.10	-	-	-	-	1	0.04	1	0.04	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Number of collections		10				6				24				16		
Total species		9				7				9				15		
Total specimens (n)		2669+				93				2703+				219		
Specimens/collection (n/coll)		266.90+				15.50				112.63+				13.69		

Table 8. Total number of species and specimens collected by seine (except 250-ft seine) in 1974, in an area from Little Egg Harbor to Atlantic City, New Jersey.

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	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	c/f	n	n/coll	f	c/f	n	n/coll	f	c/f	n	n/coll	f	c/f	n	n/coll	f	c/f
Elops saurus	-	-	-	-	-	-	-	-	13	0.16	1	0.01	-	-	-	-	13	0.045	1	0.004
Anguilla rostrata	33	0.46	3	0.04	55	0.61	17	0.19	17	0.22	5	0.06	-	-	-	-	105	0.365	25	0.087
Alosa aestivalis	3	0.04	2	0.03	-	-	-	-	-	-	-	-	-	-	-	-	3	0.010	2	0.007
Alosa pseudoharengus	-	-	-	-	15	0.17	4	0.04	4	0.05	1	0.01	-	-	-	-	19	0.066	5	0.017
Alosa sp.	-	-	-	-	70	0.78	1	0.01	-	-	-	-	-	-	-	-	70	0.243	1	0.004
Brevoortia tyrannus	-	-	-	-	962	10.69	19	0.21	145	1.84	8	0.10	13	0.27	1	0.02	1120	3.889	28	0.097
Anchoa hepsetus	-	-	-	-	-	-	-	-	2	0.03	2	0.03	-	-	-	-	2	0.007	2	0.007
Anchoa mitchilli	-	-	-	-	192	2.13	13	0.14	888+	11.24+	22	0.28	227+	4.73+	6	0.13	1307+	4.538+	41	0.142
Synodus foetens	-	-	-	-	1	0.01	1	0.01	-	-	-	-	-	-	-	-	1	0.004	1	0.004
Notemigonus crysoleucas	-	-	-	-	17	0.19	4	0.04	1	0.01	1	0.01	-	-	-	-	18	0.063	5	0.017
Catostomus commersoni	-	-	-	-	98	1.09	2	0.02	-	-	-	-	-	-	-	-	98	0.340	2	0.007
Pollachius virens	-	-	-	-	2	0.02	2	0.02	-	-	-	-	-	-	-	-	2	0.007	2	0.007
Urophycis regius	-	-	-	-	3	0.03	2	0.02	-	-	-	-	-	-	-	-	3	0.010	2	0.007
Urophycis tenuis	-	-	-	-	1	0.01	1	0.01	-	-	-	-	-	-	-	-	1	0.004	1	0.004
Rissola marginata	-	-	-	-	6	0.07	2	0.02	2	0.03	2	0.03	-	-	-	-	8	0.028	4	0.014
Strongylura marina	-	-	-	-	-	-	-	-	3	0.04	3	0.04	-	-	-	-	3	0.010	3	0.010
Cyprinodon variegatus	5	0.07	2	0.03	57	0.63	13	0.14	300+	3.80+	8	0.10	1577+	32.85+	21	0.44	1939+	6.733+	44	0.153
Fundulus diaphanus	428+	6.03+	4	0.06	1708+	18.98+	22	0.24	450+	5.70+	7	0.09	1393+	29.02+	7	0.15	3979+	13.816+	40	0.139
Fundulus heteroclitus	34	0.48	13	0.18	981+	10.90+	40	0.44	1548+	19.59+	35	0.44	2368+	49.33+	31	0.65	4931+	17.122+	119	0.413
Fundulus majalis	79	1.11	20	0.28	1514+	16.82+	31	0.34	432	5.47	36	0.46	212+	4.42+	20	0.42	2237+	7.767+	107	0.372
Lucania parva	-	-	-	-	6	0.07	3	0.03	4	0.05	2	0.03	-	-	-	-	10	0.035	5	0.017
Menidia beryllina	227	3.20	26	0.37	462	5.13	27	0.30	1119+	14.16+	19	0.24	2731+	56.90+	27	0.56	4539+	15.760+	99	0.344
Menidia menidia	377	5.31	28	0.39	3264+	36.27+	56	0.62	17102+	216.48+	73	0.92	2851+	59.40+	44	0.92	23594+	81.924+	201	0.693
Menidia sp.	-	-	-	-	7	0.08	1	0.01	-	-	-	-	-	-	-	-	7	0.024	1	0.004
Apeltes quadracus	90	1.27	15	0.21	244+	2.71+	9	0.10	1	0.01	1	0.01	2	0.04	1	0.02	337+	1.170	26	0.090
Gasterosteus aculeatus	58	0.82	8	0.11	7	0.08	5	0.06	-	-	-	-	-	-	-	-	65	0.226	13	0.045
Hippocampus erectus	-	-	-	-	1	0.01	1	0.01	1	0.01	1	0.01	-	-	-	-	2	0.007	2	0.007
Syngnathus fuscus	1	0.01	1	0.01	48+	0.53+	10	0.11	39	0.49	15	0.19	5	0.10	4	0.08	93+	0.323+	30	0.104
Morone americana	1	0.01	1	0.01	220	2.44	12	0.13	52	0.66	4	0.05	2	0.04	2	0.04	275	0.955	19	0.066
Morone saxatilis	-	-	-	-	7	0.08	1	0.01	-	-	-	-	-	-	-	-	7	0.024	1	0.004
Mycteroperca microlepis	-	-	-	-	2	0.02	2	0.02	-	-	-	-	-	-	-	-	2	0.007	2	0.007
Lepomis gibbosus	-	-	-	-	1	0.01	1	0.01	1	0.01	1	0.01	-	-	-	-	2	0.007	2	0.007
Etheostoma olmstedi	-	-	-	-	2	0.02	2	0.02	-	-	-	-	-	-	-	-	2	0.007	2	0.007
Perca flavescens	-	-	-	-	4	0.04	2	0.02	-	-	-	-	-	-	-	-	4	0.014	2	0.007
Pomatomus saltatrix	-	-	-	-	14	0.16	10	0.11	28	0.35	12	0.15	-	-	-	-	42	0.146	22	0.077
Caranx hippos	-	-	-	-	-	-	-	-	4	0.05	3	0.04	-	-	-	-	4	0.014	3	0.010
Selene vomer	-	-	-	-	-	-	-	-	2	0.03	2	0.03	-	-	-	-	2	0.007	2	0.007
Trachinotus carolinus	-	-	-	-	1	0.01	1	0.01	95	1.20	9	0.11	-	-	-	-	96	0.333	10	0.035
Trachinotus falcatus	-	-	-	-	-	-	-	-	34	0.43	13	0.16	2	0.04	1	0.02	36	0.125	14	0.049
Trachinotus goodei	-	-	-	-	-	-	-	-	3	0.04	2	0.03	-	-	-	-	3	0.010	2	0.007
Lutjanus griseus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	1	0.004	1	0.004
Stenotomus chrysops	-	-	-	-	-	-	-	-	1	0.01	1	0.01	-	-	-	-	1	0.004	1	0.004
Bairdiella chrysura	-	-	-	-	-	-	-	-	35	0.44	7	0.09	-	-	-	-	35	0.122	7	0.024
Cynoscion regalis	-	-	-	-	-	-	-	-	1	0.01	1	0.01	-	-	-	-	1	0.004	1	0.004
Leiostomus xanthurus	-	-	-	-	63	0.70	9	0.10	7	0.09	5	0.06	5	0.10	1	0.02	75	0.260	15	0.052
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	26	0.33	8	0.10	1	0.02	1	0.02	27	0.094	9	0.031
Mugil curema	44	0.62	11	0.15	54	0.60	11	0.12	128	1.62	10	0.13	1	0.02	1	0.02	227	0.788	33	0.115
Sphyraena borealis	-	-	-	-	-	-	-	-	4	0.05	2	0.03	-	-	-	-	4	0.014	2	0.007
Ammodytes sp.	2	0.03	1	0.01	-	-	-	-	-	-	-	-	1	0.02	1	0.02	3	0.010	2	0.007
Gobiosoma bosci	-	-	-	-	2	0.02	2	0.02	21	0.27	6	0.08	6	0.13	4	0.08	29	0.101	12	0.042
Etropus microstomus	-	-	-	-	-	-	-	-	2	0.03	1	0.01	3	0.06	1	0.02	5	0.017	2	0.007
Paralichthys dentatus	-	-	-	-	2	0.02	2	0.02	1	0.01	1	0.01	-	-	-	-	3	0.010	3	0.010
Pseudopleuronectes americanus	1	0.01	1	0.01	6	0.07	3	0.03	7	0.09	4	0.05	-	-	-	-	14	0.049	8	0.028
Trinectes maculatus	-	-	-	-	12	0.13	3	0.03	-	-	-	-	-	-	-	-	12	0.042	3	0.010
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	1	0.01	1	0.01	-	-	-	-	1	0.004	1	0.004
Number of collections	71				90				79				48				288			
Total species	16				36+				39				19				53+			
Total specimens (n)	1383+				10111+				22524+				11401+				45419+			
Specimens/collection (n/coll)	19.48+				112.34+				285.11+				237.52+				157.70+			

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Table 9. Seasonal catch statistics of fishes collected by seine at station 0001, Great Bay in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	15	2.50	3	0.50	-	-	-	-	15	0.68	3	0.14
Pollachius virens	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Cyprinodon variegatus	-	-	-	-	14	2.33	3	0.50	-	-	-	-	-	-	-	-	14	0.64	3	0.14
Fundulus heteroclitus	1	0.17	1	0.17	62	10.33	5	0.83	231+	38.5+	4	0.67	23	5.75	2	0.50	317+	14.41+	12	0.55
Fundulus majalis	5	0.83	2	0.33	44	7.33	3	0.50	54	9.00	6	1.00	37	9.25	4	1.00	140	6.36	15	0.68
Lucania parva	-	-	-	-	1	0.17	1	0.17	2	0.33	1	0.17	-	-	-	-	3	0.14	2	0.09
Menidia beryllina	11	1.83	2	0.33	12	2.00	2	0.33	1	0.17	1	0.17	4	1.00	1	0.25	28	1.27	6	0.27
Menidia menidia	13	2.17	4	0.67	135+	22.50+	6	1.00	538+	89.67+	6	1.00	105+	26.25+	4	1.00	791+	35.95+	20	0.91
Apeltes quadracus	5	0.83	3	0.50	1	0.17	1	0.17	-	-	-	-	-	-	-	-	6	0.27	4	0.18
Gasterosteus aculeatus	24	4.00	3	0.50	2	0.33	1	0.17	-	-	-	-	-	-	-	-	26	1.18	4	0.18
Syngnathus fuscus	-	-	-	-	5	0.83	1	0.17	7	1.17	3	0.50	-	-	-	-	12	0.55	4	0.18
Pomatomus saltatrix	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Trachinotus carolinus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Trachinotus falcatus	-	-	-	-	-	-	-	-	11	1.83	4	0.67	-	-	-	-	11	0.50	4	0.18
Bairdiella chrysura	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Leiostomus xanthurus	-	-	-	-	1	0.17	1	0.17	1	0.17	1	0.17	-	-	-	-	2	0.09	2	0.09
Mugil curema	5	0.83	1	0.17	2	0.33	1	0.17	1	0.17	1	0.17	-	-	-	-	8	0.36	3	0.14
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	2	0.33	1	0.17	-	-	-	-	2	0.09	1	0.05
No. of collections		6				6				6				4				22		
Total species		7				13				12				4				18		
Total specimens (n)		64				281+				865+				169+				1379+		
Specimens/collection (n/coll)		10.67				46.83+				144.17+				42.25+				62.68+		

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Table 10. Seasonal catch statistics of fishes collected by seine both day and night at station 0002, Little Egg Harbor in 1974.

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Alosa aestivalis	2	0.33	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	3	0.50	1	0.17	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Anchoa mitchilli	-	-	-	-	-	-	-	-	1	0.17	1	0.17	2	0.67	1	0.33	30	5.00	3	0.50
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	3	1.00	1	0.33	-	-	-	-
Strongylura marina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Cyprinodon variegatus	-	-	-	-	-	-	-	-	4	0.67	2	0.33	3	1.00	1	0.33	-	-	-	-
Fundulus heteroclitus	1	0.17	1	0.17	4	1.33	2	0.67	16	2.67	4	0.67	11	3.67	2	0.67	16	2.67	2	0.33
Fundulus majalis	27	4.50	3	0.50	24	8.00	3	1.00	199	33.17	5	0.83	117	39.00	2	0.67	18	3.00	5	0.83
Lucania parva	-	-	-	-	-	-	-	-	-	-	-	-	3	1.00	1	0.33	-	-	-	-
Menidia beryllina	6	1.00	2	0.33	3	1.00	2	0.67	14	2.33	1	0.17	4	1.33	1	0.33	20	3.33	2	0.33
Menidia menidia	130	21.67	2	0.33	13	4.33	2	0.67	191+	31.83+	5	0.83	112	37.33	2	0.67	843+	140.50+	6	1.00
Apeltes quadracus	1	0.17	1	0.17	13	4.33	3	1.00	-	-	-	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	9	1.50	3	0.50	20	6.67	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.17	1	0.17
Pomatomas saltatrix	-	-	-	-	-	-	-	-	2	0.33	1	0.17	-	-	-	-	5	0.83	2	0.33
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lutjanus griseus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	2	0.33	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Number of collections		6				3				6				3				6		
Total species		8				6				9				11				13		
Total specimens (n)		178				77				431+				258				939+		
Specimens/collection (n/coll)		29.67				25.67				71.83+				86.00				156.50+		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	2	0.18
Alosa aestivalis	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	1	0.05	-	-	-	-
Brevoortia tyrannus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	3	0.14	1	0.05	1	0.09	1	0.09
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Anchoa mitchilli	25	8.33	3	1.00	-	-	-	-	2	1.00	1	0.50	31	1.41	4	0.18	29	2.64	5	0.45
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.27	1	0.09
Strongylura marina	1	0.33	1	0.33	-	-	-	-	-	-	-	-	1	0.05	1	0.05	1	0.09	1	0.09
Cyprinodon variegatus	-	-	-	-	16	4.00	4	1.00	1	0.50	1	0.50	20	0.91	6	0.27	4	0.36	2	0.18
Fundulus heteroclitus	16	5.33	2	0.67	211+	52.75+	4	1.00	1	0.50	1	0.50	244+	11.09+	11	0.50	32	2.91	7	0.64
Fundulus majalis	24	8.00	3	1.00	34	8.50	3	0.75	2	1.00	1	0.50	278	12.64	16	0.73	167	15.18	9	0.82
Lucania parva	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.27	1	0.09
Menidia beryllina	2	0.67	1	0.33	15	3.75	3	0.75	-	-	-	-	55	2.50	8	0.36	9	0.82	4	0.36
Menidia menidia	737+	245.67+	3	1.00	69	17.25	4	1.00	222+	111.00+	2	1.00	1233+	56.05+	17	0.77	1084+	98.55+	9	0.82
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	13	1.18	3	0.27
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	9	0.41	3	0.14	20	1.82	1	0.09
Syngnathus fuscus	-	-	-	-	1	0.25	1	0.25	1	0.50	1	0.50	3	0.14	3	0.14	1	0.09	1	0.09
Pomatomus saltatris	2	0.67	2	0.67	-	-	-	-	-	-	-	-	7	0.32	3	0.14	2	0.18	2	0.18
Trachinotus falcatus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Lutjanus griseus	-	-	-	-	1	0.25	1	0.25	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Bairdiella chysura	2	0.67	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Mugil curema	11	3.67	2	0.67	-	-	-	-	-	-	-	-	1	0.05	1	0.05	11	1.00	2	0.18
Sphyraena borealis	2	0.67	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	1	0.05	-	-	-	-
Gobiosoma bosci	3	1.00	1	0.33	-	-	-	-	2	1.00	1	0.50	-	-	-	-	5	0.45	2	0.18
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Number of collections		3				4				2				22				11		
Total species		14				7				7				20				22		
Total specimens (n)		828+				347+				231+				1895+				1394+		
Specimens/collection (n/coll)		276.00+				86.75+				115.50+				86.14+				126.73+		

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Table 11. Seasonal catch statistics of fishes collected by seine both day and night at station 0003, Great Bay in 1974.

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	2	0.67	1	0.33	-	-	-	-
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	178	29.67	2	0.33	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	81	13.50	3	0.50	-	-	-	-	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	2	0.67	1	0.33	-	-	-	-
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	3	1.00	1	0.33	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-
Fundulus heteroclitus	-	-	-	-	-	-	-	-	2	0.33	2	0.33	-	-	-	-	9	1.50	1	0.17
Fundulus majalis	1	0.17	1	0.17	2	0.67	2	0.67	1	0.17	1	0.17	-	-	-	-	1	0.17	1	0.17
Menidia beryllina	1	0.17	1	0.17	4	1.33	2	0.67	40	6.67	4	0.67	-	-	-	-	-	-	-	-
Menidia menidia	1	0.17	1	0.17	28	9.33	2	0.67	86	14.33	4	0.67	11	3.67	3	1.00	248	41.33	6	1.00
Apeltes quadracus	-	-	-	-	3	1.00	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	2	0.33	1	0.17	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	1	0.33	1	0.33	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	2	0.33	2	0.33	-	-	-	-	3	0.50	1	0.17
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0.83	3	0.50
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1.17	1	0.17
Mugil curema	1	0.17	1	0.17	1	0.33	1	0.33	1	0.17	1	0.17	-	-	-	-	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of collections		6				3				6				3				6		
Total species		4				6				11				7				7		
Total specimens (n)		4				39				395				21				274		
Specimens/collection (n/coll)		0.67				13.00				65.83				7.00				45.67		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Brevoortia tyrannus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	178	8.09	2	0.09	1	0.09	1	0.09
Anchoa mitchilli	4	1.33	2	0.67	-	-	-	-	3	1.50	1	0.50	81	3.68	3	0.14	7	0.64	3	0.27
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Rissola marginata	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	4	0.36	2	0.18
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Fundulus heteroclitus	1	0.33	1	0.33	13	2.60	2	0.40	-	-	-	-	24	1.09	5	0.23	1	0.09	1	0.09
Fundulus majalis	3	1.00	2	0.67	1	0.20	1	0.20	1	0.50	1	0.50	4	0.18	4	0.18	6	0.55	5	0.45
Menidia beryllina	-	-	-	-	14	2.80	3	0.60	-	-	-	-	55	2.50	8	0.36	4	0.36	2	0.18
Menidia menidia	69	23.00	3	1.00	110	22.00	5	1.00	26	13.00	2	1.00	445	20.23	16	0.73	134	12.18	10	0.91
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.27	1	0.09
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	1	0.05	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	2	0.18
Morone americana	-	-	-	-	1	0.20	1	0.20	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	5	0.23	3	0.14	-	-	-	-
Trachinotus falcatus	4	1.33	2	0.67	-	-	-	-	2	1.00	1	0.50	5	0.23	3	0.14	6	0.55	3	0.27
Bairdiella chrysura	2	0.67	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	7	0.32	1	0.05	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	2	0.09	1	0.09	1	0.09
Gobiosoma bosci	-	-	-	-	-	-	-	-	1	0.50	1	0.50	-	-	-	-	1	0.09	1	0.09
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Chilomycterus schoepfi	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Number of collections		3				4				2				22				11		
Total species		9				5				5				15				18		
Total specimens (n)		86				139				33				812				179		
Specimens/collection (n/coll)		28.67				34.75				16.50				36.91				16.27		

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Table 12. Seasonal catch statistics of fishes collected by seine at station 0005, Mullica River in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Brevoortia tyrannus	-	-	-	-	97	16.17	3	0.50	1	0.17	1	0.17	-	-	-	-	98	4.45	4	0.18
Anchoa mitchilli	-	-	-	-	26	4.33	3	0.50	2	0.33	1	0.17	-	-	-	-	28	1.27	4	0.18
Synodus foetens	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.50	1	0.25	2	0.09	1	0.05
Fundulus heteroclitus	-	-	-	-	15	2.50	5	0.83	1	0.17	1	0.17	15	3.75	3	0.75	31	1.41	9	0.41
Fundulus majalis	1	0.17	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Menidia beryllina	5	0.83	3	0.50	2	0.33	2	0.33	-	-	-	-	30	7.50	3	0.75	37	1.68	8	0.36
Menidia menidia	36	6.00	2	0.33	27	4.50	4	0.67	851+	141.83+	6	1.00	42	10.50	2	0.50	956+	43.45+	14	0.64
Syngnathus fuscus	-	-	-	-	1	0.17	1	0.17	2	0.33	2	0.33	2	0.50	1	0.25	5	0.23	4	0.18
Pomatomus saltatrix	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Caranx hippos	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Selene vomer	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Bairdiella chrysura	-	-	-	-	-	-	-	-	28	4.67	2	0.33	-	-	-	-	28	1.27	2	0.09
Leiostomus xanthurus	-	-	-	-	11	1.83	2	0.33	-	-	-	-	-	-	-	-	11	0.50	2	0.09
Mugil curema	2	0.33	1	0.17	4	0.67	1	0.17	-	-	-	-	-	-	-	-	6	0.27	2	0.09
Gobiosoma bosci	-	-	-	-	2	0.33	2	0.33	5	0.83	2	0.33	1	0.25	1	0.25	8	0.36	5	0.23
No. of collections		6				6				6				4				22		
Total species		4				12				9				6				17		
Total specimens (n)		44				188				892+				92				1216+		
Specimens/collection (n/coll)		7.33				31.33				148.67+				23.00				55.27+		

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Table 13. Seasonal catch statistics of fishes collected by seine both day and night at station 0016, Brigantine in 1974.

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	3	0.50	2	0.33	4	1.33	1	0.33	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	1.83	1	0.17
Strongylura marina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Cyprinodon variegatus	1	0.17	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Fundulus heteroclitus	4	0.67	3	0.50	13	4.33	3	1.00	30	5.00	2	0.33	3	1.00	2	0.67	3	0.50	2	0.33
Fundulus majalis	3	0.50	2	0.33	12	4.00	3	1.00	131	21.83	5	0.83	973+	324.33+	3	1.00	57	9.50	4	0.67
Menidia beryllina	2	0.33	2	0.33	2	0.67	2	0.67	-	-	-	-	-	-	-	-	4	0.67	1	0.17
Menidia menidia	6	1.00	3	0.50	24	8.00	2	0.67	46	7.67	4	0.67	32	10.67	2	0.67	2260+	376.67+	6	1.00
Apeltes quadracus	-	-	-	-	8	2.67	2	0.67	5	0.83	1	0.17	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	5	0.83	1	0.17	-	-	-	-	1	0.17	1	0.17	1	0.33	1	0.33	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.17	1	0.17
Syngnathus fuscus	-	-	-	-	-	-	-	-	16	2.67	2	0.33	-	-	-	-	5	0.83	3	0.50
Mycteroperca microlepis	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caranx hippos	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
Selene vomer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	10.7	1	0.17
Leiostomus xanthurus	-	-	-	-	-	-	-	-	34	5.67	2	0.33	-	-	-	-	-	-	-	-
Mugil curema	20	3.33	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	4	0.67	1	0.17	-	-	-	-	1	0.17	1	0.17
No. of collections		6				3				6				3				6		
Total species		7				5				12				5				13		
Total specimens (n)		41				59				273				1013+				2349+		
Specimens/collection (n/coll)		6.83				19.67				45.50				337.67+				391.50+		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	3	0.14	2	0.09	4	0.36	1	0.09
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Anchoa mitchilli	3	1.00	1	0.33	-	-	-	-	15	7.50	1	0.50	11	0.50	1	0.05	18	1.64	2	0.18
Strongylura marina	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Cyprinodon variegatus	6	2.00	1	0.33	23	5.75	2	0.50	3	1.50	1	0.50	25	1.14	4	0.18	9	0.82	2	0.18
Fundulus heteroclitus	76	25.33	3	1.00	68	17.00	4	1.00	20	10.00	2	1.00	105	4.77	11	0.50	112	10.18	10	0.91
Fundulus majalis	98	32.67	3	1.00	30	7.50	4	1.00	99+	49.50+	2	1.00	221	10.05	15	0.68	1182+	107.45+	11	1.00
Menidia beryllina	17	5.67	1	0.33	7	1.75	4	1.00	-	-	-	-	13	0.59	7	0.32	19	1.73	3	0.27
Menidia menidia	1440+	480.00+	3	1.00	394+	98.50	4	1.00	1046+	523.00+	2	1.00	2706+	123.00+	17	0.77	2542+	231.09+	9	0.82
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	5	0.23	1	0.05	8	0.73	2	0.18
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	6	0.27	2	0.09	1	0.09	1	0.09
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	2	0.09	-	-	-	-
Syngnathus fuscus	2	0.67	1	0.33	1	0.25	1	0.25	-	-	-	-	22	1.00	6	0.27	2	0.18	1	0.09
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Pomatomus saltatrix	3	1.00	2	0.67	-	-	-	-	-	-	-	-	-	-	-	-	3	0.27	2	0.18
Caranx hippos	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	1	0.05	-	-	-	-
Selene vomer	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Leiostomus xanthurus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	34	1.55	2	0.09	1	0.09	1	0.09
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	20	0.91	1	0.05	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	3	1.50	1	0.50	2	0.09	1	0.05	3	0.27	1	0.09
Pseudopleuronectes americanus	2	0.67	1	0.33	-	-	-	-	-	-	-	-	5	0.23	2	0.09	2	0.18	1	0.09
No. of collections		3				4				2				22				11		
Total species		10				6				6				20				14		
Total specimens (n)		1648+				523+				1186+				3186+				3906+		
Specimens/collection (n/coll)		549.33+				130.75+				593.00+				144.82+				355.09+		

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Table 14. Seasonal catch statistics of fishes collected by seine both day and night at station 0018, Brigantine in 1974.

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fundulus heteroclitus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
Fundulus majalis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Menidia beryllina	-	-	-	-	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-
Menidia menidia	9	1.50	2	0.33	1	0.33	1	0.33	6	1.00	3	0.50	1	0.33	1	0.33	57	9.50	5	0.83
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1.17	1	0.17
Trachinotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	78	13.00	5	0.83
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.17	1	0.17
Trachinotus goodei	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.50	2	0.33
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	0.67	2	0.33
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.33	1	0.17
No. of collections		6				3				6				3				6		
Total species		1				2				1				2				10		
Total specimens (n)		9				2				6				2				157		
Specimens/collection (n/coll)		1.50				0.67				1.00				0.67				26.17		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anchoa mitchilli	-	-	-	-	-	-	-	-	1	0.50	1	0.50	2	0.09	1	0.05	1	0.09	1	0.09
Rissola marginata	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Fundulus heteroclitus	1	0.33	1	0.33	-	-	-	-	7	3.50	1	0.50	2	0.09	1	0.05	8	0.73	2	0.18
Fundulus majalis	1	0.33	1	0.33	-	-	-	-	1	0.50	1	0.50	1	0.05	1	0.05	2	0.18	2	0.18
Menidia beryllina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Menidia menidia	8	2.67	3	1.00	57	14.25	4	1.00	17	8.50	2	1.00	129	5.86	14	0.64	27	2.45	7	0.64
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	7	0.32	1	0.05	-	-	-	-
Trachinotus carolinus	16	5.33	3	1.00	-	-	-	-	-	-	-	-	78	3.55	5	0.23	17	1.55	4	0.36
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05	-	-	-	-
Trachinotus goodei	-	-	-	-	-	-	-	-	-	-	-	-	3	0.14	2	0.09	-	-	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	5	2.50	1	0.50	-	-	-	-	5	0.45	1	0.09
Menticirrhus saxatilis	12	4.00	2	0.67	-	-	-	-	1	0.50	1	0.50	4	0.18	2	0.09	13	1.18	3	0.27
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	2	0.09	1	0.05	-	-	-	-
No. of collections		3				4				2				22				11		
Total species		6				1				6				10				7		
Total specimens (n)		39				57				32				229				75		
Specimens/collection (n/coll)		13.00				14.25				16.00				10.41				6.82		

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Table 15. Seasonal catch statistics of fishes collected by seine at station 0021, Brigantine in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Brevoortia tyrannus	-	-	-	-	10	1.67	1	0.17	-	-	-	-	-	-	-	-	10	0.43	1	0.04
Anchoa mitchilli	-	-	-	-	-	-	-	-	2	0.29	1	0.14	-	-	-	-	2	0.09	1	0.04
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	-	13	3.25	3	0.75	13	0.57	3	0.13
Fundulus heteroclitus	-	-	-	-	-	-	-	-	1	0.14	1	0.14	98	24.50	2	0.50	99	4.30	3	0.13
Fundulus majalis	1	0.17	1	0.17	-	-	-	-	1	0.14	1	0.14	-	-	-	-	2	0.09	2	0.09
Menidia beryllina	-	-	-	-	4	0.67	2	0.33	2	0.29	1	0.14	11	2.75	2	0.50	17	0.74	5	0.22
Menidia menidia	32	533	3	0.50	151	25.17	5	0.83	2103+	300.43+	7	1.00	265	66.25	4	1.00				0.
Syngnathus fuscus	-	-	-	-	-	-	-	-	18	2.57	2	0.29	-	-	-	-	18	0.78	2	0.09
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	1	0.14	1	0.14	-	-	-	-	33	1.43	4	0.17
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	-	1	0.25	1	0.25	1	0.04	1	0.04
No. of collections		6				6				7				4				23		
Total species		2				3				7				5				10		
Total specimens (n)		33				165				2128+				388				2714+		
Specimens/collection		5.50				27.50				304.00+				97.00				118.00+		

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Table 16. Seasonal catch statistics of fishes collected by seine at station 0022, Brigantine Wildlife Refuge in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Elops saurus	-	-	-	-	-	-	-	-	13	2.17	1	0.17	-	-	-	-	13	0.59	1	0.05
Anguilla rostrata	33	5.50	3	0.50	17	2.83	2	0.33	-	-	-	-	-	-	-	-	50	2.27	5	0.23
Alosa pseudoharengus	-	-	-	-	2	0.33	1	0.17	-	-	-	-	-	-	-	-	2	0.09	1	0.05
Brevoortia tyrannus	-	-	-	-	3	0.50	1	0.17	122	20.33	3	0.50	13	3.25	1	0.25	138	6.27	5	0.23
Anchoa mitchilli	-	-	-	-	4	0.67	1	0.17	734+	122.33+	4	0.67	200+	50.00+	1	0.25	938+	42.64+	6	0.27
Cyprinodon variegatus	4	0.67	1	0.17	21	3.50	2	0.33	291+	48.50+	5	0.83	1463+	365.75+	4	1.00	1779+	80.86+	12	0.55
Fundulus diaphanus	251+	41.83+	3	0.50	396+	66.00+	6	1.00	65+	10.83+	2	0.33	1290+	322.50+	4	1.00	2002+	91.00+	15	0.68
Fundulus heteroclitus	8	1.33	1	0.17	451+	75.17+	5	0.83	653+	108.83+	6	1.00	961+	240.25+	4	1.00	2073+	94.23+	16	0.73
Fundulus majalis	-	-	-	-	33	5.50	5	0.83	160	26.67	2	0.33	1	0.25	1	0.25	194	8.82	8	0.36
Lucania parva	-	-	-	-	2	0.33	1	0.17	2	0.33	1	0.17	-	-	-	-	4	0.18	2	0.09
Menidia beryllina	153	25.50	3	0.50	356	59.33	5	0.83	832+	138.67+	6	1.00	2465+	616.25+	4	1.00	3806+	173.00+	18	0.82
Menidia menidia	2	0.33	1	0.17	2076+	346.00+	6	1.00	3351+	558.50+	6	1.00	507+	126.75+	4	1.00	5936+	269.82+	17	0.77
Apeltes quadracus	55	9.17	3	0.50	231+	38.50+	4	0.67	1	0.17	1	0.17	2	0.50	1	0.25	289+	13.14+	9	0.41
Gasterosteus aculeatus	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Syngnathus fuscus	-	-	-	-	20+	3.33+	1	0.17	-	-	-	-	-	-	-	-	20+	0.91+	1	0.05
Morone americana	1	0.17	1	0.17	67	11.17	4	0.67	1	0.17	1	0.17	-	-	-	-	69	3.14	6	0.27
Caranx hippos	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Leiostomus xanthurus	-	-	-	-	-	-	-	-	5	0.83	3	0.50	-	-	-	-	5	0.23	3	0.14
Mugil curema	4	0.67	2	0.33	38	6.33	5	0.83	113	18.83	5	0.83	1	0.25	1	0.25	156	7.09	13	0.59
Gobiosoma bosci	-	-	-	-	-	-	-	-	1	0.17	1	0.17	2	0.50	1	0.25	3	0.14	2	0.09
Paralichthys dentatus	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
No. of collections		6				6				6				4				22		
Total species		9				17				16				11				21		
Total specimens (n)		511+				3719+				6345+				6905+				17480+		
Specimens/collection (n/coll)		85.17+				619.83+				105.75+				1726.25+				794.55+		

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Table 17. Seasonal catch statistics of fishes collected by seine at station 0034, Big Sheepshead Creek in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anchoa hepsetus	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Anchoa mitchilli	-	-	-	-	-	-	-	-	6	1.00	2	0.33	-	-	-	-	6	0.27	2	0.09
Pollachius virens	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Urophycis tenuis	-	-	-	-	1	0.17	1	0.17	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Cyprinodon variegatus	-	-	-	-	13	2.17	3	0.50	2	0.33	1	0.17	10	2.50	2	0.50	25	1.14	6	0.27
Fundulus heteroclitus	1	0.17	1	0.17	129	21.50	5	0.83	378+	63.00	5	0.83	608+	152.00+	3	0.75	1116+	50.73+	14	0.64
Fundulus majalis	2	0.33	1	0.17	10	1.67	4	0.67	5	0.83	3	0.50	1	0.25	1	0.25	18	0.82	9	0.41
Menidia beryllina	5	0.83	3	0.50	4	0.67	2	0.33	1	0.17	1	0.17	136+	34.00+	4	1.00	146+	6.64+	10	0.45
Menidia menidia	1	0.17	1	0.17	226+	37.67+	4	0.67	1488+	248.00+	6	1.00	23	5.75	3	0.75	1738+	79.00+	14	0.64
Apeltes quadracus	-	-	-	-	3	0.50	2	0.33	-	-	-	-	-	-	-	-	3	0.14	2	0.09
Syngnathus fuscus	-	-	-	-	1	0.17	1	0.17	3	0.50	2	0.33	-	-	-	-	4	0.18	3	0.14
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	1	0.25	1	0.25	1	0.05	1	0.05
Pomatomus saltatrix	-	-	-	-	1	0.17	1	0.17	2	0.33	1	0.17	-	-	-	-	3	0.14	2	0.09
Stenotomus chrysops	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Bairdiella chrysura	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Mugil curema	1	0.17	1	0.17	8	1.33	2	0.33	-	-	-	-	-	-	-	-	9	0.41	3	0.14
Sphyraena borealis	-	-	-	-	-	-	-	-	2	0.33	1	0.17	-	-	-	-	2	0.09	1	0.05
Gobiosoma bosci	-	-	-	-	-	-	-	-	12	2.00	2	0.33	-	-	-	-	12	0.55	2	0.09
Pseudopleuronectes americanus	1	0.17	1	0.17	-	-	-	-	2	0.33	1	0.17	-	-	-	-	3	0.14	2	0.09
No. of collections		6				6				6				4				22		
Total species		6				11				14				6				19		
Total specimens (n)		11				397+				1904+				779+				3091+		
Specimens/collection (n/coll)		1.83				66.17				317.33+				194.75+				140.50+		

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Table 18. Seasonal catch statistics of fishes collected by seine at station 0040, Reeds Bay in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	4	0.67	2	0.33	-	-	-	-	-	-	-	-	4	0.19	2	0.10
Alosa aestivalis	1	0.20	1	0.20	-	-	-	-	-	-	-	-	-	-	-	-	1	0.05	1	0.05
Brevoortia tyrannus	-	-	-	-	29	4.83	3	0.50	2	0.33	1	0.17	-	-	-	-	31	1.48	4	0.19
Anchoa mitchilli	-	-	-	-	43	7.17	2	0.33	69	11.50	3	0.50	6	1.50	1	0.25	118	5.62	6	0.29
Cyprinodon variegatus	-	-	-	-	1	0.17	1	0.17	-	-	-	-	46	11.50	3	0.75	47	2.24	4	0.19
Fundulus diaphanus	177	35.40	1	0.20	1	0.17	1	0.17	-	-	-	-	103+	25.75+	3	0.75	281+	13.38+	5	0.24
Fundulus heteroclitus	2	0.40	1	0.20	22	3.67	3	0.50	27	4.50	1	0.17	343+	85.75+	3	0.75	394+	18.76+	8	0.38
Fundulus majalis	1	0.20	1	0.20	6	1.00	3	0.50	10	1.67	4	0.67	5	1.25	1	0.25	22	1.05	9	0.43
Menidia beryllina	34	6.80	3	0.60	4	0.67	3	0.50	211+	35.17+	2	0.33	49	12.25	3	0.75	298+	14.19+	11	0.52
Menidia menidia	81	16.20	2	0.40	163	27.17	6	1.00	2101+	350.17+	6	1.00	23	5.75	3	0.75	2368+	112.76+	17	0.81
Menidia sp.	-	-	-	-	7	1.17	1	0.17	-	-	-	-	-	-	-	-	7	0.33	1	0.05
Apeltes quadracus	5	1.00	2	0.40	4	0.67	1	0.17	-	-	-	-	-	-	-	-	9	0.43	3	0.14
Morone americana	-	-	-	-	2	0.33	2	0.33	-	-	-	-	-	-	-	-	2	0.10	2	0.10
Pomatomus saltatrix	-	-	-	-	-	-	-	-	2	0.33	1	0.17	-	-	-	-	2	0.10	1	0.05
Trachinotus falcatus	-	-	-	-	-	-	-	-	12	2.00	2	0.33	-	-	-	-	12	0.57	2	0.10
Leiostomus xanthurus	-	-	-	-	2	0.33	2	0.33	-	-	-	-	-	-	-	-	2	0.10	2	0.10
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	1	0.17	1	0.17	-	-	-	-	1	0.05	1	0.05
Mugil curema	10	2.00	3	0.60	-	-	-	-	-	-	-	-	-	-	-	-	10	0.48	3	0.14
No. of collections		5				6				6				4				21		
Total species		8				12				9				7				17		
Total specimens (n)		311				288				2435+				575+				3609+		
Specimens/collection (n/coll)		62.20				48.00				405.83+				143.75+				171.86+		

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Table 19. A comparison of Shannon-Weaver Species Diversity Index values for each station sampled year-round and major areas from Little Egg Harbor to Absecon Inlet, New Jersey in 1974.

BY STATION

Area	Station	Day	Night	Area	Station	Day	Night
Great Bay	0001	1.33	-	Brigantine backwaters	0016	0.69	0.85
	0003	1.37	1.21		0040	1.25	
	0034	1.01	-				
				Brigantine ocean	0018	1.10	1.70
Little Egg Harbor	0002	1.16	0.92				
				Brigantine Wildlife Refuge	0022	1.85	-
Brigantine Inlet	0021	0.37	-				
				Mullica River	0005	0.94	-

BY AREA

	Winter		Spring		Summer		Fall		Total	
Area	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Brigantine ocean	a	0.69	a	0.69	1.25	1.33	a	1.28	1.10	1.70
Brigantine inlets	0.14	-	0.34	-	0.08	-	0.84	-	0.37	-
Brigantine backwaters	1.41	1.41	1.89	0.19	0.37	0.54	1.43	0.47	0.98	0.85
Great Bay	1.78	1.01	1.74	1.50	0.80	0.87	1.07	0.79	1.33	1.21
Little Egg Harbor	0.94	1.59	1.08	1.18	0.51	0.56	1.16	0.23	1.16	0.92
Mullica River	0.64	-	1.89b	-	1.11b	-	1.23	-	2.01	-
Absecon Inlet 250' seine	0.23	1.49	1.76	2.08	1.55	2.89	-	-	1.74	2.68
Absecon Inlet 15' seine	a	0.47	0.88	1.05	0.06	0.63	-	-	0.07	1.31

a = Only one species collected, zero diversity.
b = Includes 2 stations sampled in spring and early summer only.

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Table 20. The five most abundant species (by season and total year) collected in small seines in 1974.

WINTER			SPRING			SUMMER			FALL		
Species	n	n/coll	Species	n	n/coll	Species	n	n/coll	Species	n	n/coll
Banded killifish	428+	6.03+	Atlantic silverside	3264+	36.27+	Atlantic silverside	17102+	216.48+	Atlantic silverside	2851+	59.40+
Atlantic silverside	345	4.86	Banded killifish	1708+	18.98+	Mummichog	1548+	19.59+	Tidewater silverside	2731+	56.90+
Tidewater silverside	227	3.20	Striped killifish	1514+	16.82+	Tidewater silverside	1119+	14.16+	Mummichog	2368+	49.33+
Fourspine stickleback	90	1.27	Mummichog	981+	10.90+	Bay anchovy	888+	11.24+	Sheepshead minnow	1577+	32.85+
Striped killifish	79	1.11	Atlantic menhaden	962	10.69	Striped killifish	432	5.47	Banded killifish	1393+	29.02+

TOTAL YEAR

Species	n	n/coll
Atlantic silverside	23562+	81.81+
Mummichog	4931+	17.12+
Tidewater silverside	4539+	15.76+
Banded killifish	3979+	13.82+
Striped killifish	2237+	7.77+

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Table 21. Percent frequency of occurrence of fishes collected at two shallow sand beaches, station 0003, Great Bay, and station 0040, Turtle Cove in 1974.

	Winter		Spring		Summer		Fall		Total	
Species	f	%	f	%	f	%	f	%	f	%
Anguilla rostrata	-	-	3	20	-	-	-	-	3	5
Alosa aestivalis	1	7	-	-	-	-	-	-	1	2
Alosa pseudoharengus	-	-	1	7	-	-	-	-	1	2
Brevoortia tyrannus	-	-	5	33	2	13	-	-	7	13
Anchoa mitchilli	-	-	5	33	5	33	2	18	12	22
Urophycis regius	-	-	1	7	-	-	-	-	1	2
Rissola marginata	-	-	1	7	1	7	-	-	2	4
Cyprinodon variegatus	-	-	2	13	-	-	3	27	5	9
Fundulus diaphanus	1	7	1	7	-	-	3	27	5	9
Fundulus heteroclitus	1	7	5	33	3	20	5	45	14	25
Fundulus majalis	2	14	4	27	7	47	3	27	16	29
Menidia beryllina	4	29	7	47	2	13	6	55	19	35
Menidia menidia	3	21	13	87	15	100	10	91	41	75
Menidia sp.	-	-	1	7	-	-	-	-	1	2
Apeltes quadracus	2	14	1	7	-	-	-	-	3	5
Gasterosteus aculeatus	-	-	1	7	-	-	-	-	1	2
Syngnathus fuscus	-	-	1	7	-	-	-	-	1	2
Morone americana	-	-	2	13	-	-	1	9	3	5
Mycteroperca microlepis	-	-	1	7	-	-	-	-	1	2
Pomatomus saltatrix	-	-	2	13	2	13	-	-	4	7
Trachinotus falcatus	-	-	-	-	7	47	1	9	8	15
Bairdiella chrysura	-	-	-	-	1	7	-	-	1	2
Leiostomus xanthurus	-	-	2	13	-	-	-	-	2	4
Menticirrhus saxatilis	-	-	-	-	2	13	-	-	2	4
Mugil curema	4	29	1	7	-	-	-	-	5	9
Gobiosoma bosci	-	-	-	-	-	-	1	9	1	2
Paralichthys dentatus	-	-	-	-	1	7	-	-	1	2
Pseudopleuronectes americanus	-	-	1	7	-	-	-	-	1	2
Chilomycterus schoepfi	-	-	-	-	1	7	-	-	1	2
Number of collections	14		15		15		11		55	
Total species	8		21		13		10		28	

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Table 22. Percent frequency of occurrence of fishes collected in two mud-sand bottom areas, station 0002, Little Egg Harbor and station 0016, Brigantine in 1974.

	Winter		Spring		Summer		Fall		Total	
Species	f	%	f	%	f	%	f	%	f	%
Anguilla rostrata	-	-	4	22	1	6	-	-	5	8
Alosa aestivalis	1	6	-	-	-	-	-	-	1	2
Brevoortia tyrannus	-	-	1	6	1	6	-	-	2	3
Anchoa hepsetus	-	-	-	-	1	6	-	-	1	2
Anchoa mitchilli	-	-	2	11	8	44	2	17	12	18
Urophycis regius	-	-	1	6	-	-	-	-	1	2
Rissola marginata	-	-	1	6	-	-	-	-	1	2
Strongylura marina	-	-	-	-	3	17	-	-	3	5
Cyprinodon variegatus	1	6	-	-	2	11	8	67	11	17
Fundulus heteroclitus	9	50	11	61	9	50	11	92	40	61
Fundulus majalis	11	61	15	83	15	83	10	83	51	77
Lucania parva	-	-	1	6	-	-	-	-	1	2
Menidia beryllina	8	44	2	11	5	28	7	58	22	33
Menidia menidia	9	50	13	72	18	100	12	100	52	79
Apeltes quadracus	6	33	1	6	-	-	-	-	7	11
Gasterosteus aculeatus	5	28	2	11	-	-	-	-	7	11
Hippocampus erectus	-	-	1	6	-	-	-	-	1	2
Syngnathus fuscus	-	-	3	17	5	28	3	25	11	17
Mycteroperca microlepis	-	-	1	6	-	-	-	-	1	2
Pomatomus saltatrix	-	-	1	6	6	33	-	-	7	11
Caranx hippos	-	-	-	-	1	6	-	-	1	2
Trachinotus falcatus	-	-	-	-	1	6	-	-	1	2
Selene vomer	-	-	-	-	1	6	-	-	1	2
Lutjanus griseus	-	-	-	-	-	-	1	8	1	2
Bairdiella chrysura	-	-	-	-	1	6	-	-	1	2
Cynoscion regalis	-	-	-	-	1	6	-	-	1	2
Leiostomus xanthurus	-	-	2	11	2	11	-	-	4	6
Menticirrhus saxatilis	-	-	-	-	1	6	-	-	1	2
Mugil curema	1	6	-	-	3	17	-	-	4	6
Sphyraena borealis	-	-	-	-	1	6	-	-	1	2
Ammodytes sp.	1	6	-	-	-	-	-	-	1	2
Gobiosoma bosci	-	-	-	-	1	6	1	8	2	3
Etropus microstomus	-	-	-	-	1	6	1	8	2	3
Pseudopleuronectes americanus	-	-	2	11	2	11	-	-	4	6
Number of collections	18		18		18		12		66	
Total species	10		18		24		10		34	

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Table 23. Percent frequency of occurrence of fishes collected at two swept sand beaches, stations 0018 and 0021 on Brigantine in 1974.

	Winter		Spring		Summer		Fall		Total	
Species	f	%	f	%	f	%	f	%	f	%
Brevoortia tyrannus	-	-	1	7	-	-	-	-	1	2
Anchoa mitchilli	-	-	-	-	2	13	1	10	3	5
Rissola marginata	-	-	-	-	1	6	-	-	1	2
Cyprinodon variegatus	-	-	-	-	-	-	3	30	3	5
Fundulus heteroclitus	-	-	-	-	3	19	3	30	6	11
Fundulus majalis	1	7	-	-	3	19	1	10	5	9
Menidia beryllina	1	7	2	13	1	6	2	20	6	11
Menidia menidia	3	20	9	60	15	94	10	100	37	66
Syngnathus fuscus	-	-	-	-	2	13	-	-	2	4
Pomatomus saltatrix	-	-	-	-	1	6	-	-	1	2
Trachinotus carolinus	-	-	1	7	8	50	-	-	9	16
Trachinotus falcatus	-	-	-	-	1	6	-	-	1	2
Trachinotus goodei	-	-	-	-	2	13	-	-	2	4
Leiostomus xanthurus	-	-	-	-	-	-	1	10	1	2
Menticirrhus saxatilis	3	20	-	-	5	31	1	10	9	16
Mugil curema	-	-	-	-	1	6	-	-	1	2
Ammodytes sp.	-	-	-	-	-	-	1	10	1	2
Number of collections	15		15		16		10		56	
Total species	4		4		13		9		17	

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Table 24. Seasonal catch statistics of fishes collected by seine both day and night in Great Bay in 1974.[a]

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	2	0.67	1	0.33	15	0.83	3	0.17
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	178	9.89	2	0.11	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Anchoa mitchilli	-	-	-	-	-	-	-	-	81	4.50	3	0.17	-	-	-	-	6	0.33	2	0.11
Pollachius virens	-	-	-	-	-	-	-	-	2	0.11	2	0.11	-	-	-	-	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	2	0.67	1	0.33	-	-	-	-
Urophycis tenuis	-	-	-	-	-	-	-	-	1	0.06	1	0.06	-	-	-	-	-	-	-	-
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-	3	1.00	1	0.33	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	-	-	28	1.56	7	0.39	-	-	-	-	2	0.11	1	0.06
Fundulus heteroclitus	2	0.11	2	0.11	-	-	-	-	193	10.72	12	0.67	-	-	-	-	618+	34.33+	10	0.56
Fundulus majalis	8	0.44	4	0.22	2	0.67	2	0.67	55	3.06	8	0.44	-	-	-	-	59	3.28	10	0.56
Lucania parva	-	-	-	-	-	-	-	-	1	0.06	1	0.06	-	-	-	-	2	0.11	1	0.06
Menidia beryllina	17	0.94	6	0.33	4	1.33	2	0.67	56	3.11	8	0.44	-	-	-	-	2	0.11	2	0.11
Menidia menidia	15	0.83	6	0.33	28	9.33	2	0.67	447+	24.83+	14	0.78	11	3.67	3	1.00	2274+	126.33+	18	1.00
Apeltes quadracus	5	0.28	3	0.17	3	1.00	1	0.33	4	0.22	3	0.17	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	24	1.33	3	0.17	-	-	-	-	4	0.22	2	0.11	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	1	0.33	1	0.33	6	0.33	2	0.11	1	0.33	1	0.33	10	0.56	5	0.28
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.33	1	0.33	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	4	0.22	4	0.22	-	-	-	-	5	0.28	2	0.11
Trachinotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	0.89	7	0.39
Stenotomus chrysops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.17	3	0.17
Leiostomus xanthurus	-	-	-	-	-	-	-	-	1	0.06	1	0.06	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0.39	1	0.06
Mugil curema	7	0.39	3	0.17	1	0.33	1	0.33	11	0.61	4	0.22	-	-	-	-	1	0.06	1	0.06
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.11	1	0.06
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	0.67	2	0.11
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.06	1	0.06
Pseudopleuronectes americanus	1	0.06	1	0.06	-	-	-	-	1	0.06	1	0.06	-	-	-	-	4	0.22	2	0.11
Number of collections		18				3				18				3				18		
Total species		8				6				17				7				21		
Total specimens (n)		79				39				1073+				21				3042+		
Specimens/collection (n/coll)		4.39				13.00				59.61+				7.00				169.00+		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	15	0.23	3	0.05	2	0.18	1	0.09
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Brevoortia tyrannus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	178	2.70	2	0.03	1	0.09	1	0.09
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Anchoa mitchilli	4	1.33	2	0.67	-	-	-	-	3	1.50	1	0.50	87	1.32	5	0.08	7	0.64	3	0.27
Pollachius virens	-	-	-	-	-	-	-	-	-	-	-	-	2	0.03	2	0.03	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.18	1	0.09
Urophycis tenuis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Rissola marginata	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	4	0.36	2	0.18
Cyprinodon variegatus	-	-	-	-	10	0.83	2	0.17	-	-	-	-	40	0.61	10	0.15	-	-	-	-
Fundulus heteroclitus	1	0.33	1	0.33	644+	53.67+	7	0.58	-	-	-	-	1457+	22.08+	31	0.47	1	0.09	1	0.09
Fundulus majalis	3	1.00	2	0.67	39	3.25	6	0.50	1	0.50	1	0.50	161	2.44	28	0.42	6	0.55	5	0.45
Lucania parva	-	-	-	-	-	-	-	-	-	-	-	-	3	0.05	2	0.03	-	-	-	-
Menidia beryllina	-	-	-	-	154+	12.83+	8	0.67	-	-	-	-	229+	3.47+	24	0.36	4	0.36	2	0.18
Menidia menidia	69	23.00	3	1.00	183	15.25	11	0.92	26	13.00	2	1.00	2919+	44.23+	49	0.74	134	12.18	10	0.91
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	9	0.14	6	0.09	3	0.27	1	0.09
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	28	0.42	5	0.08	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	16	0.24	7	0.11	2	0.18	2	0.18
Morone americana	-	-	-	-	2	0.17	2	0.17	-	-	-	-	2	0.03	2	0.03	-	-	-	-
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	9	0.14	6	0.09	-	-	-	-
Trachinotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Trachinotus falcatus	4	1.33	2	0.67	-	-	-	-	2	1.00	1	0.50	16	0.24	7	0.11	6	0.55	3	0.27
Stenotomus chrysops	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Bairdiella chrysura	2	0.67	1	0.33	-	-	-	-	-	-	-	-	3	0.05	3	0.05	2	0.18	1	0.09
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	7	0.11	1	0.02	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	19	0.29	8	0.12	1	0.09	1	0.09
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	-	-	2	0.03	1	0.02	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	1	0.50	1	0.50	12	0.18	2	0.03	1	0.09	1	0.09
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	6	0.09	4	0.06	-	-	-	-
Chilomycterus schoepfi	1	0.33	1	0.33	-	-	-	-	-	-	-	-	-	-	-	-	1	0.09	1	0.09
Number of collections		3				12				2				66				11		
Total species		9				6				5				28				18		
Total specimens (n)		86				1032+				33				5226+				179		
Specimens/collections (n/coll)		28.67				86.00+				16.50				79.18+				16.27		

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Table 25. Seasonal catch statistics of fishes collected by seine in the Mullica River in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	11	0.61	3	0.17	1	0.10	1	0.10	-	-	-	-	12	0.32	4	0.11
Alosa pseudoharengus	-	-	-	-	12	0.67	2	0.11	4	0.40	1	0.10	-	-	-	-	16	0.42	3	0.08
Alosa sp.	-	-	-	-	70	3.89	1	0.06	-	-	-	-	-	-	-	-	70	1.84	1	0.03
Brevoortia tyrannus	-	-	-	-	734	40.78	9	0.50	1	0.10	1	0.10	-	-	-	-	735	19.34	10	0.26
Anchoa mitchilli	-	-	-	-	58	3.22	4	0.22	2	0.20	1	0.10	-	-	-	-	60	1.58	5	0.13
Synodus foetens	-	-	-	-	1	0.06	1	0.06	-	-	-	-	-	-	-	-	1	0.03	1	0.03
Notemigonus chrysoleucas	-	-	-	-	17	0.94	4	0.22	1	0.10	1	0.10	-	-	-	-	18	0.47	5	0.13
Catostomus commersoni	-	-	-	-	98	5.44	2	0.11	-	-	-	-	-	-	-	-	98	2.58	2	0.05
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.50	1	0.25	2	0.05	1	0.03
Fundulus diaphanus	-	-	-	-	519	28.83	9	0.50	144	14.40	3	0.30	-	-	-	-	663	17.45	12	0.32
Fundulus heteroclitus	-	-	-	-	255	14.17	10	0.56	134+	13.40+	5	0.50	15	3.75	3	0.75	404+	10.63+	18	0.47
Fundulus majalis	1	0.17	1	0.17	-	-	-	-	-	-	-	-	-	-	-	-	1	0.03	1	0.03
Menidia beryllina	5	0.83	3	0.50	6	0.33	4	0.22	15	1.50	3	0.30	30	7.50	3	0.75	56	1.47	13	0.34
Menidia menidia	36	6.00	2	0.33	28	1.56	5	0.28	859+	85.90+	7	0.70	42	10.50	2	0.50	965+	25.39+	16	0.42
Syngnathus fuscus	-	-	-	-	4	0.22	3	0.17	2	0.20	2	0.20	2	0.50	1	0.25	8	0.21	6	0.16
Morone americana	-	-	-	-	150	8.33	5	0.28	51	5.10	3	0.30	-	-	-	-	201	5.29	8	0.21
Morone saxatilis	-	-	-	-	7	0.39	1	0.06	-	-	-	-	-	-	-	-	7	0.18	1	0.03
Lepomis gibbosus	-	-	-	-	1	0.06	1	0.06	-	-	-	-	-	-	-	-	1	0.03	1	0.03
Etheostoma olmstedi	-	-	-	-	2	0.11	2	0.11	-	-	-	-	-	-	-	-	2	0.05	2	0.05
Perca flavescens	-	-	-	-	4	0.22	2	0.11	-	-	-	-	-	-	-	-	4	0.11	2	0.05
Pomatomus saltatrix	-	-	-	-	3	0.17	3	0.17	1	0.10	1	0.10	-	-	-	-	4	0.11	4	0.11
Caranx hippos	-	-	-	-	-	-	-	-	1	0.10	1	0.10	-	-	-	-	1	0.03	1	0.03
Selene vomer	-	-	-	-	-	-	-	-	1	0.10	1	0.10	-	-	-	-	1	0.03	1	0.03
Bairdiella chrysura	-	-	-	-	-	-	-	-	28	2.80	2	0.20	-	-	-	-	28	0.74	2	0.05
Leiostomus xanthurus	-	-	-	-	26	1.44	4	0.22	-	-	-	-	-	-	-	-	26	0.68	4	0.11
Mugil curema	2	0.33	1	0.17	5	0.28	2	0.11	-	-	-	-	-	-	-	-	7	0.18	3	0.08
Gobiosoma bosci	-	-	-	-	2	0.11	2	0.11	5	0.50	2	0.20	1	0.25	1	0.25	8	0.21	5	0.13
Paralichthys dentatus	-	-	-	-	1	0.06	1	0.06	-	-	-	-	-	-	-	-	1	0.03	1	0.03
Trinectes maculatus	-	-	-	-	12	0.67	3	0.17	-	-	-	-	-	-	-	-	12	0.32	3	0.08
No. of collections		6				18				10				4				38		
Total species		4				23+				16				6				29+		
Total specimens		44				2026				1250+				92				3412+		
Specimens/collected		7.33				112.56				125.0				23.00				89.79+		

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Table 26. Seasonal catch statistics of fishes collected by seine both day and night in the bays behind Brigantine in 1974.

	WINTER								SPRING								SUMMER			
	Day				Night				Day				Night				Day			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	7	0.58	4	0.33	4	1.33	1	0.33	-	-	-	-
Alosa aestivalis	1	0.09	1	0.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	30	2.50	4	0.33	-	-	-	-	2	0.17	1	0.0
Anchoa mitchilli	-	-	-	-	-	-	-	-	43	3.58	2	0.16	-	-	-	-	80	6.67	4	0.3
Strongylura marina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.08	1	0.0
Cyprinodon variegatus	1	0.09	1	0.09	-	-	-	-	1	0.08	1	0.08	-	-	-	-	1	0.08	1	0.0
Fundulus diaphanus	177	16.09	1	0.09	-	-	-	-	1	0.08	1	0.08	-	-	-	-	-	-	-	-
Fundulus heteroclitus	6	0.55	4	0.36	13	4.33	3	1.00	52	4.33	5	0.42	3	1.00	2	0.67	30	2.50	3	0.2
Fundulus majalis	4	0.36	3	0.27	12	4.00	3	1.00	137	11.42	8	0.67	973+	324.33+	3	1.00	67	5.58	8	0.6
Menidia beryllina	36	3.27	5	0.45	2	0.67	2	0.67	4	0.33	3	0.25	-	-	-	-	215+	17.92+	3	0.2
Menidia menidia	87	7.73	5	0.45	24	8.00	2	0.67	209	17.42	10	0.83	32	10.67	2	0.67	5361+	446.75+	12	1.0
Menidia sp.	-	-	-	-	-	-	-	-	7	0.58	1	0.08	-	-	-	-	-	-	-	-
Apeltes quadracus	5	0.45	2	0.18	8	2.67	2	0.67	9	0.75	2	0.16	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	5	0.45	1	0.09	-	-	-	-	1	0.08	1	0.08	1	0.33	1	0.33	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	1	0.08	1	0.08	-	-	-	-	1	0.08	1	0.0
Syngnathus fuscus	-	-	-	-	-	-	-	-	16	1.33	2	0.16	-	-	-	-	5	0.42	3	0.2
Morone americana	-	-	-	-	-	-	-	-	2	0.16	2	0.16	-	-	-	-	-	-	-	-
Mycteroperca microlepis	-	-	-	-	-	-	-	-	1	0.08	1	0.08	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.17	1	0.0
Caranx hippos	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.17	1	0.0
Selene vomer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.08	1	0.0
Trachinotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	1.00	2	0.1
Leiostomus xanthurus	-	-	-	-	-	-	-	-	36	3.00	4	0.33	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.08	1	0.0
Mugil curema	30	2.73	4	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.17	1	0.0
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	4	0.33	1	0.08	-	-	-	-	1	0.08	1	0.0
No. of collections		11				3				12				3				12		
Total species		10				5				17				5				17		
Total specimens (n)		352				59				561				1013+				5784+		
Specimens/collection (n/coll)		32.00				19.67				46.75				337.67+				482.00+		

	SUMMER				FALL								TOTAL							
	Night				Day				Night				Day				Night			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	7	0.16	4	0.09	4	0.36	1	0.09
Alosa aestivalis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	32	0.74	5	0.12	-	-	-	-
Anchoa mitchilli	3	1.00	1	0.33	6	0.75	1	0.13	15	7.50	1	0.50	129	3.00	7	0.16	18	1.64	2	0.18
Strongylura marina	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Cyprinodon variegatus	6	2.00	1	0.33	69	8.63	5	0.63	3	1.50	1	0.50	72	1.67	8	0.19	9	0.82	2	0.18
Fundulus diaphanus	-	-	-	-	103+	12.88+	3	0.38	-	-	-	-	281+	6.53+	5	0.12	-	-	-	-
Fundulus heteroclitus	76	25.33	3	1.00	411+	51.38+	7	0.88	20	10.00	2	1.00	499+	11.60+	19	0.44	112	10.18	10	0.91
Fundulus majalis	98	32.67	3	1.00	35	4.38	5	0.63	99+	49.50+	2	1.00	243	5.65	24	0.56	1182+	107.45+	11	1.00
Menidia beryllina	17	5.67	1	0.33	56	7.00	7	0.88	-	-	-	-	311+	7.23+	18	0.42	19	1.73	3	0.27
Menidia menidia	1440+	480.00+	3	1.00	417+	52.13+	7	0.88	1046+	523.00+	2	1.00	6074+	141.26+	34	0.79	2542+	231.09+	9	0.82
Menidia sp.	-	-	-	-	-	-	-	-	-	-	-	-	7	0.16	1	0.02	-	-	-	-
Apeltes quadracus	-	-	-	-	-	-	-	-	-	-	-	-	14	0.33	4	0.09	8	0.73	2	0.18
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	-	-	-	6	0.14	2	0.05	1	0.09	1	0.09
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.05	2	0.05	-	-	-	-
Syngnathus fuscus	2	0.67	1	0.33	1	0.13	1	0.13	-	-	-	-	22	0.51	6	0.14	2	0.18	1	0.09
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	2	0.05	2	0.05	-	-	-	-
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Pomatomus saltatrix	3	1.00	2	0.67	-	-	-	-	-	-	-	-	2	0.05	1	0.02	3	0.27	2	0.18
Caranx hippos	-	-	-	-	-	-	-	-	-	-	-	-	2	0.05	1	0.02	-	-	-	-
Selene vomer	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Trachinotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trachinotus falcatus	-	-	-	-	-	-	-	-	-	-	-	-	12	0.28	2	0.05	-	-	-	-
Leiostomus xanthurus	1	0.33	1	0.33	-	-	-	-	-	-	-	-	36	0.84	4	0.09	1	0.09	1	0.09
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.02	1	0.02	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	-	-	30	0.70	4	0.09	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	3	1.50	1	0.50	2	0.05	1	0.02	3	0.27	1	0.09
Pseudopleuronectes americanus	2	0.67	1	0.33	-	-	-	-	-	-	-	-	5	0.12	2	0.05	2	0.18	1	0.09
No. of collections		3				8				2				43				11		
Total species		10				8				6				26				14		
Total specimens (n)		1648+				1098+				1186+				7795+				3906+		
Specimens/collection (n/coll)		549.33+				137.25+				593.00+				181.28+				355.09+		

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Table 27. Seasonal catch statistics of fishes collected by seine in the Port Republic spillpool in 1974.

	Spring				Summer				Total			
	n	n/coll	f	cf	n	n/coll	f	cf	n	n/coll	f	cf
Anguilla rostrata	13	2.17	5	0.83	-	-	-	-	13	1.63	5	0.63
Brevoortia tyrannus	4	0.67	1	0.17	18	9.00	1	0.50	22	2.75	2	0.25
Anchoa mitchilli	3	0.50	1	0.17	-	-	-	-	3	0.38	1	0.13
Fundulus diaphanus	792+	132.00+	6	1.00	241+	120.50+	2	1.00	1033+	129.13+	8	1.00
Menidia beryllina	18	3.00	3	0.50	14	7.00	2	1.00	32	4.00	5	0.63
Syngnathus fuscus	-	-	-	-	1	0.50	1	0.50	1	0.13	1	0.13
Morone americana	1	0.17	1	0.17	-	-	-	-	1	0.13	1	0.13
Lepomis gibbosus	-	-	-	-	1	0.50	1	0.50	1	0.13	1	0.13
Pomatomus saltatrix	5	0.83	2	0.33	3	1.50	1	0.50	8	1.00	3	0.38
No. of collections		6				2				8		
Total species		7				6				9		
Total specimens (n)		836+				278+				1114+		
Specimens/collection (n/coll)		139.33+				139.00+				139.25+		

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Table 28. Trawl transects and stations regularly sampled with a 25-ft semiballoon trawl in the Great Bay-Mullica River estuary and in the vicinity of the Site off Little Egg Inlet, New Jersey.

		Zone	Loran Coordinates	Station#	When Sampled
Holgate Transect					
Stations:	Approximately 0.3 nautical miles off the Holgate Peninsula, Long Beach Island, in line with the Holgate Tower	5020	3H4-4015 3H5-3185	9	1973 - 1974
	Approximately 1.3 nautical miles off the Holgate Peninsula, Long Beach Island, in line with the Holgate Tower	5120	3H4-4015 3H5-3180	10	1973 - 1974
	Approximately 2.3 nautical miles off the Holgate Peninsula, Long Beach Island, in line with the Holgate Tower	5220	3H4-4015 3H5-3175	11	1973 - 1974
Little Egg Inlet Transect					
Stations:	Approximately 1.0 nautical mile southeast of Little Egg Inlet at "A" buoy	5160	3H4-3975 3H5-3178	5	1972 - 1974
	Approximately 2.3 nautical miles southeast of Little Egg Inlet, landward of ridge.	5250	3H4-3985 3H5-3175	6	1972 - 1974
	Approximately 2.6 nautical miles southeast of Little Egg Inlet, along axis of ridge[a]	5250	3H4-3985 3H5-3173	6a	1972 - 1973
	Approximately 3.0 nautical miles southeast of Little Egg Inlet, seaward of ridge	5350	3H4-3985 3H5-3171	7	1972 - 1974
	Approximately 4.0 nautical miles southeast of Little Egg Inlet	5450	3H4-3985 3H5-3166	8	1972 - 1974
Brigantine Transect					
Stations:	Approximately 0.8 nautical miles southeast of Brigantine Inlet	5180	3H4-3955 3H5-3180	12	1973 - 1974

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Table 28. (cont.)

	Zone	Loran Coordinates	Station#	When Sampled
Brigantine Transect (cont.)				
Approximately 2.4 nautical miles southeast of Brigantine Inlet, landward of ridge	5280	3H4-3955 3H5-3172	13	1973 - 1974
Approximately 3.6 nautical miles southeast of Brigantine Inlet, seaward of ridge	5380	3H4-3955 3H5-3166	14	1973 - 1974
Great Bay-Mullica River Transect				
Stations: Mullica River, between Oysterbed Point and Deep Point	1510	3H4-3975 3H5-3215	1	1974
Great Bay, mid-bay opposite Oyster Creek	1075 (1080 + 1065)	3H4-3962 3H5-3206	2	1974
Great Bay, between RN "14" and Fl R "20"	1045	3H4-3967 3H5-3196	3	1974
Great Bay, between BW "E" and BWC "G" buoys	1015	3H4-3985 3H5-3187	4	1974

a This station discontinued after 19 February 1973 cruise.

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Table 29. Fishes taken in 15-minute bottom hauls of a 25-ft semiballoon trawl in the vicinity of the Cape May Canal, Delaware Bay, by season in 1974.* Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	WINTER				SPRING				SUMMER				FALL				1974			
Depth Range (feet)	8-48				11-48				9-45				10-52				8-52			
Sal. Range (ppt), surface	27.5-31.0				27.5-31.5				28.0-31.0				28.5-31.0				27.5-31.5			
bottom	28.5-31.0				28.0-31.5				28.5-31.0				29.0-31.0				28.0-31.5			
Temp. Range (C), surface	2.0-7.0				6.0-20.2				16.5-25.0				5.0-19.2				2.0-25.0			
bottom	2.0-6.0				5.5-20.0				15.3-24.1				5.4-19.2				2.0-24.1			
air	0.0-12.0				8.0-24.0				17.5-28.0				-2.0-21.0				-2.0-26.5			
Oxygen Range (ppm), surface	9.6-12.0				6.8-11.0				5.8-12.0				7.2-10.4				5.8-12.0			
bottom	9.8-12.2				5.1-10.6				3.8-10.7				6.2-9.6				3.8-12.2			
Secchi Range (feet)	3.0-17.0				2.5-17.0				4.0-39.0				2.0-34.0				2.0-39.0			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Mustelus canis	-	-	-	-	46	1.1	6	7.7	103	2.0	23	4.5	9	0.2	6	1.5	158	0.8	35	4.5
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	-	-	2	+	2	1.0	2	+	2	1.0
Raja erinacea	11	0.3	10	1.1	32	0.8	15	2.1	-	-	-	-	26	0.5	19	1.5	69	0.4	44	1.6
Raja eglanteria	-	-	-	-	-	-	-	-	5	0.1	3	1.7	-	-	-	-	5	+	3	1.7
Dasyatis centroura	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Myliobatis freminvillei	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0
Conger oceanicus	2	+	2	1.0	14	0.3	2	7.0	4	+	3	1.3	5	0.1	4	1.3	25	0.1	11	2.3
Alosa aestivalis	116	2.8	19	6.1	7	0.2	2	3.5	-	-	-	-	-	-	-	-	123	0.7	21	5.9
Alosa pseudoharengus	137	3.3	29	4.7	7	0.2	7	1.0	-	-	-	-	-	-	-	-	144	0.8	36	4.0
Alosa sapidissima	11	0.3	8	1.4	4	+	2	2.0	-	-	-	-	-	-	-	-	15	+	10	1.5
Brevoortia tyrannus	4	0.1	3	1.3	2	+	1	2.0	1	+	1	1.0	-	-	-	-	7	+	5	1.4
Clupea harengus	31	0.7	12	2.6	14	0.3	9	1.6	1	+	1	1.0	-	-	-	-	46	0.2	22	2.1
Etrumeus teres	-	-	-	-	-	-	-	-	12	0.2	4	3.0	-	-	-	-	12	+	4	3.0
Anchoa hepsetus	-	-	-	-	1	+	1	1.0	35	0.7	7	5	75	1.4	6	12.5	111	0.6	14	7.9
Anchoa mitchilli	91	2.2	13	7.0	3571	87.1	21	170.0	30856+	605.0+	34	907.5+	148322+	2852.4	35	4237.8+	182840+	983.0+	103	1775.2+
Engraulis eurystole	-	-	-	-	-	-	-	-	218	4.3	17	12.8	833	16.0	22	37.9	1051	5.7	39	27.0
Synodus foetens	-	-	-	-	-	-	-	-	2	+	2	1.0	3	+	3	1.0	5	+	5	1.0
Trachinocephalus myops	-	-	-	-	-	-	-	-	2	+	1	2.0	-	-	-	-	2	+	2	1.0
Lophius americanus	-	-	-	-	1	+	1	1.0	-	-	-	-	2	+	2	1.0	3	+	3	1.0
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	2	+	2	1.0	-	-	-	-	2	+	2	1.0
Gadus morhua	3	+	3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	3	+	3	1.0
Merluccius bilinearis	201	4.8	28	7.2	1583	38.6	31	51.1	76	1.5	13	5.9	1104	21.2	28	39.4	2964	15.9	100	29.6
Pollachius virens	2	+	2	1.0	13	0.3	6	2.2	-	-	-	-	-	-	-	-	15	+	8	1.9
Urophycis chuss	3722	88.6	40	93.1	2836	69.2	29	97.8	56	1.1	9	6.2	258	5.0	23	11.2	6872	36.9	101	68.0
Urophycis regius	115	2.7	18	6.4	1267	30.1	38	33.3	1695	33.2	25	67.8	195	3.8	35	5.6	3272	17.6	116	28.2
Urophycis tenuis	5	0.1	3	1.7	147	3.6	13	11.3	492	9.7	14	35.1	-	-	-	-	644	3.5	30	21.5
Rissola marginata	1	+	1	1.0	31	0.8	9	3.4	225	4.4	13	17.3	23	0.4	7	3.3	280	1.5	30	9.3
Macrozoarces americanus	7	0.2	6	1.2	-	-	-	-	-	-	-	-	-	-	-	-	7	+	6	1.2
Menidia menidia	136	3.2	25	5.4	-	-	-	-	-	-	-	-	1	+	1	1.0	137	0.7	26	5.3
Apeltes quadracus	3	+	3	1.0	1	+	1	1.0	-	-	-	-	-	-	-	-	4	+	4	1.0
Gasterosteus aculeatus	3	+	2	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3	+	2	1.5
Hippocampus erectus	18	0.4	4	4.5	12	0.3	11	1.1	2	+	1	2.0	5	0.1	5	1.0	37	0.2	21	1.8
Syngnathus fuscus	99	2.4	15	6.6	218	5.3	11	19.8	69	1.4	25	2.8	45	0.9	18	2.5	431	2.3	69	6.3
Morone americana	16	0.4	2	8.0	1	+	1	1.0	-	-	-	-	3	+	1	3.0	20	0.1	4	5.0
Morone saxatilis	5	0.1	1	5.0	-	-	-	-	-	-	-	-	-	-	-	-	5	+	1	5.0
Centropristis striata	1	+	1	1.0	9	0.2	6	1.5	13	0.3	9	1.4	12	0.2	10	1.2	35	0.2	17	2.1
Mycteroperca microlepis	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0	2	+	2	1.0
Pristigenys alta	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Pomatomus saltatrix	-	-	-	-	-	-	-	-	9	0.2	7	1.3	23	0.4	10	2.3	32	0.2	17	1.9
Decapterus punctatus	-	-	-	-	-	-	-	-	6	0.1	4	1.5	3	+	2	1.5	9	+	6	1.5
Trachurus lathami	-	-	-	-	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Vomer setapinnis	-	-	-	-	-	-	-	-	4	+	3	1.3	10	0.2	5	2.0	14	+	8	1.8
Stenotomus chrysops	-	-	-	-	26	0.6	7	3.7	31	0.6	7	4.4	1	+	1	1.0	58	0.3	15	3.9
Bairdiella chrysura	-	-	-	-	1	+	1	1.0	6	0.1	2	3.0	165	3.2	7	23.6	172	0.9	10	17.2
Cynoscion regalis	-	-	-	-	1	+	1	1.0	7853	154.0	26	302.0	1941	37.3	32	60.7	9795+	52.7+	59	166.0+
Larimus fasciatus	-	-	-	-	-	-	-	-	2	+	2	1.0	1	+	1	1.0	3	+	3	1.0

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Table 29 . (cont.)

	WINTER				SPRING				SUMMER				FALL				1974			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Leiostomus xanthurus	8	0.2	1	8.0	-	-	-	-	214	4.2	24	8.9	35	0.7	9	3.9	257	1.4	34	7.6
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	35	0.7	12	2.9	14	0.3	7	2.0	49	0.3	19	2.6
Micropogon undulatus	4	+	2	2.0	-	-	-	-	3	+	2	1.5	5	0.1	4	1.3	12	+	8	1.5
Pseudupeneus maculatus	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Tautoga onitis	3	+	2	1.5	-	-	-	-	-	-	-	-	1	+	1	1.0	4	+	3	1.3
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0
Pholis gunnellus	2	+	2	1.0	1	+	1	1.0	1	+	1	1.0	1	+	1	1.0	5	+	5	1.0
Ammodytes sp.	97	2.3	4	24,3	41	1.0	2	20.5	1	+	1	1.0	121	2.3	4	50.3	260	1.4	11	
Gobiidae	-	-	-	-	-	-	-	-	-	-	-	-	5	0.1	2	2.5	5	+	2	2.5
Gobiosoma ginsburgi	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0
Scomber scombrus	-	-	-	-	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Peprilus triacanthus	2	+	2	1.0	27	0.7	8	3.4	870	17.1	35	2.0	572	11.0	19	30.1	1471	7.9	64	28.0
Prionotus carolinus	-	-	-	-	59	1.4	18	3.3	176	3.5	26	6.8	48	0.9	13	3.7	283	1.5	57	5.0
Prionotus evolans	-	-	-	-	11	0.3	6	1.8	169	3.3	24	7.0	49	0.9	17	2.9	229	1.2	47	4.9
Myoxocephalus aenaeus	5	0.1	3	1.7	-	-	-	-	-	-	-	-	1	+	1	1.0	6	+	4	1.5
Myoxocephalus octodecemspinosus	7	0.2	6	1.2	-	-	-	-	-	-	-	-	1	+	1	1.0	8	+	7	1.1
Liparis inquilinus	4	+	3	1.3	-	-	-	-	-	-	-	-	-	-	-	-	4	+	3	1.3
Etropus microstomus	46	1.1	20	2.3	71	1.7	17	4.2	82	1.6	23	3.6	141	2.7	34	4.2	340	1.8	94	3.6
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0
Paralichthys dentatus	-	-	-	-	7	0.2	3	2.3	26	0.5	10	2.6	35	0.7	12	2.9	68	0.4	25	2.7
Paralichthys oblongus	-	-	-	-	-	-	-	-	20	0.4	10	2.0	4	+	4	1.0	24	0.1	14	1.7
Scophthalmus aquosus	219	5.2	36	6.1	338	8.2	32	10.6	168	3.3	30	5.6	182	3.5	37	4.9	907	4.9	135	6.7
Limanda ferruginea	4	+	4	1.0	-	-	-	-	-	-	-	-	-	-	-	-	4	+	4	1.0
Pseudopleuronectes americanus	59	1.4	20	3.0	70	1.7	21	3.3	2	+	2	1.0	5	0.1	5	1.0	136	0.7	48	2.8
Monacanthus hispidus	-	-	-	-	-	-	-	-	29	0.6	16	1.8	3	+	3	1.0	32	0.2	19	1.7
Sphoeroides maculatus	-	-	-	-	1	+	1	1.0	121	2.4	9	13.4	20	0.4	13	1.5	142	0.8	23	6.2
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	-	-	-	-	3	+	3	1.0	3	+	3	1.0
Total species	37				37				49				50				76			
Total specimens	5200				10473+				43704+				154318+				213695+			
Number collections used in computation	42				•41				51				52				186			
Specimens/collection	123.8				255.4				856.9+				2967.7+				1148.9+			

* Seasonal totals are given for winter (January - March), spring (April - June), summer (July - September), and fall (October - December).

a n=number of specimens collected.

b n/coll=number of specimens per collection.

c f=number of collections in which species appeared.

d n/f=number of specimens per collection in which species appeared.

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Table 30 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the vicinity of the Site, off Little Egg Inlet, New Jersey by season and depth in 1974.

	WINTER			SPRING			SUMMER			FALL			1974		
Depth Range (feet)	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59
Carcharhinus milberti	-	-	-	-	-	-	-	0.7	+	-	-	-	-	0.2	+
Mustelus canis	-	-	-	3.6	0.4	0.1	1.2	2.2	0.5	-	0.3	-	1.2	0.9	0.1
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
Raja erinacea	0.4	0.3	0.1	0.1	1.1	0.9	-	-	-	0.3	0.7	0.2	0.2	0.5	0.3
Raja eglanteria	-	-	-	-	-	-	-	0.2	-	-	-	-	-	+	-
Dasyatis centroura	-	-	-	-	-	-	-	0.1	-	-	-	-	-	+	-
Myliobatis freminvillei	-	-	-	-	-	-	0.1	-	-	-	-	-	+	-	-
Conger oceanicus	0.2	-	-	1.3	+	-	-	0.1	-	-	0.1	+	0.4	+	+
Anguilla rostrata	-	-	-	-	-	-	-	-	-	0.1	-	-	+	-	-
Alosa aestivalis	5.8	2.5	1.0	0.6	+	-	-	-	-	-	-	-	1.7	0.4	0.3
Alosa pseudoharengus	2.2	4.3	2.6	0.3	0.1	0.2	-	-	-	-	-	-	0.7	0.8	0.8
Alosa sapidissima	0.1	-	0.6	0.3	+	-	-	-	-	-	-	-	0.1	+	0.2
Brevoortia tyrannus	0.2	0.2	-	-	0.2	-	-	+	-	-	-	-	+	+	-
Clupea harengus	0.2	-	2.8	0.2	0.4	0.4	-	+	-	-	-	-	0.1	+	0.9
Etrumeus teres	-	-	-	-	-	-	-	0.3	0.2	-	-	-	-	+	+
Anchoa hepsetus	-	-	-	-	+	-	0.5	0.9	-	1.0	1.7	1.1	0.4	0.8	0.3
Anchoa mitchilli	5.4	1.6	0.7	322.2	17.4	0.2	2052.7+	215.6+	584.2+	5703.7+	3123.8+	50.8	2018.3+	1014.9+	162.1+
Engraulis eurystole	-	-	-	-	-	-	3.2	2.2	9.6	37.6	16.8	0.1	10.6	5.8	2.5
Synodus foetens	-	-	-	-	-	-	-	+	+	-	+	+	-	+	+
Trachinocephalus myops	-	-	-	-	-	-	-	0.2	-	-	-	-	-	+	-
Lophius americanus	-	-	-	-	+	-	-	-	-	-	+	-	-	+	-
Enchelyopus cimbrius	-	-	-	-	-	0.1	-	+	-	-	-	-	-	+	+
Gadus morhua	-	0.1	0.1	-	-	-	-	-	-	-	-	-	-	+	+
Merluccius bilinearis	0.7	3.8	10.4	0.9	67.9	33.3	-	2.3	0.5	12.5	23.6	22.5	3.7	22.7	15.4
Pollachius virens	0.1	+	-	0.1	0.4	0.4	-	-	-	-	-	-	+	+	+
Urophycis chuss	95.7	104.5	66.5	51.1	95.4	41.7	-	1.8	+	1.1	4.6	8.7	38.9	40.3	29.9
Urophycis regius	4.6	3.2	0.9	42.3	37.9	8.6	0.5	56.2	0.4	1.2	4.6	3.7	12.8	27.4	3.0
Urophycis tenuis	-	0.1	0.1	2.6	5.9	0.2	0.1	16.4	-	-	-	-	0.7	6.4	+
Rissola marginata	-	+	-	2.2	0.4	-	21.5	1.8	-	-	0.8	-	5.1	0.9	-
Macrozoarces americanus	-	0.2	0.2	-	-	-	-	-	-	-	-	-	-	+	+
Menidia menidia	1.9	3.7	3.6	-	-	-	-	-	-	0.1	-	-	0.5	0.6	1.1
Apeltes quadracus	0.2	-	0.1	0.1	-	-	-	-	-	-	-	-	+	-	+
Gasterosteus aculeatus	0.2	0.1	-	-	-	-	-	-	-	-	-	-	+	+	-
Hippocampus erectus	0.9	0.5	-	0.6	0.1	0.3	0.3	-	-	0.1	0.1	+	0.5	0.1	+
Syngnathus fuscus	6.8	1.6	0.3	20.4	0.6	0.1	2.8	1.3	0.5	0.8	1.2	0.1	7.9	1.2	0.3
Morone americanus	0.2	0.8	-	-	-	0.1	-	-	-	0.3	-	-	0.1	+	+
Morone saxatilis	-	0.3	-	-	-	-	-	-	-	-	-	-	-	+	-
Centropristis striata	0.1	-	-	0.5	0.2	-	0.2	0.3	0.2	0.1	0.2	0.3	0.2	0.2	0.1
Mycteroperca microlepis	-	-	-	-	-	-	-	+	-	-	+	-	-	+	-
Pomatomus saltatrix	-	-	-	-	-	-	0.6	0.1	-	1.4	0.2	0.1	0.5	0.1	+
Decapterus punctatus	-	-	-	-	-	-	-	+	0.4	-	+	0.1	-	+	0.1
Trachurus lathami	-	-	-	-	-	0.1	-	-	0.1	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	0.1	+	-	0.4	0.2	-	0.1	+	-

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Table 30 . (cont.)

	WINTER			SPRING			SUMMER			FALL			1974		
Depth Range (feet)	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59	5-19	20-39	40-59
Stenotomus chrysops	-	-	-	0.1	1.1	0.2	-	0.6	-	-	+	-	+	0.4	0.3
Bairdiella chrysura	-	-	-	0.1	-	-	0.7	-	-	0.9	5.4	-	0.4	1.6	-
Cynoscion regalis	-	-	-	-	+	-	810.5	45.6	-	37.0	50.3	8.7	180.4	29.4	2.2
Larimus fasciatus	-	-	-	-	-	-	0.2	-	-	0.1	-	-	+	-	-
Leiostomus xanthurus	0.8	-	-	-	-	-	3.6	6.3	0.4	0.5	1.0	+	1.1	2.3	0.1
Menticirrhus saxatilis	-	-	-	-	-	-	2.2	0.4	0.3	0.2	0.4	-	0.5	0.3	+
Micropogon undulatus	0.4	-	-	-	-	-	-	0.1	-	0.1	0.1	-	0.1	+	-
Pseudupeneus maculatus	-	-	-	-	-	-	-	+	-	-	-	-	-	+	-
Tautoga onitis	0.1	0.2	-	-	-	-	-	-	-	-	+	-	+	+	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	-	+	+	-	+
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
Pholis gunnellus	0.1	-	-	0.1	-	-	-	+	-	0.1	-	-	+	+	-
Ammodytes sp.	0.3	5.4	0.1	-	2.0	-	-	+	-	-	4.1	+	+	2.6	+
Gobiidae	-	-	-	-	-	-	-	-	-	-	+	0.3	-	+	+
Gobiosoma ginsburgi	-	-	-	-	-	-	0.1	-	-	-	-	-	+	-	-
Scomber scombrus	-	-	-	0.1	-	-	-	-	-	-	-	-	+	-	-
Peprilus triacanthus	-	-	0.1	0.1	1.0	0.5	0.9	11.8	39.8	1.0	9.4	22.3	0.5	6.7	15.9
Prionotus carolinus	-	-	-	1.4	1.6	1.3	0.2	4.4	3.1	-	0.6	2.6	0.4	1.9	1.7
Prionotus evolans	-	-	-	0.5	0.3	-	8.2	3.3	0.4	0.2	1.3	0.6	1.9	1.5	0.2
Myoxocephalus aenaeus	0.3	0.1	-	-	-	-	-	-	-	0.1	-	-	0.1	+	-
Myoxocephalus octodecemspinosus	-	0.4	-	-	-	-	-	-	-	-	+	-	-	+	-
Liparis inquilinus	0.1	0.1	0.1	-	-	-	-	-	-	-	-	-	+	+	+
Etropus microstomus	1.3	1.2	-	2.8	1.1	2.0	-	2.0	1.8	0.2	3.4	3.1	1.1	2.1	1.6
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	-	+	-	-	+	-
Paralichthys dentatus	-	-	-	0.1	0.3	-	1.0	0.6	+	0.9	0.9	0.1	0.5	0.5	+
Paralichthys oblongus	-	-	-	-	-	-	0.1	0.6	+	-	+	0.1	+	0.2	+
Scophthalmus aquosus	9.6	4.9	2.9	7.6	11.1	3.9	3.5	4.4	0.5	4.2	4.5	1.3	6.4	5.9	2.1
Limanda ferruginea	0.1	-	0.1	-	-	-	-	-	-	-	-	-	+	-	+
Pseudopleuronectes americanus	0.9	1.9	1.5	0.5	2.8	0.8	-	+	+	0.2	+	+	0.4	1.0	0.5
Monacanthus hispidus	-	-	-	-	-	-	1.6	0.5	0.1	-	+	0.1	0.3	0.2	+
Sphoeroides maculatus	-	-	-	0.1	-	-	13.0	0.5	0.1	0.1	0.7	0.1	2.8	0.4	+
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	-	-	0.1	-	-	+	-
Total species	30	27	22	30	31	21	27	44	26	32	43	32	53	66	49
Total specimens	1399	2418+	1421	4629	5008+	954	23440+	11525+	8383+	58065+	94603+	1666+	87533	113554	12424
Number collections used in computation	10	17	15	10	20	10	8	30	13	10	29	13	38	96	51
Specimens/collection	139.9	142.2+	94.7	462.9	250.4	95.4	2930.0+	384.2	644.8	5806.5+	3262.2+	128.1	2303.5	1182.9	243.6

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Table 31 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Holgate and Little Egg Inlet (L. E. I.) transects by season in 1974. Values less than 0. 1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

									TOTAL 1974	
	Holgate	L. E. I.	Holgate	L. E. I.	Holgate	L. E. I.	Holgate	L. E. I.	Holgate	L. E. I.
Depth Range (feet)	14-48	15-48	11-48	16-47	12-42	18-45	12-48	18-50	11-48	15-50
Salinity Range (ppt), surface	28. 5-30. 0	27. 5-31. 0	29. 5-31. 5	28. 0-31. 0	30-31	29. 5-30. 5	30. 0-30. 5	30. 0-31. 0	28. 5-31. 5	27. 5-31. 0
bottom	30. 0-30. 5	28. 5-31. 0	29. 5-31. 5	29. 0-31. 0	30-31	30. 0-31. 0	30. 5-31. 0	30. 0-31. 0	29. 5-31. 5	28. 5-31. 0
Temp. Range (C), surface	2. 1-6. 0	2. 0-7. 0	6. 0-20. 1	6. 0-20. 2	16. 5-22. 0	19. 0-25. 0	5. 0-19. 2	6. 8-19. 0	2. 1-22. 0	2. 0-25. 0
bottom	2. 5-6. 5	2. 0-6. 0	6. 0-20. 0	5. 5- 15. 0	15. 3-21. 0	15. 3-21. 0	5. 4-19. 0	6. 0-19. 2	2. 5-21. 0	2. 0-21. 0
Oxygen Range (ppm), surface	10. 4-12. 0	10. 0-11. 9	8. 8-10. 5	6. 8-11. 0	7. 4-8. 1	5. 7-7. 7	7. 2-9. 4	7. 4-10. 4	7. 2-12. 0	5. 7-11. 9
bottom	9. 8-12. 0	9. 8-12. 2	6. 5-10. 0	5. 1-10. 6	4. 5-7. 4	5. 2-8. 2	6. 6-9. 6	6. 8-9. 4	4. 5-12. 0	5. 1-12. 2
Secchi Range (feet)	3. 0-14. 0	3. 0-14. 0	5. 5-14. 0	3. 5-17. 0	4. 0-24. 0	5. 0-33. 0	2. 0-13. 5	8-30	2. 0-24. 0	3. 0-39. 0
	WINTER		SPRING		SUMMER		FALL		TOTAL 1974	
	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll
Mustelus canis	-	-	0. 1	1. 8	1. 7	3. 2	0. 2	0. 1	0. 4	1. 3
Squalus acanthias	-	-	-	-	-	-	-	+	-	+
Raja erinacea	0. 3	0. 2	1. 6	0. 8	-	-	0. 3	0. 4	0. 6	0. 3
Dasyatis centroura	-	-	-	-	-	+	-	-	-	+
Conger oceanicus	0. 1	-	-	-	-	0. 2	0. 1	0. 1	+	+
Alosa aestivalis	5. 3	2. 2	0. 8	-	-	-	-	-	1. 7	0. 3
Alosa pseudoharengus	6. 1	3. 4	0. 1	0. 3	-	-	-	-	1. 7	0. 5
Alosa sapidissima	0. 2	0 2	-	0. 3	-	-	-	-	+	+
Brevoortia tyrannus	0. 1	0. 2	-	-	-	-	-	-	+	+
Clupea harengus	1. 2	0. 8	0. 1	0. 5	-	-	-	-	0. 4	0. 2
Etrumeus teres	-	-	-	-	0. 5	0. 4	-	-	+	+
Anchoa hepsetus	-	-	-	-	0. 2	1. 4	0. 9	2. 4	0. 3	1. 3
Anchoa mitchilli	0. 3	1. 1	115. 1	153. 8	289. 0	1186. 5	6009. 3	2983. 4	1773. 2	1440. 0
Engraulis eurystole	-	-	-	-	0. 8	7. 1	20. 8	14. 8	6. 0	. 3
Synodus foetens	-	-	-	-	-	+	-	-	-	+
Trachinocephalus myops	-	-	-	-	-	0. 1	-	-	-	+
Lophius americanus	-	-	-	-	-	-	0. 1	-	+	-
Enchelyops cimbrius	-	-	-	-	-	+	-	-	-	+
Gadus morhua	-	+	-	-	-	-	-	-	-	+
Merluccius bilinearis	2. 2	7. 8	17. 5	21. 1	-	0. 8	24. 0	15. 3	11. 7	11. 5
Pollachius virens	-	-	0. 1	+	-	-	-	-	+	+
Urophycis chuss	81. 5	121. 3	76. 5	89. 3	-	0. 7	7. 3	5. 4	44. 1	40. 4
Urophycis regius	1. 7	1. 7	30. 2	19. 8	1. 0	3. 4	5. 9	2. 0	9. 9	6. 0
Urophycis tenuis	0. 2	0. 2	3. 2	0. 7	0. 3	3. 6	-	-	0. 9	1. 1
Rissola marginata	0. 1	-	0. 1	1. 0	20. 8	1. 4	-	+	4. 0	0. 6
Macrozoarces americanus	0. 1	+	-	-	-	-	-	-	+	+
Menidia menidia	4. 1	1. 3	-	-	-	-	-	+	1. 1	0. 2
Apeltes quadracus	-	0. 2	0. 1	-	-	-	-	-	+	+
Gasterosteus aculeatus	0. 2	-	-	-	-	-	-	-	+	-
Hippocampus erectus	-	-	0. 4	0. 5	-	-	0. 1	0. 1	0. 1	0. 1
Syngnathus fuscus	5. 3	1. 2	21. 9	1. 3	1. 5	1. 1	0. 6	0. 3	7. 4	0. 8
Morone americana	-	1. 2	-	-	-	-	-	-	-	0. 2
Morone saxatilis	-	0. 4	-	-	-	-	-	-	-	+
Centropristis striata	-	-	0. 2	0. 2	0. 2	0. 3	0. 1	0. 2	0. 1	0. 2

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Table 31. (cont.)

	WINTER		SPRING		SUMMER		FALL		TOTAL 1974	
	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll	Holgate n/coll	L. E. I. n/coll
Mycteroperca microlepis	-	-	-	-	-	-	-	+	-	+
Pristigenys alta	-	-	-	-	0.2	-	-	-	+	-
Pomatomus saltatrix	-	-	-	-	0.3	+	0.9	0.4	0.3	0.2
Decapterus punctatus	-	-	-	-	-	0.1	-	0.1	-	+
Vomer setapinnis	-	-	-	-	-	-	0.4	0.1	0.1	+
Stenotomus chrysops	-	-	0.5	1.3	2.5	0.4	-	+	0.6	0.4
Bairdiella chrysura	-	-	-	-	-	-	0.3	5.2	+	1.9
Cynoscion regalis	-	-	-	-	808.3	107.7	155.6	13.6	195.3	33.0
Larimus fasciatus	-	-	-	-	0.2	+	-	-	+	+
Leiostomus xanthurus	-	0.6	-	-	2.7	8.0	0.4	0.4	0.6	2.3
Menticirrhus saxatilis	-	-	-	-	2.2	0.4	0.1	0.3	0.4	0.2
Micropogon undulatus	-	0.2	-	-	-	-	-	0.1	-	+
Pseudupeneus maculatus	-	-	-	-	-	+	-	-	-	+
Tautoga onitis	0.3	-	-	-	-	-	0.1	-	0.1	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	+	-	+
Sphyraena borealis	-	-	-	-	-	-	0.1	-	+	-
Pholis gunnellus	0.1	-	0.1	-	-	-	0.1	-	+	-
Ammodytes sp.	0.4	0.3	-	2.7	-	-	-	4.3	0.1	2.2
Gobiidae	-	-	-	-	-	-	-	0.2	-	+
Gobiosoma ginsburgi	-	-	-	-	-	+	-	-	-	+
Scomber scombrus	-	-	-	+	-	-	-	-	-	+
Peprilus triacanthus	0.1	+	0.2	1.1	6.6	38.6	3.5	20.0	2.3	17.7
Prionotus carolinus	-	-	2.0	1.2	3.5	5.1	0.2	1.0	1.2	1.9
Prionotus evolans	-	-	0.4	0.1	7.2	3.0	1.3	1.0	1.8	1.2
Myoxocephalus aenaeus	0.1	-	-	-	-	-	0.1	-	+	-
Myoxocephalus octodecemspinosus	0.2	0.2	-	-	-	-	-	-	+	+
Liparis inquilinus	0.1	+	-	-	-	-	-	-	+	+
Etropus microstomus	0.3	0.8	3.7	1.5	1.2	2.1	1.2	2.1	1.6	1.8
Citharichthys spilopterus	-	-	-	-	-	-	-	+	-	+
Paralichthys dentatus	-	-	0.1	-	2.0	0.5	2.2	0.5	1.0	0.3
Paralichthys oblongus	-	-	-	-	0.3	0.4	-	0.1	+	0.1
Scophthalmus aquosus	6.1	3.8	9.4	5.1	4.2	1.6	2.4	3.6	5.5	3.4
Limanda ferruginea	0.1	+	-	-	-	-	-	-	+	+
Pseudopleuronectes americanus	1.0	0.7	3.4	1.6	-	0.1	0.1	0.1	1.1	0.5
Monacanthus hispidus	-	-	-	-	0.7	0.8	-	+	0.1	0.2
Spheroides maculatus	-	-	0.1	-	1.8	5.5	0.2	0.3	0.4	1.5
Chilomycterus schoepfi	-	-	-	-	-	-	-	+	-	+
Total species	28	28	26	24	26	36	31	40	111	128
Total specimens	1066	1801	2307	4594	6959	26316+	56157	83126+	66489+	115837+
Number collections used in computation	9	12	8	15	6	19	9	27	32	73
Specimens/collection	118.4	150.0	288.4	306.3	1159.8	1385.0+	6239.6	3078.7+	2077.8+	1586.8+

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Table 32 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Brigantine and Little Egg Inlet (L.E.I.) transects by season in 1974. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

									TOTAL 1974	
	Brigantine	L.E.I.	Brigantine	L.E.I.	Brigantine	L.E.I.	Brigantine	L.E.I.	Brigantine	L.E.I.
Depth Range (feet)	8-45	15-45	11-45	16-48	9-41	16-45	10-46	10-50	8-46	10-50
Salinity Range (ppt), surface	28.5-30.0	27.5-30.0	27.5-31.0	27.5-30.0	28.0-30.0	29.0-30.0	28.5-30.5	29.5-31.0	27.5-31.0	27.5-31.0
bottom	28.5-30.5	29.0-31.0	28.0-31.0	28.0-31.0	28.5-31.0	29.0-31.0	29.0-30.5	30.0-30.5	28.0-31.0	28.0-31.0
Temp. Range (C), surface	3.1-6.0	3.2-5.0	9.0-15.0	9.0-19.5	20.0-24.5	20.2-24.0	5.2-17.0	11.5-18.5	3.1-24.5	3.2-24.0
bottom	3.0-6.5	3.2-5.0	8.0-15.0	7.5-16.5	19.0-24.1	17.3-22.0	6.2-17.0	11.5-17.0	3.0-24.1	3.2-22.0
Oxygen Range (ppm), surface	10.0-11.4	9.6-11.9	8.2-9.6	8.6-10.1	7.5-12.0	6.7-11.4	8.1-9.7	7.2-8.8	7.5-12.0	7.2-11.9
bottom	10.1-10.9	10.4-11.1	8.6-9.4	8.2-9.4	6.2-10.4	4.4-10.3	7.8-9.5	6.2-9.3	6.2-10.9	4.4-11.1
Secchi Range (feet)	3.5-13.0	5.0-17.0	2.5-8.0	2.5-11.0	2.5-28.0	4.0-36.0	3.0-34.0	5.5-10.0	2.5-34.0	2.5-36.0
	WINTER		SPRING		SUMMER		FALL		TOTAL 1974	
	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll
Carcharhinus milberti	-	-	-	-	-	+	-	-	-	+
Mustelus canis	-	-	0.6	1.3	0.4	1.6	0.2	0.1	0.3	0.9
Squalus acanthias	-	-	-	-	-	-	-	0.1	-	+
Raja erinacea	0.1	0.3	0.6	0.3	-	-	1.0	0.7	0.4	0.3
Raja eglanteria	-	-	-	-	0.2	0.2	-	-	0.6	+
Myliobatis freminvillei	-	-	-	-	-	+	-	-	-	+
Anguilla rostrata	-	-	-	-	-	-	0.1	-	+	-
Conger oceanicus	-	+	2.3	-	-	-	-	0.1	0.4	+
Alosa aestivalis	2.4	1.7	-	-	-	-	-	-	0.6	0.4
Alosa pseudoharengus	2.5	2.4	0.2	-	-	-	-	-	0.7	0.6
Alosa sapidissima	0.3	0.2	-	-	-	-	-	-	+	+
Brevoortia tyrannus	-	-	-	0.2	-	+	-	-	-	+
Clupea harengus	0.5	0.4	0.3	0.3	-	+	-	-	0.2	0.2
Etrumeus teres	-	-	-	-	-	0.1	-	-	-	+
Anchoa hepsetus	-	-	-	+	0.5	0.2	0.1	-	0.2	+
Anchoa mitchilli	-	2.1	0.8	-	461.6	142.6	1498.5	23.6	536.1	61.9
Engraulis eurystole	5.5	-	-	-	6.4	1.1	30.6	0.3	11.6	0.4
Synodus foetens	-	-	-	-	-	+	0.1	0.1	+	+
Lophius americanus	-	-	-	+	-	-	-	0.1	-	+
Enchelyopus cimbrus	-	-	-	-	-	+	-	-	-	+
Gadus morhua	0.1	+	-	-	-	-	-	-	+	+
Merluccius bilinearis	2.5	5.3	118.3	-	0.5	3.2	17.5	45.1	27.1	18.1
Pollachius virens	0.1	+	0.3	-	-	-	-	-	0.1	0.2
Urophycis chuss	51.0	89.4	52.8	51.6	-	2.5	3.1	2.7	24.4	36.2
Urophycis regius	4.2	3.3	38.2	45.3	14.3	87.9	5.5	5.4	13.5	44.1
Urophycis tenuis	-	+	0.3	9.8	0.8	24.4	-	-	0.3	11.1
Rissola marginata	-	-	0.6	1.0	2.8	-	0.9	1.8	1.1	1.5
Macrozoarces americanus	0.3	0.2	-	-	-	-	-	-	0.1	+
Menidia menidia	3.4	4.3	-	-	-	-	-	-	0.9	1.1
Apeltes quadracus	0.1	-	-	-	-	-	-	-	+	-
Gasterosteus aculeatus	0.1	-	-	-	-	-	-	-	+	-
Hippocampus erectus	1.6	0.2	0.3	-	0.2	-	-	0.1	0.6	+

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Table 32. (cont.)

	WINTER		SPRING		SUMMER		FALL		TOTAL 1974	
	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll	Brigantine n/coll	L.E.I. n/coll
Syngnathus fuscus	2.7	1.0	2.7	0.6	1.3	1.6	1.8	2.1	2.1	1.3
Morone americana	0.2	-	-	+	-	-	0.3	-	0.1	+
Centropristis striata	0.1	-	0.2	0.4	0.1	0.3	0.2	0.6	0.1	0.3
Mycteroperca microlepis	-	-	-	-	-	+	-	-	-	+
Pomatomus saltatrix	-	-	-	-	0.4	0.1	-	0.4	0.1	0.1
Decapterus punctatus	-	-	-	-	0.1	0.2	-	-	+	+
Trachurus lathami	-	-	-	+	-	0.1	-	-	-	+
Vomer setapinnis	-	-	-	-	-	0.1	0.3	-	+	+
Stenotomus chrysops	-	-	-	0.2	-	0.5	-	-	-	0.2
Bairdiella chrysura	-	-	0.2	-	0.7	-	0.5	2.4	0.4	0.4
Cynoscion regalis	-	-	-	+	12.2	49.8	4.2	19.3	4.5	20.9
Larimus fasciatus	-	-	-	-	-	-	0.1	-	+	-
Leiostomus xanthurus	-	-	-	-	0.7	2.3	0.7	2.0	0.4	1.1
Menticirrhus saxatilis	-	-	-	-	0.4	0.6	0.3	0.1	0.2	0.3
Micropogon undulatus	0.1	-	-	-	-	0.2	0.1	-	+	+
Pholis gunnellus	0.1	-	-	-	-	+	-	-	+	+
Ammodytes sp.	0.7	6.9	-	-	-	+	0.3	0.1	0.3	1.8
Peprilus triacanthus	-	-	0.3	0.5	2.0	4.6	-	-	0.6	1.8
Prionotus carolinus	-	-	2.2	1.1	1.5	2.5	0.1	2.4	0.8	1.5
Prionotus evolans	-	-	-	0.5	1.0	3.5	0.3	1.0	0.4	1.5
Myoxocephalus aenaeus	0.2	0.2	-	-	-	-	-	-	+	+
Myoxocephalus octodecemspinosus	-	0.2	-	-	-	-	-	-	-	+
Liparis inquilinus	-	0.2	-	-	-	-	-	-	-	+
Etropus microstomus	2.3	1.0	1.5	0.9	0.7	1.6	1.8	8.0	1.6	2.3
Paralichthys dentatus	-	-	0.3	0.4	0.2	0.1	-	-	0.1	0.1
Paralichthys oblongus	-	-	-	-	-	0.6	-	0.1	-	0.3
Scophthalmus aquosus	9.4	2.7	14.8	8.8	4.1	4.5	5.0	2.6	7.7	4.8
Limanda ferruginea	0.1	+	-	-	-	-	-	-	+	+
Pseudopleuronectes americanus	1.4	2.3	0.8	1.3	-	-	-	0.1	0.5	0.9
Monacanthus hispidus	-	-	-	-	0.2	0.4	-	0.3	+	0.2
Sphoeroides maculatus	-	-	-	-	0.3	0.2	0.7	0.4	0.3	0.1
Chilomycterus schoepfi	-	-	-	-	-	-	0.1	-	+	-
Total species	27	25	22	26	26	40	28	29	51	59
Total specimens	833	1500	1477	2097	4627	5802	14175	859	21112	10258
Number collections used in computation	9	12	6	11	9	17	9	7	33	47
Specimens/collection	92.5	125.0	246.2	190.6	514.1	341.3	1575.0	122.7	639.7	218.2

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Table 33 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the vicinity of the Site off Little Egg Inlet, New Jersey, by month in 1974. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Depth Range (feet)	12-48	8-45	15-48	11-45	12-45	11-48	10-45	10-45	9-45	12-50	10-50	12-52	8-52
Salinity Range (ppt), surface	27.5-29.5	28.5-30.0	28.0-31.0	28.0-31.0	27.5-31.5	28.5-30.0	28.0-30.0	29.5-31.0	28.0-30.5	29.5-31.0	28.5-30.5	30.0-30.5	27.5-31.5
bottom	29.0-30.0	28.5-30.5	29.0-31.0	29.0-31.0	28.0-31.5	29.5-30.5	28.5-31.0	30.0-31.0	28.5-31.0	30.0-31.0	29.0-31.0	30.0-30.5	28.0-31.5
Temp. Range (C), surface	4.0-5.0	2.0-3.9	5.0-7.0	6.0-10.0	9.0-15.0	18.5-20.2	20.2-24.0	16.5-24.5	20.0-25.0	16.0-19.2	9.5-13.7	5.0-7.0	2.0-25.0
bottom	4.0-5.5	2.0-3.8	5.0-6.0	5.5-10.0	9.0-15.0	16.0-20.0	17.0-21.0	15.3-24.1	17.0-22.0	16.0-19.2	10.0-13.5	5.4-7.5	2.0-24.1
air	0.0-11.5	2.0-6.0	5.0-12.0	8.0-14.0	10.0-16.5	20.5-24.0	21.5-28.0	23.0-26.5	17.5-25.0	15.0-20.5	10.0-21.0	-2.0-6.0	-2.0-26.5
Oxygen Range (ppm), surface	10.0-10.9	11.0-12.0	9.6-11.0	8.2-11.0	8.6-10.5	6.8-10.0	6.7-8.2	6.7-12.0	5.8-7.8	7.2-9.7	7.8-10.4	9.2-9.6	5.8-12.0
bottom	9.8-10.7	10.4-12.2	10.0-11.1	8.6-10.6	8.5-9.7	5.1-10.4	4.4-8.2	5.9-10.7	3.8-8.2	6.2-8.9	7.5-9.5	9.2-9.6	3.8-12.2
Secchi Range (feet)	3.0-14.5	3.0-17.0	3.5-10.0	2.5-12.0	4.0-17.0	9.5-15.0	4.0-13.0	4.0-36.0	5.0-39.0	4.5-34.0	4.0-13.5	2.0-6.0	2.0-39.0
Carcharhinus milberti	-	-	-	-	-	-	+	-	-	-	-	-	+
Mustelus canis	-	-	-	-	1.3	3.1	2.3	3.4	0.6	0.4	+	-	0.8
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	+	-	+
Raja erinacea	-	0.3	0.5	1.3	0.6	-	-	-	-	0.2	0.8	0.5	0.4
Raja eglanteria	-	-	-	-	-	-	0.2	-	0.1	-	-	-	+
Dasyatis centroura	-	-	-	-	-	-	-	-	+	-	-	-	+
Myliobatis freminvillei	-	-	-	-	-	-	-	+	-	-	-	-	+
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	0.1	+
Conger oceanicus	-	+	-	-	1.0	-	-	0.1	0.1	-	+	0.4	0.1
Alosa aestivalis	0.2	1.6	6.4	+	0.4	-	-	-	-	-	-	-	0.7
Alosa pseudoharengus	2.1	1.9	5.8	0.3	+	-	-	-	-	-	-	-	0.8
Alosa sapidissima	0.3	0.4	0.1	+	0.2	-	-	-	-	-	-	-	+
Brevoortia tyrannus	0.2	+	-	0.1	-	-	+	-	-	-	-	-	+
Clupea harengus	+	0.2	1.9	0.7	-	0.1	+	-	-	-	-	-	0.2
Etrumeus teres	-	-	-	-	-	-	0.2	-	0.5	-	-	-	+
Anchoa hepsetus	-	-	-	-	-	0.1	0.4	0.2	1.3	3.6	-	-	0.6
Anchoa mitchilli	1.9	-	4.6	9.2	166.5	119.4+	131.2+	162.7+	1311.1+	1780.2+	5277.0+	11.9	983.0+
Engraulis eurystole	-	-	-	-	-	-	5.7	-	7.2	21.6	18.0	0.1	5.7
Synodus foetens	-	-	-	-	-	-	-	-	0.1	0.1	-	-	+
Trachinocephalus myops	-	-	-	-	-	-	-	-	0.1	-	-	-	+
Lophius americanus	-	-	-	-	+	-	-	-	-	-	+	-	+
Enchelyopus cimbrius	-	-	-	-	-	-	+	+	-	-	-	-	+
Gadus morhua	-	-	0.2	-	-	-	-	-	-	-	-	-	+
Merluccius bilinearis	9.4	1.4	3.5	19.1	77.2	17.7	4.6	0.8	+	0.2	20.4	67.1	15.9
Pollachius virens	-	-	0.1	0.7	-	-	-	-	-	-	-	-	+
Urophycis chuss	72.3	69.0	124.6	125.6	40.5	1.0	+	0.2	2.6	1.1	2.1	18.9	36.9
Urophycis regius	1.3	0.1	6.8	28.3	45.1	14.0	124.4	3.4	0.8	0.6	5.4	6.8	17.6
Urophycis tenuis	0.4	-	-	0.4	7.6	3.7	32.4	3.9	-	-	-	-	3.5
Rissola marginata	-	-	+	1.3	0.6	-	5.5	7.1	1.3	-	1.1	-	1.5
Macrozoarces americanus	-	0.3	0.2	-	-	-	-	-	-	-	-	-	+
Menidia menidia	0.4	3.9	5.4	-	-	-	-	-	-	-	-	0.1	0.7
Apeltes quadracus	0.1	-	+	+	-	-	-	-	-	-	-	-	+
Gasterosteus aculeatus	-	0.2	-	-	-	-	-	-	-	-	-	-	+
Hippocampus erectus	-	-	1.3	0.6	+	-	-	-	0.1	+	0.2	-	0.2
Syngnathus fuscus	0.2	0.9	6.0	11.8	0.4	-	1.1	0.9	2.0	0.3	1.3	1.1	2.3
Morone americana	0.1	1.0	-	+	-	-	-	-	-	-	-	0.3	0.1
Morone saxatilis	-	10.4	-	-	-	-	-	-	-	-	-	-	+
Centropristis striata	-	-	+	0.4	+	-	0.2	+	0.5	0.5	+	-	0.2

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Table 33. (cont.)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Myctoperca microlepis	-	-	-	-	-	-	-	-	+	+	-	-	+
Pristigenys alta	-	-	-	-	-	-	-	+	-	-	-	-	+
Pomatomus saltatrix	-	-	-	-	-	-	0.3	0.2	+	0.9	0.2	-	0.2
Decapterus punctatus	-	-	-	-	-	-	0.2	-	0.2	-	0.1	-	+
Trachurus lathami	-	-	-	-	+	-	-	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	0.2	0.1	-	0.4	+	-	+
Stenotomus chrysops	-	-	-	-	1.8	0.1	0.6	1.2	0.1	+	-	-	0.3
Bairdiella chrysura	-	-	-	-	+	-	+	-	0.3	7.0	0.9	-	0.9
Cynoscion regalis	-	-	-	-	-	0.1	0.2	233.7	182.3+	83.4	8.3	1.5	52.7+
Larimus fasciatus	-	-	-	-	-	-	-	+	+	+	-	-	+
Leiostomus xanthurus	0.6	-	-	-	-	-	1.8	2.9	6.9	1.0	0.7	-	1.4
Menticirrhus saxatilis	-	-	-	-	-	-	-	0.3	1.5	0.5	0.1	-	0.3
Micropogon undulatus	0.2	+	-	-	-	-	-	-	0.2	0.2	-	0.1	+
Pseudupeneus maculatus	-	-	-	-	-	-	-	-	+	-	-	-	+
Tautog onitis	0.1	+	-	-	-	-	-	-	-	-	-	0.1	+
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	-	0.1	+
Sphyraena borealis	-	-	-	-	-	-	-	-	-	+	-	-	+
Pholis gunnellus	-	0.1	-	-	-	0.1	+	-	-	-	-	0.1	+
Ammodytes sp.	-	6.6	0.3	-	-	4.6	+	-	-	-	5.6	0.4	1.4
Gobiidae	-	-	-	-	-	-	-	-	-	0.2	-	-	+
Gobiosoma ginsburgi	-	-	-	-	-	-	-	-	+	-	-	-	+
Scomber scombrus	-	-	-	-	+	-	-	-	-	-	-	-	+
Peprilus triacanthus	0.1	-	-	-	0.5	2.2	1.7	11.1	32.4	3.0	24.2	-	7.9
Prinotus carolinus	-	-	-	2.1	1.4	0.2	2.8	5.5	2.1	1.1	1.2	-	1.5
Prionotus evolans	-	-	-	-	0.8	-	0.8	1.7	6.5	1.1	0.8	0.9	1.2
Myoxocephalus aenaeus	0.1	0.2	-	-	-	-	-	-	-	-	-	0.1	+
Myoxocephalus octodecemspinosus	0.1	0.2	0.1	-	-	-	-	-	-	-	-	0.1	+
Liparis inquilinus	-	0.3	-	-	-	-	-	-	-	-	-	-	+
Etropus microstomus	0.4	0.6	2.2	3.5	0.5	0.1	2.1	1.7	1.3	1.7	4.2	1.8	1.8
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	+	-	-	+
Paralichthys dentatus	-	-	-	-	0.5	-	0.2	0.1	1.1	0.4	1.2	-	0.4
Paralichthys oblongus	-	-	-	-	-	-	-	0.2	0.8	0.2	-	-	0.1
Scophthalmus aquosus	4.4	5.1	6.2	4.7	15.0	4.7	6.5	2.6	1.9	1.8	5.7	2.6	4.9
Limanda ferruginea	-	0.2	+	-	-	-	-	-	-	-	-	-	+
Pseudopleuronectes americanus	0.5	1.4	2.4	1.4	2.7	0.7	-	+	+	-	0.1	0.2	0.7
Monacanthus hispidus	-	-	-	-	-	-	0.5	0.3	0.9	0.1	-	-	0.2
Spheroides maculatus	-	-	-	-	+	-	-	0.2	5.9	0.2	0.8	-	0.8
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	-	0.1	-	-	+
Total species	23	27	25	22	27	17	33	31	39	35	30	23	76
Total specimens	1339	1354	2507	3815	5111	1547+	4245+	8007+	31452+	40164+	113001+	1153	213695+
Number collections used in computation	14	14	14	18	14	9	13	18	20	21	21	10	186
Specimens/collection	95.6+	96.7+	179.1+	211.9+	365.1+	171.9+	326.5+	444.8+	1572.6+	1912.6+	5381.0+	115.3	1148.9+

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Table 34 . Weight of fishes in grams per collection taken in 15-minute bottom hauls of a 25-ft semiballoon trawl in the vicinity of the Site off Little Egg Inlet, New Jersey by month in 1974. Values less than 1 gram are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Carcharhinus milberti	-	-	-	-	-	-	538	-	-	-	-	-	38
Mustelus canis	-	-	-	-	145	1156	906	1458	276	240	19	-	332
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	176	-	20
Raja erinacea	-	153	238	676	250	-	-	-	-	105	405	270	183
Raja eglanteria	-	-	-	-	-	-	327	-	125	-	-	-	36
Dasyatis centroura	-	-	-	-	-	-	-	-	105	-	-	-	11
Myliobatis freminvillei	-	-	-	-	-	-	-	194	-	-	-	-	19
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	+	+
Conger oceanicus	-	3	+	-	1	-	-	+	2	-	+	15	1+
Alosa aestivalis	+	7	19	+	2	-	-	-	-	-	-	-	2
Alosa pseudoharengus	32	32	84	20	1	-	-	-	-	-	-	-	13
Alosa sapidissima	3	4	3	3	4	-	-	-	-	-	-	-	1
Brevoortia tyrannus	3	+	-	+	-	-	+	-	-	-	-	-	+
Clupea harengus	15	58	407	194	-	+	+	-	-	-	-	-	54
Etrumeus teres	-	-	-	-	-	-	+	-	7	-	-	-	+
Anchoa hepsetus	-	-	-	-	-	3	6	2	3	11	-	-	2
Anchoa mitchilli	+	-		18	442	293	489	368	3698+	3042+	3976+	9	1317
Engraulis eurystole	-	-	-	-	-	-	5	-	2	13	8	+	3
Synodus foetens	-	-	-	-	-	-	-	-	6	10	-	-	2
Trachinocephalus myops	-	-	-	-	-	-	-	-	+	-	-	-	+
Lophius americanus	-	-	-	-	643	-	-	-	-	-	488	-	104
Enchelyopus cimbrius	-	-	-	-	-	-	+	+	-	-	-	-	+
Gadus morhua	-	-	357	-	-	-	-	-	-	-	-	-	27+
Merluccius bilinearis	1764	325	3470	5521	3130	269	65	20	2	+	88	2327	1090
Pollachius virens	-	-	+	+	-	-	-	-	-	-	-	-	+
Urophycis chuss	2030	2036		5043	3988	69	1	+	12	+	12	196	1352
Urophycis regius	8	+	17	88	309	224	3220	208	105	33+	309	59	344
Urophycis tenuis	108	-	-	28	33	29	387	57	-	-	-	-	47
Rissola marginata	-	-	2	26	44	-	51	223	35	-	29	-	38
Macrozoarces americanus	-	231	314	-	-	-	-	-	-	-	-	-	41
Menidia menidia	2	16	24	-	-	-	-	-	-	-	-	+	3
Apeltes quadracus	+	-	+	+	-	-	-	-	-	-	-	-	+
Gasterosteus aculeatus	-	+	-	-	-	-	-	-	-	-	-	-	+
Hippocampus erectus	-	-	3	1	+	-	-	-	+	+	1	-	+
Syngnathus fuscus	+	1	11	20	+	-	2	+	3	+	2	1	4
Morone americana	11	305	-	35	-	-	-	-	-	-	-	110	33
Morone saxatilis	-	296	-	-	-	-	-	-	-	-	-	-	22
Centropristis striata	-	-	+	3	+	-	1	11	8	3	+	-	3
Myctoperca microlepis	-	-	-	-	-	-	-	-	4	4	-	-	+
Pristigenys alta	-	-	-	-	-	-	-	+	-	-	-	-	+
Pomatomus saltatrix	-	-	-	-	-	-	1	4	2	40	11	-	6
Decapterus punctatus	-	-	-	-	-	-	+	-	+	-	+	-	+
Trachurus lathami	-	-	-	-	+	-	+	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	-	+	-	+	+	-	+
Stenotomus chrysops	-	-	-	-	42	2	16	35	1	16	-	-	10
Bairdiella chrysura	-	-	-	-	10	-	14	-	3	149	10	-	20

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Table 34. (cont.)

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Cynoscion regalis	-	-	-	-	-	74	32	191	1697	6414	349	48	978
Larimus fasciatus	-	-	-	-	-	-	-	+	+	1	-	-	+
Leiostomus xanthurus	12	-	-	-	-	-	5	84	348	85	80	-	66
Menticirrhus saxatilis	-	-	-	-	-	-	-	+	29	19	5	-	6
Micropogon undulatus	+	2	-	-	-	-	-	-	20	18	-	+	4+
Pseudupeneus maculatus	-	-	-	-	-	-	-	-	+	-	-	-	+
Tautog onitis	28	-	-	-	-	-	-	-	-	-	-	6	2.6
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	-	+	+
Sphyraena borealis	-	-	-	-	-	-	-	-	-	+	-	-	+
Pholis gunnellus	-	+	-	-	-	+	+	-	-	-	-	+	+
Ammodytes sp.	-	81	2	-	-	+	+	-	-	-	23	1	9
Gobiidae	-	-	-	-	-	-	-	-	-	+	-	-	+
Gobiosoma ginsburgi	-	-	-	-	-	-	-	-	+	-	-	-	+
Scomber scombrus	-	-	-	-	9	-	-	-	-	-	-	-	+
Peprilus triacanthus	2	-	-	-	1	6	20	66	177	45	36	-	37
Prionotus carolinus	-	-	-	10	171	36	352	944	152	30	13	-	153
Prionotus evolans	-	-	-	-	258	-	43	104	395	268	24	6	109
Myoxocephalus aenaeus	+	+	-	-	-	-	-	-	-	-	-	+	+
Myoxocephalus octodecemspinosus	31	59	34	-	-	-	-	-	-	-	-	27	11
Liparis inquilinus	-	+	-	-	-	-	-	-	-	-	-	-	+
Etropus microstomus	1	2	8	12	4	3	17	22	7	7	29	8	11
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	+	-	-	+
Paralichthys dentatus	-	-	-	-	149	-	102	69	206	88	195	-	79
Paralichthys oblongus	-	-	-	-	-	-	-	+	7	4	-	-	1
Scophthalmus aquosus	211	699	694	1148	3096	858	291	190	422	257	887	44	741
Limanda ferruginea	-	68	35	-	-	-	-	-	-	-	-	-	8
Pseudopleuronectes americanus	54	285	531	453	806	53	-	7	1	-	20	41	176
Monacanthus hispidus	-	-	-	-	-	-	4	7	34	10	-	-	6
Spheroides maculatus	-	-	-	-	19	-	-	2	68	33	7	-	14
Chilomycteres schoepfi	-	-	-	-	-	-	-	-	-	15	-	-	2
Total species	23	27	25	21	28	17	33	31	39	35	30	23	76
Total weight in kg.	60.4	65.3	93.5+	226.1+	189.8+	27.7+	89.7+	76.9+	159.3+	230.3+	151.3+	35.6+	1405.8+
Number collections used in computation	14	14	14	17	14	9	13	18	20	21	21	10	185
Weight/collection in kg.	2.6+	4.7	6.7+	13.3+	13.6+	3.1+	6.9+	4.3+	8.0+	11.0+	7.2+	3.6+	7.6+

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Table 35 Number of fish species/specimens taken in 15-minute, replicated bottom hauls of a 25-ft semiballoon trawl at stations 5 and 8 in the vicinity of the Site off Little Egg Inlet, New Jersey, on 6 days from April to November, 1974. Each cell has two replicates. The log (number + 1) is also shown.

	Station (Zone)			
	5 (5150)		8 (5450)	
Date				
2 April	13/249	10/184	11/167	7/89
log (n + 1)	1. 15/2. 40	1. 04/2. 27	1. 08/2. 23	0. 90/1. 95
1 July	14/488	14/649	3/3	10/51
log (n + 1)	1. 12/2. 69	1. 18/2. 81	0. 60/0. 60	1. 04/1. 72
5 August	4/143	7/231	8/34	5/100
log (n + 1)	0. 70/2. 16	0. 85/2. 36	0. 95/1. 54	0. 78/2. 00
4 September	12/4879	12/7021	13/5487	3/2485
log (n + 1)	1. 11/3. 69	1. 11/3. 85	1. 15/3. 74	0. 60/3. 40
15 October	7/1010	15/8120	1/1	0/0
log (n + 1)	0. 90/3. 01	1. 20/3. 91	0. 30/0. 30	0. 00/0. 00
4 November	8/9027	7/12329	8/363	6/97
log (n + 1)	0. 95/3. 96	0. 90/4. 09	0. 95/2. 56	0. 85/1. 99

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Table 36 . Number of fish species/specimens taken in 15-minute, replicated bottom hauls of a 25-ft semiballoon trawl at stations 5 to 8 in the vicinity of the Site off Little Egg Inlet, New Jersey on 3 days from August to November, 1974. Each cell has two replicates. The log (number + 1) is also shown.

	Station (Zone)							
	5 (5150)		6 (5250)		7 (5350)		8 (5450)	
Date								
5 August	4/143	7/231	17/160	15/147	11/91	7/43	8/34	5/100
log (n + 1)	0. 70/2. 16	0. 85/2. 36	1. 23/2. 21	1. 20/2. 17	1. 08/1. 96	0. 90/1. 64	0. 95/1. 54	0. 78/2. 00
15 October	7/1010	15/8120	12/31	17/56	3/4	8/24	1/1	0/0
log (n + 1)	0. 90/3. 01	1. 20/3. 91	1. 11/1. 51	1. 26/1. 76	0. 60/0. 70	0. 95/1. 40	0. 30/0. 30	0. 00
4 November	8/9027	7/12329	13/4875	11/1754	11/23694	6/13749	8/363	6/97
log (n + 1)	0. 95/3. 96	0. 90/4. 09	1. 15/3. 69	1. 08/3. 24	1. 08/4. 38	0. 85/4. 14	0. 95/2. 56	0. 85/1. 99

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Table 37 . Results of two-factor analysis of various performed on the log (number species + 1) replicate trawl data of Table 35.

Sources of Variation	Sum Squares	Degrees Freedom	Mean Square	F Value
Station (Zone)	0.85	3	0.29	14.23
Date	0.17	2	0.09	4.28
Station x Date Interaction	0.69	6	0.11	5.73
Deviation	0.24	12	0.02	-
Total	1.95	23	0.09	

Table 38 . Results of two-factor analysis of variance performed on the log (number specimens + 1) replicate trawl data of Table 35.

Sources of Variation	Sum Squares	Degrees Freedom	Mean Square	F Value
Station (Zone)	10.29	3	3.43	34.1
Date	16.45	2	8.23	81.7
Station x Date Interaction	6.51	6	1.08	10.8
Deviation	1.21	12	0.10	-
Total	34.46	23	1.50	

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Table 39. Results of two-factor analysis of variance performed on the log (number species + 1) replicate trawl data of Table 37.

Sources of Variation	Sum Squares	Degrees Freedom	Mean Square	F Value
Station (Zone)	0.37	1	0.37	11.26
Date	0.52	5	0.11	3.18
Station x Date Interaction	0.62	5	0.12	3.75
Deviation	0.40	12	0.03	-
Total	1.91	23	0.08	

Table 40. Results of two-factor analysis of variance performed on the log (number specimens + 1) replicate trawl data of Table 37.

Sources of Variation	Sum Squares	Degrees Freedom	Mean Square	F Value
Station (Zone)	9.58	1	9.58	76.5
Date	11.52	5	2.30	18.4
Station x Date Interaction	7.29	5	1.46	11.6
Deviation	1.50	12	0.13	-
Total	29.89	23	1.30	

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Table 41. Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl during the day and at night in the vicinity of the Site off Little Egg Inlet, New Jersey by month from 11 June to 18 November 1974. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	JUNE		JULY		SEPTEMBER		OCTOBER		NOVEMBER		TOTAL	
	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
Mustelus canis	-	0.3	3.3	1.0	0.3	-	0.3	-	-	-	0.8	0.3
Raja erinacea	-	1.0	-	-	-	-	-	-	0.7	1.3	0.1	0.5
Raja eglanteria	-	-	-	-	0.7	-	-	-	-	-	0.1	-
Conger oceanicus	-	7.7	-	-	-	-	-	-	-	-	-	1.5
Brevoortia tyrannus	-	0.3	0.3	-	-	-	-	-	-	-	+	-
Clupea harengus	0.3	-	-	-	-	-	-	-	-	-	+	-
Anchoa hepsetus	0.3	-	-	-	-	-	-	-	-	-	+	-
Anchoa mitchilli	63.7	-	-	-	177.7	36.7	51.7	1179.3	-	85.3	58.6	260.3
Engraulis eurystole	-	-	0.3	-	-	-	-	1.3	-	3.0	+	0.9[1]
Synodus foetens	-	-	-	-	0.3	-	0.3	0.3	-	-	0.1	+
Merluccius bilinearis	21.0	6.7	5.0	1.7	-	-	-	0.3	16.0	26.0	8.4	6.9
Urophycis chuss	1.7	7.0	-	-	13.0	26.3	-	25.3	0.3	47.0	3.0	21.1[1]
Urophycis regius	27.3	106.0	9.7	148.0	2.7	1.3	0.3	5.7	8.3	128.7	9.5	77.9[1]
Urophycis tenuis	8.0	34.3	0.3	14.3	-	-	-	-	-	-	1.7	9.7
Rissola marginata	-	4.0	-	9.0	0.7	45.7	-	4.0	-	7.3	0.1	14.0[1]
Hippocampus erectus	-	-	-	-	-	-	-	-	-	0.7	-	1.0
Syngnathus fuscus	-	-	-	-	4.3	5.3	-	0.3	0.7	0.7	1.0	1.3
Centropristis striata	-	-	-	-	1.0	4.7	1.0	1.0	-	-	0.4	1.1
Mycteroperca microlepis	-	-	-	-	0.3	-	-	-	-	-	+	-
Pristigenys alta	-	-	-	0.3	-	-	-	-	-	-	-	+
Pomatomus saltatrix	-	0.7	-	-	-	-	1.0	-	-	-	0.2	0.1
Decapteus punctatus	-	-	1.0	-	-	-	-	-	0.3	-	0.3	-
Trachurus lathami	-	-	0.7	-	-	-	-	-	-	-	0.1	-
Stenotomus chrysops	-	0.3	-	1.0	-	-	-	-	-	-	-	0.3
Cynoscion regalis	0.3	-	-	-	84.0	82.0	42.3	16.3	-	-	25.3	19.7
Leiostomus xanthurus	-	-	-	-	2.7	1.7	0.3	-	-	-	0.6	0.3
Menticirrhus saxatilis	-	-	-	-	3.0	8.7	-	1.7	-	-	0.6	2.1
Micropogon undulatus	-	-	-	-	1.0	1.0	-	-	-	-	0.2	0.2
Pseudupeneus maculatus	-	-	-	0.3	-	-	-	-	-	-	-	+
Ammodytes sp.	-	-	-	-	-	1.3	-	-	38.7	-	7.7	0.3
Gobiosoma ginsburgi	-	-	-	-	-	2.0	-	-	-	-	-	0.4
Peprilus triacanthus	-	-	-	-	-	-	-	0.7	77.3	-	14.8	0.1
Prionotus carolinus	0.7	13.0	0.3	15.0	4.0	32.7	4.0	60.7	2.0	4.0	2.2	25.1[1]
Prionotus evolans	-	0.3	-	0.3	14.7	45.3	-	5.3	0.3	-	3.0	10.3[1]
Citharichthys spilopterus	-		-		-	-	-	0.3	-	-		+
Etropus microstomus	0.3	4.3	2.3	6.3	1.7	43.3	2.3	20.3	3.7	20.7	2.1	19.0[1]
Paralichthys dentatus	-	0.7	-	-	0.7	2.3	-	0.3	0.3	0.3	0.2	0.7
Paralichthys oblongus	-	-	-	-	3.3	8.7	0.3	0.7	-	-	0.7	1.9
Scophthalmus aquosus	5.0	12.7	1.3	9.7	4.7	6.0	0.3	7.3	0.7	2.3	2.4	7.6[1]
Pseudopleuronectes americanus	1.3	0.7	-	0.3	-	-	-	-	-	-	0.3	0.2
Monacanthus hispidus	-	-	-	-	0.3	1.3	0.7	-	-	-	0.2	0.3
Spheroides maculatus	-	-	-	-	1.0	5.3	0.3	0.3	0.7	2.3	0.4	1.6[1]
Total species	12	17	11	13	22	20	14	20	14	14	35	36
Total specimens	390	600	74	622	963	1085	316	3995	450	989	2193	7291
Number collections used in computation	3	3	3	3	3	3	3	3	3	3	15	15
Specimens/collection	130	200	24.7	207.3	321	361.7	105.3	1331.7	150.0	329.7	146.2	486.1

[1] Significantly greater.

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Table 42. Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl at stations 1 to 4 in the Great Bay-Mullica River estuary (GBM) and at stations 5 to 8 in the vicinity of the Site (VS) by season in 1974. Collections in GBM and VS made on or about the same dates. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	WINTER[a]		SPRING		SUMMER		FALL		1974	
	GBM	VS	GBM	VS	GBM	VS	GBM	VS	GBM	VS
Carcharhinus milberti	-	-	-	-	-	+	-	-	-	+
Mustelus canis	-	-	2.2	2.7	1.1	3.5	-	-	0.9	1.8
Squalus acanthias	-	-	-	-	-	-	-	+	-	+
Raja erinacea	0.1	0.5	-	0.9	-	-	-	0.4	+	0.4
Raja eglanteria	-	-	-	-	-	+	-	-	+	+
Dasyatis sayi	-	-	-	-	+	-	-	-	+	-
Myliobatis freminvillei	-	-	-	-	0.4	-	-	-	0.1	-
Anguilla rostrata	-	-	0.9	-	0.2	-	-	-	0.3	-
Conger oceanicus	-	0.1	-	-	+	0.1	-	0.2	+	0.1
Alosa aestivalis	0.8	2.5	1.5	-	-	-	-	-	0.5	0.3
Alosa pseudoharengus	-	3.4	0.9	0.3	-	-	-	-	0.3	0.5
Alosa sapidissima	-	0.4	-	+	-	-	-	-	-	+
Brevoortia tyrannus	-	-	+	-	1.2	-	-	-	0.3	-
Clupea harengus	0.1	0.6	+	0.5	-	+	-	-	+	0.2
Etrumeus teres	-	-	-	-	-	0.4	-	-	-	0.1
Anchoa hepsetus	-	-	-	-	+	+	-	+	+	+
Anchoa mitchilli	0.3	3.0	136.1	57.5+	365.9+	950.0+	247.0+	3693.8+	204.3+	1471.7+
Engraulis eurystole	-	-	-	-	-	6.9	-	19.3	-	8.2
Synodus foetens	-	-	-	-	0.2	+	-	+	+	+
Opsanus tau	0.6	-	8.8+	-	2.0	-	1.6	-	3.5	-
Lophius americanus	-	-	-	+	-	-	-	-	-	+
Enchelyopus cimbrius	-	-	-	-	-	+	-	-	-	+
Gadus morhua	-	0.1	-	-	-	-	-	-	-	+
Merluccius bilinearis	-	2.9	-	32	-	2.5	0.6	18.2	0.2	14.2
Pollachius virens	-	0.1	0.2	+	-	-	-	-	+	+
Urophycis chuss	34.3	88.3	11.2	76.5	-	0.5	0.3	7.2	9.4	30.9
Urophycis regius	10.8	4.8	16.3	43.9	0.3	69.2	0.9	1.5	6.7	34.6
Urophycis tenuis	-	-	1.4	5.9	-	21.9	-	-	0.4	8.8
Rissola marginata	-	-	3.8	1.4	0.3	3.3	-	0.1	1.1	1.5
Macrozoarces americanus	-	0.3	-	-	-	-	-	-	-	+
Menidia menidia	1.0	6.5	-	-	-	-	8.5	+	2.5	0.8
Apeltes quadracus	0.5	-	-	-	-	-	-	-	+	-
Gasterosteus aculeatus	0.1	-	-	-	-	-	-	-	+	-
Fistularia tabacaria	-	-	-	-	0.2	-	-	-	+	-
Hippocampus erectus	0.4	0.4	0.6	0.5	-	-	+	0.2	0.3	0.2
Syngnathus fuscus	10.5	1.3	9.3	1.3	1.6	1.4	+	0.3	4.9	1.0
Morone americana	13.9	-	5.7	-	0.4	-	1.7	-	4.6	-
Morone saxatilis	0.3	-	0.2	-	-	-	-	-	0.1	-
Centropristis striata	0.1	-	5.1	0.1	3.1	0.2	0.3	0.2	2.3	0.2
Mycteroperca microlepis	-	-	-	-	+	-	-	-	+	-
Pomatomus saltatrix	-	-	-	-	0.4	+	-	0.2	0.1	+
Caranx hippos	-	-	-	-	+	-	-	-	+	-
Decapteus punctatus	-	-	-	-	-	+	-	0.1	-	+
Selene vomer	-	-	-	-	0.2	-	-	-	+	-
Trachurius lathami	-	-	-	+	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	-	+	-	+
Stenotomus chrysops	-	-	-	0.2	0.5	0.7	-	-	0.1	0.3
Bairdiella chrysura	-	-	-	-	1.3	-	1.8	7.0	0.8	2.2
Cynoscion regalis	-	-	1.3	-	22.9	87.3	6.5	15.0	8.4	34.2
Larimus fasciatus	-	-	-	-	-	+	-	-	-	+
Leiostomus xanthurus	-	-	-	-	1.2	7.6	1.3	0.3	0.7	2.6
Menticirrhus saxatilis	-	-	-	-	0.3	+	-	0.5	+	0.2
Micropogon undulatus	-	-	-	-	+	-	0.2	0.2	+	+
Pseudupeneus maculatus	-	-	-	-	-	+	-	-	-	+
Chaetodon ocellatus	-	-	-	-	0.5	-	0.6	-	0.3	-
Tautog onitis	0.6	-	0.9	-	1.4	-	0.6	-	0.9	-
Tautogolabrus adspersus	-	-	0.3	-	0.3	-	-	+	0.2	+
Sphyraena borealis	-	-	+	-	-	-	-	-	+	-
Astroscopus guttatus	-	-	-	-	-	-	+	-	+	-
Hypsoblennius hentzi	-	-	-	-	-	-	+	-	+	-
Pholis gunnellus	-	-	-	-	-	+	-	-	-	+
Ammodytes sp.	0.6	10.3	-	2.7	-	+	0.2	+	0.2	1.9
Gobiosoma bosci	-	-	-	-	+	-	0.4	-	+	-
Gobiosoma ginsburgi	-	-	-	-	-	+	-	-	-	+
Peprilus triacanthus	-	-	-	1.3	0.5	34.1	-	13.9	0.1	16.1
Scorpaena plumieri	-	-	-	-	-	-	+	-	+	-
Prionotus carolinus	-	-	5.3	1.7	0.2	5.6	0.2	1.1	1.5	2.6
Prionotus evolans	-	-	+	0.4	1.7	2.6	+	1.3	0.5	1.4
Myoxocephalus aenaeus	0.5	0.3	-	-	-	-	0.2	-	0.1	+
Myocephalus octodecemspinosus	-	0.4	+	-	-	-	-	+	+	+
Liparis inquilinus	-	0.3	-	-	-	-	-	-	-	+
Etropus microstomus	0.8	1.5	3.8	1.5	+	2.4	+	2.1	1.2	2.0
Citharichthys spilopterus	-	-	-	-	-	-	-	+	-	+

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Table 42 . (cont.)

	WINTER		SPRING		SUMMER		FALL		1974	
	GBM	VS	GBM	VS	GBM	VS	GBM	VS	GBM	VS
Paralichthys dentatus	-	-	0.7	0.3	1.0	0.2	0.3	0.5	0.6	0.3
Paralichthys oblongus	-	-	-	-	-	0.3	-	0.2	-	0.1
Scophthalmus aquosus	6.9	3.3	3.4	8.4	0.2	3.7	0.2	4.0	2.3	4.8
Limanda ferruginea	-	0.1	-	-	-	-	-	-	-	+
Pseudopleuronectes americanus	2.8	3.5	2.4	1.1	0.6	+	0.3	0.2	1.4	0.8
Trinectes americanus	-	-	11.9	-	3.9	-	0.5	-	4.5	-
Monacanthus hispidus	-	-	-	-	2.9	1.0	-	+	0.8	0.4
Lactophrys quadricornis	-	-	-	-	-	-	+	-	+	-
Sphoeroides maculatus	-	-	+	-	0.3	4.7	-	0.3	0.1	1.7
Chilomycterus schoepfi	-	-	-	-	0.3	-	-	0.1	+	+
Total species	21	24	31	26	41	39	30	38	62	61
Total specimens	687	1077	2816+	3625+	5014+	26646+	3295+	75762+	11812+	107110+
Number collections used in computation	8	8	12	15	12	22	12	20	44	65
Specimens/collection	85.9	134.6	234.7+	241.7+	417.8+	1211.2+	273.8	3788.1+	268.5	1647.8+

a Collections begun in February.

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Table 43 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Great Bay-Mullica River estuary by month in 1974. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Depth Range (feet)	5-35	3-27	4-35	5-35	5-14	6-25	7-20	6-22	6-14	8-22	9-25	3-35
Salinity Range (ppt)												
surface	22.0-26.5	19.0-26.5	10.0-24.0	21.0-30.0	21.0-29.5	17.0-27.0	20.5-30.0	20.0-30.0	21.0-30.0	24.0-30.0	24.5-31.0	10.0-31.0
bottom	23.0-26.5	20.0-29.0	13.0-27.5	24.0-30.0	22.5-29.5	19.0-28.0	21.0-30.5	20.0-30.0	20.5-29.5	24.5-30.0	26.5-31.5	13.0-31.5
Temp. Range (C)												
surface	3.3-4.0	6.0-7.0	8.5-9.0	14.0-18.5	18.5-21.0	22.0-24.0	19.0-26.9	20.0-23.0	16.0-17.0	15.0-17.0	4.0-6.0	3.3-26.9
bottom	3.3-4.0	6.0-7.5	8.0-9.0	15.0-18.5	18.2-21.0	22.5-23.5	19.5-26.9	21.0-23.0	16.5-18.0	15.0-16.0	4.0-6.0	3.3-26.9
air	3.0-6.0	9.0-11.0	13.0	10.0-15.0	17.0	25.0-27.0	25.0-28.0	19.0-20.0	20.0-22.5	19.8-23.0	6.0-6.5	3.0-28.0
Oxygen Range (ppm)												
surface	11.4-12.0	11.1-11.8	10.0-10.6	8.1-9.0	7.7-8.5	7.2-8.0	5.7-7.2	6.8-7.8	8.0-10.2	7.1-9.6	8.8-10.0	5.7-12.0
bottom	10.8-12.0	10.7-11.3	9.8-10.3	7.3-8.9	7.5-8.4	6.8-8.0	5.7-6.9	7.0-8.6	7.8-9.8	8.8-9.4	9.6-11.0	5.7-12.0
Secchi Range (feet)	2.0-3.5	1.5-2.5	2.0-3.5	1.0-2.5	2.5-4.5	3.5-6.0	2.5-3.0	1.0-3.0	2.0-3.5	4.0-7.0	1.0-1.5	1.0-7.0
Mustelus canis	-	-	-	0.8	5.8	2.5	0.5	0.3	-	-	-	0.9
Raja erinacea	-	0.3	-	-	-	-	-	-	-	-	-	+
Dasyatis sayi	-	-	-	-	-	0.3	-	-	-	-	-	+
Myliobatis freminvillei	-	-	-	-	-	0.3	-	1.0	-	-	--	0.1
Anguilla rostrata	-	-	0.5	2.3	-	-	-	0.5	-	-	-	0.3
Conger oceanicus	-	-	-	-	-	-	-	0.3	-	-	-	+
Alosa aestivalis	-	1.5	4.3	0.3	-	-	-	-	-	-	--	0.5
Alosa pseudoharengus	-	-	2.8	-	-	-	-	-	-	-	-	0.3
Brevoortia tyrannus	-	-	-	-	0.3	3.5	-	-	-	-	-	0.3
Clupea harengus	0.3	-	0.3	-	-	-	-	-	-	-	-	+
Anchoa hepsetus	-	-	-	-	-	0.3	-	-	-	-	-	+
Anchoa mitchilli	-	0.5	3.5	68.0	336.8+	528.5+	493.3+	76.0	380.5+	356.8+	3.8	204.3+
Synodus foetens	-	-	-	-	-	-	-	0.5	-	-	-	+
Opsanus tau	-	1.3	0.5	25.0+	1.0	1.8	0.3	4.0	2.8	-	2.0	3.5
Merluccius bilinearis	-	-	-	-	-	-	-	-	-	-	1.8	0.2
Pollachius virens	-	-	0.5	-	-	-	-	-	-	-	-	+
Urophycis chuss	1.0	67.8	32.5	1.3	-	-	-	-	0.8	-	-	9.4
Urophycis regius	-	21.5	32.0	16.8	0.3	0.8	-	-	0.3	0.8	1.8	6.7
Urophycis tenuis	-	-	0.3	3.5	0.5	-	-	-	-	-	-	0.4
Rissola marginata	-	-	-	11.5	-	0.5	-	0.3	-	-	-	1.1
Menidia menidia	1.3	0.8	-	-	-	-	-	-	-	25.5	-	2.5
Apeltes quadracus	0.3	0.8	-	-	-	-	-	-	-	-	-	+
Gasterosteus aculeatus	0.3	-	-	-	-	-	-	-	-	-	-	+
Fistularia tabacaria	-	-	-	-	-	-	-	0.5	-	-	-	+
Hippocampus erectus	-	0.8	1.8	-	-	-	-	-	0.3	-	-	0.3
Syngnathus fuscus	0.3	20.8	6.5	21.0+	0.3	1.8	1.0	2.0	0.3	-	-	4.9
Morone americana	3.8	24.0	15.5	0.5	1.0	0.8	-	0.3	1.5	1.8	1.8	4.6
Morone saxatilis	0.5	-	0.5	-	-	-	0.3	-	-	-	-	0.1
Centropristis striata	-	0.3	0.3	14.0	1.0	-	-	9.3	0.8	0.3	-	2.3
Mycteroperca microlepis	-	-	-	-	-	-	-	0.3	-	-	-	+
Pomotomus saltatrix	-	-	-	-	-	0.5	0.5	0.3	-	-	-	0.1
Caranx hippos	-	-	-	-	-	-	-	0.3	-	-	-	+
Selene vomer	-	-	-	-	-	0.5	-	-	-	-	-	+

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Table 43. (cont.)

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Stenotomus chrysops	-	-	-	-	-	-	0.8	0.8	-	-	-	0.1
Bairdiella chrysura	-	-	-	-	-	-	3.0	0.8	5.3	0.3	-	0.8
Cynoscion regalis	-	-	-	-	4.0	0.3	51.0	17.5	17.5	2.0	-	8.4
Leiostomus xanthurus	-	-	-	-	-	-	1.8	1.8	4.0	-	-	0.7
Menticirrhus saxatilis	-	-	-	-	-	-	-	1.0	-	-	-	+
Micropogon undulatus	-	-	-	-	-	-	0.3	-	0.3	-	0.3	+
Chaetodon ocellatus	-	-	-	-	-	-	-	1.5	1.8	-	-	0.3
Tautoga onitis	-	1.3	0.3	2.5	-	-	-	4.3	1.5	0.3	-	0.9
Tautogolabrus adspersus	-	-	-	1.0	-	-	0.3	0.5	-	-	-	0.2
Sphyraena borealis	-	-	-	-	0.3	-	-	-	-	-	-	+
Astroscopus guttatus	-	-	-	-	-	-	-	-	0.3	-	-	+
Hypsoblennius hentzi	-	-	-	-	-	-	-	-	0.3	-	-	+
Ammodytes sp.	0.3	1.0	-	-	-	-	-	-	-	-	0.5	0.2
Gobiosoma bosci	-	-	-	-	-	-	-	0.3	-	-	0.5	+
Peprilus triacanthus	-	-	-	-	-	0.3	1.3	-	-	-	-	0.1
Scorpaena plumieri	-	-	-	-	-	-	-	-	0.3	-	-	+
Prionotus carolinus	-	-	0.3	15.3	0.5	-	-	0.5	0.5	-	-	1.5
Prionotus evolans	-	-	-	-	0.3	0.3	-	4.3	0.3	-	-	0.5
Myoxocephalus aenaeus	-	1.0	-	-	-	-	-	-	-	-	0.5	0.1
Myoxocephalus octodecemspinosus	-	-	0.3	-	-	-	-	-	-	-	-	+
Etropus microstomus	-	1.5	0.3	10.3	0.5	-	-	0.3	-	0.3	-	1.2
Paralichthys dentatus	-	-	-	1.0	1.0	1.0	0.8	1.3	1.3	0.3	-	0.6
Scophthalmus aquosus	-	13.8	5.3	2.5	2.5	0.5	-	-	-	-	0.5	2.3
Pseudopleuronectes americanus	0.8	4.8	2.0	4.0	1.3	-	0.5	1.3	-	0.3	0.5	1.4
Trinectes americanus	-	-	-	26.5	9.3	4.5	0.5	6.8	0.8	-	0.8	4.5
Monacanthus hispidus	-	-	-	-	-	-	-	8.8	-	-	-	0.8
Lactophrys quadricornis	-	-	-	-	-	-	-	-	0.3	-	-	+
Sphoeroides maculatus	-	-	-	0.3	-	-	-	1.0	-	-	-	0.1
Chilomycterus schoepfi	-	-	-	-	-	-	0.8	0.3	-	-	-	+
Total species	10	18	21	21	18	19	17	33	22	11	12	62
Total specimens	34	653	439	912	1465+	2194	2226+	594	1684+	1553+	58	11812+
Number collections used in computation	4	4	4	4	4	4	4	4	4	4	4	44
Specimens/collection	8.5	163.3	109.8	228.0+	366.3+	548.5+	556.5+	148.5	421.0	388.3+	14.5	268.5+

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Table 44 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl at stations 5 to 8 in the vicinity of the Site by month in 1974. Collections made on or about the same dates as those in the Great Bay-Mullica River estuary. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.'

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Carcharhinus milberti	-	-	-	-	-	0.1	-	-	-	-	-	+
Mustelus canis	-	-	-	3.5	6.8	2.3	6.9	0.7	-	-	-	1.8
Squalus acanthias	-	-	-	-	-	-	-	-	-	0.1	-	+
Raja erinacea	0.5	0.5	1.7	0.5	-	-	-	-	0.1	0.5	0.5	0.4
Raja eglanteria	-	-	-	-	-	0.1	-	-	-	-	-	+
Conger oceanicus	0.3	-	-	-	-	-	0.3	0.1	-	-	0.8	0.1
Alosa aestivalis	0.8	4.3	-	-	-	-	-	-	-	-	-	0.3
Alosa pseudoharengus	3.3	3.5	0.6	-	-	-	-	-	-	-	-	0.5
Alosa sapidissima	0.3	0.5	+	-	-	-	-	-	-	-	-	+
Clupea harengus	0.3	1.0	1.1	-	-	0.1	-	-	-	-	-	0.2
Etrumeus teres	-	-	-	-	-	0.3	-	1.0	-	-	-	0.1
Anchoa hepsetus	-	-	-	-	-	0.3	-	-	0.1	-	-	+
Anchoa mitchilli	-	6.0	3.9	1.8	207.3+	51.9	21.6	2909.3+	1076.3+	8144.4+	27.5	1471.7+
Engraulis eurystole	-	-	-	-	-	2.6	-	19.0	22.0	26.1	-	8.2
Synodus foetens	-	-	-	-	-	-	-	0.1	0.1	-	-	+
Lophius americanus	-	-	-	0.3	-	-	-	-	-	-	-	+
Enchelyopus cimbrius	-	-	-	-	-	0.1	0.1	-	-	-	-	+
Gadus morhua	-	0.3	-	-	-	-	-	-	-	-	-	+
Merluccius bilinearis	2.0	3.8	21.0	66.3	17.0	5.7	1.9	0.1	0.4	2.5	85.3	14.2
Pollachius virens	-	0.3	+	-	-	-	-	-	-	-	-	+
Urophycis chuss	128.8	47.8	143.6	34.8	0.8	0.1	-	1.6	2.8	0.5	29.3	30.9
Urophycis regius	-	9.5	34.7	93.5	10.5	208.7	6.8	1.0	0.8	1.5	2.8	34.6
Urophycis tenuis	-	-	0.3	19.8	2.0	59.0	8.5	-	-	-	-	8.8
Rissola marginata	-	-	2.1	1.5	-	6.6	0.4	3.4	-	0.3	-	-
Macrozoarces americanus	0.5	-	-	-	-	-	-	-	-	-	-	+
Menidia menidia	3.5	9.5	-	-	-	-	-	-	-	-	0.3	0.8
Hippocampus erectus	-	0.8	1.0	-	-	-	-	-	0.1	0.3	-	0.2
Syngnathus fuscus	1.0	1.5	2.9	-	-	1.6	1.1	1.6	0.5	-	0.5	1.0
Centropristis striata	-	-	0.3	-	-	0.3	-	0.4	0.4	-	-	0.2
Pomatomus saltatrix	-	-	-	-	-	0.1	0.1	-	0.3	0.1	-	+
Decapterus punctatus	-	-	-	-	-	-	-	0.3	-	0.3	-	+
Trachurus lathami	-	-	-	0.3	-	-	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	-	-	0.1	-	-	+
Stenotomus chrysops	-	-	-	0.5	0.3	1.1	0.8	0.3	-	-	-	0.3
Bairdiella chrysura	-	-	-	-	-	-	-	-	17.4	0.1	-	2.2
Cynoscion regalis	-	-	-	-	-	0.3	25.3	245.3+	22.7	13.5	2.5	34.2
Larimus fasciatus	-	-	-	-	-	-	-	0.1	-	-	-	+
Leiostomus xanthurus	-	-	-	-	-	3.3	3.9	16.1	0.6	-	-	2.6
Menticirrhus saxatilis	-	-	-	-	-	-	-	0.1	1.1	-	-	0.2
Micropogon undulatus	-	-	-	-	-	-	-	-	0.4	-	-	+
Pseudupeneus maculatus	-	-	-	-	-	-	-	0.1	-	-	-	+
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	0.3	+
Pholis gunnellus	-	-	-	-	-	0.1	-	-	-	-	-	+
Ammodytes sp.	20.8	-	-	-	10.3	0.1	-	-	-	-	0.3	1.9

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Table 43 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Great Bay-Mullica River estuary by month in 1974. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Depth Range (feet)	5-35	3-27	4-35	5-35	5-14	6-25	7-20	6-22	6-14	8-22	9-25	3-35
Salinity Range (ppt)												
surface	22.0-26.5	19.0-26.5	10.0-24.0	21.0-30.0	21.0-29.5	17.0-27.0	20.5-30.0	20.0-30.0	21.0-30.0	24.0-30.0	24.5-31.0	10.0-31.0
bottom	23.0-26.5	20.0-29.0	13.0-27.5	24.0-30.0	22.5-29.5	19.0-28.0	21.0-30.5	20.0-30.0	20.5-29.5	24.5-30.0	26.5-31.5	13.0-31.5
Temp. Range (C)												
surface	3.3-4.0	6.0-7.0	8.5-9.0	14.0-18.5	18.5-21.0	22.0-24.0	19.0-26.9	20.0-23.0	16.0-17.0	15.0-17.0	4.0-6.0	3.3-26.9
bottom	3.3-4.0	6.0-7.5	8.0-9.0	15.0-18.5	18.2-21.0	22.5-23.5	19.5-26.9	21.0-23.0	16.5-18.0	15.0-16.0	4.0-6.0	3.3-26.9
air	3.0-6.0	9.0-11.0	13.0	10.0-15.0	17.0	25.0-27.0	25.0-28.0	19.0-20.0	20.0-22.5	19.8-23.0	6.0-6.5	3.0-28.0
Oxygen Range (ppm)												
surface	11.4-12.0	11.1-11.8	10.0-10.6	8.1-9.0	7.7-8.5	7.2-8.0	5.7-7.2	6.8-7.8	8.0-10.2	7.1-9.6	8.8-10.0	5.7-12.0
bottom	10.8-12.0	10.7-11.3	9.8-10.3	7.3-8.9	7.5-8.4	6.8-8.0	5.7-6.9	7.0-8.6	7.8-9.8	8.8-9.4	9.6-11.0	5.7-12.0
Secchi Range (feet)	2.0-3.5	1.5-2.5	2.0-3.5	1.0-2.5	2.5-4.5	3.5-6.0	2.5-3.0	1.0-3.0	2.0-3.5	4.0-7.0	1.0-1.5	1.0-7.0
Mustelus canis	-	-	-	0.8	5.8	2.5	0.5	0.3	-	-	-	0.9
Raja erinacea	-	0.3	-	-	-	-	-	-	-	-	-	+
Dasyatis sayi	-	-	-	-	-	0.3	-	-	-	-	-	+
Myliobatis freminvillei	-	-	-	-	-	0.3	-	1.0	-	-	--	0.1
Anguilla rostrata	-	-	0.5	2.3	-	-	-	0.5	-	-	-	0.3
Conger oceanicus	-	-	-	-	-	-	-	0.3	-	-	-	+
Alosa aestivalis	-	1.5	4.3	0.3	-	-	-	-	-	-	--	0.5
Alosa pseudoharengus	-	-	2.8	-	-	-	-	-	-	-	-	0.3
Brevoortia tyrannus	-	-	-	-	0.3	3.5	-	-	-	-	-	0.3
Clupea harengus	0.3	-	0.3	-	-	-	-	-	-	-	-	+
Anchoa hepsetus	-	-	-	-	-	0.3	-	-	-	-	-	+
Anchoa mitchilli	-	0.5	3.5	68.0	336.8+	528.5+	493.3+	76.0	380.5+	356.8+	3.8	204.3+
Synodus foetens	-	-	-	-	-	-	-	0.5	-	-	-	+
Opsanus tau	-	1.3	0.5	25.0+	1.0	1.8	0.3	4.0	2.8	-	2.0	3.5
Merluccius bilinearis	-	-	-	-	-	-	-	-	-	-	1.8	0.2
Pollachius virens	-	-	0.5	-	-	-	-	-	-	-	-	+
Urophycis chuss	1.0	67.8	32.5	1.3	-	-	-	-	0.8	-	-	9.4
Urophycis regius	-	21.5	32.0	16.8	0.3	0.8	-	-	0.3	0.8	1.8	6.7
Urophycis tenuis	-	-	0.3	3.5	0.5	-	-	-	-	-	-	0.4
Rissola marginata	-	-	-	11.5	-	0.5	-	0.3	-	-	-	1.1
Menidia menidia	1.3	0.8	-	-	-	-	-	-	-	25.5	-	2.5
Apeltes quadracus	0.3	0.8	-	-	-	-	-	-	-	-	-	+
Gasterosteus aculeatus	0.3	-	-	-	-	-	-	-	-	-	-	+
Fistularia tabacaria	-	-	-	-	-	-	-	0.5	-	-	-	+
Hippocampus erectus	-	0.8	1.8	-	-	-	-	-	0.3	-	-	0.3
Syngnathus fuscus	0.3	20.8	6.5	21.0+	0.3	1.8	1.0	2.0	0.3	-	-	4.9
Morone americana	3.8	24.0	15.5	0.5	1.0	0.8	-	0.3	1.5	1.8	1.8	4.6
Morone saxatilis	0.5	-	0.5	-	-	-	0.3	-	-	-	-	0.1
Centropristis striata	-	0.3	0.3	14.0	1.0	-	-	9.3	0.8	0.3	-	2.3
Mycteroperca microlepis	-	-	-	-	-	-	-	0.3	-	-	-	+
Pomotomus saltatrix	-	-	-	-	-	0.5	0.5	0.3	-	-	-	0.1
Caranx hippos	-	-	-	-	-	-	-	0.3	-	-	-	+
Selene vomer	-	-	-	-	-	0.5	-	-	-	-	-	+

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Table 43. (cont.)

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Stenotomus chrysops	-	-	-	-	-	-	0.8	0.8	-	-	-	0.1
Bairdiella chrysura	-	-	-	-	-	-	3.0	0.8	5.3	0.3	-	0.8
Cynoscion regalis	-	-	-	-	4.0	0.3	51.0	17.5	17.5	2.0	-	8.4
Leiostomus xanthurus	-	-	-	-	-	-	1.8	1.8	4.0	-	-	0.7
Menticirrhus saxatilis	-	-	-	-	-	-	-	1.0	-	-	-	+
Micropogon undulatus	-	-	-	-	-	-	0.3	-	0.3	-	0.3	+
Chaetodon ocellatus	-	-	-	-	-	-	-	1.5	1.8	-	-	0.3
Tautoga onitis	-	1.3	0.3	2.5	-	-	-	4.3	1.5	0.3	-	0.9
Tautogolabrus adspersus	-	-	-	1.0	-	-	0.3	0.5	-	-	-	0.2
Sphyraena borealis	-	-	-	-	0.3	-	-	-	-	-	-	+
Astroscopus guttatus	-	-	-	-	-	-	-	-	0.3	-	-	+
Hypsoblennius hentzi	-	-	-	-	-	-	-	-	0.3	-	-	+
Ammodytes sp.	0.3	1.0	-	-	-	-	-	-	-	-	0.5	0.2
Gobiosoma bosci	-	-	-	-	-	-	-	0.3	-	-	0.5	+
Peprilus triacanthus	-	-	-	-	-	0.3	1.3	-	-	-	-	0.1
Scorpaena plumieri	-	-	-	-	-	-	-	-	0.3	-	-	+
Prionotus carolinus	-	-	0.3	15.3	0.5	-	-	0.5	0.5	-	-	1.5
Prionotus evolans	-	-	-	-	0.3	0.3	-	4.3	0.3	-	-	0.5
Myoxocephalus aenaeus	-	1.0	-	-	-	-	-	-	-	-	0.5	0.1
Myoxocephalus octodecemspinosus	-	-	0.3	-	-	-	-	-	-	-	-	+
Etropus microstomus	-	1.5	0.3	10.3	0.5	-	-	0.3	-	0.3	-	1.2
Paralichthys dentatus	-	-	-	1.0	1.0	1.0	0.8	1.3	1.3	0.3	-	0.6
Scophthalmus aquosus	-	13.8	5.3	2.5	2.5	0.5	-	-	-	-	0.5	2.3
Pseudopleuronectes americanus	0.8	4.8	2.0	4.0	1.3	-	0.5	1.3	-	0.3	0.5	1.4
Trinectes americanus	-	-	-	26.5	9.3	4.5	0.5	6.8	0.8	-	0.8	4.5
Monacanthus hispidus	-	-	-	-	-	-	-	8.8	-	-	-	0.8
Lactophrys quadricornis	-	-	-	-	-	-	-	-	0.3	-	-	+
Sphoeroides maculatus	-	-	-	0.3	-	-	-	1.0	-	-	-	0.1
Chilomycterus schoepfi	-	-	-	-	-	-	0.8	0.3	-	-	-	+
Total species	10	18	21	21	18	19	17	33	22	11	12	62
Total specimens	34	653	439	912	1465+	2194	2226+	594	1684+	1553+	58	11812+
Number collections used in computation	4	4	4	4	4	4	4	4	4	4	4	44
Specimens/collection	8.5	163.3	109.8	228.0+	366.3+	548.5+	556.5+	148.5	421.0	388.3+	14.5	268.5+

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Table 44 . Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl at stations 5 to 8 in the vicinity of the Site by month in 1974. Collections made on or about the same dates as those in the Great Bay-Mullica River estuary. Values less than 0.1 are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.'

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Carcharhinus milberti	-	-	-	-	-	0.1	-	-	-	-	-	+
Mustelus canis	-	-	-	3.5	6.8	2.3	6.9	0.7	-	-	-	1.8
Squalus acanthias	-	-	-	-	-	-	-	-	-	0.1	-	+
Raja erinacea	0.5	0.5	1.7	0.5	-	-	-	-	0.1	0.5	0.5	0.4
Raja eglanteria	-	-	-	-	-	0.1	-	-	-	-	-	+
Conger oceanicus	0.3	-	-	-	-	-	0.3	0.1	-	-	0.8	0.1
Alosa aestivalis	0.8	4.3	-	-	-	-	-	-	-	-	-	0.3
Alosa pseudoharengus	3.3	3.5	0.6	-	-	-	-	-	-	-	-	0.5
Alosa sapidissima	0.3	0.5	+	-	-	-	-	-	-	-	-	+
Clupea harengus	0.3	1.0	1.1	-	-	0.1	-	-	-	-	-	0.2
Etrumeus teres	-	-	-	-	-	0.3	-	1.0	-	-	-	0.1
Anchoa hepsetus	-	-	-	-	-	0.3	-	-	0.1	-	-	+
Anchoa mitchilli	-	6.0	3.9	1.8	207.3+	51.9	21.6	2909.3+	1076.3+	8144.4+	27.5	1471.7+
Engraulis eurystole	-	-	-	-	-	2.6	-	19.0	22.0	26.1	-	8.2
Synodus foetens	-	-	-	-	-	-	-	0.1	0.1	-	-	+
Lophius americanus	-	-	-	0.3	-	-	-	-	-	-	-	+
Enchelyopus cimbrius	-	-	-	-	-	0.1	0.1	-	-	-	-	+
Gadus morhua	-	0.3	-	-	-	-	-	-	-	-	-	+
Merluccius bilinearis	2.0	3.8	21.0	66.3	17.0	5.7	1.9	0.1	0.4	2.5	85.3	14.2
Pollachius virens	-	0.3	+	-	-	-	-	-	-	-	-	+
Urophycis chuss	128.8	47.8	143.6	34.8	0.8	0.1	-	1.6	2.8	0.5	29.3	30.9
Urophycis regius	-	9.5	34.7	93.5	10.5	208.7	6.8	1.0	0.8	1.5	2.8	34.6
Urophycis tenuis	-	-	0.3	19.8	2.0	59.0	8.5	-	-	-	-	8.8
Rissola marginata	-	-	2.1	1.5	-	6.6	0.4	3.4	-	0.3	-	-
Macrozoarces americanus	0.5	-	-	-	-	-	-	-	-	-	-	+
Menidia menidia	3.5	9.5	-	-	-	-	-	-	-	-	0.3	0.8
Hippocampus erectus	-	0.8	1.0	-	-	-	-	-	0.1	0.3	-	0.2
Syngnathus fuscus	1.0	1.5	2.9	-	-	1.6	1.1	1.6	0.5	-	0.5	1.0
Centropristis striata	-	-	0.3	-	-	0.3	-	0.4	0.4	-	-	0.2
Pomatomus saltatrix	-	-	-	-	-	0.1	0.1	-	0.3	0.1	-	+
Decapterus punctatus	-	-	-	-	-	-	-	0.3	-	0.3	-	+
Trachurus lathami	-	-	-	0.3	-	-	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	-	-	0.1	-	-	+
Stenotomus chrysops	-	-	-	0.5	0.3	1.1	0.8	0.3	-	-	-	0.3
Bairdiella chrysura	-	-	-	-	-	-	-	-	17.4	0.1	-	2.2
Cynoscion regalis	-	-	-	-	-	0.3	25.3	245.3+	22.7	13.5	2.5	34.2
Larimus fasciatus	-	-	-	-	-	-	-	0.1	-	-	-	+
Leiostomus xanthurus	-	-	-	-	-	3.3	3.9	16.1	0.6	-	-	2.6
Menticirrhus saxatilis	-	-	-	-	-	-	-	0.1	1.1	-	-	0.2
Micropogon undulatus	-	-	-	-	-	-	-	-	0.4	-	-	+
Pseudupeneus maculatus	-	-	-	-	-	-	-	0.1	-	-	-	+
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	0.3	+
Pholis gunnellus	-	-	-	-	-	0.1	-	-	-	-	-	+
Ammodytes sp.	20.8	-	-	-	10.3	0.1	-	-	-	-	0.3	1.9

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Table 44. (cont.)

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Peprilus triacanthus	-	-	-	1.0	4.0	2.4	23.0	78.6	1.0	33.6	-	16.1
Prionotus carolinus	-	-	2.6	2.0	-	3.9	9.8	2.7	1.0	1.8	-	2.6
Prionotus evolans	-	-	-	1.5	-	1.3	1.4	5.4	2.4	0.3	1.3	1.4
Myoxocephalus aenaeus	0.5	-	-	-	-	-	-	-	-	-	-	+
Myoxocephalus octodecemspinosus	0.8	-	-	-	-	-	-	-	-	-	0.3	+
Liparis inquilinus	0.5	-	-	-	-	-	-	-	-	-	-	+
Etropus microstomus	1.0	2.0	2.9	0.8	-	2.3	3.5	1.3	2.6	1.3	2.8	2.0
Cithairchthys spilopterus	-	-	-	-	-	-	-	-	0.1	-	-	+
Paralichthys dentatus	-	-	-	1.0	-	0.1	0.3	0.1	0.5	0.8	-	0.3
Paralichthys oblongus	-	-	-	-	-	-	0.3	0.6	0.4	-	-	0.1
Scophthalmus aquosus	3.0	3.5	4.3	17.3	6.8	7.6	2.6	1.1	1.1	7.5	2.8	4.8
Limanda ferruginea	-	0.3	-	-	-	-	-	-	-	-	-	+
Pseudopleuronectes americanus	2.0	5.0	1.6	1.0	0.5	-	0.1	-	-	0.3	0.3	0.8
Monacanthus hispidus	-	-	-	-	-	0.9	0.3	2.0	0.1	-	-	0.4
Sphoeroides maculatus	-	-	-	-	-	-	-	14.9	0.1	0.5	-	1.7
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	0.3	-	-	+
Total species	18	18	18	18	11	29	22	29	29	21	16	61
Total specimens	678	399	1573	988	1064	2544	949	23153+	9246+	65888+	628	107110
Number collections used in computation	4	4	7	4	4	7	8	7	8	8	4	65
Specimens/collections	169.5	99.8	224.7	247.0	266.0	363.4	118.6	3307.6+	1155.8+	8236.0+	157.0	1647.8+

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Table 45. Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon otter trawl at eight stations on a transect from the Mullica River to seaward of the Site during winter and spring 1974.* Collections at all stations made on or about the same dates. A number followed by a plus (+) indicates a conservative estimate.

	WINTER								SPRING							
Station	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Zone	1510	1075	1045	1015	5150	5250	5350	5450	1510	1075	1045	1015	5150	5250	5350	5450
Mustelus canis	-	-	-	-	-	-	-	-	-	5.3	0.7	2.7	8.0	2.3	0.5	-
Raja erinacea	-	-	-	0.5	1.0	0.5	0.5	-	-	-	-	-	-	1.3	2.0	0.5
Anguilla rostrata	-	-	-	-	-	-	-	-	2.0	1.7	-	-	-	-	-	-
Conger oceanicus	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-
Alosa aestivalis	-	3.0	-	-	7.5	1.0	1.0	0.5	-	5.7	-	0.3	-	-	-	-
Alosa pseudoharengus	-	-	-	-	1.5	3.5	3.0	5.5	0.3	3.3	-	-	0.5	-	0.5	-
Alosa sapidissima	-	-	-	-	1.0	-	0.5	-	-	-	-	-	-	0.3	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
Clupea harengus	-	-	0.5	-	-	0.5	1.0	2.0	-	0.3	-	-	-	0.3	1.0	0.8
Anchoa mitchilli	-	1.0	-	-	3.0	4.0	4.0	2.0	1.3	405.7+	107.7	29.7	205.0+	7.0	5.0	0.5
Opsanus tau	2.5	-	-	-	-	-	-	-	12.0	3.3	20.0+	-	-	0.3	-	-
Lophius americanus	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-
Gadus morhua	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-
Merluccius bilinearis	-	-	-	-	-	5.5	2.5	3.5	-	-	-	-	1.0	20.7	64.5	39.0
Pollachius virens	-	-	-	-	0.5	-	-	-	-	0.7	-	-	0.3	-	-	-
Urophycis chuss	131.0	1.0	3.0	2.5	192.5	68.0	74.5	18.0	43.7	-	-	1.0	63.5	89.7	126.3	29.8
Urophycis regius	12.0	3.5	1.5	26.0	9.0	4.5	-	5.5	45.7	7.0	7.3	5.3	53.8	82.3	41.5	7.8
Urophycis tenuis	-	-	-	-	-	-	-	-	1.7	3.3	0.7	-	0.5	18.7	7.3	0.5
Rissola marginata	-	-	-	-	-	-	-	-	0.3	4.3	10.7	-	4.3	1.3	-	-
Macrozoarces americanus	-	-	-	-	-	0.5	0.5	-	-	-	-	-	-	-	-	-
Menidia menidia	-	2.0	1.5	0.5	4.0	5.0	5.5	11.5	-	-	-	-	-	-	-	-
Apeltes quadracus	-	1.5	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	1.5	1.5	-	-	-	0.3	-	1.3	0.7	0.8	0.3	0.5	0.3
Syngnathus fuscus	25.5	10.5	0.5	5.5	4.0	1.	-	-	7.0	18.3+	10.3	1.3	4.8	0.3	-	-
Morone americana	18.0	37.5	-	-	-	-	-	-	18.7	4.0	-	-	-	-	-	-
Morone saxatilis	-	-	0.5	0.5	-	-	-	-	0.7	-	-	-	-	-	-	-
Centropristis striata	0.5	-	-	-	-	-	-	-	0.7	0.3	19.7	-	0.5	-	-	-
Trachurus lathami	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3
Stenotomus chrysops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	0.5
Cynoscion regalis	-	-	-	-	-	-	-	-	5.3	-	-	-	-	-	-	-
Tautoga onitis	2.0	-	0.5	-	-	-	-	-	0.7	-	3.0	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	1.3	-	-	-	-	-
Sphyraena borealis	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-
Ammodytes sp.	-	-	-	2.5	-	-	2.0	39.5	-	-	-	-	-	0.3	10.0	-
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	-	-	0.3	1.0	3.3	0.8
Prionotus carolinus	-	-	-	-	-	-	-	-	-	0.7	20.3	0.3	2.3	1.3	2.0	1.3
Prionotus evolans	-	-	-	-	-	-	-	-	0.3	-	-	-	1.0	0.7	-	-
Myoxocephalus aenaeus	-	-	2.0	-	-	1.0	-	-	-	-	-	-	-	-	-	-
Myoxocephalus octodecemspinosus	-	-	-	-	-	1.0	0.5	-	-	-	0.3	-	-	-	-	-
Liparis inquilinus	-	-	-	-	-	1.0	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	0.5	-	2.5	1.5	1.5	-	3.0	0.3	-	14.7	-	1.5	1.0	1.3	2.5
Paralichthys dentatus	-	-	-	-	-	-	-	-	0.3	1.7	0.7	-	0.3	-	0.8	-
Scophthalmus aquosus	1.5	1.5	9.5	15.0	6.5	3.0	1.0	2.5	1.0	2.0	2.3	8.3	7.5	16.7	5.8	5.8
Limanda ferruginea	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	0.5	2.0	-	1.0	-	10.0	3.0	1.0	-	2.0	7.7	-	-	1.7	2.5	0.8
Trinectes maculatus	-	-	-	-	-	-	-	-	33.7	11.7	2.3	-	-	-	-	-
Sphoeroides maculatus	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-
Total species	9	11	8	13	14	17	15	13	20	21	19	9	18	20	18	15
Total specimens	387	128	54	118	468	223	200	186	528	1446+	693+	149	1422+	743	1098	362
Number collections used in computation	2	2	2	2	2	2	2	2	3	3	3	3	4	3	4	4
Specimens/collection	193.5	64.0	27.0	59.0	234.0	111.5	100.0	93.0	176.0	481.7+	231.0+	49.7	355.5+	247.7	274.5	90.5

* Seasonal totals are given for winter (January - March), spring (April - June), summer (July - September), and fall (October - December).

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Table 46. Number of fishes taken per collection in 15-minute bottom hauls of a 25-ft semiballoon trawl at eight stations on a transect from the Mullica River to seaward of the Site during summer and fall 1974. Collections at all stations made on or about the same dates. A number followed by a plus (+) indicates a conservative estimate.

Station	SUMMER								FALL							
Zone	1 1510	2 1075	3 1045	4 1015	5 5150	6 5250	7 5350	8 5450	1 1510	2 1075	3 1045	4 1015	5 5150	6 5250	7 5350	8 5450
Carcharhinus milberti	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-
Mustelus canis	-	2	-	1.7	1.2	8.4	3.8	1.3	-	-	-	-	-	-	-	-
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-
Raja erinacea	-	-	-	-	-	-	-	-	-	-	-	-	0.6	0.2	0.4	0.2
Raja eglanteria	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-
Dasyatis sayi	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Myliobatis freminvillei	-	-	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-
Anguilla rostrata	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conger oceanicus	0.3	-	-	-	-	0.6	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	1.7	2.3	-	-	-	-	-	-	-	-	-	-	-	0.4	-	0.2
Clupea harengus	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-
Etrumeus teres	-	-	-	-	0.2	-	1.6	-	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	-	-	0.3	-	-	-	0.3	-	-	-	-	-	-	-	-
Anchoa mitchilli	346.7+	809.8+	15.5	27.0	1831.0+	37.0	431.0+	1262.5+	-	-	-	-	-	0.2	-	-
Engraulis eurystole	-	-	-	-	14.3	0.2	3.2	8.0	66.0	820.0+	99.3	2.7	5992.4+	1303.0+	7447.8+	31.8
Synodus foetens	0.3	0.3	-	-	-	-	0.2	-	-	-	-	-	44.0	3.8	29.0	0.2
Opsanus tau	6.7	0.5	1.0	-	-	-	-	-	-	-	-	-	-	0.2	-	-
Enchelyopus cimbrius	-	-	-	-	-	0.2	0.2	-	6.3	-	-	-	-	-	-	-
Merluccius bilinearis	-	-	-	-	0.2	7.2	2.6	1.0	-	-	-	-	-	-	-	-
Urophycis chuss	-	-	-	-	-	2.0	0.4	-	1.0	0.3	0.3	0.7	14.4	9.0	11.4	38.0
Urophycis regius	-	0.8	-	-	115.0	143.0	22.6	0.7	-	-	-	1.0	1.0	18.8	1.4	7.4
Urophycis tenuis	-	-	-	-	3.8	91.4	0.2	-	0.3	-	1.0	2.3	0.8	2.6	1.6	0.8
Rissola marginata	1.0	-	-	-	11.2	1.0	-	-	-	-	-	-	-	-	-	-
Menidia menidia	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-
Fistularia tabacaria	-	-	1.0	-	-	-	-	-	-	-	34.0	-	0.2	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	3.0	0.5	2.0	2.3	2.0	1.2	0.2	-	-	-	0.3	-	0.4	0.2	-
Morone americana	1.7	-	-	-	-	-	-	-	-	-	0.3	-	0.2	0.6	0.4	-
Centropristis striata	7.3	0.3	1.0	-	-	0.2	0.4	0.3	6.0	0.7	-	-	-	-	-	-
Mycteroperca microlepis	-	-	0.5	-	-	-	-	-	1.0	-	0.3	-	-	0.4	0.2	-
Pomatomus saltatrix	0.3	1.0	-	-	0.2	0.2	-	-	-	-	-	-	-	-	-	-
Caranx hippos	-	0.3	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-
Decapterus punctatus	-	-	-	-	-	-	0.2	0.2	-	-	-	-	-	-	-	-
Selene vomer	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
Vomer setapinnis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stenotomus chrysops	-	-	3.0	-	-	-	0.8	2.0	-	-	-	-	0.2	-	-	-
Bairdiella chrysura	1.0	1.5	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Cynoscion regalis	16.3	50.0	2.0	7.3	216.7+	41.6	82.6	-	0.7	4.7	2.0	-	28.0	-	-	-
Larimus fasciatus	-	-	-	-	0.2	-	-	-	11.0	6.0	2.7	6.3	41.6	10.0	6.8	1.6
Leiostomus xanthurus	1.0	1.8	1.5	0.3	6.7	12.8	12.6	-	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	1.3	0.2	-	-	-	1.0	4.3	-	-	1.0	-	-	-
Micropogon undulatus	-	0.3	-	-	-	-	-	-	-	-	-	-	0.2	1.6	-	-
									-	-	0.3	0.3	0.4	0.2	-	-

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Table 46 . (cont.)

	SUMMER								FALL							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
	1510	1075	1045	1015	5150	5250	5350	5450	1510	1075	1045	1015	5150	5250	5350	5450
Pseudupeneus maculatus	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-
Chaetodon ocellatus	-	-	3.0	-	-	-	-	-	1.3	-	1.0	-	-	-	-	-
Tautog onitis	0.3	-	8.0	-	-	-	-	-	1.7	-	0.7	-	-	-	-	-
Tautogolabrus adspersus	0.3	-	1.0	-	-	-	-	--	-	-	-	-	-	-	-	0.2
Astroscopus guttatus	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-
Hypsoblennius hentzi	-	-	-	-	-	-	-	-	—	-	0.3	-	-	-	-	-
Pholis gunnellus	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	0.2	-	-	-	-	-	-	0.7	-	-	-	0.2
Gobiosoma bosci	-	-	0.5	-	-	-	-	-	0.7	1.0	-	-	-	-	-	-
Gobiosoma ginsburgi	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	1.5	-	-	6.8	8.4	47.2	72.0	-	-	-	-	0.2	0.8	1.6	52.8
Scorpaena plumieri	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-
Prionotus carolinus	-	-	-	0.7	0.2	8.6	9.2	5.7	-	-	-	0.7	-	1.0	0.8	2.6
Prionotus evolans	4.3	1.0	0.5	0.7	3.8	6.4	0.2	0.3	-	-	0.3	-	2.6	1.6	0.2	0.8
Myxocephalus aenaeus	-	-	-	-	-	-	-	-	-	-	0.3	0.3	-	-	-	-
Myoxocephalus octodecemspinosus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-
Etropus microstomus	-	-	-	0.3	-	2.0	4.6	3.3	-	-	-	0.3	0.2	2.6	3.2	2.4
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-
Paralichthys dentatus	0.3	1.8	-	1.3	-	0.8	-	-	0.7	-	-	0.3	-	0.8	1.2	-
Paralichthys oblongus	-	-	-	-	-	1.0	0.2	-	-	-	-	-	-	0.4	0.2	-
Scopthalmus aquosus	-	0.5	-	-	2.8	10.8	0.8	1.2	-	-	-	0.7	6.6	7.8	0.6	1.0
Pseudopleuronectes americanus	0.3	0.5	2.0	-	-	-	-	0.2	0.7	-	-	0.3	0.2	0.2	-	0.2
Trinectes maculatus	12.0	2.8	-	-	-	-	-	-	1.7	0.3	-	-	-	-	-	-
Monacanthus hispidus	0.3	0.3	15.0	1.0	1.8	1.4	0.4	0.3	-	-	-	-	-	0.2	-	-
Lactophrys quadricornis	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-
Sphoeroides maculatus	0.3	0.3	0.5	0.3	16.2	1.0	-	0.3	-	-	-	-	0.4	0.6	-	-
Chilomycterus schoepfi	-	0.3	1.5	-	-	-	-	-	-	-	-	-	0.2	0.2	-	-
Total species	21	24	19	15	23	27	23	19	15	8	15	16	22	28	19	17
Total specimens	1210+	3531+	134	139	13411+	1944	3131+	8160+	300	2502+	430	53	30680+	6841+	37537+	704
Number collections used in computation	3	4	2	3	6	5	5	6	3	3	3	3	5	5	5	5
Specimens/collection	403.3+	882.8+	67.0	69.5	2335.2+	388.8	626.2+	1360.0+	100.0	834.0+	143.3	17.7	6136.0+	1368.2+	7507.4+	140.8

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Table 47 . Results of Wilcoxon signed rank test comparing the number of fishes taken during 1974 in 15-minute bottom hauls of a 25-ft semiballoon trawl at eight stations/zones on a transect from the Mullica River to seaward of the Site off Little Egg Inlet, New Jersey. Arrows indicate the station with the greater number of fishes taken and N. S. indicates no significant difference at $P \leq .05$. Eleven collections were compared for each station.

Station	1	2	3	4	5	6	7	8
Zone	1510	1075	1045	1015	5150	5250	5350	5450
1 1510	-							
2 1075	N. S.	-						
3 1045	N. S.	↑	-					
4 1015	↑	↑	N. S.	-				
5 5150	N. S.	N. S.	N. S.	←	-			
6 5250	N. S.	N. S.	N. S.	←	N. S.	-		
7 5350	N. S.	N. S.	N. S.	←	N. S.	N. S.	-	
8 5450	N. S.	N. S.	N. S.	N. S.	↑	N. S.	N. S.	-

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Table 48 . Weight of fishes in grams per collection taken in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Great Bay-Mullica River estuary by month in 1974. Values less than 1 gram are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Mustelus canis	-	-	-	-	875	383	1333	125	-	-	-	229
Raja erinacea	-	63	-	-	-	-	-	-	-	-	-	6
Dasyatis sayi	-	-	-	-	-	5292	-	-	-	-	-	397
Myliobatis freminvillei	-	-	-	-	-	1400	-	7750	-	-	-	880
Anguilla rostrata	-	-	-	450	-	-	-	63	-	-	--	38
Conger oceanicus	-	-	-	-	-	-	-	4	-	-	-	+
Alosa aestivalis	-	5	-	-	-	-	-	-	-	-	-	2
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	4
Brevoortia tyrannus	-	-	-	-	+	9	-	-	-	-	-	+
Clupea harengus	+	-	-	-	-	-	-	-	-	-	-	+
Anchoa hepsetus	-	-	-	-	-	2	-	-	-	-	-	+
Anchoa mitchilli	-	+	-	550	761	1833+	1015	45	2017+	257	1	550
Synodus foetens	-	-	-	-	-	-	-	21	-	-	-	2
Opsanus tau	-	116	-	2354	14	200	-	394	386	-	129	237
Merluccius bilinearis	-	-	-	-	-	-	-	-	-	-	12	1
Pollachius virens	-	-	-	-	-	-	-	-	-	-	-	+
Urophycis chuss	27	1419	-	150	-	-	-	-	+	-	-	266
Urophycis regius	-	69	-	810	11	-	-	-	+	+	8	65
Urophycis tenuis	-	-	-	53	13	-	-	-	-	-	-	16
Rissola marginata	-	-	-	83	-	23	-	9	-	-	-	7
Menidia menidia	5	3	-	-	-	-	-	-	-	125	-	13
Apeltes quadracus	+	+	-	-	-	-	-	-	-	-	-	+
Gasterosteus aculeatus	+	-	-	-	-	-	-	-	-	-	-	+
Fistularia tabacaria	-	-	-	-	-	-	-	7	-	-	-	+
Hippocampus erectus	-	1	-	-	-	-	-	-	1	-	-	+
Syngnathus fuscus	+	35	-	104	+	2	2	2	+	-	-	11
Morone americana	769	4654	-	100	250	333	-	37	276	226	313	953
Morone saxitilis	451	-	-	-	-	-	-	-	-	-	-	81
Centropristis striata	-	2	-	2	31	-	-	714	50	17	-	81
Mycteroperca microlepis	-	-	-	-	-	-	-	18	-	-	-	2
Pomatomus saltatrix	-	-	-	-	-	2	7	17	-	-	-	2
Caranx hippos	-	-	-	-	-	-	-	+	-	-	-	+
Stenotomus chrysops	-	-	-	-	-	-	120	81	-	-	-	17
Bairdiella chrysura	-	-	-	-	-	-	2	5	82	2	-	9
Cynoscion regalis	-	-	-	-	1672	38	1202	144	669	95	-	351
Leiostomus xanthurus	-	-	-	-	-	-	60	189	258	-	-	49
Menticirrhus saxatilis	-	-	-	-	-	-	-	71	-	-	-	7
Micropogon undulatus	-	-	-	-	-	-	6	+	+	-	+	+
Chaetodon ocellatus	-	-	-	-	-	-	-	3	7	-	-	1
Tautoga onitis	-	38	+	40	-	-	-	651	231	76	-	102
Tautogolabrus adspersus	-	-	-	-	-	-	+	+	-	-	-	+
Sphyraena borealis	-	-	-	-	+	-	-	-	-	-	-	+
Astroscopus guttatus	-	-	-	-	-	-	-	+	+	-	-	+
Hypsoblennius hentzi	-	-	-	-	-	-	-	-	2	-	-	+
Ammodytes sp.	1	4	-	-	-	-	-	-	-	-	1	+

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Table 48. (cont.)

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Gobiosoma bosci	-	-	-	-	-	-	-	+	-	-	+	+
Peprilus triacanthus	-	-	-	-	-	2	2	-	-	-	-	+
Scorpaena plumieri	-	-	-	-	-	-	-	-	2	-	-	+
Prionotus carolinus	-	-	1	-	+	-	-	19	2	-	-	+
Prionotus evolans	-	-	-	-	33	-	-	384	6	-	-	2
Myoxocephalus aenaeus	-	7	-	-	-	-	-	-	-	-	+	+
Myoxocephalus octodecemspinosus	-	-	113	-	-	-	-	-	-	-	-	11
Etropus microstomus	-	2	+	-	5	-	-	+	-	+	-	+
Paralichthys dentatus	-	-	-	204	386	-	243	176	153	14	-	101
Scophthalmus aquosus	-	569	1325	55	72	-	-	-	-	-	42	204
Pseudopleuronectes americanus	43	514	459	-	11	-	2	47	-	28	49	115
Trinectes americanus	-	-	-	2193	410	300	-	300	125	-	23	218
Monacanthus hispidus	-	-	-	-	-	-	-	380	-	-	-	38
Lactophrys quadricornis	-	-	-	-	-	-	-	-	+	-	-	+
Sphoeroides maculatus	-	-	-	-	-	-	-	97	-	-	-	10
Chilomycterus schoepfi	-	-	-	-	-	-	4	15	-	-	-	2
Total species	10	18	21	14	18	14	14	33	22	11	12	62
Total weight in kg.	5.2	30.0	26.2	14.3	18.2	29.5+	12.0+	47.1+	17.1+	3.4+	2.3	205.1+
Number collections used in computation	4	4	4	2	4	3	3	4	4	4	4	40
Weight/collection in kg.	1.3	7.5	6.5	7.2	4.5	9.8+	4.0+	11.8+	4.3+	0.8+	0.6	5.1+

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Table 49. Weight of fishes in grams per collection taken in 15-minute bottom hauls of a 25-ft semiballoon trawl at stations 5 to 8 in the vicinity of the Site by month in 1974. Collections made on or about the same date as those in the Great Bay-Mullica River estuary. Values less than 1 gram are indicated by a plus (+). A number followed by a plus (+) indicates a conservative estimate.

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Carcharhinus milberti	-	-	-	-	-	1000	-	-	-	-	-	108
Mustelus canis	-	-	-	394	2150	414	2663	414	-	-	-	573
Squalus acanthias	-	-	-	-	-	-	-	-	-	213	-	26
Raja erinacea	338	238	786	123	-	-	-	---	75	270	300	188
Raja eglanteria	-	-	-	-	-	179	-	-	-	-	-	19
Conger oceanicus	10	-	-	-	-	-	1	2	-	-	30	3
Alosa aestivalis	5	15	-	-	-	-	-	-	-	-	-	1
Alosa pseudoharengus	75	57	37	-	-	-	-	-	-	-	-	12
Alosa sapidissima	4	10	7	-	-	-	-	-	-	-	-	2
Clupea harengus	61	235	284	-	-	1	-	-	-	-	-	49
Etrumeus teres	-	-	-	-	-	+	-	14	-	-	-	1
Anchoa hepsetus	-	-	-	-	-	4	-	-	+	-	-	+
Anchoa mitchilli	-	13	8	6	526	130	58	7339+	1690	6519+	20	1857
Engraulis eurystole	-	-	-	-	-	2	-	6	10	12	-	4
Synodus foetens	-	-	-	-	-	-	-	12	3	-	-	2
Lophius americanus	-	-	-	2250	-	-	-	-	-	-	-	138
Enchelyopus cimbrius	-	-	-	-	-	+	+	-	-	-	-	+
Gadus morhua	-	700	-	-	-	-	-	-	-	-	-	43
Merluccius bilinearis	438	980	5907	1529	263	72	45	5	+	9	3666	1074
Pollachius virens	-	+	+	-	-	-	-	-	-	-	-	+
Urophycis chuss	4383	1155	5096	1091	62	2	-	4	2	8	323	982
Urophycis regius	-	22	96	781	188	5427	406	121	28	289	12	758
Urophycis tenuis	-	-	66	106	30	709	112	-	-	-	-	106
Rissola marginata	-	-	33	114	-	78	26	94	-	15	-	34
Macrozoarces americanus	295	-	-	-	-	-	-	-	-	-	-	18
Menidia menidia	18	44	-	-	-	-	-	-	-	-	1	4
Hippocampus erectus	-	3	3	-	-	-	-	-	+	2	-	1
Syngnathus fuscus	1	2	3	-	-	3	1	2	1	-	1	1
Centropristis striatus	-	-	+	-	-	2	-	20	1	-	-	3
Pomatomus saltatrix	-	-	-	-	-	+	2	-	13	9	-	3
Decapteus punctatus	-	-	-	-	-	-	-	2	-	+	-	+
Trachurus lathami	-	-	-	3	-	-	-	-	-	-	-	+
Vomer setapinnis	-	-	-	-	-	-	-	-	+	-	-	+
Stenotomus chrysops	-	-	-	9.5	5	29	42	3	-	-	-	9
Bairdiella chrysura	-	-	-	-	-	-	-	-	375	2	-	46
Cynoscion regalis	-	-	-	-	-	60	43	3091	12567	698	88	19827
Larimus fasciatus	-	-	-	-	-	-	-	1	-	-	-	+
Leiostomus xanthurus	-	-	-	-	-	8	106	805	54	-	-	107
Menticirrhus saxatilis	-	-	-	-	-	-	-	3	47	-	-	6
Micropogon undulatus	-	-	-	-	-	-	-	-	25+	-	-	3
Pseudupeneus maculatus	-	-	-	-	-	-	-	+	-	-	-	+
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	2	+
Pholis gunnellus	-	-	-	-	-	+	-	-	-	-	-	+
Ammodytes sp.	276	-	-	-	+	+	-	-	-	-	+	17

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Table 49. (cont.)

	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	1974
Gobiosoma ginsburgi	-	-	-	-	-	-	-	+	-	-	-	+
Peprilus triacanthus	-	-	-	4	11	20	146	436	9	-	-	74
Prionotus carolinus	-	-	12	318	-	414	1776	216	51	12	-	315
Prionotus evolans	-	-	-	453	-	56	185	293	582	5	11	161
Myoxocephalus aenaeus	+	-	-	-	-	-	-	-	-	-	-	+
Myoxocephalus octodecemspinosus	208	-	-	-	-	-	-	-	-	-	68	17
Liparis inquilinus	1	-	-	-	-	-	-	-	-	-	-	+
Etropus microstomus	3	7	13	8	-	18	45	12	12	10	12	15
Citharichthys spilopterus	-	-	-	-	-	-	-	-	+	-	-	+
Paralichthys dentatus	-	-	-	333	-	79	156	22	55	126	-	73
Paralichthys oblongus	-	-	-	-	-	-	+	2	9	-	-	1
Scophthalmus aquosus	463	900	972	3513	1232	318+	188	648	115	1253	441	803
Limanda ferruginea	-	122	-	-	-	-	-	-	-	-	-	7
Pseudopleuronectes americanus	488	1250	521	312	34	-	16	-	-	38	56	194
Monacanthus hispidus	-	-	-	-	-	7	7	77	12	-	-	11
Sphoeroides maculatus	-	-	-	-	-	-	-	165	5	8	-	19
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	25	-	-	3
Total species	18	18	18	18	11	29	22	29	29	21	16	61
Total weight in kg.	28.3	23.0	96.9	45.4	18.0+	63.2+	48.2	96.7+	126.1+	76.3+	20.1	642.2+
Number collections used in computation	4	4	7	4	4	7	8	7	8	8	4	65
Weight/collection in kg.	7.1	5.8	13.8	11.3	4.5+	9.0+	6.0	13.8+	15.8+	9.5+	5.0	9.9+

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Table 50. Results of Wilcoxon's signed rank test comparing the weight of fishes in grams during 1974 in 15-minute bottom hauls of a 25-ft semiballoon trawl at eight stations/zones on a transect from the Mullica River to seaward of the Site off Little Egg Inlet, New Jersey. Arrows indicate the station with the greater weight of fishes taken and N. S. indicates no significant difference at $P \leq .05$. Eleven collections were compared for each station.

Station	1	2	3	4	5	6	7	8
Zone	1510	1075	1045	1015	5150	5250	5350	5450

Station / Zone	1 1510	2 1075	3 1045	4 1015	5 5150	6 5250	7 5350	8 5450
2 1075	N. S.	-						
3 1045	←	N. S.	-					
4 1015	N. S.	N. S.	←	-				
5 5150	N. S.	N. S.	N. S.	N. S.	-			
6 5250	N. S.	N. S.	N. S.	N. S.	N. S.	-		
7 5350	N. S.	N. S.	N. S.	N. S.	N. S.	N. S.	-	
8 5450	N. S.	N. S.	N. S.	N. S.	N. S.	N. S.	N. S.	-

Table 51. Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Little Egg Harbor, Great Bay, Mullica River, and the intracoastal waterway between Great Bay and Black Point, New Jersey by season in 1974.* Values less than 0.1 are indicated by a plus (+). An number followed by a plus (+) indicates a conservative estimate.

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	WINTER				SPRING				SUMMER				FALL				TOTAL				
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	Rank
Mustelus canis	-	-	-	-	31	0.9	6	5.2	1	+	1	1.0	-	-	-	-	32	0.2	7	4.6	13
Raja erinacea	1	+	1	1.0	2	0.1	2	1.0	-	-	-	-	-	-	-	-	3	+	3	1.0	36
Myliobatis freminvillei	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0	49
Anguilla rostrata	-	-	-	-	15	0.4	7	2.1	1	+	1	1.0	-	-	-	-	16	0.1	8	2.0	21
Conger oceanicus	-	-	-	-	2	0.1	1	2.0	-	-	-	-	-	-	-	-	2	+	1	2.0	41.5
Alosa aestivalis	214	3.7	14	15.3	137	3.8	3	45.7	-	-	-	-	-	-	-	-	351	2.3	17	20.6	4
Alosa pseudoharengus	16	0.3	9	1.8	4	0.1	2	2.0	-	-	-	-	20	0.8	3	6.7	40	0.3	14	2.9	12
Alosa sapidissima	3	0.1	2	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3	+	2	1.5	36
Brevoortia tyrannus	1	+	1	1.0	14	0.4	4	3.5	4	0.1	2	2.0	11	0.5	1	11.0	30	0.2	8	3.8	15.5
Clupea harengus	1	+	1	1.0	1	+	1	1.0	-	-	-	-	-	-	-	-	2	+	2	1.0	41.5
Dorosoma cepedianum	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0	49
Anchoa hepsetus	-	-	-	-	-	-	-	-	9	0.3	3	3.0	-	-	-	-	9	0.1	3	3.0	26.5
Anchoa mitchilli	5	0.1	5	1.0	835	23.2	26	32.1	2124+	59.0+	28	75.9+	158	6.6	10	15.8	3122+	20.3+	69	45.2+	1
Synodus foetens	-	-	-	-	-	-	-	-	2	0.1	2	1.0	-	-	-	-	2	+	2	1.0	41.5
Opsanus tau	-	-	-	-	16	0.4	6	2.7	12	0.3	6	2.0	1	+	1	1.0	29	0.2	13	2.2	17
Pollachius virens	1	+	1	1.0	1	+	1	1.0	-	-	-	-	-	-	-	-	2	+	2	1.0	41.5
Urophycis chuss	83	1.4	7	11.9	222	6.2	10	22.2	-	-	-	-	-	-	-	-	305	2.0	17	17.9	5
Urophycis regius	29	0.5	6	4.8	329	9.1	19	17.3	-	-	-	-	1	+	1	1.0	359	2.3	26	13.8	3
Urophycis tenuis	-	-	-	-	17	0.5	5	3.4	-	-	-	-	-	-	-	-	17	0.1	5	3.4	19.5
Rissola marginata	1	+	1	1.0	5	0.1	3	1.7	-	-	-	-	-	-	-	-	6	+	4	1.5	30
Fundulus majalis	1	+	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	49
Menidia menidia	109	1.9	23	4.7	1	+	1	1.0	-	-	-	-	72	3.0	8	9.0	182	1.2	32	5.7	7
Apeltes quadracus	7	0.1	6	1.2	-	-	-	-	-	-	-	-	-	-	-	-	7	+	6	1.2	28.5
Gasterosteus aculeatus	14	0.2	9	1.6	-	-	-	-	-	-	-	-	-	-	-	-	14	0.1	9	1.6	24
Hippocampus erectus	-	-	-	-	19	0.5	8	2.4	6	0.2	2	3.0	-	-	-	-	25	0.2	10	2.5	18
Syngnathus fuscus	25	0.4	8	3.1	58	1.6	15	3.9	4	0.1	4	1.0	7	0.3	3	2.3	94	0.6	30	3.1	9
Morone americana	389	6.7	12	32.4	37	1.0	4	9.3	22	0.6	4	5.5	108	4.5	5	21.6	556	3.6	25	22.2	2
Morone saxatilis	3	0.1	3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	3	+	3	1.0	36
Centropristis striata	-	-	-	-	5	0.1	3	1.7	11	0.3	9	1.2	1	+	1	1.0	17	0.1	13	1.3	19.5
Pomatomus saltatrix	-	-	-	-	-	-	-	-	2	0.1	2	1.0	-	-	-	-	2	+	2	1.0	41.5
Selene vomer	-	-	-	-	-	-	-	-	4	0.1	2	2.0	-	-	-	-	4	+	2	2.0	33
Bairdiella chrysura	-	-	-	-	1	+	1	1.0	46	1.3	12	3.8	3	0.1	2	1.5	50	0.3	15	3.3	11
Cynoscion regalis	-	-	-	-	3	0.1	3	1.0	121	3.4	13	9.3	4	0.2	3	1.3	128	0.8	19	6.7	8
Leiostomus xanthurus	-	-	-	-	-	-	-	-	79	2.2	10	7.9	-	-	-	-	79	0.5	10	7.9	10
Micropogon undulatus	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0	2	+	2	1.0	41.5
Tautoga onitis	4	0.1	4	1.0	5	0.1	3	1.7	4	0.1	2	2.0	2	0.1	2	1.0	15	0.1	11	1.4	22.5
Tautogolabrus adspersus	-	-	-	-	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0	49
Mugil cephalus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0	49
Sphyraena borealis	-	-	-	-	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0	49
Ammodytes sp.	7	0.1	3	2.3	-	-	-	-	-	-	-	-	2	0.1	1	2.0	9	0.1	4	2.3	26.5
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0	1	+	1	1.0	49
Peprilus triacanthus	-	-	-	-	1	+	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0	49
Prionotus carolinus	1	+	1	1.0	12	0.3	7	1.7	2	0.1	2	1.0	-	-	-	-	15	0.1	10	1.5	22.5
Prionotus evolans	-	-	-	-	3	0.1	3	1.0	2	0.1	2	1.0	-	-	-	-	5	+	5	1.0	31.5
Myoxocephalus aenaeus	1	+	1	1.0	2	0.1	1	2.0	-	-	-	-	-	-	-	-	3	+	2	1.5	36
Etropus microstomus	1	+	1	1.0	2	0.1	2	1.0	-	-	-	-	2	0.1	2	1.0	5	+	5	1.0	31.5
Paralichthys dentatus	-	-	-	-	3	0.1	3	1.0	7	0.2	6	1.2	1	+	1	1.0	11	0.1	10	1.1	25
Scophthalmus aquosus	2	+	1	2.0	26	0.7	13	2.0	1	+	1	1.0	1	+	1	1.0	30	0.2	16	1.9	15.5
Pseudopleuronectes americanus	15	0.3	7	2.1	13	0.4	9	1.4	1	+	1	1.0	2	0.1	2	1.0	31	0.2	19	1.6	14
Trinectes maculatus	1	+	1	1.0	162	4.5	13	12.5	27	0.8	6	4.5	7	0.3	2	3.5	197	1.3	22	9.0	6
Monacanthus hispidus	-	-	-	-	-	-	-	-	1	+	1	1.0	-	-	-	-	1	+	1	1.0	49
Sphoeroides maculatus	-	-	-	-	-	-	-	-	3	0.1	2	1.5	-	-	-	-	3	+	2	1.5	36
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	7	0.2	7	1.0	-	-	-	-	7	+	7	1.0	28.5
Total species	27				34				28				21				53				
Total specimens	936				1986				2505+				406				5833+				
Number collections	58				36				36				24				154				
Number/collection	16.1				55.2				69.6+				16.9				37.9+				

a n= Number of specimens collected. b n/coll= Number of specimens per collection. c f= Number of collections in which species appeared. d n/f= Number of specimens per collection in which species appeared.

* Seasonal totals are given for winter (January - March), spring (April - June), summer (July - September), and fall (October - December).

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Table 52 . Number of fishes per collection taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Great Bay, New Jersey by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Mustelus canis	-	-	-	-	1.6	0.6	-	-	0.2	-	-
Raja erinacea	-	-	0.1	-	-	-	-	-	-	-	-
Myliobatis freminvillei	-	-	-	-	-	-	0.2	-	-	-	-
Anguilla rostrata	-	-	-	0.4	0.6	-	-	-	-	-	-
Alosa aestivalis	-	0.6	13.4	0.2	-	-	-	-	-	-	-
Alosa pseudoharengus	-	-	0.9	0.4	-	-	-	-	-	-	1.4
Alosa sapidissima	-	-	0.2	-	-	-	-	-	-	-	-
Clupea harengus	-	-	0.1	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	0.1	-	-	2.4	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	1.6	-	-	-
Anchoa mitchilli	0.1	0.1	0.1	9.6	8.4	29.2	94.8	2.0	140.4+	17.4	-
Synodus foetens	-	-	-	-	-	-	-	-	0.2	-	-
Opsanus tau	-	-	-	-	1.4	-	0.2	0.2	-	-	-
Pollachius virens	-	-	-	-	0.2	-	-	-	-	-	-
Urophycis chuss	0.2	-	3.4	39.4	0.2	-	-	-	-	-	-
Urophycis regius	-	-	1.5	29.6	6.0	-	-	-	-	-	0.2
Urophycis tenuis	-	-	-	-	2.0	-	-	-	-	-	-
Rissola marginata	-	-	-	-	0.6	-	-	-	-	-	-
Menidia menidia	0.1	4.4	0.7	-	-	-	-	-	-	2.0	2.8
Apeltes quadracus	-	0.1	0.1	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	0.1	0.2	0.3	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	1.8	1.6	-	1.0	-	0.2	-	-
Syngnathus fuscus	-	-	0.3	5.4	1.8	0.2	-	0.2	0.2	-	-
Morone americana	0.2	0.4	4.5	3.8	-	-	-	-	-	4.2	-
Centropristis striata	-	-	-	-	0.6	-	-	-	0.4	-	-
Pomatomus saltatrix	-	-	-	-	-	-	0.2	-	-	-	-
Selene vomer	-	-	-	-	-	-	0.6	-	-	-	-
Bairdiella chrysura	-	-	-	-	-	-	-	0.2	2.6	0.2	-
Cynoscion regalis	-	-	-	-	0.2	-	16.8	0.2	1.4	-	-
Leiostomus xanthurus	-	-	-	-	-	0.2	-	0.2	1.6	-	-
Micropogon undulatus	0.1	-	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	0.2	0.6	-	-	-	-	0.2	-
Tautogolabrus adspersus	-	-	-	-	0.2	-	-	-	-	-	-
Sphyraena borealis	-	-	-	-	-	0.2	-	-	-	-	-
Ammodytes sp.	-	0.1	-	-	-	-	-	-	-	-	0.4
Prionotus carolinus	-	-	0.1	0.2	0.2	-	0.2	-	0.2	-	-
Prionotus evolans	-	-	-	-	0.2	-	-	-	-	-	-
Myoxocephalus aenaeus	-	-	0.1	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	0.2	-	-	-	-	-	0.4	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	0.2	-	0.2
Scophthalmus aquosus	-	-	-	1.2	1.4	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	0.2	0.4	0.2	0.2	-	-	-	-	0.2
Trinectes maculatus	-	-	-	0.2	4.0	-	0.2	0.2	-	-	-
Monacanthus hispidus	-	-	-	-	-	-	0.2	-	-	-	-
Chilomycterus schoepfi	-	-	-	-	-	-	0.2	0.2	0.4	-	-
Total species	6	7	17	15	20	7	11	9	12	6	6
Total specimens	8	54	285	465	160	165	573	25	740 +	122	26
Number collections	11	9	11	5	5	5	5	5	5	5	5
Number/collection	0.7	6.2	25.9	93.0	32.0	33.0	114.6	5.0	148.0+	24.4	5.2

n/f= Number of specimens per collection in which species appeared. d ... month (July - September), and fall (October - December).

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Table 53 . Number of fishes per collection taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Little Egg Harbor, New Jersey by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Raja erinacea	-	-	-	0.3	-	-	-	-	-	-	-
Anguilla rostrata	-	-	-	0.3	-	-	-	-	-	-	-
Alosa aestivalis	-	-	14.7	44.3	1.0	-	-	-	-	-	-
Alosa pseudoharengus	-	-	0.3	0.7	-	-	-	-	-	-	-
Alosa sapidissima	-	-	0.3	-	-	-	-	-	-	-	-
Clupea harengus	-	-	-	-	0.3	-	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	0.3	-	-
Anchoa mitchilli	-	-	-	40.7	48.3	31.3	6.7	-	77.0+	2.3	0.3
Synodus foetens	-	-	-	-	-	-	-	-	0.3	-	-
Urophycis chuss	-	-	-	4.3	-	-	-	-	-	-	-
Urophycis regius	-	-	-	15.3	-	0.3	-	-	-	-	-
Menidia menidia	1.0	3.7	-	-	-	0.3	-	-	-	-	-
Apeltes quadracus	-	0.7	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	0.3	0.3	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	0.7	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	0.3	0.7	-	0.3	-	-	1.0	1.0
Centropristis striata	-	-	-	0.3	-	-	-	-	0.7	-	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	0.7	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	0.3	-	-
Tautoga onitis	-	-	-	0.3	-	-	1.0	-	-	-	-
Ammodytes sp.	1.0	1.0	-	-	-	-	-	-	-	-	-
Preprilus triacanthus	-	-	-	-	0.3	-	-	-	-	-	-
Prionotus carolinus	-	-	-	0.7	-	-	-	-	-	-	-
Prionotus evolans	-	-	-	0.3	0.3	-	-	-	-	-	-
Myoxocephalus aenaeus	-	-	-	0.7	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	1.0	0.3	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	1.3	1.0	-	-	0.3	-	-	-
Pseudopleuronectes americanus	-	0.3	1.0	-	0.7	-	-	-	-	-	-
Chilomycterus shoepfi	-	-	-	-	-	-	-	-	0.7	-	-
Total species	2	4	5	15	10	3	3	1	8	2	2
Total specimens	6	18	50	333	161	96	24	1	241+	10	4
Number collections	3	3	3	3	3	3	3	3	3	3	3
Number/collection	2.0	6.0	16.7	111.0	53.7	32.0	8.0	0.3	80.3+	3.3	1.3

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Table 54. Number of fishes per collection taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in the intracoastal waterway behind Brigantine, New Jersey between Great Bay and Black Point by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Mustelus canis	-	-	-	-	10.0	-	-	-	-	-	-
Anguilla rostrata	-	-	-	-	-	-	-	-	0.5	-	-
Conger oceanicus	-	-	-	-	1.0	-	-	-	-	-	-
Alosa aestivalis	-	0.5	8.0	-	-	-	-	-	-	-	-
Alosa pseudoharengus	-	-	1.5	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	1.0	2.(	-	-	5.5	-
Anchoa mitchilli	-	-	0.5	5.5	40.0	63.0	130.5	4.5	63.0	24.5	2.0
Pollachius virens	-	-	0.5	-	-	-	-	-	-	-	-
Urophycis chuss	-	-	-	1.0	-	-	-	-	-	-	-
Urophycis regius	-	-	-	19.5	8.5	-	-	-	-	-	-
Urophycis tenuis	-	-	-	1.0	0.5	-	-	-	-	-	-
Menidia menidia	-	6.0	15.0	-	-	-	-	-	-	15.0	8.0
Apeltes quadracus	-	0.5	0.5	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	0.5	4.0	-	-	-	0.5	-	0.5	-
Morone americana	-	-	-	-	-	-	-	-	-	1.0	-
Centropristis striata	-	-	-	-	0.5	-	-	1.0	1.0	-	-
Pomatomus saltatrix	-	-	-	-	-	-	0.5	-	-	-	-
Bairdiella chrysura	-	-	-	-	-	0.5	0.5	0.5	12.5	-	-
Cynoscion regalis	-	-	-	-	0.5	0.5	1.5	1.0	9.5	0.5	-
Leiostomus xanthurus	-	-	-	-	-	-	0.5	3.0	23.0	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	0.5	-	-
Mugil cephalus	-	-	-	-	-	-	-	-	-	0.5	-
Prionotus carolinus	-	-	-	1.5	1.5	-	-	-	-	-	-
Prionotus evolans	-	-	-	-	-	-	-	0.5	0.5	-	-
Paralichthys dentatus	-	-	-	-	0.5	0.5	1.0	0.5	1.0	-	-
Scophthalmus aquosus	-	-	-	1.0	0.5	-	-	-	-	-	0.5
Pseudopleuronectes americanus	-	-	0.5	1.5	-	-	0.5	-	-	-	-
Trinectes maculatus	-	-	-	-	1.0	0.5	-	-	6.5	-	-
Sphoeroides maculatus	-	-	-	-	-	-	1.0	-	0.5	-	-
Total species	0	3	8	8	11	6	9	8	11	7	3
Total specimens	0	14	54	70	130	132	276	23	237	95	21
Number collections	2	2	2	2	2	2	2	2	2	2	2
Number/collection	0	7.0	27.0	35.0	65.0	66.0	138.0	11.5	118.5	47.5	10.5

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Table 55. Number of fishes per collection taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in the Mullica River, New Jersey by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Anguilla rostrata	-	-	-	1.0	3.5	-	-	-	-	-	-
Alosa aestivalis	-	-	0.3	-	-	-	-	-	-	-	6.5
Alosa pseudoharengus	-	-	0.5	-	-	-	-	-	0.5	-	-
Dorosoma cepidianum	-	-	-	-	-	-	6.0	134.5	5.0	5.0	-
Anchoa mitchilli	0.3	-	-	0.5	10.0	-	-	2.0	3.0	0.5	-
Opsanus tau	-	-	-	1.0	2.0	1.5	-	-	-	-	-
Urophycis chuss	-	0.3	10.8	1.0	3.5	-	-	-	-	-	-
Urophycis regius	-	-	3.3	5.5	18.5	-	-	-	-	-	-
Urophycis tenuis	-	-	-	-	2.0	-	-	-	-	-	-
Rissola marginata	-	-	0.3	-	0.5	0.5	-	-	-	-	-
Fundulus majalis	0.3	-	-	-	-	-	-	-	-	-	-
Menidia menidia	-	0.8	0.3	-	-	-	-	-	-	-	1.0
Apeltes quadracus	-	-	0.3	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	1.0	0.5	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	5.3	4.5	0.5	-	-	1.0	9.5	3.0	39.5
Morone americana	0.8	0.3	82.3	4.0	5.0	-	0.5	0.5	-	0.5	-
Morone saxatilis	-	-	0.8	-	-	-	1.0	0.5	-	-	-
Centropristis striata	-	-	-	-	-	-	-	-	1.5	1.0	-
Selene vomer	-	-	-	-	-	-	-	-	2.0	1.5	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	8.5	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	0.5
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	0.5	-
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	0.5
Tautoga onitis	0.3	-	0.8	-	-	-	-	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-
Prionotus carolinus	-	-	-	0.5	-	-	-	-	-	-	-
Etropus microstomus	-	-	0.3	-	-	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	0.5	-	-	-	-	-	-
Scophthalmus aquosus	-	-	0.5	-	2.0	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	2.0	-	-	-	-	-	-	-	0.5
Trinectes maculatus	-	-	0.3	2.5	34.5	32.0	0.5	-	5.5	2.5	1.0
Chilomycterus schoepfi	-	-	-	-	-	-	0.5	-	-	-	-
Total species	5	4	15	9	12	3	5	5	8	8	7
Total specimens	10	7	430	41	165	68	17	277	71	29	99
Number collections	4	4	4	2	2	2	2	2	2	2	2
Number/collection	2.5	1.8	107.5	20.5	82.5	34.0	8.5	138.5	35.5	14.5	49.5

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Table 56. Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Great Bay, New Jersey by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	11	0.7	4	2.8	1	0.1	1	1.0	-	-	-	-	12	0.2	5	2.4
Raja erinacea	1	+	1	1.0	1	0.1	1	1.0	-	-	-	-	-	-	-	-	2	+	2	1.0
Myliobatis freminvillei	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Anguilla rostrata	-	-	-	-	5	0.3	3	1.7	-	-	-	-	-	-	-	-	5	0.1	3	1.7
Alosa aestivalis	152	4.9	9	16.9	1	0.1	1	1.0	-	-	-	-	-	-	-	-	153	2.2	10	15.3
Alosa pseudoharengus	10	0.3	4	2.5	2	0.1	1	2.0	-	-	-	-	7	0.7	1	7.0	19	0.3	6	3.2
Alosa sapidissima	2	0.1	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	+	1	2.0
Brevoortia tyrannus	1	+	1	1.0	12	0.8	2	6.0	-	-	-	-	-	-	-	-	13	0.2	3	4.3
Clupea harengus	1	+	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Anchoa hepsetus	-	-	-	-	-	-	-	-	8	0.5	2	4.0	-	-	-	-	8	0.1	2	4.0
Anchoa mitchilli	3	0.1	3	1.0	236	15.7	10	23.6	1186+	79.1+	11	107.8	87	8.7	4	21.8	1513+	21.3+	28	54.0+
Synodus foetens	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Opsanus tau	-	-	-	-	7	0.5	2	3.5	2	0.1	2	1.0	-	-	-	-	9	0.1	4	2.3
Pollachius virens	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Urophucis chuss	39	1.3	3	13.0	198	13.2	5	39.6	-	-	-	-	-	-	-	-	237	3.3	8	29.6
Urophycis regius	16	0.5	3	5.3	178	11.9	9	19.8	-	-	-	-	1	0.1	1	1.0	194	2.7	12	16.2
Urophycis tenuis	-	-	-	-	10	0.7	2	5.0	-	-	-	-	-	-	-	-	10	0.1	2	5.0
Rissola marginata	-	-	-	-	3	0.2	1	3.0	-	-	-	-	-	-	-	-	3	+	1	3.0
Menidia menidia	49	1.6	13	3.8	-	-	-	-	-	-	-	-	24	2.4	3	8.0	73	1.0	16	4.6
Apeltes quadracus	2	0.1	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	+	2	1.0
Gasterosteus aculeatus	6	0.2	5	1.2	-	-	-	-	-	-	-	-	-	-	-	-	6	0.1	5	1.2
Hippocampus erectus	-	-	-	-	17	1.1	6	2.8	6	0.4	2	3.0	-	-	-	-	23	0.3	8	2.9
Syngnathus fuscus	3	0.1	3	1.0	37	2.5	8	4.6	2	0.1	2	1.0	-	-	-	-	42	0.6	13	3.2
Morone americana	56	1.8	7	8.0	19	1.3	1	19.0	-	-	-	-	21	2.1	1	21.0	96	1.4	9	10.7
Centropristis striata	-	-	-	-	3	0.2	1	3.0	2	0.1	2	1.0	-	-	-	-	5	0.1	3	1.7
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Selene vomer	-	-	-	-	-	-	-	-	3	0.2	1	3.0	-	-	-	-	3	+	1	3.0
Bairdiella chrysura	-	-	-	-	-	-	-	-	14	0.9	4	3.5	1	0.1	1	1.0	15	0.2	5	3.0
Cynoscion regalis	-	-	-	-	1	0.1	1	1.0	92	6.1	4	23.0	-	-	-	-	93	1.3	5	18.6
Leiostomus xanthurus	-	-	-	-	-	-	-	-	9	0.6	3	3.0	-	-	-	-	9	0.1	3	3.0
Micropogon undulatus	1	+	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Tautoga onitis	-	-	-	-	4	0.3	2	2.0	-	-	-	-	1	0.1	1	1.0	5	0.1	3	1.7
Tautogolabrus adspersus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Sphyraena borealis	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Ammodytes sp.	1	+	1	1.0	-	-	-	-	-	-	-	-	2	0.2	1	2.0	3	+	2	1.5
Prionotus carolinus	1	+	1	1.0	2	0.1	2	1.0	2	0.1	2	1.0	-	-	-	-	5	0.1	5	1.0
Prionotus evolans	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Myoxocephalus aenaenus	1	+	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Etropus microstomus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	2	0.2	2	1.0	3	+	3	1.0
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	1	0.1	1	1.0	2	+	2	1.0
Scophthalmus aquosus	-	-	-	-	13	0.9	6	2.2	-	-	-	-	-	-	-	-	13	0.2	6	2.2
Pseudopleuronectes americanus	2	0.1	2	1.0	4	0.3	4	1.0	-	-	-	-	1	0.1	1	1.0	7	0.1	7	1.0
Trinectes maculatus	-	-	-	-	21	1.4	4	5.3	2	0.1	2	1.0	-	-	-	-	23	0.3	6	3.8
Monacanthus hispidus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Chilomycetrus schoepfi	-	-	-	-	-	-	-	-	4	0.3	4	1.0	-	-	-	-	4	0.1	4	1.0
Total species		19				27				19				11				45		
Total specimens		347				790				1338+				148				2623+		
Number collections		31				15				15				10				71		
Number/collection		11.2				52.7				89.2+				14.8				36.9+		
Species Diversity Index		1.78				1.97				0.54				1.31				1.78		

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Table 57. Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Great Bay, inner bay zones 1065 and 1080, by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Anguilla rostrata	-	-	-	-	4	0.7	2	2.0	-	-	-	-	-	-	-	-	4	0.1	2	2.0
Alosa aestivalis	33	1.8	6	5.5	1	0.2	1	1.0	-	-	-	-	-	-	-	-	34	1.0	7	4.9
Alosa pseudoharengus	10	0.6	4	2.5	2	0.3	1	2.0	-	-	-	-	7	1.8	1	7.0	19	0.6	6	3.2
Alosa sapidissima	2	0.1	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Brevoortia tyrannus	-	-	-	-	12	2.0	2	6.0	-	-	-	-	-	-	-	-	12	0.4	2	6.0
Clupea harengus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Anchoa mitchilli	3	0.2	3	1.0	199	33.2	6	33.2	1058+	176.3+	5	211.6+	70	17.5	2	35.0	1330+	39.1+	16	83.1+
Opsanus tau	-	-	-	-	7	1.2	2	3.5	2	0.3	2	1.0	-	-	-	-	9	0.3	4	2.3
Urophycis chuss	1	0.1	1	1.0	17	2.8	2	8.5	-	-	-	-	-	-	-	-	18	0.5	3	6.0
Urophycis regius	4	0.2	2	2.0	140	23.3	4	35.0	-	-	-	-	-	-	-	-	144	4.2	6	24.0
Urophycis tenuis	-	-	-	-	10	1.7	2	5.0	-	-	-	-	-	-	-	-	10	0.3	2	5.0
Rissola marginata	-	-	-	-	3	0.5	1	3.0	-	-	-	-	-	-	-	-	3	0.1	1	3.0
Menidia menidia	46	2.6	10	4.6	-	-	-	-	-	-	-	-	21	5.3	2	10.5	67	2.0	12	5.6
Apeltes quadracus	2	0.1	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Gasterosteus aculeatus	3	0.2	2	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3	0.1	2	1.5
Hippocampus erectus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Syngnathus fuscus	2	0.1	2	1.0	31	5.2	5	6.2	1	0.2	1	1.0	-	-	-	-	34	1.0	8	4.3
Morone americana	56	3.1	7	8.0	19	3.2	1	19.0	-	-	-	-	21	5.3	1	21.0	96	2.8	9	10.7
Centropristis striata	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Selene vomer	-	-	-	-	-	-	-	-	3	0.5	1	3.0	-	-	-	-	3	0.1	1	3.0
Bairdiella chrysura	-	-	-	-	-	-	-	-	10	1.7	3	3.3	-	-	-	-	10	0.3	3	3.3
Cynoscion regalis	-	-	-	-	1	0.2	1	1.0	91	15.2	3	30.3	-	-	-	-	92	2.7	4	23.0
Leiostomus xanthurus	-	-	-	-	-	-	-	-	8	1.3	2	4.0	-	-	-	-	8	0.2	2	4.0
Micropogon undulatus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Scophthalmus aquosus	-	-	-	-	7	1.2	3	2.3	-	-	-	-	-	-	-	-	7	0.2	3	2.3
Pseudopleuronectes americanus	2	0.1	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	3	0.1	3	1.0
Trinectes maculatus	-	-	-	-	20	3.3	3	6.7	1	0.2	1	1.0	1	0.3	1	1.0	21	0.6	4	5.3
Total species	14				16				10				5				28			
Total specimens	166				474				1176+				120				1936+			
Number collections	18				6				6				4				34			
Number/collection	9.2				79.0				196.0+				30.0				56.9+			
Species Diversity Index	1.75				1.72				0.42				1.13				1.38			

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Table 58 . Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Great Bay, midbay zone 1045, by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Raja erinacea	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Anguilla rostrata	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Anchoa hepsetus	-	-	-	-	-	-	-	-	2	0.7	1	2.0	-	-	-	-	2	0.2	1	2.0
Anchoa mitchilli	-	-	-	-	15	5.0	2	7.5	30	10.0	2	15.0	-	-	-	-	45	4.1	4	11.3
Urophycis chuss	-	-	-	-	2	0.3	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Urophycis regius	-	-	-	-	19	6.3	2	9.5	-	-	-	-	-	-	-	-	19	1.7	2	9.5
Menidia menidia	-	-	-	-	-	-	-	-	-	-	-	-	3	1.5	1	3.0	3	0.3	1	3.0
Gasterosteus aculeatus	1	0.3	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Hippocampus erectus	-	-	-	-	3	1.0	2	1.5	-	-	-	-	-	-	-	-	3	0.3	2	1.5
Syngnathus fuscus	-	-	-	-	2	0.7	1	2.0	-	-	-	-	-	-	-	-	2	0.2	1	2.0
Centropristis striata	-	-	-	-	3	1.0	1	3.0	-	-	-	-	-	-	-	-	3	0.3	1	3.0
Tautoga onitis	-	-	-	-	3	1.0	1	3.0	-	-	-	-	1	0.5	1	1.0	4	0.4	2	2.0
Tautogolabrus adspersus	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Sphyraena borealis	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Prionotus carolinus	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Etropus microstomus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.5	1	1.0	1	0.1	1	1.0
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Scophthalmus aquosus	-	-	-	-	4	1.3	2	2.0	-	-	-	-	-	-	-	-	4	0.4	2	2.0
Pseudopleuronectes americanus	-	-	-	-	3	1.0	3	1.0	-	-	-	-	-	-	-	-	3	0.3	3	1.0
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	2	0.7	2	1.0	-	-	-	-	2	0.2	2	1.0
Total species		1				15				4				3				21		
Total specimens		1				60				35				5				101		
Number collections		3				3				3				2				11		
Number/collection		0.3				20.0				11.7				2.5				9.2		
Species Diversity Index		-				2.13				0.56				0.95				2.07		

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Table 59 . Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Great Bay, inlet zones 1010 and 1200. by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	10	1.7	3	3.3	1	0.2	1	1.0	-	-	-	-	11	0.4	4	2.8
Raja erinacea	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Myliobatus freminvillei	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Alosa aestivalis	119	11.9	3	39.7	-	-	-	-	-	-	-	-	-	-	-	-	119	4.6	3	39.7
Brevoortia tyrannus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Anchoa hepsetus	-	-	-	-	-	-	-	-	6	1.0	1	6.0	-	-	-	-	6	0.2	1	6.0
Anchoa mitchilli	-	-	-	-	22	3.7	2	11.0	98	16.3	4	24.5	17	4.3	2	8.5	137	5.3	8	17.1
Synodus foetens	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Pollachius virens	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Urophycis chuss	38	3.8	2	19.0	179	29.8	2	89.5	-	-	-	-	-	-	-	-	217	8.3	4	54.3
Urophycis regius	12	1.2	1	12.0	19	3.2	3	6.3	-	-	-	-	1	0.3	1	1.0	32	1.2	5	6.4
Menidia menidia	3	0.3	3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	3	0.1	3	1.0
Gasterosteus aculeatus	2	0.2	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Hippocampus erectus	-	-	-	-	13	2.2	3	4.3	6	1.0	2	3.0	-	-	-	-	19	0.7	5	3.8
Syngnathus fuscus	1	0.1	1	1.0	4	0.7	2	2.0	1	0.2	1	1.0	-	-	-	-	6	0.2	4	1.5
Centropristis striata	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Bairdiella chrysura	-	-	-	-	-	-	-	-	4	0.7	1	4.0	1	0.3	1	1.0	5	0.2	2	2.5
Cynoscion regalis	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Leiostomus xanthurus	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Tautoga onitis	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Ammodytes sp.	1	0.1	1	1.0	-	-	-	-	-	-	-	-	2	0.5	1	2.0	3	0.1	2	1.5
Prionotus carolinus	1	0.1	1	1.0	1	0.2	1	1.0	2	0.3	2	1.0	-	-	-	-	4	0.2	4	1.0
Prionotus evolans	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Myoxocephalus aenaeus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Etropus microstomus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	0.3	1	1.0	2	0.1	2	1.0
Paralicthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	1	1.0	1	+	1	1.0
Scophthalmus aquosus	-	-	-	-	2	0.3	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Pseudopleuronectes americanus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Trinectes maculatus	-	-	-	-	1	0.2	1	1.0	1	0.2	1	1.0	-	-	-	-	2	0.1	1	2.0
Monacanthus hispidus	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	2	0.3	2	1.0	-	-	-	-	2	0.1	2	1.0
Total species	11				14				15				6				31			
Total specimens	180				256				127				23				586			
Number collections	10				6				6				4				26			
Number/collection	18.0				42.7				21.2				5.8				22.5			
Species Diversity Index	1.07				1.19				1.07				0.98				1.85			

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Table 60 . Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in Little Egg Harbor, New Jersey by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Raja erinacea	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Anguilla rostrata	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Alosa aestivalis	44	4.9	1	44.0	136	15.1	2	68.0	-	-	-	-	-	-	-	-	180	5.5	3	60.0
Alosa pseudoharengus	1	0.1	1	1.0	2	0.2	1	2.0	-	-	-	-	-	-	-	-	3	0.1	2	1.5
Alosa sapidissima	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Clupea harengus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Anchoa hepsetus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Anchoa mitchilli	-	-	-	-	361	40.1	8	45.1	251+	27.9+	5	50.2+	8	1.3	2	4.0	620+	18.8+	15	41.3+
Synodus foetens	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Urophycis chuss	-	-	-	-	13	1.4	1	13.0	-	-	-	-	-	-	-	-	13	0.4	1	13.0
Urophycis regius	-	-	-	-	47	5.2	3	15.7	-	-	-	-	-	-	-	-	47	1.4	3	15.7
Menidia menidia	14	1.6	3	4.7	1	0.1	1	1.0	-	-	-	-	-	-	-	-	15	0.5	4	3.8
Apeltes quadracus	2	0.2	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Gasterosteus aculeatus	2	0.2	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Hippocampus erectus	-	-	-	-	2	0.2	2	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Syngnathus fuscus	-	-	-	-	3	0.3	3	1.0	1	0.1	1	1.0	6	1.0	2	3.0	10	0.3	6	1.7
Centropristis striata	-	-	-	-	1	0.1	1	1.0	2	0.2	2	1.0	-	-	-	-	3	0.1	3	1.0
Bairdiella chrysura	-	-	-	-	-	-	-	-	2	0.2	2	1.0	-	-	-	-	2	0.1	2	1.0
Cynoscion regalis	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Tautoga onitis	-	-	-	-	1	0.1	1	1.0	3	0.3	1	3.0	-	-	-	-	4	0.1	2	2.0
Ammodytes sp.	6	0.7	2	3.0	-	-	-	-	-	-	-	-	-	-	-	-	6	0.2	2	3.0
Peprilus triacanthus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Prionotus carolinus	-	-	-	-	2	0.2	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Prionotus evolans	-	-	-	-	2	0.2	2	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Myoxocephalus aenaeus	-	-	-	-	2	0.2	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Etropus microstomus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Scophthalmus aquosus	-	-	-	-	6	0.7	4	1.5	1	0.1	1	1.0	-	-	-	-	7	0.2	5	1.4
Pseudopleuronectes americanus	4	0.4	3	1.3	6	0.7	4	1.5	-	-	-	-	-	-	-	-	10	0.3	7	1.4
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	2	0.2	2	1.0	-	-	-	-	2	0.1	2	1.0
Total species		8				20				11				2				30		
Total specimens		74				590				266+				14				944+		
Number collections		9				9				9				6				33		
Number/collection		8.2				65.6				29.6+				2.3				28.6+		

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Table 61 . Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in the intracoastal waterway behind Brigantine, New Jersey between Great Bay and Black Point by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	20	3.3	2	10.0	-	-	-	-	-	-	-	-	20	0.9	2	10.0
Anguilla rostrata	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Conger oceanicus	-	-	-	-	2	0.3	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Alosa aestivalis	17	2.8	3	5.7	-	-	-	-	-	-	-	-	-	-	-	-	17	0.8	3	5.7
Alosa pseudoharengus	3	0.5	2	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3	0.1	2	1.5
Brevoortia tyrannus	-	-	-	-	2	0.3	2	1.0	4	0.7	2	2.0	11	2.8	1	11.0	17	0.8	5	3.4
Anchoa mitchilli	1	0.2	1	1.0	217	36.2	5	43.4	396	66.0	6	66.0	53	13.3	3	17.7	667	30.3	15	44.5
Pollachius virens	1	0.2	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Urophycis chuss	-	-	-	-	2	0.3	2	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Urophycis regius	-	-	-	-	56	9.3	3	18.7	-	-	-	-	-	-	-	-	56	2.5	3	18.7
Urophycis tenuis	-	-	-	-	3	0.5	2	1.5	-	-	-	-	-	-	-	-	3	0.1	2	1.5
Menidia menidia	42	7.0	4	10.5	-	-	-	-	-	-	-	-	46	11.5	4	11.5	88	4.0	8	11.0
Apeltes quadracus	2	0.3	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Syngnathus fuscus	1	0.2	1	1.0	8	1.3	2	4.0	1	0.2	1	1.0	1	0.3	1	1.0	11	0.5	5	2.2
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	2	0.5	1	2.0	2	0.1	1	2.0
Centropristis striata	-	-	-	-	1	0.2	1	1.0	4	0.7	3	1.3	-	-	-	-	5	0.2	4	1.3
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Bairdiella chrysura	-	-	-	-	1	0.2	1	1.0	27	4.5	4	6.8	-	-	-	-	28	1.3	5	5.6
Cynoscion regalis	-	-	-	-	2	0.3	2	1.0	24	4.0	6	4.0	1	0.3	1	1.0	27	1.2	9	3.0
Leiostomus xanthurus	-	-	-	-	-	-	-	-	53	8.8	5	10.6	-	-	-	-	53	2.4	5	10.6
Tautoga onitis	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Mugil cephalus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	1	1.0	1	+	1	1.0
Prionotus carolinus	-	-	-	-	7	1.2	3	2.3	-	-	-	-	-	-	-	-	7	0.3	3	2.3
Prinotus evolans	-	-	-	-	-	-	-	-	2	0.3	2	1.0	-	-	-	-	2	0.1	2	1.0
Paralichthys dentatus	-	-	-	-	2	0.3	2	1.0	5	0.8	4	1.3	-	-	-	-	7	0.3	6	1.2
Scophthalmus aquosus	-	-	-	-	3	0.5	2	1.5	-	-	-	-	1	0.3	1	1.0	4	0.2	3	1.3
Pseudopleuronectes americanus	1	0.2	1	1.0	3	0.5	1	3.0	1	0.2	1	1.0	-	-	-	-	5	0.2	3	1.7
Trinectes maculatus	-	-	-	-	3	0.5	3	1.0	13	2.2	1	13.0	-	-	-	-	16	0.7	4	4.0
Sphoeroides maculatus	-	-	-	-	-	-	-	-	3	0.5	2	1.5	-	-	-	-	3	0.1	2	1.5
Total species		8				16				15				8				29		
Total specimens		68				332				536				116				1052		
Number collections		6				6				6				4				22		
Number/collection		11.3				55.3				89.3				29.0				47.8		

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Table. 62. Fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in the Mullica River, New Jersey by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Anguilla rostrata	-	-	-	-	9	1.3	3	3.0	-	-	-	-	-	-	-	-	9	0.3	3	3.0
Alosa aestivalis	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Alosa pseudoharengus	2	0.2	2	1.0	-	-	-	-	-	-	-	-	13	3.3	2	6.5	15	0.5	4	3.8
Dorosoma cepedianum	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Anchoa mitchilli	1	0.1	1	1.0	21	3.5	3	7.0	291	48.5	6	48.5	10	2.5	1	10.0	323	11.5	11	29.4
Opsanus tau	-	-	-	-	9	1.3	4	2.3	10	1.7	4	2.5	1	0.3	1	1.0	20	0.7	9	2.2
Urophycis chuss	44	3.7	4	11.0	9	1.3	2	4.5	-	-	-	-	-	-	-	-	53	1.9	6	8.8
Urophycis regius	13	1.1	3	4.3	48	8.0	4	12.0	-	-	-	-	-	-	-	-	61	2.2	7	8.7
Urophycis tenuis	-	-	-	-	4	0.7	1	4.0	-	-	-	-	-	-	-	-	4	0.1	1	4.0
Rissola marginata	1	0.1	1	1.0	2	0.3	2	1.0	-	-	-	-	-	-	-	-	3	0.1	3	1.0
Fundulus majalis	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Menidia menidia	4	0.3	3	1.3	-	-	-	-	-	-	-	-	2	0.5	1	2.0	6	0.2	4	1.5
Apeltes quadracus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Gasterosteus aculeatus	6	0.5	2	3.0	-	-	-	-	-	-	-	-	-	-	-	-	6	0.2	2	3.0
Syngnathus fuscus	21	1.8	4	5.3	10	1.3	2	5.0	-	-	-	-	-	-	-	-	31	1.1	6	5.2
Morone americana	333	27.8	5	66.6	18	3.0	3	6.0	22	3.7	4	5.5	85	21.3	3	28.3	458	16.4	15	30.5
Morone saxatilis	3	0.3	3	1.0	-	-	-	-	-	-	-	-	-	-	-	-	3	0.1	3	1.0
Centropristis striata	-	-	-	-	-	-	-	-	3	0.5	2	1.5	1	0.3	1	1.0	4	0.1	3	1.3
Selene vomer	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Bairdiella chrysura	-	-	-	-	-	-	-	-	3	0.5	2	1.5	2	0.5	1	2.0	5	0.2	3	1.7
Cynoscion regalis	-	-	-	-	-	-	-	-	4	0.7	2	2.0	3	0.8	2	1.5	7	0.3	4	1.8
Leiostomus xanthurus	-	-	-	-	-	-	-	-	17	2.8	2	8.5	-	-	-	-	17	0.6	2	8.5
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	1	1.0	1	+	1	1.0
Tautoga onitis	4	0.3	4	1.0	-	-	-	-	-	-	-	-	1	0.3	1	1.0	5	0.2	5	1.0
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	1	1.0	1	+	1	1.0
Prionotus carolinus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Etropus microstomus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Paralichthys dentatus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Scophthalmus aquosus	2	0.2	1	2.0	4	0.7	1	4.0	-	-	-	-	-	-	-	-	6	0.2	2	3.0
Pseudopleuronectes americanus	8	0.7	1	8.0	-	-	-	-	-	-	-	-	1	0.3	1	1.0	9	0.3	2	4.5
Trinectes maculatus	1	0.1	1	1.0	138	23.0	6	23.0	12	2.0	3	4.0	7	1.8	2	3.5	158	5.6	12	13.2
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Total species		18				13				11				13				32		
Total specimens		447				274				365				128				1214		
Number collections		12				6				6				4				28		
Number/collection		37.2				45.7				60.8				32.0				43.4		

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Table 63 . Fishes taken in 5-minute bottom hauls of a 16-ft semiballoon trawl in Little Sheepshead Creek, Little Egg Harbor Twp., New Jersey by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	2	0.2	1	2.0	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Alosa aestivalis	2	0.2	1	2.0	1	0.1	1	1.0	-	-	-	-	1	0.2	1	1.0	4	0.1	3	1.3
Anchoa hepsetus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Anchoa mitchilli	-	-	-	-	410	45.6	9	45.6	301+	33.4+	2	150.5+	-	-	-	-	711+	21.5+	11	64.6+
Opsanus tau	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Urophycis chuss	1	0.1	1	1.0	1	0.1	1	1.0	-	-	-	-	1	0.2	1	1.0	3	0.1	3	1.0
Urophycis regius	-	-	-	-	17	1.9	4	4.3	-	-	-	-	1	0.2	1	1.0	18	0.5	5	3.6
Menidia menidia	15	1.7	1	15.0	-	-	-	-	-	-	-	-	-	-	-	-	15	0.5	1	15.0
Gasterosteus aculeatus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Hippocampus erectus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Syngnathus fuscus	1	0.1	1	1.0	1	0.1	1	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Pomatomus saltatrix	-	-	-	-	-	-	-	-	5	0.6	1	5.0	-	-	-	-	5	0.2	1	5.0
Bairdiella chrysura	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Leiostomus xanthurus	-	-	-	-	-	-	-	-	18	2.0	2	9.0	-	-	-	-	18	0.5	2	9.0
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.2	1	1.0	1	+	1	1.0
Tautogolabrus adspersus	1	0.1	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Etropus microstomus	-	-	-	-	1	0.1	1	1.0	1	0.1	1	1.0	-	-	-	-	2	0.1	2	1.0
Paralichthys dentatus	-	-	-	-	1	0.1	1	1.0	1	0.1	1	1.0	-	-	-	-	2	0.1	2	1.0
Scophthalmus aquosus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Pseudopleuronectes americanus	2	0.2	2	1.0	2	0.2	2	1.0	5	0.6	4	1.3	-	-	-	-	9	0.3	8	1.1
Total species		7				12				8				4				20		
Total specimens		23				439				333+				4				799+		
Number collections		9				9				9				6				33		
Number/collection		2.1				48.8				37.0+				0.7				24.2+		

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Table 64 . Fishes taken in 5-minute bottom hauls of a 16-ft semiballoon trawl in Big Sheepshead Creek, Little Egg Harbor Twp., New Jersey by season in 1974.

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Mustelus canis	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Anguilla rostrata	-	-	-	-	7	1.2	2	3.5	-	-	-	-	-	-	-	-	7	0.3	2	3.5
Alosa aestivalis	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Clupea harengus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Anchoa mitchilli	-	-	-	-	542+	90.3+	6	90.3+	109+	18.2+	4	27.3+	-	-	-	-	651+	31.0+	10	65.1+
Pollachius virens	-	-	-	-	2	0.3	2	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Urophycis regius	-	-	-	-	6	1.0	3	2.0	-	-	-	-	1	0.3	1	1.0	7	0.3	4	1.8
Urophycis tenuis	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Menidia menidia	-	-	-	-	-	-	-	-	-	-	-	-	33	8.3	2	16.5	33	1.6	2	16.5
Gasterosteus aculeatus	1	0.2	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	+	1	1.0
Syngnathus fuscus	-	-	-	-	6	1.0	4	1.5	3	0.5	3	1.0	-	-	-	-	9	0.4	7	1.3
Morone americana	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Centropristis striata	-	-	-	-	2	0.3	1	2.0	1	0.2	1	1.0	-	-	-	-	3	0.1	2	1.5
Leiostomus xanthurus	-	-	-	-	-	-	-	-	6	1.0	1	6.0	-	-	-	-	6	0.3	1	6.0
Tautoga onitis	-	-	-	-	1	0.2	1	1.0	1	0.2	1	1.0	-	-	-	-	2	0.1	2	1.0
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	-	3	0.8	1	3.0	3	0.1	1	3.0
Peprilus triacanthus	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Etropus microstomus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	0.3	1	1.0	2	0.1	2	1.0
Paralichthys dentatus	-	-	-	-	1	0.2	1	1.0	1	0.2	1	1.0	-	-	-	-	2	0.1	2	1.0
Pseudopleuronectes americanus	-	-	-	-	7	1.2	5	1.4	1	0.2	1	1.0	3	0.8	2	1.5	11	0.5	8	1.4
Monacanthus hispidus	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	+	1	1.0
Total species		1				15				9				5				21		
Total specimens		1				580+				124+				41				746+		
Number collections		5				6				6				4				21		
Number/collection		0.2				96.7+				20.7+				10.3				35.5+		

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Table 65 . Number of fishes per collection taken in 5-minute bottom hauls of a 16-ft semiballoon trawl in Little Sheepshead Creek, Little Egg Harbor Twp., New Jersey by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Mustelus canis	-	-	-	-	0.7	-	-	-	-	-	-
Anguilla rostrata	-	-	-	0.3	-	-	-	-	-	-	-
Alosa aestivalis	-	0.7	-	-	-	-	-	-	-	-	0.3
Anchoa hepsetus	-	-	-	-	-	-	-	-	0.3	-	-
Anchoa mitchilli	-	-	-	49.0	15.7	72.0	-	-	100.3+	-	-
Opsanus tau	-	-	-	-	-	-	-	-	0.3	-	-
Urophycis chuss	0.3	-	-	-	0.3	-	-	-	-	-	0.3
Urophycis regius	-	-	-	-	5.3	0.3	-	-	-	0.3	-
Menidia menidia	-	5.0	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	0.3	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	0.3	-	-	-	-	-	-
Syngnathus fuscus	-	-	0.3	-	0.3	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1.7	-	-
Bairdiella chrysura	-	-	-	-	-	0.3	-	-	-	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	6.0	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	0.3	-
Tautogolabrus adspersus	-	-	0.3	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	0.3	-	-	-	0.3	-	-
Paralichthys dentatus	-	-	-	-	0.3	-	-	-	0.3	-	-
Scophthalmus aquosus	-	-	-	0.3	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	0.7	-	0.3	0.3	0.7	-	1.0	-	-
Total species	2	2	3	3	9	4	1	0	8	2	2
Total specimens	2	17	4	149	71	219	2	0	331+	2	2
Number collections	3	3	3	3	3	3	3	3	3	3	3
Number/collection	0.7	5.7	1.3	49.7	23.7	73.0	0.7	0	110.3+	0.7	0.7

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Table 66. Number of fishes per collection taken in 5-minute bottom hauls of a 16-ft semiballoon trawl in Big Sheepshead Creek, Little Egg Harbor Twp., New Jersey by month in 1974.

	January	February	March	April	May	June	July	August	September	October	November
Mustelus canis	-	-	-	-	-	0.5	-	-	-	-	-
Anguilla rostrata	-	-	-	0.5	3.0	-	-	-	-	-	-
Alosa aestivalis	-	-	-	0.5	-	-	-	-	-	-	-
Clupea harengus	-	-	-	-	0.5	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	69.5	172.5+	29.0	-	22.0	32.5	-	-
Pollachius virens	-	-	-	0.5	0.5	-	-	-	-	-	-
Urophycis regius	-	-	-	0.5	2.5	-	-	-	-	0.5	-
Urophycis tenuis	-	-	-	0.5	-	-	-	-	-	-	-
Menidia menidia	-	-	-	-	-	-	-	-	-	16.5	-
Gasterosteus aculeatus	-	-	0.5	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	0.5	1.5	1.0	0.5	0.5	0.5	-	-
Morone americana	-	-	-	0.5	-	-	-	-	-	-	-
Centropristis striata	-	-	-	-	1.0	-	-	-	0.5	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	3.0	-	-
Tautoga onitis	-	-	-	-	0.5	-	0.5	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	-	-	1.5	-
Peprilus triacanthus	-	-	-	-	-	-	-	0.5	-	-	-
Etropus microstomus	-	-	-	-	0.5	-	-	-	-	0.5	-
Paralichthys dentatus	-	-	-	-	0.5	-	-	0.5	-	-	-
Pseudopleuronectes americanus	-	-	-	1.5	1.5	0.5	-	0.5	-	1.0	0.5
Monacanthus hispidus	-	-	-	-	-	-	-	0.5	-	-	-
Total species	0	0	1	9	11	4	2	6	4	4	2
Total specimens	0	0	1	149	369+	62	2	49	73	39	2
Number collections	1	2	2	2	2	2	2	2	2	2	2
Number/collection	0	0	0.5	74.5	184.5+	31.0	1.0	24.5	36.5	19.5	1.0

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Table 67. Paired trawl hauls made by month and zone from May, 1973 through April, 1974.

	16 x 16-ft trawls					16 x 25-ft trawls				
	1010	1050	1065	1080	1510	1010	1050	1065	1080	1510
May	X	X	X	X		X	X	X	X	
June	X	X	X	X		X	X	X	X	
July	X	X	X	X		X	X	X	X	
August	X	X	X	X		X	X	X	X	
September	X	X	X	X		X	X	X	X	
October	X		X	X		X	X	X	X	
November										
December	X		X	X	X	X		X	X	X
January	X		X	X	X	X		X	X	X
Februray	X		X	X	X			X	X	X
March	X		X	X	X	X		X	X	X
April						X		X	X	X

X Indicates month and zone sampled.

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Table 68. Analysis of variance for log (x + 1) of total specimens from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1050, 1065, and 1080 from May through September, 1973.

Source	df	SS	MS	F
Total	39	49.3437	1.2652	
Zone	3	39.4806	13.1602	145.8808*
Date	4	3.2401	0.8100	8.9798*
Zone X Date	12	4.8188	0.4016	4.4514*
Error	20	1.8042	0.0902	

* Significant at the 95% level.
Coefficient of Variation 20.7%
Confidence Limits 25-399%

Table 69. Analysis of variance for log (x + 1) of total specimens from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1065, 1080, and 1510 from December, 1973 through March, 1974.

Source	df	SS	MS	F
Total	31	11.9287	0.3848	
Zone	3	1.0863	0.3621	1.7193
Date	3	4.1435	1.3812	6.5577*
Zone X Date	9	3.3289	0.3699	1.7561
Error	16	3.3699	0.2106	

* Significant at the 95% level.
Coefficient of Variation 65.3%
Confidence Limits 12-828%

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Table 70. Analysis of variance for log (x + 1) of total specimens from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1065, and 1080 from May, 1973 through March, 1974.

Source	df	SS	MS	F
Total	59	65.5992	1.1119	
Zone	2	16.9545	8.4772	52.3227*
Date	9	26.6902	2.9656	18.3040*
Zone X Date	18	17.0940	0.9497	5.8615*
Error	30	4.8605	0.1620	

* Significant at the 95% level.
Coefficient of Variation 30.8%
Confidence Limits 16-638%

Table 71. Analysis of variance for log (x + 1) of total species from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1050, 1065, and 1080 from May through September, 1973.

Source	df	SS	MS	F
Total	39	3.3910	0.1021	
Zone	3	2.3943	0.7981	19.4843*
Date	4	0.1469	0.0367	0.8964
Zone X Date	12	0.6206	0.0517	1.2626
Error	20	0.8192	0.0410	

* Significant at the 95% level.
Coefficient of Variation 34.6%
Confidence Limits 39-254%

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Table 72. Analysis of variance for log (x + 1) of total species from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1065, 1080, and 1510 from December, 1973 through March, 1974.

Source	df	SS	MS	F
Total	31	2.3182	0.0748	
Zone	3	0.3041	0.1014	4.9803*
Date	3	0.9287	0.3096	15.2091*
Zone X Date	9	0.7597	0.0844	4.1469*
Error	16	0.3257	0.0204	

* Significant at the 95% level.
Coefficient of Variation 34.9%
Confidence Limits 52-193%

Table 73. Analysis of variance for log (x + 1) of total species from collections made by simultaneous parallel hauls of two 16-ft semiballoon trawls in zones 1010, 1065, and 1080 from May, 1973 through March, 1974.

Source	df	SS	MS	F
Total	59	6.4156	0.1087	
Zone	2	1.3788	0.6894	24.9173*
Date	9	2.9592	0.3288	11.8840*
Zone X Date	18	1.2476	0.0693	2.5052*
Error	30	0.8300	0.0277	

* Significant at the 95% level.
Coefficient of Variation 29.5%
Confidence Limits 46-215%

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Table 74. Linear regression of log (x + 1) specimens taken in parallel hauls of 16-ft and 25-ft semiballoon trawls.

log (16-ft trawl) = -0.1334 + 0.8605 log (25-ft trawl)

Upper confidence limit for b	1.0309
Lower confidence limit for b	0.6901
Standard error	0.4500
Correlation	0.8471

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Table 75. Fishes taken in parallel 10-minute hauls of 16-ft and 25-ft semiballoon trawls in four zones in the Great Bay Mullica River estuary, New Jersey by season in 1974. Total includes entire paired 16-ft and 25-ft trawl program from May 1973 to April 1974.

	JANUARY-MARCH				APRIL				TOTAL			
	16-ft trawl		25-ft trawl		16-ft trawl		25-ft trawl		16-ft trawl		25-ft trawl	
	n	n/coll	n	n/coll	n	n/coll	n	n/coll	n	n/coll	n	n/coll
Mustelus canis	-	-	-	-	-	-	-	-	2	+	10	0.2
Raja erinacea	1	0.1	-	-	-	-	-	-	1	+	-	-
Myliobatus freminvillei	-	-	-	-	-	-	-	-	3	0.1	6	0.1
Anguilla rostrata	-	-	3	0.3	3	0.8	2	0.5	7	0.2	16	0.4
Conger oceanicus	-	-	-	-	-	-	-	-	-	-	1	+
Alosa aestivalis	14	1.3	61	5.5	1	0.3	4	1.0	19	0.4	68	1.6
Alosa pseudoharengus	3	0.3	9	0.8	2	0.5	1	0.3	5	0.1	11	0.3
Alosa sapidissima	2	0.2	1	0.1	-	-	-	-	2	+	1	+
Brevoortia tyrannus	-	-	-	-	-	-	-	-	4	0.1	31	0.7
Clupea harengus	-	-	1	0.1	-	-	-	-	-	-	1	+
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	10	0.2
Anchoa mitchilli	2	0.2	3	0.3	47	11.8	236	59.0	2313+	52.6+	5776+	134.3+
Synodus foetens	-	-	-	-	-	-	-	-	1	+	-	-
Opsanus tau	-	-	2	0.2	2	0.5	4	1.0	6	0.1	26	0.6
Enchelyopus cimbrius	-	-	-	-	-	-	1	0.3	-	-	1	+
Urophycis chuss	51	4.6	55	5.0	192	48.0	112	28.0	254	5.8	229	5.3
Urophycis regius	21	1.9	22	2.0	137	34.3	258	64.5	173	44.0	295	6.9
Urophycis tenuis	-	-	-	-	-	-	1	0.3	54	1.2	92	2.1
Rissola marginata	1	0.1	-	-	-	-	-	-	1	+	2	+
Fundulus majalus	-	-	1	0.1	-	-	-	-	-	-	1	+
Menidia menidia	8	0.7	20	1.8	-	-	-	-	21	0.5	27	0.6
Apeltes quadracus	1	0.1	4	0.4	-	-	1	0.3	1	+	5	0.1
Gasterosteus aculeatus	5	0.5	20	1.8	-	-	-	-	5	0.1	20	0.5
Hippocampus erectus	-	-	-	-	4	1.0	-	-	4	0.1	3	0.1
Syngnathus fuscus	15	1.4	33	3.0	31	7.8	42	10.5	102	2.3	199	4.6
Morone americana	66	6.0	253	23.0	24	6.0	20	5.0	93	2.1	300	7.0
Centropristis striata	-	-	-	-	-	-	1	0.3	6	0.1	17	0.4
Pomatomus saltatrix	-	-	-	-	-	-	-	-	5	0.1	9	0.2
Caranx hippos	-	-	-	-	-	-	-	-	-	-	1	+
Stenotomus chrysops	-	-	-	-	-	-	-	-	3	0.1	1	+
Bairdiella chrysura	-	-	-	-	-	-	-	-	51	1.2	53	1.2
Cynoscion regalis	-	-	-	-	-	-	-	-	59	1.3	141	3.3
Leiostomus xanthurus	-	-	-	-	-	-	-	-	386	8.8	1271+	29.6+
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	2	+
Micropogon undulatus	1	0.1	1	0.1	-	-	-	-	1	+	9	0.2
Tautoga onitis	1	0.1	1	0.1	-	-	1	0.3	5	0.1	36	0.8
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	2	+	1	+
Mugil cephalus	-	-	-	-	-	-	-	-	-	-	1	+
Astroscopus guttatus	-	-	-	-	-	-	-	-	-	-	1	+
Hypsoblennius hentzi	-	-	1	0.1	-	-	-	-	-	-	1	+
Ammodytes sp.	-	-	2	0.2	-	-	-	-	4	0.1	3	0.1
Gobiosoma bosci	-	-	-	-	-	-	-	-	1	+	1	+
Peprilus triacanthus	-	-	-	-	-	-	-	-	12	0.3	11	0.3
Prionotus carolinus	1	0.1	-	-	2	0.5	-	-	4	0.1	6	0.1
Prionotus evolans	-	-	-	-	-	-	-	-	-	-	5	0.1
Myoxocephalus aenaeus	1	0.1	1	0.1	-	-	-	-	2	+	4	0.1
Myoxocephalus octodecemspinosus	-	-	1	0.1	-	-	-	-	-	-	1	+
Etropus microstomus	-	-	-	-	1	0.3	1	0.3	2	+	4	0.1
Paralichthys dentatus	-	-	-	-	-	-	-	-	8	0.2	25	0.6
Scophthalmus aquosus	-	-	3	0.3	2	0.5	10	2.5	12	0.3	55	1.3
Pseudopleuronectes americanus	-	-	7	0.6	1	0.3	-	-	6	0.1	58	1.3
Trinectes maculatus	-	-	-	-	2	0.5	8	2.0	25	0.6	62	1.4
Sphoeroides maculatus	-	-	-	-	-	-	-	-	1	+	3	0.1
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	-	-	2	+
Total species	17		23		15		17		41		52	
Total specimens	194		505		451		703		3666+		8915+	
Number collections	11		11		4		4		44		43	
Number/collection	17.6		45.9		112.8		175.8		83.3+		207.3+	

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Table 76. Total specimens and species captured in parallel 10-minute hauls with 16-ft and 25-ft semiballoon trawls during 1973 and 1974 in the Great Bay-Mullica River estuary.

Date	Zone	Specimens N_1 (16-ft)	Specimens N_2 (25-ft)	N_2/N_1	Species N_3 (16-ft)	Species N_4 (25-ft)	N_4/N_3
8 May 1973	1080	119	259	2.18	10	14	1.40
8 May 1973	1065	48	73	1.52	11	12	1.09
8 May 1973	1050	25	17	.68	3	6	2.00
8 June 1973	1080	130	301	2.32	3	7	2.33
8 June 1973	1065	2	31	15.50	2	6	3.00
8 June 1973	1050	3	14	4.67	1	3	3.00
8 June 1973	1010	3	11	3.67	3	5	1.67
10 July 1973	1080	381	231	.61	4	8	2.00
10 July 1973	1065	57	166	2.91	7	8	1.14
10 July 1973	1010	1	16	16.00	1	6	6.00
10 July 1973	1050	2	37	18.50	2	8	4.00
7 August 1973	1080	374	220	.59	6	9	1.50
7 August 1973	1065	57	55	.96	3	4	1.33
7 August 1973	1010	1	8	8.00	1	5	5.00
7 August 1973	1050	12	11	.92	1	5	5.00
14 September 1973	1080	920	707	.77	4	10	2.50
14 September 1973	1065	271	414	1.53	5	11	2.20
14 September 1973	1050	4	7	1.75	2	3	1.50
14 September 1973	1010	5	10	2.00	4	4	1.00
10 October 1973	1050	3	21	7.00	2	8	4.00
10 October 1973	1010	1	12	12.00	1	9	9.00
10 October 1973	1065	458	2913	6.36	7	10	1.43
10 October 1973	1080	92	2027	22.03	4	8	2.00
13 December 1973	1050	14	5	.36	4	2	.50
13 December 1973	1065	1	2	2.00	1	2	2.00
13 December 1973	1080	28	58	2.07	5	7	1.40
13 December 1973	1510	2	84	42.00	2	7	3.50
15 January 1974	1065	4	10	2.50	3	4	1.33
15 January 1974	1010	2	4	2.00	2	4	2.00
8 February 1974	1080	4	8	2.00	4	5	1.25
8 February 1974	1510	5	34	6.80	3	8	2.67
8 February 1974	1065	4	7	1.75	2	1	.50
22 March 1974	1080	51	146	2.86	7	10	1.43
22 March 1974	1510	49	204	4.16	6	10	1.67
22 March 1974	1065	18	59	3.28	5	8	1.60
22 March 1974	1010	57	32	.56	8	6	.75
16 April 1974	1080	170	349	2.05	9	11	1.22
16 April 1974	1510	31	43	1.39	8	6	.75
16 April 1974	1065	58	232	4.00	5	10	2.00
16 April 1974	1010	192	79	.41	7	6	.86

N = 40
Mean N_2/N_1 = 5.31
S.D. = 7.93

N = 40
Mean N_4/N_3 = 2.24
S.D. = 1.68

Couplets in which there were one or more zero values were not tabulated.

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Table 77. Fishes taken in bottom sets of a longline in the vicinity of the Site and Great Bay from 23 May through 2 October, 1974. The size range (mm), weight range (kg) and sex (M, F) of most specimens are indicated.

Location	(Weather Tower) West of Site - 1	(Weather Tower) West of Site - 1	Little Egg Inlet - 5
Zone	5260	5260	5060
Depth Range (feet)	30-35	32	15
Coll. No.	CBM-74-101	DJD-74-065	DJD-74-076
Date	23 May	4 June	17 June
Hour	0930-1200	0910-1330	0910-1350
Tide	Flood 2-Ebb 1	Ebb 1-Ebb 2	Ebb 1-Flood 1
Air Temp. Range (C)	18.5-19.5	19.0	24.0-25.0
Temp. Range (C), surface	14.0-15.2	16.0	20.9-24.0
bottom	11.5-11.7	15.0	20.2-22.0
Sal. Range (ppt), surface	30.0	28.0	26.0-28.0
bottom	30.0-31.0	28.5	27.0-28.5
Oxygen Range (ppm), surface	8.4-10.7	8.5	6.8
bottom	8.4-9.0	8.2	6.6
Secchi Range (feet)	5.0	7.0	4.5-5.0

	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharodon carcharias	-			-	-	1	1		1778	68.0	-				
Carcharhinus milberti	-					-					-				
Carcharhinus obscurus	-					-					-				
Galeocerdo cuvieri	-					-					1		1	1100	4.8
Mustelus canis	-					-					-				
Pomatomus saltatrix	-					-					1				
Total species	0					1					1				
Total specimens	0					1									

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Table 77. (cont.)

Location	(Weather Tower) West of Site - 1					(Weather Tower) West of Site - 1					Seaward of Ridge - 6				
Zone	5260					5260					5350				
Depth Range (feet)	33					30					30-35				
Coll. No.	DJD-74-079					DJD-74-084					DJD-74-088				
Date	18 June					2 July					2-3 July				
Hour	0910-1245					0920-1300					1340-0920				
Tide	Ebb 1-Ebb 2					Ebb 2-Flood 1					Flood 1-Ebb 1				
Air Temp. Range (C)	21.0-22.5					22.0-23.0					23.0				
Temp. Range (C), surface	20.0-20.8					21.0-22.0					21.0-22.0				
bottom	17.0-19.0					19.5-20.0					20.0				
Sal. Range (ppt), surface	30.0					29.5-30.0					30.0				
bottom	30.0-30.5					30.0					30.0				
Oxygen Range (ppm), surface	6.8-8.2					9.2-9.3					7.1-9.3				
bottom	5.0-6.0					8.2-8.6					6.6-8.2				
Secchi Range (feet)	6.5-8.0					5.5					6.0-5.5				
	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharhinus milberti	-					2	1	1	1118-1251	9.0-11.5	-				
Carcharhinus obscurus	1		1	1042	7.0[a]	-					1	1		953	-
Galeocerdo cuvieri	-					-					1		1	1918	-
Mustelus canis	-					3		2	1155-1183	5.5-5.8	-				
Pomatomus saltatrix	1			721	3.6	-					-				
Total species	2					2					2				
Total specimens	2					5					2				

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Table 77. (cont.)

Location	West of Site - 7	South of Site - 9	Off Little Beach - 8
Zone	5260	5360	1200
Depth Range (feet)	20	30	8-10
Coll. No.	DJD-74-089	DJD-74-098	DJD-74-100
Date	3 July	16 July	18 July
Hour	1000-1345	1007-1330	0850-1345
Tide	Ebb 1-Ebb 2	Ebb 2-Flood 1	Ebb 1-Ebb 2
Air Temp. Range (C)	25.0	25.0-27.5	24.8-25.5
Temp. Range (C), surface	19.5-22.0	22.3-23.0	22.9-23.8
bottom	19.5-20.0	22.3	22.9-23.8
Sal. Range (ppt), surface	28.5-30.0	30.0	28.5-30.0
bottom	30.0	30.0	28.5-30.0
Oxygen Range (ppm), surface	7.6-8.0	7.0-7.6	9.7-7.8
bottom	7.2-8.1	6.4-7.2	7.4-7.5
Secchi Range (feet)	5.0-6.5	20.5-31.0	4.0-5.0

	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharhinus milberti	1	1		947	5.3	1	1		853	3.6	1	1		1016	6.5
Carcharhinus obscurus	-					-					15	7	7	991-1422	5.5-16.0
Galeocerdo cuvieri	-					-					1	1		1549	17.5
Mustelus canis	-					-					-				
Total species	1					1					3				
Total specimens	1					1					17				

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Table 77. (cont.)

Location				Off Little Beach - 10					(Weather Tower) West of Site - 1					Great Bay - 11	
Zone				5260					5260					1080	
Depth Range (feet)				28					35-37					9	
Coll. No.				MMM-74-075					CBM-74-154					DJD-74-108	
Date				23 July					6 August					19 August	
Hour				1000-1345					0830-1330					0835-1410	
Tide				Flood 2-Ebb 1					Flood 2-Ebb 1					Flood 2-Ebb 1	
Air Temp. Range (C)				23.0-24.0					20.5-23.0					26.0-26.8	
Temp. Range (C), surface				21.0-21.8					19.0-20.5					25.0-25.8	
bottom				18.5-19.0					16.0-16.8					24.6-25.8	
Sal. Range (ppt), surface				30.0					30.5					25.5-26.0	
bottom				30.0					30.5					25.5-28.0	
Oxygen Range (ppm), surface				7.2-8.0					6.6-8.0					5.6-8.0	
bottom				5.3					5.2-6.2					5.5-6.8	
Secchi Range (feet)				7.0-8.0					11.5-14.0					5.5	
	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharhinus milberti	2	2		940-1156	5.0-7.5	-					-				
Carcharhinus obscurus	2		2	1092-1118	7.3-7.8	-					-				
Galeocerdo cuvieri	-					-					-				
Mustelus canis	-					1		1	1069	4.2	-				
Total species	2					1					0				
Total specimens	4					1					0				

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Table 77. (cont.)

Location	Off Little Beach - 12	(Weather Tower) West of Site - 1	(Weather Tower) West of Site - 1
Zone	5170	5260	5260
Depth Range (feet)	18-22	35	32
Coll. No.	CBM-74-167	DJD-74-114	DJD-74-115
Date	26 August	3 September	17 September
Hour	1000-1500	0920-1240	0925-1350
Tide	Flood 1-High	Flood 2-Ebb 1	Flood 2-Ebb 1
Air Temp. Range (C)	24.5-25.0	25.0-26.0	23.0
Temp. Range (C), surface	24.5-24.8	23.0	21.8
bottom	23.0-24.0	22.0-23.0	21.8
Sal. Range (ppt), surface	30.0	30.0	30.0
bottom	30.0	30.0	30.0
Oxygen Range (ppm), surface	7.0-8.3	6.4-7.0	7.8-8.7
bottom	5.9-6.5	6.2-7.0	7.1-7.8
Secchi Range (feet)	8.5-15.0	23.0-31.5	8.5-13.0

	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharodon carcharias	-					-					-				
Carcharhinus milberti	1	1		1120	9.0	-					-				
Carcharhinus obscurus	2	1	1	990-1020	5.3-6.0	15	10	5	990-1635	5.0-20.5	2	2		1078-1333	6.5-13.3
Galeocerdo cuvieri	-					-					-				
Mustelus canis	-					-					4		3	1085-1105	3.5-4.8
Pomatomus saxatilis	-					-					-				
Total species	2					1					2				
Total specimens	3					15					6				

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Table 77. (cont.)

Location	(Weather Tower) West of Site - 1					Total				
Zone	5260									
Depth Range (feet)	32									
Coll. No.	RPS-74-127									
Date	2 October									
Hour	0940-1500									
Tide	Ebb 1-Ebb 2									
Air Temp. Range (C)	12.0-13.0									
Temp. Range (C), surface	16.0-17.0									
bottom	17.0-18.0									
Sal. Range (ppt), surface	30.0									
bottom	30.0									
Oxygen Range (ppm), surface	7.2-7.4									
bottom	7.5									
Secchi Range (feet)	8.5-11.5									
	N	M	F	Size Range	Weight Range	N	M	F	Size Range	Weight Range
Carcharodon carcharias	-					1	1		1178	68.0
Carcharhinus milberti	-					8	7	1	940-1251	3.6-11.5
Carcharhinus obscurus	-					38	21	16	953-1635	5.0-20.5
Galeocerdo cuvieri	-					2	1	1	1545-1918	17.5
Mustelus canis	3	1	2	548-1190	0.5-6.5	12	1	9	548-1190	0.5-6.5
Pomatomus saxatilis	-					1				
Total species	1					6				
Total specimens	3					62				

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Table 78. Fishes taken in sets of a 900-ft gill net by season in the vicinity of Little Egg Inlet, New Jersey from February to November, 1974.*

	WINTER				SPRING				SUMMER				FALL				TOTAL			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	-	-	-	-	13	0.9	7	1.9	8	1.0	1	8.0	21	0.5	8	2.6
Carcharhinus obscurus	-	-	-	-	26	2.0	4	6.5	1	0.1	1	1.0	-	-	-	-	27	0.7	5	5.4
Mustelus canis	-	-	-	-	186	14.3	8	23.3	152	10.9	9	16.9	25	3.1	4	6.3	363	9.1	21	17.3
Squalus acanthias	-	-	-	-	26	2.0	2	13.0	-	-	-	-	89	11.1	3	29.7	115	2.9	5	23.0
Raja erinacea	-	-	-	-	3	0.2	2	1.5	-	-	-	-	4	0.5	2	2.0	7	0.2	4	1.8
Dasyatis centroura	-	-	-	-	-	-	-	-	2	0.1	1	2.0	-	-	-	-	2	0.1	1	2.0
Myliobatis freminvillei	-	-	-	-	8	0.6	1	8.0	9	0.6	6	1.5	-	-	-	-	17	0.4	7	2.4
Rhinoptera bonasus	-	-	-	-	-	-	-	-	3	0.2	2	1.5	-	-	-	-	3	0.1	2	1.5
Acipenser oxyrhynchus	-	-	-	-	2	0.2	2	1.0	-	-	-	-	-	-	-	-	2	0.1	2	1.0
Alosa aestivalis	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Alosa mediocris	-	-	-	-	26	2.0	6	4.3	2	0.1	1	2.0	8	1.0	4	2.0	36	0.9	11	3.3
Alosa pseudoharengus	12	2.4	2	6.0	35	2.7	3	11.7	-	-	-	-	-	-	-	-	47	1.2	5	9.4
Alosa sapidissima	-	-	-	-	172	13.2	6	28.7	-	-	-	-	-	-	-	-	172	4.3	6	28.7
Brevoortia tyrannus	-	-	-	-	530	40.8	9	58.9	165	11.8	7	23.8	189	23.6	7	27.0	884	22.1	23	38.4
Clupea harengus	3	0.6	3	1.0	7	0.5	1	7.0	-	-	-	-	-	-	-	-	10	0.3	4	2.5
Opsanus tau	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Lophius americanus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	4	0.5	1	4.0	5	0.1	2	2.5
Gadus morhua	2	0.4	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.1	1	2.0
Hippocampus erectus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Syngnathus fuscus	-	-	-	-	-	-	-	-	2	0.1	2	1.0	-	-	-	-	2	0.1	2	1.0
Morone americana	3	0.6	2	1.5	3	0.2	2	1.5	-	-	-	-	1	0.1	1	1.0	7	0.2	5	1.4
Morone saxatilis	22	4.4	3	7.3	12	0.9	5	2.4	1	0.1	1	1.0	3	0.4	1	3.0	38	1.0	10	3.8
Pomatomus saltatrix	-	-	-	-	8	0.6	4	2.0	22	1.6	8	2.8	25	3.1	4	6.3	55	1.4	16	3.4
Cynoscion regalis	-	-	-	-	39	3.0	11	3.6	32	2.3	8	4.0	150	18.8	6	25.0	221	5.5	25	8.8
Leiostomus xanthurus	-	-	-	-	-	-	-	-	2	0.1	1	2.0	-	-	-	-	2	0.1	1	2.0
Micropogon undulatus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Tautoga onitis	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Scomberomorus maculatus	-	-	-	-	-	-	-	-	1	0.1	1	1.0	-	-	-	-	1	+	1	1.0
Peprilus triacanthus	-	-	-	-	5	0.4	1	5.0	37	2.6	8	4.6	13	1.6	3	4.3	55	1.4	12	4.6
Prionotus carolinus	-	-	-	-	2	0.2	1	2.0	9	0.6	3	3.0	-	-	-	-	11	0.3	4	2.8
Prionotus evolans	-	-	-	-	24	1.8	7	3.4	10	0.7	4	2.5	14	1.8	2	7.0	48	1.2	13	3.7
Paralichthys dentatus	-	-	-	-	12	0.9	4	3.0	7	0.5	2	3.5	2	0.3	2	1.0	21	0.5	8	2.6
Scophthalmus aquosus	1	0.2	1	1.0	17	1.3	8	2.1	1	0.1	1	1.0	7	0.9	4	1.8	26	0.7	14	1.9
Pseudopleuronectes americanus	1	0.2	1	1.0	8	0.6	5	1.6	-	-	-	-	-	-	-	-	9	0.2	6	1.5
Trinectes maculatus	-	-	-	-	1	0.1	1	1.0	-	-	-	-	-	-	-	-	1	+	1	1.0
Total species	7				26				21				15				35			
Total specimens	44				1156				473				542				2215			
Number collections	5				13				14				8				40			
Specimens/collection	8.8				88.9				33.8				67.8				55.4			

* Seasons are defined as winter (January - March), spring (April - June), summer (July - September), and fall (October - December).

\+ indicates value less than 0.1

a n=number of specimens collected for season

b n/coll=number of specimens per collection for season

c f=number of collections in which species appeared

d n/f=number of specimens per collection in which species appeared

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Table 79. Fishes taken in sets of a 900-ft gill net by season at the Site from February to November, 1974.

	Winter*				Spring				Summer				Fall**				1974			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	-	-	-	-	2	0.7	2	1.0	-	-	-	-	2	0.2	2	1.0
Mustelus canis	-	-	-	-	42	14.0	3	14.0	65	21.7	3	21.7	1	0.5	1	1.0	108	10.8	7	15.4
Squalus acanthias	-	-	-	-	21	7.0	1	21.0	-	-	-	-	52	26.0	1	52.0	73	7.3	2	36.5
Raja erinacea	-	-	-	-	1	0.3	1	1.0	-	-	-	-	2	1.0	1	2.0	3	0.3	2	1.5
Myliobatis freminvillei	-	-	-	-	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Acipenser oxyrhynchus	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Alosa aestivalis	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Alosa mediocris	-	-	-	-	-	-	-	-	2	0.7	1	2.0	1	0.5	1	1.0	3	0.3	2	1.5
Alosa pseudoharengus	-	-	-	-	3	1.0	1	3.0	-	-	-	-	-	-	-	-	3	0.3	1	3.0
Alosa sapidissima	-	-	-	-	6	2.0	2	3.0	-	-	-	-	-	-	-	-	6	0.6	2	3.0
Brevoortis tyrannus	-	-	-	-	7	2.3	2	3.5	4	1.3	1	4.0	14	7.0	2	7.0	25	2.5	5	5.0
Clupea harengus	1	0.5	1	1.0	-	-	-	-	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Lophius americanus	-	-	-	-	-	-	-	-	-	-	-	-	4	2.0	1	4.0	4	0.4	1	4.0
Gadus morhua	2	1.0	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.2	1	2.0
Morone saxatilis	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Pomatomus saltatrix	-	-	-	-	-	-	-	-	11	3.7	2	5.5	6	3.0	1	6.0	17	1.7	3	5.7
Cynoscion regalis	-	-	-	-	8	2.7	3	2.7	14	4.7	2	7.0	98	49.0	2	49.0	120	12.0	7	17.1
Micropogon undulatus	-	-	-	-	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Scomberomorus maculatus	-	-	-	-	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Peprilus triacanthus	-	-	-	-	-	-	-	-	4	1.3	3	1.3	1	0.5	1	1.0	5	0.5	4	1.3
Prionotus carolinus	-	-	-	-	2	0.7	1	2.0	4	1.3	2	2.0	-	-	-	-	6	0.6	3	2.0
Prionotus evolans	-	-	-	-	7	2.3	2	3.5	6	2.0	2	3.0	12	6.0	1	12.0	25	2.5	5	5.0
Paralichthys dentatus	-	-	-	-	4	1.3	2	2.0	6	2.0	1	6.0	1	0.5	1	1.0	11	1.1	4	2.8
Scophthalmus aquosus	-	-	-	-	7	2.3	2	3.5	-	-	-	-	3	1.5	2	1.5	10	1.0	4	2.5
Total species	2				14				13				12				24			
Total specimens	3				111				121				195				430			
Number collections	2				3				3				2				10			
Specimens/collections	1.5				37.0				40.3				97.5				43.0			

* Includes February and March

** Includes October and November

a n = Number of specimens collected for season

b n/coll = Number of specimens per collection for season

c f = Number of collections in which species appeared

d n/f = Number of specimens per collection in which species appeared

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Table 80 . Fishes taken in sets of a 900-ft gill net by season in the nearshore area off Little Beach from February to November, 1974.

	Winter*				Spring				Summer				Fall				1974			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	-	-	-	-	7	2.3	2	3.5	8	4.0	1	8.0	15	1.5	3	5.0
Carcharhinus obscurus	-	-	-	-	5	1.7	1	5.0	1	0.3	1	1.0	-	-	-	-	6	0.6	2	3.0
Mustelus canis	-	-	-	-	111	37.0	2	55.5	10	3.3	3	3.3	20	10.0	1	20.0	141	14.1	6	23.5
Squalus acanthias	-	-	-	-	-	-	-	-	-	-	-	-	7	3.5	1	7.0	7	0.7	1	7.0
Raja erinacea	-	-	-	-	2	0.7	1	2.0	-	-	-	-	-	-	-	-	2	0.2	1	2.0
Dasyatis centroura	-	-	-	-	-	-	-	-	2	0.7	1	2.0	-	-	-	-	2	0.2	1	2.0
Myliobatis freminvillei	-	-	-	-	8	2.7	1	8.0	4	1.3	3	1.3	-	-	-	-	12	1.2	4	3.0
Rhinoptera bonasus	-	-	-	-	-	-	-	-	2	0.7	1	2.0	-	-	-	-	2	0.2	1	2.0
Alosa mediocrus	-	-	-	-	14	4.7	2	7.0	-	-	-	-	6	3.0	2	3.0	20	2.0	4	5.0
Alosa pseudoharengus	7	3.5	1	7.0	-	-	-	-	-	-	-	-	-	-	-	-	7	0.7	1	7.0
Alosa sapidissima	-	-	-	-	85	28.3	1	85.0	-	-	-	-	-	-	-	-	85	8.5	1	85.0
Brevoortia tyrannus	-	-	-	-	58	19.3	2	29.0	41	13.7	3	13.7	149	74.5	2	74.5	248	24.8	7	35.4
Clupea harengus	2	1.0	2	1.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.2	2	1.0
Morone americana	2	1.0	1	2.0	-	-	-	-	-	-	-	-	-	-	-	-	2	0.2	1	2.0
Morone saxatilis	11	5.5	2	5.5	2	0.7	1	2.0	-	-	-	-	-	-	-	-	13	1.3	3	4.3
Pomatomus saltatrix	-	-	-	-	-	-	-	-	3	1.0	1	3.0	13	6.5	2	6.5	16	1.6	3	5.3
Cynoscion regalis	-	-	-	-	10	3.3	2	5.0	13	4.3	2	6.5	23	11.5	2	11.5	46	4.6	6	7.7
Tautoga onitis	-	-	-	-	1	0.3	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Peprilus triacanthus	-	-	-	-	5	1.7	1	5.0	18	6.0	2	9.0	5	2.5	1	5.0	28	2.8	4	7.0
Prionotus evolans	-	-	-	-	4	1.3	2	2.0	-	-	-	-	-	-	-	-	4	0.4	2	2.0
Scophthalmus aquosus	1	0.5	1	1.0	5	1.7	3	1.7	-	-	-	-	-	-	-	-	6	0.6	4	1.5
Pseudopleuronectes americanus	-	-	-	-	2	0.7	1	2.0	-	-	-	-	-	-	-	-	2	0.2	1	2.0
Total species	5				14				10				8				22			
Total specimens	23				312				101				231				667			
Number collections	2				3				3				2				10			
Specimens/collection	11.5				104.0				33.7				115.5				66.7			

* Includes February and March

** Includes October and November

a n = Number of specimens collected for season

b n/coll = Number of specimens per collection for season

c f = Number of collections in which species appeared

d n/f = Number of specimens per collection in which species appeared

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Table 81. Fishes taken in sets of a 900-ft gill net by season in the nearshore area off Holgate from April to November, 1974.

	Spring*				Summer				Fall**				1974			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	3	1.0	2	1.5	-	-	-	-	3	0.4	2	1.5
Carcharhinus obscurus	5	2.5	1	5.0	-	-	-	-	-	-	-	-	5	0.7	1	5.0
Mustelus canis	32	16.0	2	16.0	77	25.7	3	25.7	4	2.0	2	2.0	113	16.1	7	16.1
Squalus acanthias	5	2.5	1	5.0	-	-	-	-	30	15.0	1	30.0	35	5.0	2	17.5
Raja erinacea	-	-	-	-	-	-	-	-	2	1.0	1	2.0	2	0.3	1	2.0
Myliobatis freminvillei	-	-	-	-	4	1.3	2	2.0	-	-	-	-	4	0.6	2	2.0
Rhinoptera bonasus	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Alosa mediocris	2	1.0	1	2.0	-	-	-	-	1	0.5	1	1.0	3	0.4	2	1.5
Alosa pseudoharengus	27	13.5	1	27.0	-	-	-	-	-	-	-	-	27	3.9	1	27.0
Alosa sapidissima	41	20.5	1	41.0	-	-	-	-	-	-	-	-	41	5.9	1	41.0
Brevoortia tyrannus	27	13.5	1	27.0	-	-	-	-	15	7.5	2	7.5	42	6.0	3	14.0
Clupea harengus	7	3.5	1	7.0	-	-	-	-	-	-	-	-	7	1.0	1	7.0
Lophius americanus	1	0.5	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Hippocampus erectus	1	0.5	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Syngnathus fuscus	-	-	-	-	1	0.3	1	1.0	-	-	-	-	1	0.1	1	1.0
Morone saxatilis	2	1.0	1	2.0	-	-	-	-	3	1.5	1	3.0	5	0.7	2	2.5
Pomatomus saltatrix	1	0.5	1	1.0	6	2.0	3	2.0	6	3.0	1	6.0	13	1.9	5	2.6
Cynoscion regalis	4	2.0	1	4.0	1	0.3	1	1.0	29	14.5	2	14.5	34	4.9	4	8.5
Peprilus triacanthus	-	-	-	-	13	4.3	2	6.5	7	3.5	1	7.0	20	2.9	3	6.7
Prionotus carolinus	-	-	-	-	5	1.7	1	5.0	-	-	-	-	5	0.7	1	5.0
Prionotus evolans	3	1.5	1	3.0	4	1.3	2	2.0	2	1.0	1	2.0	9	1.3	4	2.3
Paralichthys dentatus	1	0.5	1	1.0	-	-	-	-	1	0.5	1	1.0	2	0.3	2	1.0
Scophthalmus aquosus	1	0.5	1	1.0	1	0.3	1	1.0	4	2.0	2	2.0	6	0.9	4	1.5
Pseudopleuronectes americanus	1	0.5	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Total species	17				11				12				24			
Total specimens	161				116				104				381			
Number collections	2				3				2				7			
Specimens/collection	80.5				38.7				52.0				54.4			

* Includes April and June

** Includes October and November

a n = Number of specimens collected for season

b n/coll = Number of specimens per collection for season

c f = Number of collections in which species appeared

d n/f = Number of specimens per collection in which species appeared

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Table 82 . Fishes taken in sets of a 900-ft gill net by season in Great Bay from March to November, 1974.

	Winter*				Spring				Summer				Fall**				1974			
	n[a]	n/coll[b]	f[c]	n/f[d]	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f	n	n/coll	f	n/f
Carcharhinus milberti	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	0.1	1	1.0
Carcharhinus obscurus	-	-	-	-	16	3.2	2	8.0	-	-	-	-	-	-	-	-	16	1.2	2	8.0
Mustelus canis	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Acipenser oxyrhynchus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Alosa mediocris	-	-	-	-	10	2.0	3	3.3	-	-	-	-	-	-	-	-	10	0.8	3	3.3
Alosa pseudoharengus	5	5.0	1	5.0	5	1.0	1	5.0	-	-	-	-	-	-	-	-	10	0.8	2	5.0
Alosa sapidissima	-	-	-	-	40	8.0	2	20.0	-	-	-	-	-	-	-	-	40	3.1	2	20.0
Brevoortia tyrannus	-	-	-	-	438	87.6	5	87.6	120	24.0	3	40.0	11	5.5	1	11.0	569	43.8	9	63.2
Opsanus tau	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	0.1	1	1.0
Syngnathus fuscus	-	-	-	-	-	-	-	-	1	0.2	1	1.0	-	-	-	-	1	0.1	1	1.0
Morone americana	1	1.0	1	1.0	3	0.6	2	1.5	-	-	-	-	1	0.5	1	1.0	5	0.4	4	1.3
Morone saxatilis	11	11.0	1	11.0	7	1.4	2	3.5	1	0.2	1	1.0	-	-	-	-	19	1.5	4	4.8
Pomatomus saltatrix	-	-	-	-	7	1.4	3	2.3	2	0.4	2	1.0	-	-	-	-	9	0.7	5	1.8
Cynoscion regalis	-	-	-	-	17	3.4	5	3.4	4	0.8	3	1.3	-	-	-	-	21	1.6	8	2.6
Leiostomus xanthurus	-	-	-	-	-	-	-	-	2	0.4	1	2.0	-	-	-	-	2	0.2	1	2.0
Peprilus triancanthus	-	-	-	-	-	-	-	-	2	0.4	1	2.0	-	-	-	-	2	0.2	1	2.0
Prionotus evolans	-	-	-	-	10	2.0	2	5.0	-	-	-	-	-	-	-	-	10	0.8	2	5.0
Paralichthys dentatus	-	-	-	-	7	1.4	1	7.0	1	0.2	1	1.0	-	-	-	-	8	0.6	2	4.0
Scophthalmus aquosus	-	-	-	-	4	0.8	2	2.0	-	-	-	-	-	-	-	-	4	0.3	2	2.0
Pseudopleuronectes americanus	1	1.0	1	1.0	5	1.0	3	1.7	-	-	-	-	-	-	-	-	6	0.5	4	1.5
Trinectes maculatus	-	-	-	-	1	0.2	1	1.0	-	-	-	-	-	-	-	-	1	0.1	1	1.0
Total species	4				16				10				2				21			
Total specimens	18				572				135				12				737			
Number collections	1				5				5				2				13			
Specimens/collection	18.0				114.4				27.0				6.0				56.7			

* Includes March only

** Includes October and November

a n = Number of specimens collected for season

b n/coll = Number of specimens collected for season

c f = Number of collections in which species appeared

d n/f = Number of specimens per collection in which speci es appeared

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Table 83. Weights of fishes taken in sets of a 900-ft gill net in the vicinity of Little Egg Inlet, New Jersey by season in 1974.

	SPRING												SUMMER											
	Site			Little Beach			Holgate			Great Bay			Site			Little Beach			Holgate			Great Bay		
	n[a]	wt[b]	%[c]	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%
Carcharhinus milberti	-	-	-	-	-	-	-	-	-	-	-	-	2	15.1	11.2	7	28.0	19.1	3	13.8	13.5	1	2.9	6.2
Carcharhinus obscurus	-	-	-	2	10.7	2.4	5	43.8	18.7	16	31.9	17.2	-	-	-	1	4.0	2.7	-	-	-	-	-	-
Mustelus canis	39	98.0	55.0	109	271.9	62.2	28	71.1	30.3	1	2.2	1.2	62	82.9	61.5	10	24.6	16.8	76	44.8	43.9	-	-	-
Squalus acanthias	15	38.2	21.6	-	-	-	5	21.1	9.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dasyatis centroura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	12.5	8.5	-	-	-	-	-	-
Myliobatis freminvillei	-	-	-	8	47.0	10.8	-	-	-	-	-	-	1	4.8	3.6	4	19.6	13.4	4	23.3	22.8	-	-	-
Rhinoptera bonasus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	34.3	23.4	1	18.0	17.6	-	-	-
Acipenser oxyrhynchus	1	7.5	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa aestivalis	1	0.3	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa mediocris	-	-	-	1	0.3	0.1	2	1.4	0.6	10	3.6	1.9	2	1.0	0.7	-	-	-	-	-	-	-	-	-
Alosa pseudoharengus	3	0.8	0.5	-	-	-	27	8.5	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa sapidissima	6	8.0	4.5	56	88.5	20.3	35	52.2	22.3	9	12.3	6.6	-	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	4	1.6	0.9	3	1.3	0.3	26	11.9	5.1	321	95.2	51.4	4	2.0	1.5	40	12.0	8.2	-	-	-	113	38.6	82.8
Clupea harengus	-	-	-	-	-	-	6	1.3	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Opsanus tau	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	0.6
Lophius americanus	-	-	-	-	-	-	1	10.4	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	1	+	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+	+	1	+	+
Morone americana	-	-	-	-	-	-	-	-	-	1	0.7	0.4	-	-	-	-	-	-	-	-	-	-	-	-
Morone saxatilis	1	1.4	0.8	2	2.4	0.5	2	3.0	1.3	4	6.4	3.5	-	-	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	1	1.3	0.6	7	1.7	0.9	10	7.3	5.4	3	0.6	0.4	3	1.0	1.0	1	0.5	1.1
Cynoscion regalis	8	10.7	6.1	10	13.7	3.1	4	6.8	2.9	16	23.1	12.5	14	14.5	10.8	13	8.8	6.0	1	0.3	0.3	4	3.2	6.9
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.4	0.9
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.5	0.4	-	-	-	-	-	-	-	-	-
Scomberomorus maculatus	-	-	-	-	-	-	-	-	-	-	-	-	1	1.5	1.1	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	-	-	4	0.5	0.4	16	2.1	1.4	4	0.2	0.2	2	0.3	0.6
Prionotus carolinus	2	0.6	0.3	-	-	-	-	-	-	-	-	-	4	0.7	0.5	-	-	-	-	-	-	-	-	-
Prionotus evolans	7	4.3	2.4	1	0.7	0.2	3	1.3	0.6	9	5.0	2.7	6	1.3	1.0	-	-	-	1	0.7	0.7	-	-	-
Paralichthys dentatus	4	2.2	1.2	-	-	-	-	-	-	7	2.2	1.2	6	2.6	1.9	-	-	-	-	-	-	1	0.4	0.9
Scophthalmus aquosus	6	3.2	1.8	2	0.4	0.1	1	0.5	0.2	4	0.5	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	3	0.6	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Total number	97			194			147			408			117			98			94			126		
Total weight	176.8			436.9			234.6			185.4			134.7			146.5			102.1			46.6		
Number of collections	3			3*			2			4			3			3			3			5		

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Table 83. (cont.)

	FALL												Area Totals												Grand Total		
	Site			Little Beach			Holgate			Great Bay			Site			Little Beach			Holgate			Great Bay					
	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%	n	wt	%
Carcharhinus milberti	-	-	-	8	22.3	17.3	-	-	-	-	-	-	2	15.1	2.7	15	50.3	7.1	3	13.8	3.1	1	2.9	1.2	21	82.1	4.2
Carcharhinus obscurus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	14.7	2.1	5	43.8	10.0	16	31.9	13.6	24	90.4	4.6
Mustelus canis	1	0.5	0.2	20	11.9	9.3	4	2.8	2.7	-	-	-	102	181.4	31.8	139	308.4	43.3	108	118.7	27.0	1	2.2	0.9	350	610.7	31.2
Squalus acanthias	52	101.2	39.1	6	11.1	8.6	28	57.6	55.5	-	-	-	67	139.4	24.5	6	11.1	1.6	33	78.7	17.9	-	-	-	106	229.2	11.7
Raja erinacea	2	1.0	0.4	-	-	-	2	1.0	1.0	-	-	-	2	1.0	0.2	-	-	-	2	1.0	0.2	-	-	-	4	2.0	0.1
Dasyatis centroura	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	12.5	1.8	-	-	-	-	-	-	2	12.5	0.6
Myliobatis freminvillei	-	-	-	-	-	-	-	-	-	-	-	-	1	4.8	0.8	12	66.6	9.4	4	23.3	5.3	-	-	-	17	94.7	4.8
Rhinoptera bonasus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	34.3	4.8	1	18.0	4.1	-	-	-	3	52.3	2.7
Acipenser oxyrhynchus	-	-	-	-	-	-	-	-	-	-	-	-	1	7.5	1.3	-	-	-	-	-	-	-	-	-	1	7.5	0.4
Alosa aestivalis	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	0.1	-	-	-	-	-	-	-	-	-	1	0.3	+
Alosa mediocris	1	0.5	0.2	6	4.0	3.1	1	0.4	0.4	-	-	-	3	1.5	0.3	7	4.3	0.6	3	1.8	0.4	10	3.6	1.5	23	11.2	0.6
Alosa pseudoharengus	-	-	-	-	-	-	-	-	-	-	-	-	3	0.8	0.1	-	-	-	27	8.5	1.9	-	-	-	30	9.3	0.5
Alosa sapidissima	-	-	-	-	-	-	-	-	-	-	-	-	6	8.0	1.4	56	88.5	12.4	35	52.2	11.9	9	12.3	5.3	106	161.0	8.2
Brevoortia tyrannus	14	5.8	2.2	145	49.7	38.7	15	4.9	4.7	9	2.2	91.7	22	9.4	1.7	188	63.0	8.9	41	16.8	3.8	443	136.0	58.0	694	225.2	11.5
Clupea harengus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1.3	0.3	-	-	-	6	1.3	0.1
Opsanus tau	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3	0.1	1	0.3	+
Lophius americanus	4	29.5	11.4	-	-	-	-	-	-	-	-	-	4	29.5	5.2	-	-	-	1	10.4	2.4	-	-	-	5	39.9	2.0
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+	+	-	-	-	1	+	+
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+	+	1	+	+	2	+	+
Morone americana	-	-	-	-	-	-	-	-	-	1	0.2	8.3	-	-	-	-	-	-	-	-	-	2	0.9	0.4	2	0.9	0.1
Morone saxatilis	-	-	-	-	-	-	3	6.0	5.8	-	-	-	1	1.4	0.3	2	2.4	0.3	5	9.0	2.0	4	6.4	2.7	12	19.2	1.0
Pomatomus saltatrix	6	6.9	2.7	13	9.8	7.6	6	4.4	4.2	-	-	-	16	14.2	2.5	16	10.4	1.5	10	6.7	1.5	8	2.2	0.9	50	33.5	1.7
Cynoscion regalis	96	106.8	41.3	23	18.9	14.7	29	23.9	23.1	-	-	-	118	132.0	23.2	46	41.4	5.8	34	31.0	7.0	20	26.3	11.2	218	230.7	11.8
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.4	0.2	2	0.4	+
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.5	0.1	-	-	-	-	-	-	-	-	-	1	0.5	+
Scomberomorus maculatus	-	-	-	-	-	-	-	-	-	-	-	-	1	1.5	0.3	-	-	-	-	-	-	-	-	-	1	1.5	0.1
Peprilus triacanthus	1	+	+	5	0.9	0.7	7	1.2	1.2	-	-	-	5	0.5	0.1	21	3.0	0.4	11	1.4	0.3	2	0.3	0.1	39	5.2	0.3
Prionotus carolinus	-	-	-	-	-	-	-	-	-	-	-	-	6	1.3	0.2	-	-	-	-	-	-	-	-	-	6	1.3	0.1
Prionotus evolans	12	5.2	2.0	-	-	-	2	0.7	0.7	-	-	-	25	10.8	1.9	1	0.7	0.1	6	2.7	0.6	9	5.0	2.1	41	19.2	1.0
Paralichthys dentatus	1	0.7	0.3	-	-	-	1	0.3	0.3	-	-	-	11	5.5	1.0	-	-	-	1	0.3	0.1	8	2.6	1.1	20	8.4	0.4
Scophthalmus aquosus	3	0.6	0.2	-	-	-	3	0.5	0.5	-	-	-	9	3.8	0.7	2	0.4	0.1	4	1.0	0.2	4	0.5	0.2	19	5.7	0.3
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.6	0.3	3	0.6	+
Total number	193			226			101			10			407			518			342			544			1811		
Total weight	258.7			128.6			103.7			2.4			570.2			712.0			440.4			234.4			1957.0		
Number of collections	2			2			2			2			8			8*			7			11			34		

a n = number of specimens weighed
b wt = weight of specimens to nearest 0.1 kg
c % = per cent of total weight
* in one collection only weight of Alosa sapidissima and Morone saxatilis were taken
+ indicates value much less than 0.1

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Table 84 . Number of fishes taken per stretch mesh size of a 900-ft gill net in the vicinity of Little Egg Inlet, New Jersey in 1974.

	3¼"	%	4½"	%	5½"	%
Carcharhinus milberti	5	24	10	48	6	29
Carcharhinus obscurus	5	19	11	41	11	41
Mustelus canis	198	55	115	32	50	14
Squalus acanthias	57	50	34	30	24	21
Raja erinacea	1	14	-	-	6	86
Dasyatis centroura	-	-	-	-	2	100
Myliobatis freminvillei	2	12	6	35	9	53
Rhinoptera bonasus	2	67	1	33	-	-
Acipenser oxyrhychus	-	-	2	100	-	-
Alosa aestivalis	-	-	1	100	-	-
Alosa mediocris	32	89	4	11	-	-
Alosa pseudoharengus	44	94	3	6	-	-
Alosa sapidissima	15	9	91	53	66	38
Brevoortia tyrannus	713	81	105	12	66	7
Clupea harengus	8	80	1	10	1	10
Opsanus tau	1	100	-	-	-	-
Lophius americanus	1	20	2	40	2	40
Gadus morhua	-	-	1	50	1	50
Hippocampus erectus	-	-	-	-	1	100
Syngnathus fuscus	1	50	1	10	-	-
Morone americana	2	29	5	71	-	-
Morone saxatilis	10	26	26	68	2	5
Pomatomus saltatrix	40	73	6	11	9	16
Cynoscion regalis	160	72	43	19	18	8
Leiostomus xanthurus	2	100	-	-	-	-
Micropogon undulatus	1	100	-	-	-	-
Tautoga onitis	-	-	1	100	-	-
Scomberomorus maculatus	1	100	-	-	-	-
Peprilus triacanthus	39	71	14	25	2	4
Prionotus carolinus	6	55	4	36	1	9
Prionotus evolans	13	27	19	40	16	33
Paralichthys dentatus	4	19	10	48	7	33
Scophthalmus aquosus	8	31	8	31	10	38
Pseudopleuronectes americanus	4	44	2	22	3	33
Trinectes maculatus	-	-	-	-	1	100
Total	1375	62	526	24	314	14

% = percent of each species taken per mesh

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Table 85. Macroinvertebrates and fishes taken in two sets of lobster pots in the vicinity of the Site off Little Egg Inlet, New Jersey in 1974.

Location	Seaward of the Ridge	Tower	Total
Depth Range (feet)	33-40	30-35	30-40
Temperature Range (C) surface	3.0-24.5	3.0-24.3	3.0-24.5
bottom	4.0-23.0	3.5-22.8	3.5-23.0
air	4.0-25.0	4.0-25.0	4.0-25.0
Salinity Range (ppt) surface	28.0-31.0	28.0-31.0	28.0-31.0
bottom	28.5-31.0	28.5-31.0	28.5-31.0
Oxygen Range (ppm) surface	7.1-12.0	6.9-11.6	6.9-12.0
bottom	5.0-13.0	5.2-11.5	5.0-13.0
Secchi Range (feet)	5.0-36.0	3.5-13.0	3.5-36.0

	Seaward of the Ridge					No. Rank	Wt. Rank	Tower					No. Rank	Wt. Rank	Total					No. Rank	Wt. Rank
	n[a]	n/coll[b]	wt[c]	wt/coll[d]	f[e]			n	n/coll	wt	wt/coll	f			n	n/coll	wt	wt/coll	f		
Tubularia crocea	present	-	-	-	2			present	-	-	-	4			present	-	-	-	6		
Hydractinia echinata	present	-	-	-	6			present	-	-	-	3			present	-	-	-	9		
Actiniaria	present	-	-	-	1			present	-	-	-	2			present	-	-	-	3		
Crepidula plana	present	-	-	-	7			present	-	-	-	4			present	-	-	-	11		
Polinices heros	5	*[f]	135	10	4			9	1	420	32	2	7	8	14	1	555	21	6	10	-
Polinices sp. egg case	present	-	-	-	4			present	-	-	-	4			present	-	-	-	8		
Urosalpinx cinereus	1	*	1	*	1			-	-	-	-	-			1	*	1	*	1		
Nassarius trivittatus	4	*	4	*	4			present	-	-	-	3			4	*	4	*	4		
N. trivittatus egg case	present	-	-	-	6			present	-	-	-	4			present	-	-	-	10		
Acanthodoris pilosa	1	*	+[g]	-	1			1	*	1	*	1			2	*	1	*	2		
Nudibranchia	present	-	-	-	1			present	-	-	-	2			present	-	-	-	3		
Mytilus edulis	-	-	-	-	-			present	-	-	-	2			present	-	-	-	2		
Antinoella sarsi	fragment	-	+	-	1			2	*	+	-	2			2	*	+	-	3		
Lepidonotus sublevis	14	1	6	*	7	7	-	5	*	1	-	3	9	-	19	1	7	*	10	8	-
Hippolysmata wurdemanni	8	1	3	*	3	9	-	16	1	1	-	3	6	-	24	1	4	*	6	6	-
Dichelopandalus leptocerus	4	*	2	*	2			-	-	-	-	-			4	*	2	*	2		
Homarus americanus	-	-	-	-	-			1	*	190	15	1	-	9	1	*	190	7	1		
Pagurus longicarpus	14	1	4	*	4	7	-	3	*	3	-	2	10.5	-	17	1	7	*	6	9	-
Pagurus pollicaris	85	7	1447	111	11	4	-	40	3	625	48	8	5	6	125	5	2072	80	19	4	8
Libinia emarginata	68	5	4739	365	9	5	4	42	3	3353	296	6	4	3	110	4	8592	330	15	5	3
Cancer irroratus	290	22	56170	4321	13	2	1	222	17	25655	1973	12	2	1	512	20	81825	3147	25	2	1
Cancer borealis	3	*	125	10	1			-	-	-	-	-			3	*	125	5	1		
Ovalipes ocellatus	2	*	120	9	1			-	-	-	-	-			2	*	120	5	1		
Portunus spinimanus	1	*	5	*	1			1	*	21	2	1			2	*	26	1	2		
Callinectes sapidus	14	1	1902	146	7	7	8	7	1	954	73	4	8	5	21	1	2856	110	11	7	7
Callinectes similis	5	*	82	6	1			-	-	-	-	-			5	*	82	3	1		
Echinarachnius parma	3	*	12	1	1			-	-	-	-	-			3	*	12	*	1		
Asterias forbesii	642	49	5597	431	13	1	3	274	21	1466	113	12	1	4	916	35	7063	272	25	1	4
Conger oceanicus	1	*	2800	215	1	-	6	2	*	444	34	1	-	7	3	*	3244	125	2	-	5
Urophycis chuss	5	*	1450	112	3			-	-	-	-	-			5	*	1450	56	3	-	10
Rissola marginata	1	*	95	7	1	-	10	-	-	-	-	-			1	*	95	4	1		
Macrozoarces americanus	3	*	3100	238	2	-	5	-	-	-	-	-			3	*	3100	119	2	-	6
Centropristis striata	89	7	9327	717	8	3	2	48	4	6652	512	8	3	2	137	5	15979	615	16	3	2
Epinephelus nigritus	1	*	+	-	1			-	-	-	-	-			1	*	+		1		
Mycteroperca microlepis	1	*	98	8	1	-	9	1	*	42	3	1			2	*	140	5	2		
Stenotomus chrysops	1	*	419	32	1			-	-	-	-	-			1	*	419	16	1		
Tautoga onitis	7	1	1930	148	1	10	7	-	-	-	-	-			7	*	1930	74	1	-	9
Tautogolabrus adspersus	1	*	+	-	1			3	*	2	*	2	10.5	-	4	*	2	*	3		
Prionotus carolinus	-	-	-	-	-			1	*	80	6	1	-	10	1	*	80	3	1		
No. Invertebrates	1164	90	70354	5412				623	48	33190	2553				1787	69	103544	3982			
No. Fishes	110	8	19219	1478				55	4	7220	555				165	6	26439	1017			
Total taxa	34							25							37						
Total specimens	1274	98	89573	6890				678	52	40410	3108				1952	75	129983	4999			
No. collections	13							13							26						

[a] n = Number of specimens collected.
[b] n/coll = Average number of specimens per collection.
[c] wt = Weight of specimens collected.
[d] wt/coll = Average weight of specimens per collection.
[e] f = Number of collections in which species appeared.
[f] * = Signifies the number is less than 0.5.
[g] + = Signifies the weight is less than 0.5g.

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Table 86. Ocean, inlet, and bay ichthyoplankton stations regularly and irregularly (*) sampled during 1974.

Vicinity of Site

*1. Off Holgate (Zone 5220)
Approximately 2.5 nautical miles E of Holgate watertower; 45-50 ft

2. Seaward of Ridge (Zone 5550)
Approximately 4.5 nautical miles SE of Little Egg Inlet; 40-54 ft

3. Site (Zones 5254-5256)
2.3 nautical miles SE of Little Egg Inlet; 32-40 ft

4. Landward of Site (Zone 5150)
Landward of BW "LE" Mo (A) Bell, 1.5 nautical miles SE of Little Egg Inlet; 15-23 ft

*5. Landward of Brigantine Ridge (Zone 5280)
Approximately 2.5 nautical miles SE of Brigantine Inlet; 30-43 ft

North and Offshore of Study Area

6. Off Brant Beach (Zone 4340)
Approximately 2.5 nautical miles ESE of Brant Beach; 53-58 ft

7. Offshore of Brant Beach (Zone 4940)
Approximately 8.0 nautical miles ESE of Brant Beach; 76-77 ft

8. Offshore of Little Egg Inlet (Zone 5850)
Approximately 8.0 nautical miles ESE of Little Egg Inlet; 58-64 ft

Inlets

9. Little Egg Inlet (Zone 1010)
Lighted buoy BW "F" Mo (A) to light FL R "96"

*10. Absecon Inlet (Zone 2580)
Atlantic City Fishing Pier (Old Brigantine drawbridge, County road 87) Absecon Inlet

Great Bay

11. Great Bay #1 (G.B.-1, Zone 1050)
Newmans Thorofare, lighted FR "2" to old Coast Guard Station

12. Great Bay #2 (G.B.-2, Zone 1100)
Intracoastal Waterway, light FL R "14" to light FL R "20"

13. Great Bay #5 (G.B.-5, Zone 1080)
Approximately 0.5 nautical miles NE of Oyster Creek towing toward Mullica River

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Table 86. (cont.)

Mullica River

14. Mullica River #1 (M.R.-1, Zone 1520)
Akimbo Pt. to Deep Pt.

15. Mullica River #3 (M.R.-3, Zone 1550)
Collins Cove to Garden State Parkway Highway Bridge

*Little Egg Harbor

16. Little Egg Harbor #2 (L.E.H.-2, Zone 2040)
N. J. Buoy "G" to can buoy C "73"

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Table 87. Types and dates of ichthyoplankton collections taken in the vicinity of the Site and north and offshore of the study area in 1974.

Station	Date 12 Jan.	24 Jan.	12 Feb.	27 Feb.	11 Mar.	25 Mar.	8 Apr.	29 Apr.	8 May	21 May	5 June	20* June	8* July	22* July	2 Aug.	30 Aug.	9* Sept.	30 Sept.	7 Oct.	21 Oct.	4 Nov.	18 Nov.
Off Holgate	S, M, B		S, M, B		S, M, B		O			O												
Seaward of Ridge	S, M, B	S, M, B	S, M, B	S, M, B	S, M, B		O	O		O		O		O		O		O		O		O
Site	S, M, B	S, M, B	S, M, B	S, M, B	S, M, B	O	O, S, B	O	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B	O, S, B
Landward of Site	S, M, B	S, M, B	S, M, B	S, M, B	S, M, B		O	O		O		O		O		O		O		O		O
Landward of Brigantine Ridge		S, M, B		S, M, B				O				O										
North and Offshore of Study Area						O			O		O		O		O		O		O		O	

S = Surface
M = Midwater
B = Bottom
O = Oblique
* = Night collections taken at Site.

Table 88. Types and dates of ichthyoplankton collections taken in Little Egg Inlet, Great Bay, and the Mullica River in 1974.

Station	Date 4 Jan.	1 Feb.	12 Mar.	26 Mar.	8 Apr.	26 Apr.	8 May	22 May	5 June	21 June	8 July	22 July	2 Aug.	30 Aug.	10 Sept.	25 Sept.	9 Oct.	5 Nov.
Little Egg Inlet	S, B	S, B	S, B	*O, S, B	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Great Bay #1	S	S	S	S	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Great Bay #2	S	S	S	S	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Great Bay #5			S	S	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Mullica River #1	S, B	S, B	S, B	S, B	O	O	O	O	O	O	O	O	O	O	O	O		
Mullica River #3									O	O	O	O	O	O	O	O		

S = Surface
M = Midwater
B = Bottom
O = Oblique
* = Oblique collection made on 25 March.

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Table 89. Partially identified ichthyoplankton collected in 1974 and the possible species involved.

Partial identification	Possible species involved
Engraulidae larvae	Anchoa hepsetus Anchoa mitchilli Engraulis eurystole
Urophycis sp.	Urophycis chuss Urophycis regius Urophycis tenuis
Ophidiidae larvae	Rissola marginata Other species not determined
Atherinidae larvae	Membras martinica Menidia beryllina Menidia menidia
Astroscopus sp.	Astroscopus guttatus Astroscopus y-graecum
Blenniidae larvae	No. of species collected not determined
Ammodytes sp.	Taxonomy confused but several species may be involved
Gobiidae larvae	Gobionellus boleosoma Gobionellus oceanicus Gobiosoma bosci Gobiosoma ginsburgi
Auxis sp.	Auxis rochei Auxis thazard
Prionotus sp.	Prionotus carolinus Prionotus evolans
Myoxocephalus sp.	Myoxocephalus aenaeus Myoxocephalus octodecimspinosus
Bothus sp.	Bothus lunatus Bothus ocellatus Bothus robinsi
Citharichthys sp.	Citharichthys arctifrons Citharichthys spilopterus
Tetraodontiformes larvae	Sphoeroides maculatus Chilomycterus schoepfi

Table 90. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface and oblique tows of a 0.5-m plankton net and a 0.03-m^2 Bongo in Great Bay (zones 1050, 1100, and 1080) from January through November, 1974.

	January*		February*		March*		April		May		June	
Depth Range (feet)	-		6-21		6-26		6-20		4-36		5-35	
Temp. Range (C) air	1.0-1.5		2.5		3.0-5.5		10.8-12.9		14.0-24.0		-	
surface	3.2-3.5		6.0		5.0-6.2		7.1-13.0		11.2-20.0		20.8-24.5	
bottom	-		6.0		-		7.0-12.0		11.0-19.5		20.2-24.5	
Salinity Range (ppt) surface	20.0-22.0		19.5-21.5		15.0-30.0		18.0-30.0		22.0-30.0		20.0-28.5	
bottom	-		22.5		-		20.0-30.0		22.0-30.2		22.5-28.0	
Oxygen Range (ppm) surface	10.5-11.0		10.2		10.1-11.6		9.6-10.4		8.2-9.3		4.8-9.1	
bottom	-		10.1		-		10.0-10.7		7.2-9.0		6.8-8.4	
Secchi Range (feet)	3.0-3.5		2.0		1.5-4.0		1.5-3.0		2.5-4.5		3.0-4.5	
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3
Anchoa mitchilli	-	-	-	-	-	-	-	-	4173	30.043	12934	56.064
Tautoga onitis	-	-	-	-	-	-	1	0.010	178	1.281	90	0.390
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	25	0.180	72	0.312
Scomber scombrus	-	-	-	-	-	-	64	0.667	17	0.122	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	192	0.832
Scophthalmus aquosus	-	-	-	-	127	0.275	32	0.334	2	0.014	-	-
Unidentified eggs	-	-	-	-	-	-	106	1.105	150	1.080	24	0.104
Total	0		0		127	0.275	203	2.117	4545	32.721	13312	57.703
Larval and juvenile fishes												
Brevoortia tyrannus	-	-	3	0.015	1	0.002	1	0.010	-	-	-	-
Anchoa spp.	-	-	-	-	-	-	-	-	25	0.180	1469	6.367
Atherinidae larvae	-	-	-	-	-	-	-	-	46	0.331	12	0.052
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	1	0.004
Syngnathus fuscus	-	-	-	-	-	-	-	-	27	0.194	81	0.351
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	3	0.013
Leiostomus xanthurus	-	-	-	-	1	0.002	-	-	-	-	-	-
Ammodytes sp.	80	0.406	8	0.041	330	0.714	7	0.073	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	70	0.303
Scomber scombrus	-	-	-	-	-	-	-	-	1	0.007	-	-
Myoxocephalus spp.	-	-	-	-	2	0.004	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	1	0.007	1	0.004
Pseudopleuronectes americanus	-	-	-	-	27	0.058	10	0.104	-	-	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	-	-	1	0.004
Unidentified larvae	-	-	-	-	-	-	-	-	2	0.014	-	-
Total species	1		2		5		3		5		8	
Total	80	0.406	11	0.057	361	0.781	18	0.188	102	0.734	1638	7.100
No. of collections	2		2		6		6		6		6	
Volume sampled (m^3)	197.2		193.8		462.1		95.9		138.9		230.7	

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Table 90. (cont.)

	July		August		September		October		November		1974 Total			
Depth Range (feet)	7-26		7-20		5-25		4-23		5-19		4-35			
Temp. Range (C) air	-		29.0-33.0		18.5-28.0		14.0-17.9		-		1.0-33.0			
surface	21.0-26.0		24.0-27.3		17.0-22.0		13.0-14.2		14.8-16.0		3.2-27.3			
bottom	22.0-26.0		23.5-27.5		17.0-21.1		13.0-14.0		14.8-16.0		6.0-27.5			
Salinity Range (ppt) surface	24.0-30.0		20.0-30.0		16.5-30.0		22.0-28.0		22.0-28.0		15.0-30.0			
bottom	25.0-30.0		20.0-30.0		19.0-30.0		24.0-28.0		22.0-28.0		19.0-30.2			
Oxygen Range (ppm) surface	6.0-9.4		5.9-7.4		5.8-6.7		8.0-8.4		7.4-7.8		4.8-11.6			
bottom	5.8-7.6		5.3-7.0		5.3-6.4		8.2-8.4		7.7-8.2		5.3-10.7			
Secchi Range (feet)	4.0-7.5		3.0-7.0		3.0-4.5		3.5-4.5		3.3-6.0		1.5-7.5			
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Anchoa hepsetus	8	0.058	-	-	-	-	-	-	-	-	8	0.004	28.8	0.278
Anchoa mitchilli	6082	44.072	45	0.380	3	0.023	-	-	-	-	23237	12.570	535.7	43.377
Tautoga onitis	395	2.862	4	0.034	-	-	-	-	-	-	668	0.361	349.2	1.913
Tautogolabrus adspersus	4	0.029	-	-	-	-	-	-	-	-	101	0.055	181.5	0.556
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	81	0.044	67.9	1.193
Prionotus sp.	19	0.138	2	0.017	1	0.008	-	-	-	-	214	0.116	166.2	1.288
Scophthalmus aquosus	-	-	-	-	3	0.023	2	0.030	-	-	166	0.090	439.6	0.378
Unidentified eggs	36	0.261	1	0.008	-	-	-	-	-	-	317	0.171	320.4	0.989
Total	6544	47.420	52	0.439	7	0.053	2	0.030	0		24792	13.411	1081.7	22.919
Larval and juvenile fishes														
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	5	0.003	191.7	0.026
Anchoa mitchilli	10	0.072	4	0.034	1	0.008	-	-	-	-	15	0.008	143.2	0.105
Anchoa spp.	948	6.869	75	0.633	3	0.023	-	-	-	-	2520	1.363	493.1	5.111
Ophidiidae larva	-	-	-	-	1	0.008	-	-	-	-	1	+**	22.7	0.044
Atherinidae larvae	6	0.043	1	0.008	-	-	-	-	-	-	65	0.035	330.4	0.197
Hippocampus erectus	2	0.014	2	0.017	2	0.015	-	-	-	-	7	0.004	170.4	0.041
Syngnathus fuscus	57	0.413	29	0.245	1	0.008	3	0.046	-	-	198	0.107	493.5	0.401
Pomatomus saltatrix	1	0.007	-	-	-	-	-	-	-	-	1	+	21.5	0.047
Cynoscion regalis	21	0.152	-	-	-	-	-	-	-	-	24	0.013	220.3	0.109
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	1	+	78.5	0.013
Tautoga onitis	1	0.007	-	-	-	-	-	-	-	-	1	+	21.5	0.047
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	425	0.230	801.0	0.531
Gobiidae larvae	23	0.167	46	0.389	1	0.008	-	-	-	-	140	0.076	368.4	0.380
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	1	+	31.9	0.031
Myoxocephalis spp.	-	-	-	-	-	-	-	-	-	-	2	+	78.5	0.025
Scophthalmus aquosus	3	0.022	-	-	-	-	-	-	-	-	5	0.003	110.0	0.045
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	37	0.020	443.5	0.083
Trinectes maculatus	-	-	-	-	-	-	-	-	-	-	1	+	52.3	0.019
Unidentified larvae	1	0.007	3	0.025	-	-	-	-	-	-	6	0.003	83.5	0.072
Total species	9		5		5		1				17			
Total	1073	7.775	160	1.351	9	0.069	3	0.046	0		3455	1.869	1517.1	2.277
No. of collections	6		6		6		3		3		52			
Volume sampled (m^3)	138.0		118.4		130.9		65.6		77.1		1848.6			

* Surface tows.

** + indicates less than 0.001/m^3.

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Table 91. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface, bottom, and oblique tows of 0.5-m plankton nets and a 0.03-m^2 Bongo in the Mullica River (zones 1520 and 1550) from January through September 1974.

	January*		February*		March*		April		May		June	
Depth Range (feet)	33		25-30		15-30		15-35		16-27		12-37	
Temp. Range (C) air	1.0		3.5		4.0-5.0		-		14.0-28.5		28.0	
surface	3.7		7.0		6.2-7.0		10.0-13.5		13.5-20.0		20.3-24.8	
bottom	3.2		-		6.2-7.0		9.0-12.7		14.5-20.0		18.7-24.1	
Salinity Range (ppt) surface	14.0		10.0		15.0-16.5		12.0-16.5		15.8-16.0		11.7-20.5	
bottom	16.0		-		19.5-20.0		12.0-22.0		16.5-19.0		12.0-23.5	
Oxygen Range (ppm) surface	11.8		10.4		9.6-10.6		10.2		7.1-9.4		7.0-8.5	
bottom	11.4		-		10.0-10.7		10.1		7.0-9.2		7.0-7.6	
Secchi Range (feet)	3.5		2.5		1.5		1.5-2.5		1.5-2.5		3.0-3.5	
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3
Anchoa mitchilli	-	-	-	-	-	-	-	-	776	18.654	5415	55.425
Tautoga onitis	-	-	-	-	-	-	3	0.093	6	0.144	32	0.327
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	3	0.072	32	0.327
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	484	4.954
Unidentified eggs	-	-	-	-	2	0.010	5	0.156	1	0.024	323	3.306
Total	0		0		2	0.010	8	0.249	786	18.894	6286	64.340
Larval and juvenile fishes												
Brevoortia tyrannus	-	-	-	-	7	0.034	1	0.031	1	0.024	-	-
Anchoa mitchilli	2	0.010	-	-	-	-	-	-	-	-	-	-
Anchoa spp.	-	-	-	-	-	-	-	-	1	0.024	315	3.224
Menidia menidia	-	-	-	-	-	-	-	-	-	-	1	0.010
Atherinidae larvae	-	-	-	-	-	-	-	-	5	0.120	1	0.010
Syngnathus fuscus	-	-	-	-	-	-	-	-	6	0.144	19	0.194
Micropogon undulatus	3	0.015	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	4	0.021	-	-	6	0.029	1	0.031	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	17	0.174
Myoxocephalus sp.	-	-	-	-	1	0.005	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	4	0.019	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	1	0.031	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	1	0.031	-	-	-	-
Tetraodontiformes larvae	-	-	-	-	-	-	-	-	-	-	1	0.010
Unidentified larvae	-	-	-	-	-	-	-	-	-	-	1	0.010
Total species	3				4		4		4		5	
Total	9	0.046	0		18	0.088	4	0.125	13	0.313	355	3.633
No. of collections	2		2		4		2		2		4	
Volume sampled (m^3)	194.9		183.4		204.3		32.1		41.6		97.7	

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Table 91. (cont.)

	July		August		September		1974 Total			
Depth Range (feet)	15-30		11-37		7-32		7-37			
Temp. Range (C) air	26.0-30.0		29.0-34.0		19.5-28.5		1.0-34.0			
surface	24.9-26.8		26.0-27.1		19.0-22.0		3.7-27.1			
bottom	24.9-27.0		26.0-27.0		19.0-21.2		3.2-27.0			
Salinity Range (ppt) surface	10.0-21.0		14.0-20.5		5.5-17.0		5.5-21.0			
bottom	8.0-21.5		14.0-21.5		6.0-18.0		6.0-23.5			
Oxygen Range (ppm) surface	5.6-8.0		5.9-8.2		5.6-6.0		5.6-11.8			
bottom	5.5-6.1		5.7-7.2		6.5		5.6-11.4			
Secchi Range (feet)	1.5-5.0		3.5-5.5		3.0-5.5		1.5-5.5			
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Anchoa mitchilli	1665	20.060	11	0.134	-	-	7867	7.710	234.2	33.591
Tautoga onitis	-	-	-	-	-	-	41	0.040	68.4	0.599
Tautogolabrus adspersus	-	-	-	-	-	-	35	0.034	38.7	0.904
Prionotus sp.	203	2.446	2	0.024	-	-	689	0.675	148.6	4.637
Unidentified eggs	48	0.578	-	-	-	-	379	0.371	261.0	1.452
Total	1916	23.084	13	0.158	0		9011	8.831	373.8	24.106
Larval and juvenile Fishes										
Brevoortia tyrannus	-	-	-	-	-	-	9	0.009	200.4	0.045
Anchoa mitchilli	33	0.398	3	0.036	-	-	38	0.037	324.9	0.117
Anchoa spp.	1859	22.397	6	0.073	-	-	2181	2.137	196.9	11.077
Menidia menidia	-	-	-	-	-	-	1	+**	11.1	0.090
Atherinidae larvae	-	-	-	-	-	-	6	0.006	52.7	0.114
Syngnathus fuscus	9	0.108	1	0.012	-	-	35	0.034	196.6	0.178
Cynoscion regalis	1	0.012	-	-	-	-	1	+	31.2	0.032
Micropogon undulatus	-	-	-	-	-	-	3	0.003	108.9	0.027
Ammodytes sp.	-	-	-	-	-	-	11	0.011	243.5	0.045
Gobiidae larvae	23	0.277	1	0.012	-	-	41	0.040	120.6	0.340
Myoxocephalus sp.	-	-	-	-	-	-	1	+	59.2	0.017
Paralichthys dentatus	-	-	-	-	-	-	4	0.004	115.5	0.035
Scophthalmus aquosus	-	-	-	-	-	-	1	+	15.7	0.064
Pseudopleuronectes americanus	-	-	-	-	-	-	1	+	15.7	0.064
Trinectes maculatus	2	0.024	-	-	-	-	2	0.002	31.2	0.064
Tetraodontiformes larvae	2	0.024	-	-	-	-	3	0.003	91.4	0.033
Unidentified larvae	-	-	-	-	-	-	1	+	11.1	0.090
Total species	6		3				14			
Total	1929	23.241	11	0.134	0		2339	2.292	700.6	3.339
No. of collections	4		4		4		28			
Volume sampled (m^3)	83.0		82.2		101.2		1020.4			

* Surface and bottom tows.

** + indicates less than 0.001/m^3.

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Table 92. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface, bottom, and oblique tows of 0.5-m plankton nets and 0.03-m^2 Bongo in Little Egg Inlet (zone 1010) from March through November, 1974.

	January*		February*		March*		April		May		June	
Depth Range (feet)	17-20		15-25		22-35		15-24		20-35		15-25	
Temp. Range (C) air	1.5		-		5.0		-		13.0-20.0		-	
surface	4.0		6.0		5.0-5.7		6.7-10.5		10.8-15.0		19.0-20.8	
bottom	4.2		6.0		5.0-5.5		-		11.0-15.5		19.0-19.8	
Salinity Range (ppt) surface	26.0		22.0		30.0		30.0		30.0		25.0-30.0	
bottom	28.0		-		30.0		30.0		30.0		27.5-30.0	
Oxygen Range (ppm) surface	11.0		10.1		10.2-10.4		-		8.8-9.0		7.6-7.8	
bottom	11.0		9.4		10.2-10.8		-		8.4		7.2-7.3	
Secchi Range (feet)	4.0		1.5		5.0-8.0		1.5-2.5		2.5-3.3		5.0	
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3
Anchoa mitchilli	-	-	-	-	-	-	-	-	424	9.57	1248	17.382
Urophycis chuss	-	-	-	-	-	-	-	-	2	0.045	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	14	0.316	192	2.674
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	1	0.023	40	0.557
Scomber scombrus	-	-	-	-	-	-	-	-	35	0.790	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	4	0.056
Unidentified eggs	-	-	-	-	28	0.086	32	1.448	49	1.106	168	2.340
Total	0		0		28	0.086	32	1.448	525	11.851	1652	23.008
Larval and juvenile fishes												
Anchoa spp.	-	-	-	-	-	-	-	-	1	0.023	56	0.780
Atherinidae larvae	-	-	-	-	-	-	-	-	1	0.023	3	0.042
Hippocampus erectus	-	-	-	-	-	-	-	-	9	0.203	1	0.014
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	62	0.863
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	1	0.014
Ammodytes sp.	309	1.769	3	0.023	293	0.901	5	0.226	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	8	0.111
Scomber scombrus	-	-	-	-	-	-	-	-	1	0.023	-	-
Myoxocephalus sp.	-	-	1	0.008	-	-	1	0.045	-	-	-	-
Paralichthys dentatus	-	-	-	-	1	0.003	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	18	0.055	6	0.271	2	0.045	-	-
Tetraodontiformes larva	-	-	-	-	-	-	-	-	-	-	1	0.014
Unidentified fish	-	-	-	-	1	0.003	-	-	-	-	-	-
Total species	1		2		3		3		5		7	
Total	309	1.769	4	0.031	313	0.963	12	0.543	14	0.316	132	1.838
No. of collections	2		2		4		2		2		2	
Volume sampled (m^3)	174.6		127.5		325.1		22.1		44.3		71.8	

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Table 92 . (cont.)

	July		August		September		October		November		1974 Total			
Depth Range (feet)	13-22		15-28		15-25		15-18		23-27		13-35			
Temp. Range (C) air	30.0		29.0		20.0-24.0		13.0		19.0		1.5-29.0			
surface	21.0		23.2-27.0		19.5-20.3		13.5		15.0		4.0-27.0			
bottom	21.0		22.2-26.1		19.0-20.5		14.0		14.5		4.2-26.1			
Salinity Range (ppt) surface	30.0		28.0		23.0-30.0		28.0		30.0		22.0-30.0			
bottom	30.0		29.0-30.0		27.5-30.0		30.0		30.5		27.5-30.0			
Oxygen Range (ppm) surface	6.2		6.2-6.8		-		8.6		7.4		6.2-11.0			
bottom	6.2		5.4-6.2		-		8.2		7.6		5.4-11.0			
Secchi Range (feet)	6.5-7.5		3.0-5.0		3.5-6.0		5.0		3.0		1.5-8.0			
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Brevoortia tyrannus	-	-	-	-	-	-	-	-	2	0.093	2	0.002	21.5	0.093
Anchoa hepsetus	9	0.184	-	-	-	-	-	-	-	-	9	0.009	48.8	0.184
Anchoa mitchilli	1215	24.897	140	2.834	1	0.022	-	-	-	-	3028	3.177	215.4	14.057
Urophycis chuss	-	-	-	-	-	-	-	-	-	-	2	0.002	27.9	0.072
Tautoga onitis	273	5.594	-	-	-	-	-	-	-	-	479	0.503	164.9	2.905
Tautogolabrus adspersus	77	1.578	-	-	-	-	-	-	-	-	118	0.124	137.0	0.861
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	35	0.037	16.4	2.134
Prionotus sp.	15	0.307	-	-	2	0.044	-	-	-	-	17	0.018	66.3	0.256
Scophthalmus aquosus	-	-	-	-	2	0.044	-	-	-	-	6	0.006	41.8	0.143
Unidentified eggs	9	0.184	3	0.061	-	-	2	0.088	-	-	291	0.305	481.0	0.605
Total	1598	32.746	143	2.895	5	0.111	2	0.088	2	0.093	3987	4.183	544.9	7.317
Larval and juvenile fishes														
Anchoa mitchilli	1	0.020	3	0.061	-	-	-	-	-	-	4	0.004	45.3	0.088
Anchoa spp.	457	9.365	147	2.976	3	0.067	-	-	-	-	664	0.697	190.5	3.485
Ophidiidae larva	-	-	-	-	1	0.022	-	-	-	-	1	+**	17.5	0.057
Atherinidae larvae	-	-	-	-	-	-	-	-	-	-	4	0.004	52.2	0.077
Hippocampus erectus	2	0.041	1	0.020	-	-	-	-	-	-	13	0.014	127.9	0.102
Syngnathus fuscus	22	0.451	5	0.101	1	0.022	-	-	-	-	90	0.094	187.5	0.480
Cynoscion regalis	30	0.615	-	-	-	-	-	-	-	-	31	0.033	75.5	0.411
Micropogon undulatus	-	-	-	-	-	-	1	0.044	-	-	1	+	22.8	0.044
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	610	0.640	585.0	1.043
Gobiidae larvae	9	0.184	16	0.324	-	-	-	-	-	-	33	0.035	120.6	0.274
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	1	+	27.9	0.036
Prionotus sp.	-	-	-	-	4	0.088	-	-	-	-	4	0.004	17.5	0.229
Myoxocephalus sp.	-	-	-	-	-	-	-	-	-	-	2	0.002	71.4	0.028
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	1	+	82.4	0.012
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	26	0.027	391.5	0.066
Tetraodontiformes larva	-	-	-	-	-	-	-	-	-	-	1	+	24.3	0.041
Unidentified larva	-	-	-	-	-	-	-	-	-	-	1	+	82.1	0.021
Total species	5		4		4		1				15			
Total	521	10.676	172	3.482	9	0.199	1	0.044	0		1487	1.560	903.9	1.645
No. of collections	2		2		2		1		1		22			
Volume sampled (m^3)	48.8		49.4		45.2		22.8		21.5		953.1			

* Surface and bottom tows.

** + indicates less than 0.001/m^3.

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Table 93. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets in Great Bay (zones 1050, 1100, and 1080) from July through December 1973.

	July		August		September		October		November		December		Total 1973			
Depth Range (feet)	6-25		5-22		5-23		7-17		4-22		4-25		4-42			
Salinity Range (ppt), surface	20.0-26.5		23.5-29.0		24.0-28.0		24.0-26.5		22.0-26.0		25.0-28.0		11.0-29.0			
bottom	23.5-26.5		25.0-29.0		24.0-27.0		24.5-26.5		24.0-26.0		28.0-29.5		21.0-30.0			
Temperature Range (C), surface	22.0-27.0		23.0-28.0		18.5-28.0		20.0-21.5		9.0-9.2		7.0-10.5		1.0-28.0			
bottom	22.0-25.0		22.0-27.0		16.0-29.5		21.0-21.5		9.2-9.5		7.0		1.3-29.5			
air	23.0-26.0		23.0-29.0		16.0-29.5		-		3.5-4.0		10.0-10.5		6.0-29.5			
Oxygen Range (ppm), surface	10.8-11.4		6.5-7.8		5.8-6.9		8.0-8.5		9.2-9.8		9.6-11.8		5.8-12.1			
bottom	6.0		6.2-6.7		5.7-6.9		7.9-8.0		9.2		9.9-10.5		5.7-11.4			
Secchi (feet)	2.0-7.5		2.0-4.0		1.5-2.0		2.5-3.5		3.5		2.5-3.0		1.6-7.5			
	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Fish eggs																
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	2088	0.298	259.4	8.049
Anchoa mitchilli	21389	31.496	193	0.381	15597	17.178	-	-	-	-	-	-	86251	12.317	2716.9	31.746
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	-	-	-	-	1	+	88.9	0.011
Tautoga onitis	2582	3.802	3	0.006	-	-	-	-	-	-	-	-	3117	0.445	686.0	0.725
Tautogolobrus adspersus	1	0.001	-	-	-	-	-	-	-	-	-	-	985	0.141	831.8	1.184
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	-	1	+	144.1	0.007
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	-	-	556	0.079	201.6	2.758
Prionotus sp.	78	0.115	-	-	-	-	-	-	-	-	-	-	78	0.011	267.3	0.292
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	1330	0.190	840.9	1.582
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	7	0.001	133.5	0.052
Unidentified eggs	2185	3.217	15	0.030	-	-	21	0.050	-	-	-	-	4788	0.684	2516.0	1.903
Total	26235	632	211	0.416	15597	17.178	21	0.050	0		0		99202	14.167	4607.4	21.531
Larval and Juvenile fishes																
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	3	+	201.9	0.015
Brevoortia tyrannus	-	-	-	-	1	0.001	-	-	-	-	1	0.003	5	0.001	338.1	0.015
Anchoa hepsetus	-	-	-	-	4	0.004	-	-	-	-	-	-	4	0.001	259.2	0.015
A. mitchilli	6	0.009	2	0.004	316	0.348	1	0.002	1	0.002	1	0.003	327	0.047	451.3	0.725
Anchoa sp.	369	0.543	67	0.132	876	0.965	-	-	-	-	-	-	1676	0.239	2314.4	0.724
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	-	-	-	-	1	+	47.6	0.021
Menidia menidia	1	0.001	2	0.004	1	0.001	-	-	-	-	-	-	4	0.001	226.4	0.018
Menidia sp.	26	0.039	2	0.004	1	0.001	-	-	-	-	-	-	454	0.065	1298.3	0.350
Hippocampus erectus	6	0.009	2	0.004	-	-	2	0.005	-	-	-	-	11	0.002	581.2	0.019
Syngnathus fuscus	51	0.075	27	0.053	13	0.014	18	0.043	2	0.004	-	-	180	0.026	2806.4	0.064
Menticirrhus saxatilis	1	0.001	-	-	-	-	-	-	-	-	-	-	1	+	32.1	0.031
Tautogolobrus adspersus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	70.4	0.014
Pholis gunnellus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	100.3	0.010
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	7	0.021	703	0.100	2015.7	0.349

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Table 93. (cont.)

	N	N/M^3	N	N/M^3	N	N/M^3	N	N/M^3	N	N/M^3	N	N/M^3	N	N/M^3	V	N/V
Gobiidae larvae	20	0.029	5	0.010	13	0.014	-	-	-	-	-	-	42	0.006	1288.6	0.033
Peprilus triacanthus	-	-	3	0.006	-	-	-	-	-	-	-	-	3	+	57.8	0.052
Myoxocephalus sp.	-	-	-	-	-	-	-	-	-	-	-	-	15	0.002	618.3	0.024
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	14	0.002	185.9	0.075
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	258	0.037	1147.4	0.225
Trinectes maculatus	1	0.001	-	-	-	-	-	-	-	-	-	-	2	+	116.6	0.017
Tetraodontiformes larvae	-	-	-	-	-	-	-	-	-	-	-	-	2	+	75.4	0.027
Unidentified larvae	1	0.001	-	-	-	-	-	-	-	-	-	-	8	0.001	475.8	0.017
Total species	7	-	6	-	6	-	3	-	2	-	3	-	21	-	-	-
Total	482	0.710	110	0.217	1225	1.349	21	0.050	3	0.006	9	0.027	3715	0.531	5841.7	0.636
No. collections	10	-	10	-	10	-	5	-	5	-	5	-	92	-	-	-
Volume sampled (m^3)	679.1	-	506.7	-	908.0	-	420.8	-	513.5	-	333.5	-	7002.4	-	-	-

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Table 94 Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets in the Mullica River (zones 1520, 1550, and 1560) from July through December, 1973.

	July		August		September		October		November		December		Total 1973			
Depth Range (feet)	5-21		6-42		6-36		9-30		12-40		6-30		5-42			
Salinity Range (ppt), surface	5.5-27.0		0.0-23.0		12.0		14.0-21.0		8.0-19.5		8.5-19.5		0-27.0			
bottom	6.5-26.0		5.0-23.0		12.0-22.0		15.0-24.0		9.5-21.0		10.0-21.0		0-26.0			
Temperature Range (C), surface	25.0-27.0		24.0-28.0		20.0-28.5		22.0-22.3		9.7		7.5-8.0		0-28.5			
bottom	25.0-26.5		24.0-28.0		19.8-28.0		20.8-22.0		10.0		7.0		0-28.0			
air	25.0-27.0		24.0-31.5		19.0-30.0		-		4.0		10.2-11.0		4.0-31.5			
Oxygen Range (ppm), surface	5.0-10.0		5.4-7.0		5.8-6.5		7.8-8.0		10.1-10.2		9.9-10.6		5.0-13.2			
bottom	5.0-12.0		3.0-7.0		5.6-6.2		7.6-8.0		9.8-10.4		10.9-11.1		3.0-13.4			
Secchi Range (feet)	2.0-4.0		1.5-6.0		2.0-3.0		3.0-4.5		2.0-3.0		3.0-3.5		1.0-6.0			
	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Fish eggs																
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	32	0.007	51.3	0.624
Anchoa mitchilli	4537	8.583	619	0.912	25	0.055	-	-	-	-	-	-	12493	2.618	1318.9	9.472
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	9	0.002	78.1	0.115
Tautoga onitis	27	0.051	-	-	-	-	-	-	-	-	-	-	40	0.008	98.3	0.407
Prionotus sp.	80	0.095	-	-	-	-	-	-	-	-	-	-	80	0.017	185.7	0.436
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	1	+*	51.3	0.019
Unidentified eggs	136	0.257	2	0.003	1	0.002	-	-	-	-	-	-	234	0.049	940.9	0.249
Total	4780	9.043	621	0.915	26	0.057	0	-	0	-	0	-	12889	2.701	-	-
Larval and Juvenile fishes																
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	1	0.003	1	+	96.5	0.010
Alosa sp.	-	-	-	-	-	-	-	-	-	-	-	-	27	0.006	336.3	0.080
Brevoortia tyrannus	1	0.002	-	-	-	-	-	-	2	0.009	-	-	6	0.001	216.7	0.028
Anchoa mitchilli	71	0.134	8	0.012	10	0.022	5	0.016	-	-	1	0.003	109	0.023	1001.1	0.109
Anchoa sp.	1278	2.418	29	0.042	21	0.046	1	0.003	-	-	-	-	1537	0.322	1415.3	1.086
Menidia menidia	-	-	1	0.001	-	-	-	-	-	-	-	-	1	+	107.6	0.921
Menidia sp.	46	0.087	-	-	1	0.002	-	-	-	-	-	-	77	0.016	637.7	0.121
Syngnathus fuscus	18	0.034	6	0.009	8	0.018	5	0.016	-	-	-	-	51	0.011	1011.6	0.050
Morone americana	-	-	-	-	-	-	-	-	-	-	-	-	228	0.048	602.1	0.379
Cynoscion regalis	6	0.011	-	-	-	-	-	-	-	-	-	-	6	0.001	33.3	0.180
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	3	0.010	3	0.001	45.0	0.067
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	-	16	0.003	211.0	0.076
Gobiidae larvae	189	0.358	1	0.001	1	0.002	-	-	-	-	-	-	197	0.041	336.0	0.586
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	26	0.005	167.4	0.155
Trinectes maculatus	7	0.013	-	-	-	-	-	-	-	-	-	-	12	0.003	369.4	0.032
Unidentified larvae	-	-	-	-	-	-	-	-	-	-	-	-	4	0.001	264.8	0.015
Total species	7	-	4	-	4	-	2	-	1	-	3	-	15	-	-	-
Total	1616	3.057	45	0.066	41	0.090	11	0.035	2	0.009	5	0.016	2301	0.482	3388.8	0.679
No. of collections	9	-	10	-	8	-	4	-	4	-	4	-	78	-	-	-
Volume sampled	528.6	-	678.9	-	455.6	-	313.1	-	228.6	-	313.5	-	4772.0	-	-	-

* + indicates less than 0.001/m^3.

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Table 95. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets in Little Egg Inlet (zone 1010) from July through December, 1973.

	July		August		September		October		November		December		Total 1973			
Depth Range (feet)	12-25		14-35		12-30		28-33		20-24		15-25		10-35			
Salinity Range (ppt), surface	26.5-27.0		29.0		27.0-28.0		26.5		26.5		30.0		29.0-30.0			
bottom	27.5-28.5		28.0-29.7		28.0-30.0		28.0		28.5		30.0		26.0-30.0			
Temperature Range (C), surface	21.5-25.0		23.0-23.3		18.5-26.7		21.3		9.5		9.0		2.8-26.7			
bottom	20.7-21.0		21.0-23.0		18.5-26.5		20.8		10.2		8.7		2.8-26.5			
air	23.0-26.0		23.0-23.3		15.5-27.0		-		3.0		9.5		5.0-27.0			
Oxygen Range (ppm), surface	7.4		4.2-6.6		6.1-7.2		8.0		9.2		9.2		4.2-11.8			
bottom	8.5		3.4-6.6		6.2-7.0		8.0		9.3		9.4		3.5-12.0			
Secchi Range (feet)	6.5		3.5-5.0		2.5		4.5		4.5		3.5		2.5-6.5			
	n	n/m³	n	n/m³	n	n/m³	n	n/m³	n	n/m³	n	n/m³	n	n/m³	v	n/v
Fish eggs																
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	33	0.011	127.4	0.259
Anchoa mitchilli	7385	38.284	493	1.345	7	0.020	-	-	-	-	1	0.008	38141	13.271	1273.5	29.950
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	-	-	-	-	7	0.002	2131.5	0.003
Urophycis chuss	-	-	-	-	-	-	-	-	-	-	-	-	3	0.001	49.5	0.061
Tautoga onitis	69	0.358	22	0.060	-	-	-	-	-	-	-	-	383	0.133	404.1	0.948
Tautogolabrus adspersus	6	0.031	-	-	-	-	-	-	-	-	-	-	599	0.208	253.0	2.368
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	-	-	552	0.192	153.0	3.608
Prionotus sp.	72	0.373	10	0.027	-	-	-	-	-	-	-	-	146	0.051	419.9	0.348
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	-	-	541	0.188	478.9	1.130
Unidentified eggs	544	2.820	77	0.210	5	0.014	99	0.569	-	-	-	-	1715	0.597	1570.5	1.092
Total	8076	41.866	602	1.642	12	0.034	99	0.569	0	-	1	0.008	42120	14.655	1926.4	21.865
Larval and Juvenile fishes																
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	-	2	0.001	164.7	0.012
Anchoa mitchilli	-	-	1	0.003	35	0.100	-	-	-	-	1	0.008	37	0.013	392.5	0.094
Anchoa sp.	5	0.026	201	0.548	466	1.331	-	-	-	-	-	-	696	0.242	971.2	0.717
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	-	-	-	-	1	+	74.0	0.014
Urophycis sp.	-	-	-	-	-	-	-	-	-	-	-	-	1	+	49.5	0.020
Menidia sp.	-	-	-	-	-	-	-	-	-	-	-	-	109	0.038	178.3	0.611
Hippocampus erectus	3	0.016	6	0.016	10	0.029	3	0.017	-	-	-	-	24	0.008	775.8	0.031
Syngnathus fuscus	6	0.031	45	0.123	54	0.154	8	0.046	-	-	-	-	148	0.051	1076.6	0.137
Cynoscion regalis	1	0.005	-	-	-	-	-	-	-	-	-	-	1	+	40.9	0.024
Menticirrhus saxatilis	1	0.005	-	-	-	-	-	-	-	-	-	-	1	+	32.8	0.030
Micropogon undulatus	-	-	-	-	-	-	-	-	1	0.005	1	0.008	2	0.001	154.0	0.013
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	-	-	1	+	46.3	0.022
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	49.5	0.020
Pholis gunnellus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.001	92.6	0.022
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	2	0.016	372	0.129	1160.2	0.321

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Table 95. (cont.)

	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	v/m^3
Gobiidae larvae	-	-	1	0.003	-	-	-	-	-	-	-	-	1	+*	79.5	0.013
Scomber scombrus	-	-	-	-	-	-	-	-	-	-	-	-	14	0.005	49.5	0.282
Myoxocephalus aeneus	-	-	-	-	-	-	-	-	-	-	-	-	1	+	73.1	0.014
Myoxocephalus sp.	-	-	-	-	-	-	-	-	-	-	-	-	6	0.002	18.9	0.317
Scophthalmus aquosus	-	-	-	-	-	-	1	0.006	1	0.005	-	-	17	0.006	312.4	0.054
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	-	102	0.035	529.8	0.193
Unidentified larvae	-	-	6	0.016	-	-	-	-	-	-	-	-	6	0.002	280.7	0.021
Total species	5	-	5	-	4	-	3	-	2	-	2	-	21	-	-	-
Total	16	0.083	260	0.709	565	1.614	12	0.069	2	0.010	4	0.032	1545	0.538	2726.7	0.567
No. of collections	4	-	4	-	4	-	2	-	2	-	2	-	38	-	-	-
Volume sampled (m^3)	192.9	-	366.5	-	350.0	-	174.0	-	195.1	-	126.3	-	2874.1	-	-	-

* + indicates less than 0.001/m^3.

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Table 96. Monthly totals and densities of fish eggs, larvae, and juveniles collected in surface, midwater, bottom, and oblique tows of various gear in the vicinity of the Site excluding collections made off Holgate and landward of Brigantine Ridge in 1974.

	January*		February*		March**		April		May		June		July	
Depth Range (feet)	15-45		15-42		18-43		21-54		18-45		22-45		20-48	
Temp. Range (C) air	-1.0-6.0		0-7.0		0-6.0		9.0-16.2		9.5-17.0		19.0-24.5		21.0-27.0	
surface	4.5-5.0		2.0-3.5		3.5-5.5		7.0-13.0		11.3-15.7		17.0-24.5		21.4-23.0	
bottom	4.5-5.0		2.1-5.0		5.0-7.2		7.2-11.0		11.0-14.0		15.5-17.0		18.8-22.3	
Salinity Range (ppt) surface	28.3-30.0		27.5-29.7		30.0-30.1		30.0		30.0		29.0-30.3		30.0-30.3	
bottom	28.1-30.0		29.5-30.0		30.0-30.1		30.0-30.5		30.0-30.5		29.0-30.3		30.0	
Oxygen Range (ppm) surface	9.0-11.4		9.8-12.0		8.5-10.4		9.0-10.3		8.4-9.3		6.6-8.1		6.4-7.9	
bottom	10.4-10.7		9.6-11.2		8.4-9.8		9.0-10.4		7.2-8.8		5.2-7.8		5.9-6.5	
Secchi Range (feet)	6.0-15.5		6.0-12.5		6.5-23.0		5.0-12.0		5.0-10.5		7.0-10.0		6.0-38.0	
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3
Brevoortia tyrannus	-	-	-	-	-	-	-	-	6	0.017	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	6	0.017	2	0.003	8	0.011
Anchoa mitchilli	-	-	-	-	-	-		-	1369	3.889	19400	24.483	26798	37.813
Enchelyopus cimbrius	6	0.001	2	+***	33	0.0[illegible]	-	-	-	-	-	-	-	-
Gadus morhua	345	0.064	4	0.001	-	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	32	0.091	236	0.298	364	0.514
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	4	0.011	32	0.040	-	-
Scomber scombrus	-	-	-	-	-	-	824	0.971	420	1.193	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	408	0.515	2012	2.839
Scophthalmus aquosus	-	-	-	-	-	-	723	0.852	248	0.705	40	0.051	-	-
Unidentified eggs	14	0.003	6	0.001	176	0.060	7	0.008	159	0.452	604	0.762	3798	14.480
Total	365	0.068	12	0.002	209	0.072	1554	1.831	2244	6.375	20722	26.151	32980	46.536
Larval and juvenile fishes														
Anguilla rostrata	-	-	-	-	-	-	1	+	-	-	-	-	-	-
Brevoortia tyrannus	19	0.003	-	-	-	-	1	+	1	0.003	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	-	3	0.004
Engraulidae larvae	-	-	-	-	-	-	-	-	-	-	1363	1.720	1033	1.458
Lophius americanus	-	-	-	-	-	-	-	-	-	-	3	0.004	-	-
Enchelyopus cimbrius	-	-	-	-	-	-	7	0.008	3	0.009	-	-	-	-
Gadus morhua	23	0.004	1	+	-	-	-	-	-	-	-	-	-	-
Ophidiidae larvae	-	-	-	-	-	-	-	-	-	-	-	-	1	+
Atherinidae larvae	-	-	-	-	-	-	-	-	-	-	5	0.006	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	4	0.005	11	0.015
Syngnathus fuscus	-	-	-	-	-	-	-	-	7	0.020	49	0.062	31	0.044
Centropristis striata	-	-	-	-	-	-	-	-	-	-	-	-	1	+
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	12	0.017
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	38	0.048	34	0.048
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	-	-	-	4	0.006
Tautoga onitis	-	-	-	-	-	-	-	-	1	0.003	1	+	-	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	-	15	0.019	-	-
Pholis gunnellus	-	-	3	+	6	0.002	6	0.007	-	-	-	-	-	-
Ammodytes sp.	43433	8.045	5910	1.084	4046	1.387	336	0.396	2	0.006	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	50	0.063	8	0.011
Scomber scombrus	-	-	-	-	-	-	-	-	19	0.054	1	+	-	-
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	1	+	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	-	-	1	+
Myoxocephalus sp.	-	-	-	-	1	+	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	7	0.020	10	0.013	-	-
Limanda ferruginea	-	-	-	-	-	-	2	0.002	2	0.006	-	-	-	-
Pseudopleuronectes americanus	-	-	73	0.013	133	0.046	97	0.114	-	-	-	-	-	-
Tetraodontiformes larvae	-	-	-	-	-	-	-	-	-	-	1	+	-	-
Unidentified larvae	-	-	-	-	-	-	1	+	-	-	3	0.004	4	0.006
Total species	3		4		4		7		8		13		10	
Total	43475	8.053	5987	1.099	4186	1.435	451	0.531	42	0.119	1544	1.949	1143	1.613
No. of collections	18		18		10		6		4		6		6	
Volume sampled (m^3)	5398.8		5450.0		2918.1		848.5		352.0		792.4		708.7	

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Table 96 . (cont.)

	August		September		October		November		Total 1974			
Depth Range (feet)	16-49		23-52		15-47		18-55		15-55			
Temp. Range (C) air	24.0-26.0		17.0-25.5		7.0-18.0		10.0-17.0		-1.0-27.0			
surface	24.0-25.0		17.5-22.5		13.0-17.0		10.0-15.0		2.0-25.0			
bottom	19.0-22.0		18.2-21.0		12.4-16.5		11.0-14.0		2.1-22.3			
Salinity Range (ppt) surface	29.5-30.5		28.5-30.0		29.9-30.0		30.0-31.0		27.5-31.0			
bottom	30.0-31.0		29.5-30.0		30.0		30.0-31.0		28.1-31.0			
Oxygen Range (ppm) surface	6.4-9.2		7.0-7.9		8.0-9.1		8.2-9.7		6.4-12.0			
bottom	3.5-8.2		6.4-7.8		7.8-9.0		7.9-9.6		3.5-11.2			
Secchi Range (feet)	12.0		2.5-16.0		8.5-31.0		10.0-25.0		2.5-38.0			
Fish eggs	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Brevoortia tyrannus	-	-	-	-	-	-	235	0.430	241	0.013	718.0	0.336
Anchoa hepsetus	-	-	-	-	-	-	-	-	16	+	564.5	0.028
Anchoa mitchilli	293	0.658	7	0.011	-	-	-	-	47867	2,593	2339.6	20.459
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	41	0.002	3838.7	0.011
Gadus morhua	-	-	-	-	-	-	-	-	349	0.019	6790.4	0.051
Urophycis regius	-	-	-	-	31	0.176	-	-	31	0.002	176.1	0.093
Tautoga onitis	-	-	-	-	-	-	-	-	632	0.034	1388.1	0.455
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	36	0.002	415.9	0.087
Scomber scombrus	-	-	-	-	-	-	-	-	1244	0.067	492.5	2.526
Prionotus sp.	59	0.133	89	0.134	-	-	-	-	2568	0.139	2358.2	1.089
Scophthalmus aquosus	-	-	-	-	227	0.680	-	-	1238	0.067	1795.8	0.689
Unidentified eggs	407	0.915	5	0.007	-	-	1	0.002	5177	0.281	11668.0	0.444
Total	759	1.706	101	0.152	258	0.773	236	0.432	59440	3.220	16578.6	3.585
Larval and juvenile fishes												
Anguilla rostrata	-	-	-	-	-	-	-	-	1	+	159.8	0.006
Brevoortia tyrannus	-	-	1	+	-	-	-	-	22	+	3203.2	0.007
Anchoa mitchilli	12	0.027	2	0.003	-	-	-	-	17	+	505.7	0.034
Engraulidae larvae	76	0.171	50	0.075	-	-	1	0.002	2523	0.137	2241.5	1.126
Lophius americanus	-	-	-	-	-	-	-	-	3	+	127.7	0.023
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	10	+	504.7	0.020
Gadus morhua	-	-	-	-	-	-	-	-	24	+	2376.4	0.010
Ophidiidae larvae	17	0.038	30	0.045	-	-	-	-	48	0.003	717.7	0.067
Atherinidae larvae	-	-	-	-	-	-	-	-	5	+	538.4	0.009
Hippocampus erectus	3	0.007	6	0.009	-	-	-	-	24	+	1825.1	0.013
Syngnathus fuscus	26	0.058	24	0.036	-	-	-	-	137	0.007	2728.8	0.050
Centropristis striata	1	0.002	-	-	-	-	-	-	2	+	235.8	0.009
Pomatomus saltatrix	-	-	-	-	-	-	-	-	12	+	583.1	0.021
Cynoscion regalis	-	-	-	-	-	-	-	-	72	0.004	1139.7	0.063
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	4	+	462.7	0.009
Micropogon undulatus	-	-	1	+	-	-	-	-	1	+	72.4	0.014
Tautoga onitis	-	-	-	-	-	-	-	-	2	+	207.8	0.010
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	15	+	127.7	0.117
Blenniidae larvae	3	0.007	1	+	-	-	-	-	4	+	320.1	0.013
Pholis gunnellus	-	-	-	-	-	-	-	-	15	+	815.5	0.018
Ammodytes sp.	-	-	-	-	-	-	-	-	53727	2.911	14796.1	3.631
Gobiidae larvae	526	1.182	12	0.018	-	-	-	-	596	0.032	1765.6	0.338
Scomber scombrus	-	-	-	-	-	-	-	-	20	+	388.5	0.051
Peprilus triacanthus	1	0.002	6	0.009	-	-	-	-	8	+	358.0	0.022
Prionotus sp.	5	0.011	89	0.134	-	-	-	-	95	0.005	790.9	0.120
Myoxocephalus sp.	-	-	-	-	-	-	-	-	1	+	711.1	0.001
Citharichthys sp.	1	0.002	-	-	-	-	-	-	1	+	100.6	0.010
Etropus microstomus	6	0.013	15	0.023	-	-	-	-	21	+	608.8	0.035
Scophthalmus aquosus	-	-	-	-	2	0.006	5	0.009	24	+	1129.9	0.021
Limanda ferruginea	-	-	-	-	-	-	-	-	4	+	359.5	0.011
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	303	0.016	7301.7	0.041
Tetraodontiformes larvae	-	-	-	-	-	-	-	-	1	+	138.9	0.007
Unidentified larvae	12	0.027	8	0.012	-	-	-	-	28	+	1632.0	0.017
Total species	11		11		1		2		31			
Total	689	1.548	245	0.368	2	0.006	6	0.011	57770	3.130	18075.7	3.196
No. of collections	4		6		4		4		86			
Volume sampled (m^3)	445.0		665.3		333.9		546.7		18459.4			

* Surface, midwater, and bottom collections.

** Surface, midwater, bottom, and 3-step oblique collections.

*** + indicates less than 0.001/m^3.

Table 97. Monthly totals and densities of fish eggs, larvae, and juveniles collected in oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo made 2.5 nautical miles off Bant Beach (zone 5-2) in March and from May through November, 1974.

	March*		May		June		July		August		September		October		November		1974 Total			
Depth Range (feet)	50		40-45		55		-		53-55		54-58		56-60		55		40-60			
Temp. Range (C), air	-0.5		14.0		18.0		27.0		26.0		22.0		19.0		16.3		-0.5-27.0			
surface	5.0		11.0		7.0		22.5		23.0		21.3		16.5		15.0		5.0-23.0			
bottom	4.0		10.5		15.5		16.5		18.0		20.5		16.5		15.0		4.0-20.5			
Salinity Range (ppt), surface	30.0		29.5		28.0		30.0		30.0		30.0		30.0		30.0		28.0-30.0			
bottom	30.0		30.0		30.0		30.0		30.1		29.5		31.0		30.5		29.5-31.0			
Oxygen Range (ppm), surface	12.0		10.4		11.1		5.5		8.0		7.0		9.5		6.4		5.5-12.0			
bottom	11.2		8.8		9.4		5.0		4.8		6.4		10.0		6.2		4.8-11.2			
Secchi Range (feet)	17.0		13.0		11.0		27.0		40.0		40.0+		12.0		26.0		11.0-40.0+			
	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Fish eggs																				
Anchoa hepsetus	-	-	-	-	24	0.184	3	0.050	-	-	-	-	-	-	-	-	27	0.033	190.0	0.142
Anchoa mitchilli	-	-	-	-	176	1.352	75	1.254	6	0.073	-	-	22	0.251	-	-	279	0.341	360.4	0.774
Enchelyopus cimbrius	-	-	4	0.056	-	-	-	-	-	-	-	-	-	-	-	-	4	0.005	71.9	0.056
Urophycis chuss	-	-	-	-	8	0.061	-	-	-	-	-	-	-	-	-	-	8	0.010	130.2	0.061
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	3	0.034	7	0.067	10	0.012	227.7	0.044
Tautoga onitis	-	-	-	-	4	0.031	-	-	-	-	-	-	-	-	-	-	4	0.005	130.2	0.031
Tautogolabrus adspersus	-	-	-	-	12	0.092	-	-	-	-	-	-	-	-	-	-	12	0.015	130.2	0.092
Scomber scombrus	-	-	524	7.288	-	-	-	-	-	-	-	-	-	-	-	-	524	0.640	71.9	7.288
Prionotus sp.	-	-	-	-	72	0.553	205	3.428	454	5.490	273	2.298	-	-	-	-	1004	1.225	391.5	2.564
Scophthalmus aquosus	-	-	72	1.001	52	0.399	-	-	-	-	-	-	156	1.779	10	0.096	290	0.354	393.8	0.736
Unidentified eggs	4	0.024	14	0.195	160	1.229	265	4.431	286	3.458	27	0.227	-	-	-	-	756	0.923	627.6	1.205
Total	4	0.024	614	8.540	508	3.902	548	9.164	746	9.021	300	2.525	181	2.064	17	0.163	2918	3.562	819.3	3.562
Larval and young fishes																				
Engraulidae larvae	-	-	-	-	-	-	281	4.699	25	0.302	22	0.185	6	0.068	-	-	334	0.408	349.0	0.957
Lophius americanus	-	-	-	-	5	0.038	-	-	-	-	-	-	-	-	-	-	5	0.006	130.2	0.038
Enchelyopus cimbrius	-	-	1	0.014	1	0.008	-	-	-	-	-	-	-	-	-	-	2	0.002	202.1	0.010
Gadus morhua	1	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+**	164.2	0.006
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	1	0.011	-	-	1	+	87.7	0.011
Ophidiidae larvae	-	-	-	-	-	-	-	-	11	0.133	9	0.076	-	-	-	-	20	0.024	201.5	0.099
Hippocampus erectus	-	-	-	-	-	-	1	0.017	-	-	-	-	-	-	-	-	1	+	59.8	0.017
Syngnathus fuscus	-	-	-	-	1	0.008	-	-	-	-	-	-	-	-	-	-	1	+	130.2	0.008
Cynoscion regalis	-	-	-	-	-	-	19	0.318	-	-	-	-	-	-	-	-	19	0.023	59.8	0.318
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	1	0.012	-	-	-	-	-	-	1	+	82.7	0.012
Tautoga onitis	-	-	-	-	2	0.015	1	0.017	-	-	-	-	-	-	-	-	3	0.004	190.0	0.016
Tautogolabrus adspersus	-	-	-	-	232	1.782	-	-	-	-	-	-	-	-	-	-	232	0.283	130.2	1.782
Astroscopus sp.	-	-	-	-	-	-	-	-	1	0.012	-	-	-	-	-	-	1	+	82.7	0.012
Blenniidae larvae	2	0.012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0.002	164.2	0.012
Ammodytes sp.	170	1.035	1	0.014	-	-	-	-	-	-	-	-	-	-	-	-	171	0.209	236.1	0.724
Auxis sp.	-	-	-	-	-	-	-	-	1	0.012	-	-	-	-	-	-	1	+	82.7	0.012
Scomber scombrus	-	-	3	0.042	30	0.230	-	-	-	-	-	-	-	-	-	-	33	0.040	202.1	0.163
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	4	0.034	-	-	-	-	4	0.005	118.8	0.034
Prionotus sp.	-	-	-	-	-	-	-	-	25	0.302	23	0.194	-	-	-	-	48	0.059	201.5	0.238
Etropus microstomus	-	-	-	-	-	-	-	-	5	0.060	26	0.219	-	-	-	-	31	0.038	201.5	0.154
Paralichthys dentatus	1	0.006	-	-	-	-	-	-	-	-	-	-	2	0.023	-	-	3	0.004	251.9	0.012
Paralichthys oblongus	-	-	-	-	-	-	-	-	3	0.036	-	-	-	-	-	-	3	0.004	82.7	0.036
Scophthalmus aquosus	-	-	1	0.014	2	0.015	-	-	-	-	-	-	7	0.080	-	-	10	0.012	289.8	0.035
Pseudopleuronectes americanus	5	0.031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	0.006	164.2	0.031
Unidentified larvae	-	-	-	-	-	-	-	-	1	0.012	1	0.008	9	0.103	-	-	11	0.013	289.2	0.038
Total species	5		4		7		4		8		5		4				24			
Total	179	1.090	6	0.083	273	2.097	302	5.050	73	0.883	85	0.715	25	0.285	0		943	1.151	715.3	1.318
No. of collections	1		1		1		1		1		1		1		1		8			
Volume sampled (m^3)	164.2		71.9		130.2		59.8		82.7		118.8		87.7		104.0		819.3			

* 3-step oblique tow.
** + indicates less than 0.001/m^3.

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Table 98. Monthly totals and densities of fish eggs, larvae, and juveniles collected in oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo made 8.5 nautical miles off Little Egg Inlet (zone 5850) in March and from May through November, 1974.

	March*		May		June		July		August		September		October		November		1974 Total			
Depth Range (feet)	-		55		58-60		-		60-62		58-64		61		60-62		55-64			
Temp. Range (C), air	-1.0		12.0		19.5		27.0		25.0		24.0		20.0		18.0		-1.0-27.0			
surface	5.0		12.0		17.3		18.7		23.5		22.2		18.0		15.0		5.0-23.5			
bottom	4.5		10.3		16.0		17.5		17.3		21.8		17.0		15.0		4.5-21.8			
Salinity Range (ppt), surface	30.0		31.0		30.0		30.0		30.0		30.5		30.0		30.0		30.0-31.0			
bottom	30.0		31.0		30.0		30.5		30.1		31.0		31.0		30.5		30.0-31.0			
Oxygen Range (ppm), surface	9.0		9.8		10.2		8.2		8.0		6.7		8.0		7.9		6.7-10.2			
bottom	9.0		9.2		9.2		5.8		6.0		6.0		9.2		7.0		5.8-9.2			
Secchi Range (feet)	16.0		23.0		20.0		33.0		40.0+		40.0+		36.0		14.0		14.0-40.0+			
	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Fish eggs																				
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	0.672	55	0.066	81.9	0.672
Anchoa hepsetus	-	-	-	-	-	-	2	0.029	2	0.020	-	-	-	-	-	-	4	0.005	170.0	0.024
Anchoa mitchilli	-	-	-	-	-	-	-		244	2.413	-	-	-	-	1	0.012	245	0.295	183.0	1.339
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	14	0.207	12	0.146	26	0.031	149.7	0.174
Tautoga onitis	-	-	-	-	7	0.050	-	-	-	-	-	-	-	-	-	-	7	0.008	140.0	0.050
Tautogolabrus adspersus	-	-	-	-	1	0.007	-	-	-	-	-	-	-	-	-	-	1	+**	140.0	0.007
Scomber scombrus	-	-	2864	36.624	-	-	-	-	-	-	-	-	-	-	-	-	2864	3.450	78.2	36.624
Prionotus sp.	-	-	-	-	19	0.136	258	3.745	252	2.493	536	4.231	6	0.089	-	-	1071	1.290	504.5	2.123
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	30	0.443	3	0.037	33	0.040	149.7	0.220
Scophthalmus aquosus	-	-	128	1.637	8	0.057	-	-	-	-	-	-	67	0.998	260	3.175	463	0.558	367.9	1.258
Unidentified eggs	3	0.018	-	-	41	0.293	422	6.125	175	1.731	64	0.505	-	-	2	0.024	707	0.851	684.3	1.033
Total	3	0.018	2992	38.261	76	0.543	682	9.898	673	6.657	600	4.736	117	1.726	333	4.066	5476	6.595	830.3	6.595
Larval and young fishes																				
Brevoortia tyrannus	-	-	-	-	-		1	0.015	-	-		-	-	-	-	-	1	+	68.9	0.015
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.029	-	-	2	0.002	67.8	0.029
Engraulidae larvae	-	-	-	-	-	-	85	1.234	167	1.652	6	0.047	5	0.074	1	0.012	264	0.318	446.4	0.591
Lophius americanus	-	-	-	-	5	0.036	-	-	-	-		-	-	-	-	-	5	0.006	140.0	0.036
Enchelyopus cimbrius	-	-	1	0.013	3	0.021	-		-	-	-	-	-	-	-	-	4	0.005	218.2	0.018
Gadus morhua	1	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+	165.7	0.006
Urophycis chuss	-	-	-	-		-	-	-	-	-	-	-	1	0.015	-	-	1	+	67.8	0.015
Urophycis regius	-	-	-	-		-	-		-	-	-	-	1	0.015	-	-	1	+	67.8	0.015
Urophycis sp.	-	-	-	-	-	-	-	-		-	3	0.024	-	-	5	0.061	8	0.010	208.6	0.038
Ophidiidae larvae	-	-	-	-	-	-	2	0.029	55	0.544	3	0.024	102	1.504	-	-	162	0.195	364.5	0.444
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	1	0.015	-	-	1	0.001	67.8	0.015
Centropristis striata	-	-	-	-	-	-	-	-	-	-	5	0.039	-	-	-	-	5	0.006	126.7	0.039
Cynoscion regalis	-	-	-	-	-	-	47	0.682	-	-	-	-	-	-	-	-	47	0.057	68.9	0.682
Menticirrhus saxatilis	-	-	-	-	-	-	1	0.015	1	0.010	-	-	-	-	-	-	2	0.002	170.0	0.012
Micropogon undulatus	-		-	-	-	-	-	-	-	-	-	-	3	0.044	-	-	3	0.004	67.8	0.044
Tautoga onitis	-	-	-	-	-	-	-	-	1	0.010	-	-	-	-	-	-	1	+	101.1	0.010
Ammodytes sp.	180	1.086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180	0.217	165.7	1.086
Auxis sp.	-	-	-	-	-	-	-	-	3	0.030	-	-	-	-		-	3	0.004	101.1	0.030
Scomber scombrus	-	-	3	0.038	8	0.057	1	0.015	-	-	-	-	-	-	-	-	12	0.014	287.1	0.042
Peprilus triacanthus	-	-	-	-	-	-	-	-	2	0.020	-	-	-	-	-	-	2	0.002	101.1	0.020
Prionotus sp.	-	-	-		-		3	0.044	53	0.524	75	0.592	85	1.254	-	-	216	0.260	364.5	0.593
Citharichthys sp.	-	-	-	-	-	-	-	-	-	-	-	-	3	0.044	-	-	3	0.004	67.8	0.044
Etropus microstomus	-	-	-	-	-	-	-		23	0.227	191	1.507	42	0.619	-	-	256	0.308	295.6	0.866
Paralichthys oblongus	-	-	-	-	1	0.007	1	0.015	2	0.020	-	-	-	-	-	-	4	0.005	310.0	0.013
Scophthalmus aquosus	-	-	1	0.013	1	0.007	-	-	-	-	-	-	8	0.118	16	0.195	26	0.031	367.9	0.071
Limanda ferruginea	-	-	13	0.166	1	0.007	-	-	-	-	-	-	-	-	-	-	14	0.017	218.2	0.064
Pseudopleuronectes americanus	7	0.042	-	-	-	-	-	-	-	-	-		-	-	-	-	7	0.008	165.7	0.042
Unidentified larvae	-	-	-		-	-	1	0.015	3	0.030	-	-	2	0.029	-	-	6	0.007	237.8	0.025
Total species	3		4		6		8		9		6		10		3		25			
Total	188	1.135	18	0.230	19	0.136	142	2.061	310	3.066	283	2.234	255	3.761	22	0.269	1237	1.490	830.3	1.490
No. of collections		1		1		1		1		1		1		1		1			8	
Volume sampled (m^3)		165.7		78.2		140.0		68.9		101.1		126.7		67.8		81.9			830.3	

* 3-step oblique.

** indicates less than 0.001/m^3

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Table 99. Monthly totals and densities of fish eggs, larvae, and juveniles collected in oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo made 8.5 nautical miles off Brant Beach (zone 4940) in March and from May through November, 1974.

	March*	May	June	July	August	September	October	November	1974 Total
Depth Range (feet)	55	50-53	57	-	76	76-77	76	73	50-77
Temp. Range (C), air	-1.0	14.5	19.0	29.0	27.2	24.0	19.5	18.0	-1.0-29.0
surface	4.5	11.0	16.5	23.0	23.5	22.0	17.5	15.0	4.5-23.5
bottom	5.0	10.2	14.2	16.1	17.5	22.0	16.8	15.0	5.0-22.0
Salinity Range (ppt), surface	30.0	31.0	29.0	30.0	30.0	30.0	30.0	30.5	29.0-31.0
bottom	30.0	31.0	29.0	30.0	30.1	30.5	32.0	30.5	29.0-32.0
Oxygen Range (ppm), surface	8.6	9.8	10.7	7.4	8.3	6.6	8.4	7.0	6.6-10.7
bottom	8.4	8.0	8.6	5.3	6.3	6.0	8.8	6.8	5.3-8.8
Secchi Range (feet)	21.0	34.0+	16.0	40.0+	73.0+	40.0+	36.0+	32.0+	16.0-73.0+

	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	n	n/m^3	v	n/v
Fish eggs																				
Anchoa hepsetus	-	-	-	-	2	0.015	-	-	-	-	-	-	-	-	-	-	2	0.003	131.4	0.015
Anchoa mitchilli	-	-	-	-	1	0.008	-	-	-	-	-	-	-	-	-	-	1	+**	131.4	0.008
Lophius americanus	-	-	-	-	-	-	1	0.023	-	-	-	-	-	-	-	-	1	+	43.9	0.023
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	11	0.169	3	0.041	14	0.019	138.6	0.101
Tautoga onitis	-	-	-	-	2	0.015	-	-	-	-	-	-	-	-	-	-	2	0.003	131.4	0.015
Scomber scombrus	-	-	2676	33.078	-	-	-	-	-	-	-	-	-	-	-	-	2676	3.562	80.9	33.078
Prionotus sp.	-	-	-	-	4	0.030	67	1.526	88	0.969	527	5.422	6	0.092	-	-	692	0.921	428.5	1.615
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	4	0.061	-	-	4	0.005	65.2	0.061
Scophthalmus aquosus	-	-	80	0.989	19	0.145	9	0.205	-	-	-	-	118	1.810	78	1.063	304	0.405	394.8	0.770
Unidentified eggs	-	-	8	0.099	33	0.251	157	3.576	67	0.738	110	1.132	3	0.046	-	-	378	0.503	509.4	0.742
Total	0		2764	34.166	61	0.464	234	5.330	155	1.707	637	6.553	142	2.178	81	1.104	4074	5.423	582.8	6.990
Larval and young fishes																				
Ophichthus ocellatus	-	-	-	-	-	-	-	-	1	0.011	-	-	-	-	-	-	1	+	90.8	0.011
Engraulidae larvae	-	-	-	-	-	-	63	1.435	1	0.011	15	0.154	11	0.169	-	-	90	0.120	297.1	0.303
Lophius americanus	-	-	-	-	1	0.008	-	-	1	0.011	-	-	-	-	-	-	2	0.003	222.2	0.009
Enchelyopus cimbrius	-	-	2	0.025	5	0.038	1	0.023	-	-	-	-	-	-	-	-	8	0.011	256.2	0.031
Urophycis chuss	-	-	-	-	-	-	-	-	1	0.011	-	-	-	-	-	-	1	+	90.8	0.011
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	-	1	0.015	9	0.123	10	0.013	138.6	0.072
Urophycis sp.	-	-	-	-	-	-	1	0.023	-	-	12	0.123	-	-	-	-	13	0.017	141.1	0.092
Ophidiidae larvae	-	-	-	-	-	-	5	0.114	69	0.760	11	0.113	25	0.383	1	0.014	111	0.148	370.5	0.300
Centropristis striata	-	-	-	-	-	-	-	-	2	0.022	1	0.010	-	-	-	-	3	0.004	188.0	0.016
Pomatomus saltatrix	-	-	-	-	-	-	13	0.296	3	0.033	-	-	-	-	-	-	16	0.021	134.7	0.119
Cynoscion regalis	-	-	-	-	-	-	13	0.296	-	-	-	-	-	-	-	-	13	0.017	43.9	0.296
Tautoga onitis	-	-	-	-	-	-	1	0.023	1	0.011	-	-	-	-	-	-	2	0.003	134.7	0.015
Tautogolabrus adspersus	-	-	-	-	1	0.008	1	0.023	3	0.033	-	-	-	-	-	-	5	0.007	266.1	0.019
Astroscopus sp.	-	-	-	-	-	-	-	-	1	0.011	-	-	-	-	-	-	1	+	90.8	0.011
Ammodytes sp.	36	0.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	0.048	168.4	0.214
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	1	0.010	-	-	-	-	1	+	97.2	0.010
Auxis sp.	-	-	-	-	-	-	-	-	39	0.430	1	0.010	-	-	-	-	40	0.053	188.0	0.213
Sarda sarda	-	-	-	-	-	-	1	0.023	3	0.033	-	-	-	-	-	-	4	0.005	134.7	0.030
Scomber scombrus	-	-	25	0.309	25	0.190	-	-	-	-	-	-	-	-	-	-	50	0.067	212.3	0.236
Peprilus triacanthus	-	-	-	-	-	-	-	-	39	0.430	1	0.010	-	-	-	-	40	0.053	188.0	0.213
Prionotus sp.	-	-	-	-	-	-	21	0.478	222	2.445	41	0.422	51	0.782	-	-	335	0.446	297.1	1.128
Bothus sp.	-	-	-	-	-	-	-	-	1	0.011	-	-	-	-	-	-	1	+	90.8	0.011
Citharichthys sp.	-	-	-	-	-	-	-	-	12	0.132	1	0.010	-	-	-	-	13	0.017	188.0	0.069
Etropus microstomus	-	-	-	-	-	-	5	0.114	174	1.916	214	2.202	27	0.414	5	0.068	425	0.566	370.5	1.147
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	-	-	2	0.031	3	0.040	5	0.007	138.6	0.036
Paralichthys oblongus	-	-	-	-	-	-	7	0.159	13	0.143	-	-	-	-	-	-	20	0.027	134.7	0.148
Scophthalmus aquosus	-	-	2	0.025	1	0.008	-	-	1	0.011	-	-	12	0.184	25	0.341	41	0.055	441.7	0.093
Limanda ferruginea	-	-	16	0.198	10	0.077	-	-	-	-	-	-	-	-	-	-	26	0.035	212.3	0.122
Pseudopleuronectes americanus		-	1	0.012	-	-	-	-	-	-	-	-	-	-	-	-	1	+	80.9	0.012
Unidentified larvae	-	-	-	-	-	-	11	0.251	7	0.077	5	0.051	11	0.169	-	-	34	0.045	297.1	0.114
Total species	1		5		6		12		19		10		7		5		28			
Total	36	0.214	46	0.569	43	0.327	143	3.257	594	6.542	303	3.117	140	2.147	43	0.586	1348	1.794	751.2	1.794
No. of collections		1		1		1		1		1		1		1		1		8		
Volume sampled (m^3)		168.4		80.9		131.4		43.9		90.8		97.2		65.2		73.4		751.2		

* 3-step oblique tow.

** + indicates less than 0.001.

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Table 100. Some major New Jersey Landings for 12 months ending with December 1974.[a]

	Pounds	Dollars	Rank in New Jersey by lb.
Atlantic menhaden	107,307,501	2,734,831	1
Silver hake	7,022,206	587,208	2
Scup	6,039,977	879,679	3
Summer flounder	3,499,419	1,153,421	4
Weakfish	2,686,175	312,221	5
Bluefish	1,003,115	115,100	6
Butterfish	979,337	135,203	7
Red hake	893,396	54,495	8
Bluefin tuna	872,578	231,788	9
Tilefish	838,216	262,969	10
Sea bass	777,592	251,480	11
Atlantic mackerel	774,039	109.013	12
Striped bass	713,616	177,203	13
Atlantic herring	346,615	14,048	14
Atlantic cod	337,284	82,125	15
Yellowtail flounder	265,618	48,925	16
American eel	216,214	75,586	17
Winter flounder	140,242	17,136	18
American shad	121,558	26,144	19
White perch	102,011	23,123	20
Total	135,262,549	7,346,354	-

[a] Data from U.S. Dept. of Commerce, 1974-1975.

Table 101. Landings of fish for Atlantic County, New Jersey during 1974.

	Pounds	Rank in Atlantic County	Rank in New Jersey
Summer flounder	670, 413	1	3
Scup	340, 842	2	2
Silver hake	187, 253	3	1
Striped bass	182, 141	4	13
Weakfish	174, 577	5	5
Atlantic mackerel	162, 908	6	12
Bluefish	116, 441	7	6
Black sea bass	56, 124	8	11
White perch	33, 895	9	20
Winter flounder	28, 710	10	18
Butterfish	28, 311	11	7
Red hake	22, 727	12	8
Yellowtail flounder	21, 923	13	16
Tilefish	19, 760	14	10
Atlantic cod	18, 553	15	15
Black drum	17, 359	16	25
American eel	13, 805	17	17
Swordfish	7, 132	18	30
American shad	7, 017	19	19
Alewife	6, 800	20	28
White hake	4, 318	21	21
Atlantic herring	1, 962	22	14
Witch flounder	1, 301	23	24
Tuna	1, 141	24	9
Atlantic menhaden	709	25	4
Conger eel	610	26	32
Spot	537	27	27
Tautog	516	28	26
Atlantic sturgeon	390	29	29
Haddock	366	30	-
Atlantic croaker	303	31	23
Northern kingfish	227	32	41
Spanish mackerel	179	33	36
King mackerel	34	34	-
	2, 129, 284		

	Dollars	Rank in Atlantic County
Summer flounder	258, 963	1
Scup	59, 173	2
Striped bass	43, 911	3
Atlantic mackerel	41, 707	4
Weakfish	21, 264	5
Black sea bass	19, 601	6
Silver hake	17, 662	7
Swordfish	12, 196	8
Bluefish	9, 984	9
White perch	7, 782	10
Butterfish	6, 056	11
Atlantic cod	5, 363	12
Tilefish	5, 153	13
American eel	4, 424	14
Yellowtail flounder	3, 724	15
Winter flounder	3, 409	16
Black drum	1, 736	17
American shad	1, 280	18
Red hake	987	19
Alewife	272	20
Witch flounder	261	21
Haddock	125	22
Tuna	92	23
Atlantic sturgeon	87	24
Atlantic herring	72	25
Conger eel	67	26
Spanish mackerel	63	27
Atlantic croaker	49	28
Spot	43	29
Tautog	34	30
Atlantic menhaden	31	31
King mackerel	10	32
	525, 621	

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Table 102. Commercial fyke and gill net catch in pounds landed in Atlantic County, New Jersey from January through December, 1974.

Fyke Net		
Species	Pounds	Dollar Value
White perch	24250	5656
Winter flounder	25600	2930
Alewife	600	24
American shad	500	3
Total	50500	8613

Gill Net		
Species	Pounds	Dollar Value
Weakfish	54616	7980
Bluefish	70932	5763
Striped bass	8979	2783
American shad	6180	1173
Drum	7359	736
Butterfish	1334	398
Black sea bass	1317	330
Little tunny ?	1141	92
Spanish mackerel	179	63
Atlantic menhaden	709	31
Silver hake	387	31
Atlantic mackerel	212	11
King mackerel	34	10
Atlantic herring	22	1
Atlantic croaker	7	1
Summer flounder	12	1
Unclassified for food	-	15
Total	153420	19419

* Data was obtained from Mr. Eugene A. LoVerde of the National Marine Fisheries Service.

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Table 103. Commercial catch in pounds landed at McGarrigel's & Sons Fish, Atlantic City from January through December, 1974.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Finfish													
Summer flounder	-	-	-	-	4856	21693	-	-	-	38956	385	4	65894
Striped bass	143	970	-	991	82	29	-	-	-	3502	36132	489	42338
Weakfish	1200	-	-	23	1720	785	943	2537	1216	22108	11192	10	41734
Atlantic mackerel	33634	5760	-	-	-	-	-	-	-	-	-	-	39394
Bluefish	55	-	-	-	50	629	1813	1872	2763	5335	5860	110	18487
Yellowtail flounder	13839	-	-	-	-	-	-	-	-	-	-	-	13839
Winter flounder	10150	1833	-	-	12	-	-	-	-	-	-	-	11995
Silver hake	2893	435	-	65	362	1070	-	-	-	-	100	158	5083
Atlantic cod	-	406	-	-	-	-	-	-	-	-	1713	731	2850
Mixed hake	2605	-	-	-	-	-	-	-	-	-	-	-	2605
Butterfish	100	-	-	-	714	65	12	10	107	550	160	14	1732
American shad	-	-	-	1031	98	-	-	-	-	-	-	-	1129
Witch flounder	330	-	-	-	185	-	-	-	-	-	-	-	515
Atlantic menhaden	-	-	-	-	200	-	-	-	56	-	-	-	256
Atlantic sturgeon	-	-	-	-	-	-	-	-	-	180	68	-	248
Black sea bass	-	-	-	-	190	-	-	-	-	-	-	-	190
Northern fingfish	-	-	-	-	-	-	-	-	-	143	-	-	143
White perch	-	35	-	-	-	-	-	-	-	-	-	-	35
Total	64949	9439	-	2110	8469	24271	2768	4419	4142	70774	55610	1516	248467

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Table 104. Commercial catch in pounds landed at Starn's Marina, Atlantic City from January through December, 1974.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Finfish													
Scup	51260	-	-	5848	-	-	-	-	-	600	1250	56120	115078
Summer flounder	10313	18290	-	24160	6623	-	-	2952	13880	26960	1326	-	104504
Striped bass	-	-	-	1636	474	-	-	-	-	4996	19267	-	26373
Weakfish	-	-	-	415	-	-	-	-	1370	10995	8485	-	21265
Bluefish	95	-	-	-	99	200	-	-	230	3026	3925	85	7660
Black sea bass	1055	775	-	416	1559	-	15	-	-	254	-	1267	5341
Silver hake	-	-	-	3005	-	-	-	-	-	-	-	-	3005
Butterfish	190	585	-	95	-	-	-	-	-	-	56	395	1321
Atlantic mackerel	35	-	-	590	-	-	-	-	-	-	-	-	625
Red hake	-	-	-	190	-	-	-	-	-	-	-	-	190
Atlantic cod	-	-	-	-	-	-	-	-	-	-	80	-	80
Atlantic croaker	-	-	-	-	-	-	-	-	70	-	-	-	70
Sturgeon	-	-	-	-	30	-	-	-	-	-	-	-	30
Shellfish													
Squid	3465	270	-	8680	193	-	-	-	-	-	8200	9199	30007
American lobster	-	-	-	-	-	-	16265	1238	516	120	-	-	18139
Total	66413	19920	-	45035	8978	200	16280	4190	16066	46951	42589	67066	333688

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Table 105 . Monthly total number of fishes landed by anglers at Rand's Boats (rented and private boats) during 1974.

	Rand's Boats				Private Boats			
	June	July	August	Total	June	July	August	Total
Total No. of Days sampled	8	10	9	27	8	10	9	27
Total No. of Boats Interviewed	24	115	74	213	33	96	69	198
Total No. of Fishermen	72	270	243	585	82	266	208	556
Total No. of Angler Hours	4555	1790.5	1547.5	3793.5	82	1833	1183	3098
Shark	63+	158	84+	305+	25	123+	66+	214+
Stingray	-	2	-	2	-	-	-	-
American eel	-	-	2	2	-	-	-	-
Atlantic menhaden	-	-	1	1	-	-	-	-
Oyster toadfish	1	36	30+	67+	-	24+	9+	33+
Striped bass	-	1	-	1	-	-	-	-
Black sea bass	3	175+	826+	1004+	4	130+	439+	573+
Bluefish	-	5	13	18	3	26	47	76
Banded rudderfish	-	-	4	4	-	-	2	2
Dolphin	-	-	-	-	-	-	9	9
Silver perch	-	-	1	1	-	-	-	-
Weakfish	-	1	21	22	-	13+	15	28+
Northern kingfish	-	-	8	8	-	-	-	-
Tautog	1	-	2	3	1	-	-	1
Searobin	2+	80+	99+	181	2	118+	123+	243+
Atlantic bonito	-	-	-	-	-	3	4	7
Spanish mackerel	-	-	-	-	-	-	1	1
Tuna	-	-	-	-	-	1	-	1
Little tunny	-	-	-	-	-	-	3	3
Summer flounder	116	485+	108	709+	206	764+	268+	1238
Northern puffer	-	-	1	1	-	-	-	-
Total species	6	9	14	16	6	9	12	14
Total specimens	186+	943+	1200	2329+	241	1202+	986+	2429+

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Table 106. Monthly and total fishing effort statistics of fishes landed by anglers at Rand's Boats during 1974.

	Rand's Boats				Private Boats			
	June	July	August	Total	June	July	August	Total
Black sea bass	3	175	826	1004	4	130	439	573
% of Total catch	1.6	18.6	68.8	43.1	1.7	10.8	44.5	23.6
Fish per fishermen per trip (n/t)	+	0.6	3.4	1.7	+	0.5	2.1	1.0
Fish per angler hour (n/h)	+	0.1	0.5	0.3	+	0.1	0.4	0.2
Fish per boat (n/b)	0.1	1.5	11.2	4.7	0.1	1.4	6.4	2.9
Summer flounder	116	485	108	709	206	764	268	1238
% of Total catch	62.4	51.4	9.0	30.4	85.5	63.6	27.2	51.0
Fish per fishermen per trip (n/t)	1.6	1.8	0.4	1.2	2.5	2.9	1.3	2.2
Fish per angler hour (n/h)	0.3	0.3	0.1	0.2	2.5	0.4	0.2	0.4
Fish per boat (n/b)	4.8	4.2	1.5	3.3	6.2	8.0	3.9	6.3
Other Sport Fishes Combined	1	7	50	58	4	43	81	128
% of Total catch	0.5	0.7	4.2	2.5	1.7	3.6	8.2	5.3
Fish per fishermen per trip (n/t)	+	+	0.2	0.1	+	0.2	0.4	0.2
Fish per angler hour (n/h)	+	+	+	+	+	+	0.1	+
Fish per boat (n/b)	+	0.1	0.7	0.3	0.1	0.4	1.2	0.6
Non Sport Fishes Combined	66	276	216	558	27	265	198	490
% of Total catch	35.5	29.3	18.0	24.0	11.2	22.0	20.1	20.2
Fish per fishermen per trip (n/t)	0.9	1.0	0.9	1.0	0.3	1.0	1.0	0.9
Fish per angler hour (n/h)	0.1	0.2	0.1	0.1	0.3	0.1	0.2	0.2
Fish per boat (n/b)	2.8	2.4	2.9	2.6	0.8	2.8	2.9	2.5

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Table 107. Length-frequency distribution of summer flounder, Paralichthys dentatus, landed by anglers (rented and private boats) of Rand's Boats from June through August, 1974.

Fork length (mm)	June	July	August
510	-	1	-
500	-	-	-
490	-	-	-
480	-	2	1
470	-	1	-
460	-	-	-
450	-	-	1
440	1	1	2
430	-	-	1
420	2	1	2
410	-	3	-
400	1	5	1
390	1	2	1
380	2	7	3
370	2	4	5
360	2	3	2
350	7	11	3
340	7	5	5
330	10	12	5
320	11	11	5
310	2	10	1
300	10	13	3
290	6	1	-
280	-	-	-
270	2	-	-
260	-	-	-
N	66	93	41
$\bar{x}$	334.7	351.5	363.4
SD	34.9	44.8	45.0
Range	440-272	510-298	485-300

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Table 108. Total number of fishes taken by hook and line on two charter boats (docked at Oyster Creek) from March through November, 1974.

	March	April	May	June	July	August	September	October	November	Total
No. of boats in ocean	-	12	19	5	24	23	25	37	25	170
No. of boats in bay	10	2	11	34	11	10	-	-	1	79
No. of boats in bay and ocean	-	-	9	-	7	10	3	-	-	29
Total boats	10	14	39	39	42	43	28	37	26	278
Total No. angler hours	247	568	1776	1802	2038	2072	1228	1572	1152	12455
Total No. of fishermen	47	76	229	231	257	263	162	213	165	1643
Atlantic cod	-	-	-	-	-	-	-	-	14	14
Red hake	-	-	31+	1	-	-	-	-	-	32+
Striped bass	-	6	11	-	1	-	-	86	202	306
Black sea bass	-	-	1130+	-	11	54	-	10	275	1480
Bluefish	-	-	5	131	310	1087	150	702	176	2561
Amber jack	-	-	-	-	-	1	-	-	-	1
Dolphin	-	-	-	-	-	1	-	-	-	1
Scup	-	-	51	101	-	3	-	-	13	168
Weakfish	-	-	4	1	-	516	1766	723	240	3250
Northern kingfish	-	-	-	-	-	-	1	-	-	1
Atlantic croaker	-	-	-	-	-	1	-	-	-	1
Tautog	-	-	251	-	-	-	-	-	105	356
Cunner	-	-	30	-	-	-	-	-	-	30
Atlantic bonito	-	-	-	-	52	7	4	-	-	63
Atlantic mackerel	-	5253+	515+	-	-	-	-	-	-	5768+
Tuna	-	-	-	3	113	13	-	-	-	129
Little Tunny	-	-	-	-	8	13	35	-	-	56
Summer flounder	-	-	430	2230	2255	748	122	10	6	5801
Winter flounder	420	-	33	-	-	-	-	-	-	453
Northern puffer	-	-	-	-	1	-	-	-	-	1
Total	420	5259	2491	2467	2751	2443	2079	1531	1031	20472+

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Table 109 . Monthly and total fishing effort statistics of fishes caught by anglers on two charter boats in 1974.

	March	April	May	June	July	August	September	October	November	Total
Black sea bass	-	-	1130	-	11	54	-	10	275	1480
% of total catch	-	-	45.4	-	0.4	2.2	-	0.7	26.7	7.2
Fish per fisherman per trip (n/t)	-	-	4.9	-	+	0.2	-	+	1.7	0.9
Fish per angler hour (n/h)	-	-	0.6	-	+	+	-	+	0.2	0.1
Fish per boat (n/b)	-	-	29.0	-	0.3	1.3	-	0.3	10.6	5.3
Bluefish	-	-	5	131	310	1087	150	702	176	2561
% of total catch	-	-	0.2	5.3	11.3	44.5	7.2	45.9	0.2	12.5
Fish per fisherman per trip (n/t)	-	-	+	0.6	1.2	4.1	0.9	3.3	1.1	1.6
Fish per angler hour (n/h)	-	-	+	0.1	0.2	0.5	0.1	0.4	0.2	0.2
Fish per boat (n/b)	-	-	0.1	3.4	7.4	25.3	5.4	19.0	6.8	9.2
Weakfish	-	-	4	1	-	516	1766	723	240	3250
% of total catch	-	-	0.2	+	-	21.1	84.9	47.2	23.3	15.9
Fish per fisherman per trip (n/t)	-	-	+	+	-	2.0	10.9	3.4	1.5	2.0
Fish per angler hour (n/h)	-	-	+	+	-	0.2	1.4	0.5	0.2	0.3
Fish per boat (n/b)	-	-	0.1	+	-	12	63.1	19.5	9.2	11.7
Summer flounder	-	-	430	2230	2255	748	122	10	6	5801
% of total catch	-	-	17.3	90.4	82.0	30.6	5.9	0.7	0.6	28.3
Fish per fisherman per trip (n/t)	-	-	1.9	9.7	8.8	2.8	0.8	+	+	3.5
Fish per angler hour (n/h)	-	-	0.2	1.2	1.1	0.4	0.1	+	+	0.5
Fish per boat (n/b)	-	-	11.0	57.2	53.7	17.4	4.4	0.3	0.2	20.9
Other sport fishes conbined	420	5259	922	105	175	38	41	86	334	7380
% of total catch	100	100	37.0	4.3	6.4	1.6	2.0	5.6	32.4	36.0
Fish per fisherman per trip (n/t)	8.9	69.2	4.0	0.5	0.7	0.1	0.3	0.4	2.0	4.5
Fish per angler hour (n/h)	1.7	9.3	0.5	0.1	0.1	+	+	0.1	0.3	0.6
Fish per boat (n/b)	42	375.6	23.6	2.7	4.2	0.9	1.5	2.3	12.8	26.5

+ Indicates less than 0.1.

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Table 110. Estimated number of fish taken by hook and line off Sea Horse Pier, Brigantine, from May through September, 1974. Includes only those fishes recorded by proprietor of the pier.

	May	June	July	August	September	Total
Total No. of Fishermen	241	841	1355	2305	1500	6242
Shark	+	+	-	-	-	+
Striped bass	23	10	-	-	-	33
Bluefish	18	13	45	383	434	893
Silver perch	-	+	-	-	-	+
Weakfish	52	327	156	1985	575	3095
Black drum	-	1	-	-	-	1
Northern kingfish	21	32	103	77	3	236
Summer flounder	6	7	21	-	-	34
Winter flounder	1	3	-	-	-	4
Northern puffer	7	-	-	-	-	7
Total species	8	9	4	3	3	10
Total specimens	128	393	325	2445	1012	4303

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Table 111. Total number of juvenile and adult fishes taken by season in the bays and ocean in the vicinity of Little Egg Inlet, New Jersey during 1974.* Yearly totals are given for each major collecting method. The grand total represents the total number of specimens for each species collected during the year.[a]

Species	Winter	Spring	Summer	Fall	1974 TOTALS Trawl Ocean	Trawl Bays	Seine	Gill Net	Misc.	Grand Total
Carcharodon carcharias	-	1	-	-	-	-	-	-	1	1
Charcharhinus milberti	-	-	22	8	1	-	-	21	8	30
Charcharhinus obscurus	-	27	38	-	-	-	-	27	38	65
Galeocerdo cuvieri	-	-	2	-	-	-	-	-	2	2
Mustelus canis	-	310	286	37	162	74	22	363	12	633
Squalus acanthias	-	26	-	91	2	-	-	115	-	117
Raja erinacea	13	50	-	34	76	4	10	7	-	97
Raja eglanteria	-	-	5	-	5	-	-	-	-	5
Dasyatis centroura	-	-	3	-	1	-	-	2	-	3
Dasyatis sayi	-	-	1	-	-	1	-	-	-	1
Myliobatis freminvillei	-	8	16	-	1	6	-	17	-	24
Rhinoptera bonasus	-	-	3	-	-	-	-	3	-	3
Acipenser oxyrhynchus	-	2	-	-	-	-	-	2	-	2
Elops saurus	-	-	13	-	-	-	13	-	-	13
Anguilla rostrata	36	90	22	1	1	41	107	-	-	149
Conger oceanicus	2	40	7	5	48	3	-	-	3	54
Alosa sp.	-	70	-	-	-	-	70	-	-	70
Alosa aestivalis	414	424	-	1	123	445	270	1	-	839
Alosa mediocris	-	26	2	8	-	-	-	36	-	36
Alosa pseudoharengus	191	90	-	20	144	61	49	47	-	301
Alosa sapidissima	22	178	-	-	15	4	9	172	-	200
Brevoortia tyrannus	5	1514	2601	213	8	45	3396	884	-	4333
Clupea harengus	41	26	1	-	46	7	5	10	-	68
Etrumeus teres	-	-	12	-	12	-	-	-	-	12
Dorosoma cepedianum	-	-	1	-	-	1	-	-	-	1
Anchoa hepsetus	-	2	53	75	111	11	8	-	-	130
Anchoa mitchilli	101	7853+	38842+	155465+	186744+	13713+	1804+	-	-	202261+
Engraulis eurystole	-	-	218+	846+	1064+	-	-	-	-	1064+
Synodus foetens	-	-	15	4	6	4	9	-	-	19
Trachinocephalus myops	-	-	2	-	2	-	-	-	-	2
Notemigonus crysoleucas	-	17	1	-	-	-	18	-	-	18
Catostomus commersoni	1	98	-	-	-	-	98	-	1	99
Ictalurus catus	1	-	-	-	-	-	-	-	1	1
Opsanus tau	7	126	38	20	-	190	-	1	-	191
Lophius americanus	-	2	-	6	3	-	-	5	-	8
Enchelyopus cimbrius	-	1	2	-	2	1	-	-	-	3
Gadus morhua	5	-	-	-	3	-	-	2	-	5
Merluccius bilinearis	201	1603	81	1190	3068	7	-	-	-	3075
Pollachius virens	3	22	-	-	15	6	4	-	-	25
Urophycis chuss	4244	3351	135	479	7189	877	138	-	5	8209
Urophycis regius	254	2764	2147	612	4441	960	376	-	-	5777
Urophycis tenuis	5	287	536	-	790	36	2	-	-	828
Rissola marginata	2	111	417	57	490	55	41	-	1	587
Macrozoarces americanus	8	2	-	-	7	-	-	-	3	10
Hyporhamphus unifasciatus	-	2	-	-	-	-	2	-	-	2
Strongylura marina	-	3	20	-	-	-	23	-	-	23
Cyprinodon variegatus	5	57	300+	1577+	-	-	1939+	-	-	1939+
Fundulus diaphanus	428+	1708+	450+	1393+	-	-	3979+	-	-	3979+
Fundulus heteroclitus	34	986+	1553+	2368+	-	-	4941+	-	-	4941+
Fundulus majalis	84	1526+	441	212+	-	2	2261+	-	-	2263+
Lucania parva	-	6	4	-	-	-	10	-	-	10
Membras martinica	-	7	1	-	-	-	8	-	-	8
Menidia sp.	-	7	-	-	-	-	7	-	-	7
Menidia beryllina	227	462	1120+	2731+	-	-	4540+	-	-	4540+
Menidia menidia	817	3648+	18142+	3059+	137	359	25170+	-	-	25666+
Apeltes quadracus	108	250+	1	2	4	16	341+	-	-	361+
Gasterosteus aculeatus	110	8	-	-	3	37	78	-	-	118
Fistularia tabacaria	-	-	4	-	-	2	2	-	-	4
Hippocampus erectus	21	48	19	8	39	37	19	1	-	96
Syngnathus fuscus	243	486+	166	61	450	395	109+	2	-	956+
Morone americana	777	374	79	134	20	1034	275	7	28	1364
Morone saxatilis	70	232	2	3	5	7	10	38	247	307
Centropristis striata	2	106	123	109	52	124	27	-	137	340
Epinephelus nigritus	-	-	2	-	-	-	1	-	1	2
Mycteroperca microlepis	-	2	2	3	2	1	2	-	2	7

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Table 111. (cont.)

Species	Winter	Spring	Summer	Fall	1974 TOTALS Trawl Ocean	Trawl Bays	Seine	Gill Net	Misc.	Grand Total
Lepomis gibbosus	-	1	1	-	-	-	2	-	-	2
Etheostoma olmstedi	-	2	-	-	-	-	2	-	-	2
Perca flavescens	-	4	-	-	-	-	4	-	-	4
Pristigenys alta	-	-	3	-	2	-	1	-	-	3
Pomatomus saltatrix	-	44	475	48	34	12	465	55	1	567
Caranx hippos	-	-	6	-	-	1	5	-	-	6
Decapterus punctatus	-	-	6	3	9	-	-	-	-	9
Selene vomer	-	-	8	-	-	6	2	-	-	8
Trachinotus carolinus	-	1	142	-	-	-	143	-	-	143
Trachinotus falcatus	-	-	53	2	-	-	55	-	-	55
Trachinotus goodei	-	-	4	-	-	-	4	-	-	4
Trachurus lathami	-	1	-	-	1	-	-	-	-	1
Vomer setapinnis	-	-	4	10	14	-	-	-	-	14
Lutjanus griseus	-	-	-	1	-	-	1	-	-	1
Stenotomus chrysops	-	27	46	2	67	6	1	-	1	75
Bairdiella chrysura	-	4	102	180	172	78	36	-	-	286
Cynoscion regalis	-	59	8550+	2222+	10090+	497	23	221	-	10831+
Larimus fasciatus	-	-	2	1	3	-	-	-	-	3
Leiostomus xanthurus	8	63	525	56	262	133	255	2	-	652
Menticirrhus saxatilis	-	-	157	20	80	4	93	-	-	177
Micropogon undulatus	6	-	8	8	15	6	-	1	-	22
Pseudupeneus maculatus	-	-	2	-	2	-	-	-	-	2
Chaetodon ocellatus	-	-	6	7	-	13	-	-	-	13
Tautoga onitis	13	20	25	18	4	60	4	1	7	76
Tautogolabrus adspersus	2	5	7	1	1	9	1	-	4	15
Mugil cephalus	-	-	-	1	-	1	-	-	-	1
Mugil curema	44	54	161	1	-	-	260	-	-	260
Sphyraena borealis	-	2	31	1	1	2	31	-	-	34
Astroscopus guttatus	-	1	3	1	-	1	4	-	-	5
Hypsoblennius hentzi	1	-	-	1	-	2	-	-	-	2
Pholis gunnellus	2	1	1	1	5	-	-	-	-	5
Ammodytes sp.	113	41	5	129	264	21	3	-	-	288
Gobiosoma bosci	-	2	22	17	5	7	29	-	-	41
Gobiosoma ginsburgi	-	-	7	-	7	-	-	-	-	7
Scomber scombrus	-	1	-	-	1	-	-	-	-	1
Scomberomorus maculatus	-	-	1	-	-	-	-	1	-	1
Peprilus triacanthus	2	33	914	587	1473	8	-	55	-	1536
Scorpanena plumieri	-	-	-	1	-	1	-	-	-	1
Prionotus carolinus	1	177	338	244	659	83	6	11	1	760
Prionotus evolans	-	40	398	80	383	27	60	48	-	518
Myoxocephalus aenaeus	11	4	-	3	6	10	2	-	-	18
Myoxocephalus octodecemspinosus	8	1	-	1	8	2	-	-	-	10
Liparis inquilinus	4	-	-	-	4	-	-	-	-	4
Citharichthys spilopterus	-	-	1	2	2	-	1	-	-	3
Etropus microstomus	53	152	270	271	625	63	58	-	-	746
Paralichthys dentatus	-	39	89	43	79	38	33	21	-	171
Paralichthys oblongus	-	-	46	6	52	-	-	-	-	52
Scophthalmus aquosus	290	912	393	221	1021	144	625	26	-	1816
Limanda ferruginea	4	-	-	-	4	-	-	-	-	4
Pseudopleuronectes americanus	115	173	163	13	139	119	197	9	-	464
Trinectes maculatus	9	318	74	13	-	401	12	1	-	414
Monacanthus hispidus	-	2	111	3	36	37	43	-	-	116
Lactophrys quadricornis	-	-	1	1	-	1	1	-	-	2
Sphoeroides maculatus	-	2	154	28	166	8	10	-	-	184
Chilomycterus schoepfi	-	-	22	3	3	11	11	-	-	25
Total species	51	78	91	73	76	67	76	27	21	118
Total specimens	9168	31225	81288	175083	220991	20378	52676	2215	504	296764

* Seasonal totals are given for winter (January - March), spring (April - June), summer (July - September), and fall (October - December).

a Some species included in table were taken in tidal freshwater portions of the study area in the seine program.

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Table 112. Fishes taken in the ocean and bays in the vicinity of Little Egg Inlet, New Jersey from 1 January 1972 to 1 January 1975. Life history stages of each species collected in the area are indicated.[a]

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
LAMPREYS--PETROMYZONTIDAE				
Sea lamprey--Petromyzon marinus			+	
MACKEREL SHARKS--LAMNIDAE				
White shark--Carcharodon carcharias			+	
REQUIEM SHARKS--CARCHARINIDAE				
Sandbar shark--Carcharhinus milberti			+	+
Dusky shark--Carcharhinus obscurus			+	
Tiger shark--Galeocerdo cuvieri			+	
Smooth dogfish--Mustelus canis			+	+
HAMMERHEAD SHARKS--SPHYRNIDAE				
Smooth hammerhead--Sphyrna zygaena			+	
DOGFISH SHARKS--SQUALIDAE				
Spiny dogfish--Squalus acanthias			+	+
SKATES--RAJIDAE				
Little skate--Raja erinacea			+	+
Clearnose skate--Raja eglanteria				+
STINGRAYS--DASYATIDAE				
Roughtail stingray--Dasyatis centroura				+
Bluntnose stingray--Dasyatis sayi			+	
Spiny butterfly ray--Gymnura altavela				+
EAGLE RAYS--MYLIOBATIDAE				
Bullnose ray--Myliobatis freminvillei				+
Cownose ray--Rhinoptera bonasus				+
STURGEONS--ACIPENSERIDAE				
Atlantic sturgeon--Acipenser oxyrhynchus			+	
TARPONS--ELOPIDAE				
Ladyfish--Elops saurus		+		
FRESHWATER EELS--ANGUILLIDAE				
American eel--Anguilla rostrata			+	+

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Table 112. (cont.)

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
CONGER EELS--CONGRIDAE				
Conger eel--Conger oceanicus		+	+	+
SNAKE EELS--OPHICHTHIDAE				
Palespotted eel--Ophichthus ocellatus		+		
HERRINGS--CLUPEIDAE				
Blueback herring--Alosa aestivalis			+	+
Hickory shad--Alosa mediocris				+
Alewife--Alosa pseudoharengus		+	+	+
American shad--Alosa sapidissima		+	+	+
Alosa sp.		+		
Atlantic menhaden--Brevoortia tyrannus	+	+	+	+
Atlantic herring--Clupea harengus		+	+	+
Gizzard shad--Dorosoma cepedianum				+
Round herring--Etrumeus teres				+
Atlantic thread herring--Opisthonema oglinum				+
ANCHOVIES--ENGRAULIDAE		+		
Striped anchovy--Anchoa hepsetus	+	+	+	+
Bay anchovy--Anchoa mitchilli	+	+	+	+
Silver anchovy--Engraulis eurystole			+	
PIKES--ESOCIDAE				
Redfin pickerel--Esox americanus			+	
Chain pickerel--Esox niger			+	+
LIZARDFISHES--SYNODONTIDAE				
Inshore lizardfish--Synodus foetens		+	+	+
Snakefish--Trachinocephalus myops			+	
MINNOWS AND CARPS--CYPRINIDAE		+		
Golden shiner--Notemigonus crysoleucas			+	+
SUCKERS--CATOSTOMIDAE				
White sucker--Catostomus commersoni			+	+
Creek chubsucker--Erimyzon oblongus			+	
FRESHWATER CATFISHES--ICTALURIDAE				
White catfish--Ictalurus catus			+	+
Brown bullhead--Ictalurus nebulosus				+

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Table 112. (cont.)

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
TOADFISHES--BATRACHOIDIDAE				
Oyster toadfish--Opsanus tau	+		+	+
GOOSEFISHES--LOPHIIDAE				
Goosefish--Lophius americanus	+	+	+	+
CODFISHES--GADIDAE				
Fourbeard rockling--Enchelyopus cimbrius	+	+	+	
Atlantic cod--Gadus morhua	+	+		+
Haddock--Melanogrammus aeglefinus			+	
Silver hake--Merluccius bilinearis			+	+
Pollock--Pollachius virens			+	
Red hake--Urophycis chuss	+	+	+	+
Spotted hake--Urophycis regius	+	+	+	+
White hake--Urophycis tenuis			+	+
CUSK-EELS AND BROTULAS--OPHIDIIDAE		+		
Striped cusk-eel--Rissola marginata			+	+
EELPOUTS--ZOARCIDAE				
Ocean pout--Macrozoarces americanus				+
FLYING FISHES AND HALFBEAKS--EXOCOETIDAE				
Halfbeak--Hyporhamphus unifasciatus			+	+
NEEDLEFISHES--BELONIDAE				
Atlantic needlefish--Strongylura marina			+	+
KILLIFISHES--CYPRINODONTIDAE				
Sheepshead minnow--Cyprinodon variegatus			+	+
Banded killifish--Fundulus diaphanus			+	+
Mummichog--Fundulus heteroclitus			+	+
Spotfin killifish--Fundulus luciae			+	+
Striped killifish--Fundulus majalis	+		+	+
Fundulus sp.		+		
Rainwater killifish--Lucania parva			+	+
SILVERSIDES--ATHERINIDAE		+		
Rough silverside--Membras martinica			+	+
Tidewater silverside--Menidia beryllina			+	+
Atlantic silverside--Menidia menidia	+		+	+

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Table 112. (cont.)

Species	Stages of Development Eggs	Larvae	Juvs.	Adults
STICKLEBACKS--GASTEROSTEIDAE				
Fourspine stickleback--Apeltes quadracus			+	+
Threespine stickleback--Gasterosteus aculeatus			+	+
CORNET FISHES--FISTULARIIDAE.				
Bluespotted cornetfish--Fistularia tabacaria			+	
PIPEFISHES AND SEAHORSES--SYNGNATHIDAE				
Lined seahorse--Hippocampus erectus	in pouch of adult		+	+
Northern pipefish--Syngnathus fuscus	in pouch of adult		+	+
TEMPERATE BASSES--PERCICHTHYIDAE				
White perch--Morone americana	+	+	+	+
Striped bass--Morone saxatilis	+	+	+	+
SEA BASSES--SERRANIDAE				
Black sea bass--Centropristis striata		+	+	+
Warsaw grouper--Epinephelus nigritus			+	
Snowy grouper--Epinephelus niveatus			+	
Gag--Mycteroperca microlepis			+	
SUNFISHES--CENTRARCHIDAE				
Blackbanded sunfish--Enneacanthus chaetodon			+	+
Bluespotted sunfish--Enneacanthus gloriosus			+	+
Pumpkinseed--Lepomis gibbosus			+	+
Bluegill--Lepomis macrochirus			+	+
Largemouth bass--Micropterus salmoides			+	
PERCHES--PERCIDAE				
Tessellated darter--Etheostoma olmstedi			+	+
Yellow perch--Perca flavescens		+	+	+
BIGEYES--PRIACANTHIDAE				
Glasseye snapper--Priacanthus cruentatus			+	
Short bigeye--Pristigenys alta			+	
BLUEFISHES--POMATOMIDAE				
Bluefish--Pomatomus saltatrix		+	+	+

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Table 112. (cont.)

Species	Stages of Development Eggs	Larvae	Juvs.	Adults
COBIAS--RACHYCENTRIDAE				
Cobia--Rachycentron canadum			+	
REMORAS--ECHENEIDAE				
Whitefin sharksucker--Encheneis neucratoides			+	
JACKS AND POMPANOS--CARANGIDAE				
Bluerunner--Caranx crysos			+	
Crevalle jack--Caranx hippos			+	
Round scad--Decapterus punctatus			+	
Bigeye scad--Selar crumenophthalmus			+	
Lookdown--Selene vomer			+	
Banded rudderfish--Seriola zonata			+	
Florida pompano--Trachinotus carolinus			+	
Permit--Trachinotus falcatus			+	
Palometa--Trachinotus goodei			+	
Rough scad--Trachurus lathami			+	
Atlantic moonfish--Vomer setapinnis			+	
SNAPPERS--LUTJANIDAE				
Lutjanus sp.			+	
Gray snapper--Lutjanus griseus			+	
MOJARRAS--GERREIDAE				
Spotfin mojarra--Eucinostomus argenteus ?			+	
PORGIES--SPARIDAE				
Spottail pinfish--Diplodus holbrooki			+	
Pinfish--Lagodon rhomboides			+	
Scup--Stenotomus chrysops	+		+	+
DRUMS--SCIAENIDAE				
Silver perch--Bairdiella chrysura			+	+
Spotted seatrout--Cynoscion nebulosus				+
Weakfish--Cynoscion regalis		+	+	+
Banded drum--Larimus fasciatus			+	
Spot--Leiostomus xanthurus			+	+
Northern kingfish--Menticirrhus saxatilis		+	+	+
Atlantic croaker--Micropogon undulatus		+	+	
Black drum--Pogonias cromis			+	+
Red drum--Sciaenops ocellata			+	

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Table 112. (cont.)

Species	Stages of Development Eggs	Larvae	Juvs.	Adults
GOATFISHES--MULLIDAE				
Spotted goatfish--Pseudupeneus maculatus			+	
SPADEFISHES--EPHIPPIDAE				
Atlantic spadefish--Chaetodipterus faber			+	
BUTTERFLYFISHES--CHAETODONTIDAE				
Spotfin butterflyfish--Chaetodon ocellatus			+	
Foureye butterflyfish--Chaetodon capistratus			+	
DAMSELFISHES--POMACENTRIDAE				
Sergeant major--Abudefduf saxatilis			+	
WRASSES--LABRIDAE				
Tautog--Tautoga onitis	+	+	+	+
Cunner--Tautogolabrus adspersus	+	+	+	+
MULLETS--MUGILIDAE				
Striped mullet--Mugil cephalus			+	+
White mullet--Mugil curema			+	
BARRACUDAS--SPHYRAENIDAE				
Northern sennet--Sphyraena borealis			+	
THREADFINS--POLYNEMIDAE				
Atlantic threadfin--Polydactylus octonemus			+	
STARGAZERS--URANOSCOPIDAE				
Northern stargazer--Astroscopus guttatus			+	+
Astroscopus sp.		+		
COMBTOOTH BLENNIES--BLENNIDAE				
Featherblenny--Hypsoblennius hentzi				+
PRICKLEBACKS--STICHAEIDAE				
Snakeblenny--Lumpenus lumpretaeformis		+	+	

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Table 112. (cont.)

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
GUNNELS--PHOLIDAE				
Rock gunnel--Pholis gunnellus		+	+	
SAND LANCES--AMMODYTIDAE				
*Ammodytes sp.	+	+	+	+
SLEEPERS--ELEOTRIDAE				
Fat sleeper--Dormitator maculatus			+	
GOBIES--GOBIIDAE		+		
Darter goby--Gobionellus boleosoma			+	
Naked goby--Gobiosoma bosci			+	+
Seaboard goby--Gobiosoma ginsburgi			+	+
CUTLASSFISHES--TRICHIURIDAE				
Atlantic cutlassfish--Trichiurus lepturus				+
MACKERELS AND TUNAS--SCOMBRIDAE				
Frigate mackerel--Auxis thazard				+
Auxis sp.		+		
Little tunny--Euthynnus alletteratus			+?	
Atlantic bonito--Sarda sarda		+		
Chub mackerel--Scomber japonicus			+	
Atlantic mackerel--Scomber scombrus	+	+	+	+
King mackerel--Scomberomorus cavalla				+
Spanish mackerel--Scomberomorus maculatus				+
BUTTERFISHES--STROMATEIDAE				
Barrelfish--Hyperoglyphe perciformis				+
Butterfish--Peprilus triacanthus		+	+	+
SCORPIONFISHES--SCORPAENIDAE				
Spotted scorpionfish--Scorpaena plumieri			+	
SEAROBINS--TRIGLIDAE				
Northern searobin--Prionotus carolinus			+	+
Striped searobin--Prionotus evolans			+	+
Prionotus sp.	+	+		

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Table 112. (cont.)

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
SCULPINS--COTTIDAE				
Sea raven--Hemitripterus americanus				+
Grubby--Myoxocephalus aenaeus		+	+	+
Longhorn sculpin--Myoxocephalus octodecemspinosus	+	+	+	+
LUMP FISHES AND SNAILFISHES--CYCLOPTERIDAE				
Inquiline snailfish--Liparis inquilinus	+			+
LEFTEYE FLOUNDERS--BOTHIDAE				
Bothus robinsi				+
Bothus sp.		+		
Bay whiff--Citharichthys spilopterus				+
Citharichthys sp.		+		
Smallmouth flounder--Etropus microstomus		+	+	+
Summer flounder--Paralichthys dentatus	+	+	+	+
Fourspot flounder--Paralichthys oblongus		+	+	
Windowpane--Scophthalmus aquosus	+	+	+	+
RIGHTEYE FLOUNDERS--PLEURONECTIDAE				
Witch flounder--Glyptocephalus cynoglossus		+		
Yellowtail flounder--Limanda ferruginea		+		+
Winter flounder--Pseudopleuronectes americanus	+	+	+	+
SOLES--SOLEIDAE				
Hogchoker--Trinectes maculatus		+	+	+
TETRAODONTIFORMES		+		
TRIGGERFISHES AND FILEFISHES--BALISTIDAE				
Orange filefish--Alutera schoepfi				+
Gray triggerfish--Balistes capriscus				+
Planehead filefish--Monacanthus hispidus			+	
BOX FISHES--OSTRACIIDAE				
Scrawled cowfish--Lactophrys quadricornis			+	
PUFFERS--TETRAODONTIDAE				
Northern puffer--Sphoeroides maculatus			+	+

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Table 112 . (cont.)

Species	Stages of Development			
	Eggs	Larvae	Juvs.	Adults
PORCUPINE FISHES--DIODONTIDAE				
Striped burrfish--Chilomycterus schoepfi			+	+
MOLAS--MOLIDAE				
Mola sp.				+

* The taxonomy of this group is yet to be worked out satisfactorily.

a Some species included in table were taken in tidal freshwater portions of the study area in the seine program.

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Table 113. Alphabetical listing by common name of all fish species collected in the vicinity of Little Egg Inlet, New Jersey from January 1972 to January 1975. [a]

Alewife - Alosa pseudoharengus
American eel - Anguilla rostrata
American shad - Alosa sapidissima
Atlantic bonito - Sarda sarda
Atlantic cod - Gadus morhua
Atlantic croaker - Micropogon undulatus
Atlantic cutlassfish - Trichiurus lepturus
Atlantic herring - Clupea harengus
Atlantic mackerel - Scomber scombrus
Atlantic menhaden - Brevoortia tyrannus
Atlantic moonfish - Vomer setapinnis
Atlantic needlefish - Strongylura marina
Atlantic silverside - Menidia menidia
Atlantic spadefish - Chaetodipterus faber
Atlantic sturgeon - Acipenser oxyrhynchus
Atlantic thread herring - Opisthonema oglinum
Atlantic threadfin - Polydactylus octonemus
Banded drum - Larimus fasciatus
Banded killifish - Fundulus diaphanus
Banded rudderfish - Seriola zonata
Barrelfish - Hyperoglyphe perciformis
Bay anchovy - Anchoa mitchilli
Bay whiff - Citharichthys spilopterus
Bigeye scad - Selar crumenophthalmus
Blackbanded sunfish - Enneacanthus chaetodon
Black drum - Pogonias cromis
Black sea bass - Centropristis striata
Blueback herring - Alosa aestivalis
Bluefish - Pomatomus saltatrix
Bluegill - Lepomis macrochirus
Bluerunner - Caranx crysos
Bluespotted cornetfish - Fistularia tabacaria
Bluespotted sunfish - Enneacanthus gloriosus
Bluntnose stingray - Dasyatis sayi
Brown bullhead - Ictalurus nebulosus
Bullnose ray - Myliobatis freminvillei
Butterfish - Peprilus triacanthus
Chain pickerel - Esox niger
Chub mackerel - Scomber japonicus
Clearnose skate - Raja eglanteria
Cobia - Rachycentron canadum
Conger eel - Conger oceanicus
Cownose ray - Rhinoptera bonasus
Creek chubsucker - Erimyzon oblongus
Crevalle jack - Caranx hippos
Cunner - Tautogolabrus adspersus
Darter goby - Gobionellus boleosoma
Dusky shark - Carcharhinus obscurus
Fat sleeper - Dormitator maculatus
Feather blenny - Hypsoblennius hentzi
Florida pompano - Trachinotus carolinus
Flounder - Bothus robinsi (MS name)
Fourbeard rockling - Enchelyopus cimbrius
Foureye butterflyfish - Chaetodon capistratus
Fourspine stickleback - Apeltes quadracus
Fourspot flounder - Paralichthys oblongus
Frigate mackerel - Auxis thazard
Gag - Mycteroperca microlepis
Gizzard shad - Dorosoma cepedianum
Glasseye snapper - Priacanthus cruentatus
Golden shiner - Notemigonus crysoleucas
Goosefish - Lophius americanus
Gray snapper - Lutjanus griseus
Gray triggerfish - Balistes capriscus
Grubby - Myoxocephalus aenaeus
Haddock - Melanogrammus aeglefinus
Halfbeak - Hyporhamphus unifasciatus
Hickory shad - Alosa mediocris
Hogchoker - Trinectes maculatus
Inquiline seasnail - Liparis inquilinus
Inshore lizardfish - Synodus foetens
King mackerel - Scomberomorus cavalla
Ladyfish - Elops saurus
Largemouth bass - Micropterus salmoides
Lined seahorse - Hippocampus erectus
Little skate - Raja erinacea
Little tunny - Euthynnus alletteratus
Longhorn sculpin - Myoxocephalus octodecemspinosus
Lookdown - Selene vomer
Mummichog - Fundulus heteroclitus
Naked goby - Gobiosoma bosci
Northern kingfish - Menticirrhus saxatilis
Northern pipefish - Syngnathus fuscus
Northern puffer - Sphoeroides maculatus
Northern searobin - Prionotus carolinus
Northern sennet - Sphyraena borealis
Northern stargazer - Astroscopus guttatus
Ocean pout - Macrozoarces americanus
Ocean sunfish - Mola sp.
Orange filefish - Alutera schoepfi
Oyster toadfish - Opsanus tau
Palespotted eel - Ophichthus ocellatus
Palometa - Trachinotus goodei
Permit - Trachinotus falcatus
Pinfish - Lagodon rhomboides
Planehead filefish - Monacanthus hispidus
Pollock - Pollachius virens
Pumpkinseed - Lepomis gibbosus
Rainwater killifish - Lucania parva
Red drum - Sciaenops ocellata
Redfin pickerel - Esox americanus
Red hake - Urophycis chuss
Rock gunnel - Pholis gunnellus
Rough scad - Trachurus lathami
Rough silverside - Membras martinica
Roughtail stingray - Dasyatis centroura

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Table 113. (cont.)

Round herring - Etrumeus teres
Round scad - Decapterus punctatus
Sand lance - Ammodytes sp.
Sandbar shark - Carcharhinus milberti
Scrawled cowfish - Lactophrys quadricornis
Scup - Stenotomus chrysops
Seaboard goby - Gobiosoma ginsburgi
Sea lamprey - Petromyzon marinus
Sea raven - Hemitripterus americanus
Sergeant major - Abudefduf saxatilis
Sheepshead minnow - Cyprinodon variegatus
Short bigeye - Pristigenys alta
Silver anchovy - Engraulis eurystole
Silver hake - Merluccius bilinearis
Silver perch - Bairdiella chrysura
Smallmouth flounder - Etropus microstomus
Smooth dogfish - Mustelus canis
Smooth hammerhead - Sphyrna zygaena
Snakeblenny - Lumpenus lumpretaeformis
Snakefish - Trachinocephalus myops
Snapper - Lutjanus sp..
Snowy grouper - Epinephelus niveatus
Spanish mackerel - Scomberomorus maculatus
Spiny butterfly ray - Gymnura altavela
Spiny dogfish - Squalus acanthias
Spot - Leiostomus xanthurus
Spotfin butterflyfish - Chaetodon ocellatus
Spotfin killifish - Fundulus luciae
Spotfin mojarra - Eucinostomus argenteus ?
Spottail pinfish - Diplodus holbrooki
Spotted goatfish - Pseudupeneus maculatus
Spotted hake - Urophycis regius
Spotted seatrout - Cynoscion nebulosus
Spotted scorpionfish - Scorpaena plumieri
Striped anchovy - Anchoa hepsetus
Striped bass - Morone saxatilis
Striped burrfish - Chilomycterus schoepfi
Striped cusk-eel - Rissola marginata
Striped killifish - Fundulus majalis
Striped mullet - Mugil cephalus
Striped searobin - Prionotus evolans
Summer flounder - Paralichthys dentatus
Tautog - Tautoga onitis
Tessellated darter - Etheostoma olmstedi
Threespine stickleback - Gasterosteus aculeatus
Tidewater silverside - Menidia beryllina
Tiger shark - Galeocerdo cuvieri
Warsaw grouper - Epinephleus nigritus
Weakfish - Cynoscion regalis
White catfish - Ictalurus catus
White hake - Urophycis tenuis
White mullet - Mugil curema
White perch - Morone americana
White shark - Carcharodon carcharias
White sucker - Catostomus commersoni
Whitefin sharksucker - Echeneis neucratoides
Windowpane - Scophthalmus aquosus
Winter flounder - Pseudopleuronectes americanus
Witch flounder - Glyptocephalus cynoglosus
Yellow perch - Perca flavescens
Yellowtail flounder - Limanda ferruginea

a Some species included in table were taken in tidal freshwater portions of the study area in the seine program.

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Table 114. Alphabetical listing by scientific name of all fish species collected in the vicinity of Little Egg Inlet, New Jersey from January 1972 to January 1975.[a]

Abudefduf saxatilis - Seargeant major
Acipenser oxyrhynchus - Atlantic sturgeon
Alosa aestivalis - Blueback herring
Alosa mediocris - Hickory shad
Alosa pseudoharengus - Alewife
Alosa sapidissima - American shad
Alutera schoepfi - Orange filefish
Ammodytes sp. - Sand lance
Anchoa hepsetus - Striped anchovy
Anchoa mitchilli - Bay anchovy
Anguilla rostrata - American eel
Apeltes quadracus - Fourspine stickleback
Astroscopus guttatus - Northern stargazer
Auxis thazard - Frigate mackerel
Bairdiella chrysura - Silver perch
Balistes capriscus - Grey triggerfish
Bothus robinsi - flounder
Brevoortia tyrannus - Atlantic menhaden
Caranx crysos - Blue runner
Caranx hippos - Crevalle jack
Carcharhinus milberti - Sandbar shark
Carcharhinus obscurus - Dusky shark
Carcharodon carcharias - White shark
Catostomus commersoni - White sucker
Centropristis striata - Black sea bass
Chaetodipterus faber - Atlantic spadefish
Chaetodon ocellatus - Spotfin butterflyfish
Chaetodon capistratus - Foureye butterflyfish
Chilomycterus schoepfi - Striped burrfish
Citharichthys spilopterus - Bay whiff
Clupea harengus - Atlantic herring
Conger oceanicus - Conger eel
Cynoscion nebulosus - Spotted seatrout
Cynoscion regalis - Weakfish
Cyprinodon variegatus - Sheepshead minnow
Dasyatis centroura - Roughtail stingray
Dasyatis sayi - Bluntnose stingray
Decapterus punctatus - Round scad
Diplodus holbrooki - Spottail pinfish
Dormitator maculatus - Fat sleeper
Dorosoma cepedianum - Gizzard shad
Echeneis neucratoides - Whitefin sharksucker
Elops saurus - Ladyfish
Enchelyopus cimbrius - Fourbeard rockling
Engraulis eurystole - Silver anchovy
Enneacanthus chaetodon - Blackbanded sunfish
Enneacanthus gloriosus - Bluespotted sunfish
Epinephelus nigritus - Warsaw grouper
Epinephelus niveatus - Snowy grouper
Erimyzon oblongus - Creek chubsucker
Esox americanus - Redfin pickerel
Esox niger - Chain pickerel
Etheostoma olmstedi - Tessellated darter
Etropus microstomus - Smallmouth flounder
Etrumeus teres - Round herring
Eucinostomus argenteus ? - Spotfin mojarra
Euthynnus alletteratus - Little tunny
Fistularia tabacaria - Bluespotted cornetfish
Fundulus diaphanus - Banded killifish
Fundulus heteroclitus - Mummichog
Fundulus luciae - Spotfin killifish
Fundulus majalis - Striped killifish
Gadus morhua - Atlantic cod
Galeocerdo cuvieri - Tiger shark
Gasterosteus aculeatus - Threespine stickleback
Glyptocephalus cynoglossus - Witch flounder
Gobionellus boleosoma - Darter goby
Gobiosoma bosci - Naked goby
Gobiosoma ginsburgi - Seaboard goby
Gymnura altavela - Spiny butterfly ray
Hemitripterus americanus - Sea raven
Hippocampus erectus - Lined seahorse
Hyperoglyphe perciformis - Barrelfish
Hyporhamphus unifasciatus - Halfbeak
Hypsoblennius hentzi - Feather blenny
Ictalurus catus - White catfish
Ictalurus nebulosus - Brown bullhead
Lactophys quadricornis - Scrawled cowfish
Lagodon rhomboides - Pinfish
Larimus fasciatus - Banded drum
Leiostomus xanthurus - Spot
Lepomis gibbosus - Pumpkinseed
Lepomis macrochirus - Bluegill
Limanda ferruginea - Yellowtail flounder
Liparis inquilinus - Inquiline seasnail
Lophius americanus - Goosefish
Lucania parva - Rainwater killifish
Lumpenus lumpretaeformis - Snakeblenny
Lutjanus sp. - Snapper
Lutjanus griseus - Gray snapper
Macrozoarces americanus - Ocean pout
Melanogrammus aeglefinnus - Haddock
Membras martinica - Rough silverside
Menidia beryllina - Tidewater silverside
Menidia menidia - Atlantic silverside
Menticirrhus saxatilis - Northern kingfish
Merluccius bilinearis - Silver hake

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Table 114. (cont.)

Micropogon undulatus - Atlantic croaker
Micropterus salmoides - Largemouth bass
Mola sp. - Ocean sunfish
Monacanthus hispidus - Planehead filefish
Morone americana - White perch
Morone saxatilis - Striped bass
Mugil cephalus - Striped mullet
Mugil curema - White mullet
Mustelus canis - Smooth dogfish
Mycteroperca microlepis - Gag
Myliobatis freminvillei - Bullnose ray
Myoxocephalus aenaeus - Grubby
Myoxocephalus octodecemspinosus - Longhorn sculpin
Notemigonus crysoleucas - Golden shiner
Ophichthus ocellatus - Palespotted eel
Opisthonema oglinum - Atlantic thread herring
Opsanus tau - Oyster toadfish
Paralichthys dentatus - Summer flounder
Paralichthys oblongus - Fourspot flounder
Peprilus triacanthus - Butterfish
Perca flavescens - Yellow perch
Petromyzon marinus - Sea lamprey
Pholis gunnellus - Rock gunnel
Pogonias cromis - Black drum
Pollachius virens - Pollock
Polydactylus octonemus - Atlantic threadfin
Pomatomus saltatrix - Bluefish
Priacanthus cruentatus - Glasseye snapper
Prionotus carolinus - Northern searobin
Prionotus evolans - Striped searobin
Pristigenys alta - Short bigeye
Pseudopleuronectes americanus - Winter flounder
Pseudupeneus maculatus - Spotted goatfish
Rachycentron canadum - Cobia
Raja eglanteria - Clearnose skate
Raja erinacea - Little Skate
Rhinoptera bonasus - Cownose ray
Rissola marginata - Striped cusk-eel
Sarda sarda - Atlantic bonito
Sciaenops ocellata - Red drum
Scomber scombrus - Atlantic mackerel
Scomber japonicus - Chub mackerel
Scomberomorus cavalla - King mackerel
Scomberomorus maculatus - Spanish mackerel
Scophthalmus aquosus - Windowpane
Scorpaena plumieri - Spotted scorpionfish
Selar crumenophthalmus - Bigeye scad
Selene vomer - Lookdown
Seriola zonata - Banded rudderfish
Sphoeroides maculatus - Northern puffer
Sphyraena borealis - Northern sennet
Sphyrna zygaena - Smooth hammerhead
Squalus acanthias - Spiny dogfish
Stenotomus chrysops - Scup
Strongylura marina - Atlantic needlefish
Syngnathus fuscus - Northern pipefish
Synodus foetens - Inshore lizardfish
Tautog onitis - Tautog
Tautogolabrus adspersus - Cunner
Trachinocephalus myops - Snakefish
Trachinotus carolinus - Florida pompano
Trachinotus falcatus - Permit
Trachinotus goodei - Palometa
Trachurus lathami - Rough scad
Trichiurus lepturus - Atlantic cutlassfish
Trinectes maculatus - Hogchoker
Urophycis chuss - Red hake
Urophycis regius - Spotted hake
Urophycis tenuis - White hake
Vomer setapinnis - Atlantic moonfish

a Some species included in table were taken in tidal freshwater portions of the study area in the seine program.

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Table 115 . Length-frequency distributions of 1989 red hake, Urophycis chuss, of the 8209 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January		February		March		April		May		June		July		August		September		October		November		December	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
590	1																							
⋮																								
510	1																							
⋮																								
480	1																							
470									1		1													
460																								
450	1								1															
440	1				1																			
430	1								1															
420							1																	
410									2															
400	1								2															
390	1								2		1													
380	1								2															
370	2								7															
360									2															
350									4															
340						1			3															
330	1		3				1		2															
320	3								1		1													
310	2		1						3		1													
300			1						2														1	
290	1		1						2		1													
280	2		1						4															
270	4		1						5															
260								1	5															
250	1						1	1	5	1														
240	4		1		1				6	1	1													
230	1		2		1	1	1	4	7	1														
220	5		4		3	3	3	2	7															
210	7		8		7	2	3	2	5	1														
200	12		13		5	4	2	5	12	1													2	
190	20		4		6	4	4	2	2		1												1	
180	21		4		6	5	10	2	4	1													1	
170	20		11		18	14	10	1	10	1	5										1		3	
160	29		11	1	20	19	17	6	9		5										2		4	
150	18		16	2	30	19	11	9	13		7										3		5	
140	27		24	1	27	22	30	13	27		3										4		5	
130	29		24	1	30	18	23	17	26	1	2		1								4		11	
120	27	1	27		30	12	17	12	18		2						1				2		16	
110	26		24	2	18	9	10	11	3								14		1		3		16	
100	17	1	23		17	7	13	20	1								10				5		20	
90	13	1	15		7	3		16									24		2		3		19	
80	7	1	5		2			7									21				6		15	
70	5		6	1		1		1							1		7		2		5		9	
60	3		1					2							1		17		6		5	1	11	
50	3		2					3							1		16		5		11		17	
40								1									3		12		51		6	
30	1																2		40		21			
20																	3		28	3	1			
Total	320	4	233	8	229	144	157	138	206	8	31	0	1	0	3	0	118	0	96	3	127	1	162	0

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Table 116. Length-frequency distributions of 2440 spotted hake, Urophycis regius, of the 5777 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January		February		March		April		May		June		July		August		September		October		November		December	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
355																					1			
⋮																								
305																					1			
300																					1			
295																					3			
290																								
285																					2			
280																					6			
275																			2		2			
270																					5			
265												1					1				2			
260																			1		3			
255																			3		2			
250													1				4				4			
245																	2				2			
240																	4				2			
235																	3				2			
230																	2				5			
225																	1				2			
220													1		1		1							
215															1						1			
210													2						1		2			
205											1	1					1							
200											1	1	1		1								1	
195									1		1		2		2									
190															2									
185								1			1		3		2									
180													2		3									
175									2				1		2									
170											1	2			2									
165									1		2		9		4									
160									1		5		7	1	9									
155									1	1	4		7		5									
150										5	2		4		5									
145							1	1	4	5	4		13		3									
140								1	2	4	11	1	17		1									
135	1								4	7	10		21											
130									8	13	8		28											
125	2								7	13	15	1	25											
120							1	2	10	16	10	1	36											1
115						1		1	20	13	16		39										2	
110					2	1	4	1	9	16	10		28											
105						2	3	9	13	9	11		24										1	
100	1				1	3	13	6	20	20	7		8											
95	1				2	4	12	9	13	24	14	1	6								1		1	
90	3				2	6	20	15	12	32	17	2	5										2	
85	1				3	8	45	11	12	19	24	1	2											
80	1				7	12	49	13	12	16	23	1	1								2		2	
75					14	9	31	7	15	9	27		1								1			1
70					7	10	18	9	31	8	13										3	1	4	
65	1				7	1	11	7	32	7	8										11		11	1
60			1		1	5	29	18	55	2	4										12	1	12	3
55					4	4	35	13	35	3	2										54	1	11	
50					6	4	49	8	20	1											84		11	
45					16	20	47	11	18	2	1										37		1	
40	3		1		14	12	56	18	10	1									3		12			
35	2				3	1	20	4	8										5	2	7	2		
30							2												8					
25							1												6					
Total	16	0	2	0	89	103	447	165	376	246	253	13	294	1	43	0	19	0	29	2	272	5	59	6

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Table 117. Length-frequency distributions by month of 1167 Atlantic menhaden, Brevoortia tyrannus, of the 4333 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January		February		March		April		May		June		July		August		September		October		November		December	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
380							1																	
⋮																								
355								1																
350								1																
345								2		1		1								2				
340							2	7												1		2		
335								3			1					3				2		1		
330						2		6		1		1								1		2		
325							3	3		1						1				2				
320								3				1				2						3		
315						1	2	4		1			1					1				3		
310								5		2						1		1	4					
305							1	2				3				1						1		
300							1	2				2				5			2			2		
295								2		1						3		1	1					
290						1	5	3				1				2		2	2			3		
285							2	2				6	1			8		1	1	2		1		
280							3	6			1	6				3			2					
275							1	3			1	4				2	1	2	1			3		
270							5	3		1	1	7	1						3			6		
265							8	1				9	1					2	4			5		
260							9	6		2		7					1	10	6			10		
255							3	1		2	1	4	1				1	7	8			5		
250							4	3		1		10	2				6	13	10	1		16		
245							8	4		1	1	7	8		1		2	14	14			15		
240							3	2		2		10	1				3	12	11	1		6		
235							4	2		2		15	5				2	8	4	4		3		
230							4	3		4		11	4					3	4	1		1		
225							4	2		3		7	2					6						
220							4	1		1		7												
215							1	2		1		3							1					
210												4												
205																								
200							1	1				1												
195										1														
⋮																								
135																		1						
130																		4						
125																		2						
120																1		5						
115																3								
110																2		4						
105																								
100	1															4								
95													5			6				2				
90	2												32			4				2				
85													26							3				
80						1							6							4				
75			1										3											
70													3							1				
65												1	4			1								
60													2							1				
55												1	3											
50																								
45												2	4											
40										4		19	1			3								
35										24		17	3			13								
30								11		117	1	17	3			5								
25							2	34		39		6	9			2								
20						1					1	12	5											
Total	3	0	1	0	5	1	81	131	0	212	8	202	27	109	1	75	16	99	86	22	88	0	0	0

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Table 118 . Length-frequency distributions by month of 1551 silver hake, Merluccius bilinearis, of the 3075 collected in the vicinity of Little Egg Inlet, New Jersey in 1974. (all but 7 from December taken in the ocean)

	January	February	March	April	May	June	July	August	September	October	November	December
	1(475)			1(485)	1(465)							1(540)
	2(440)		1(440)	1(435)	1(435)							1(435)
425	1											
420	1			1	1							
415			1	2	1							
410	2	1		2	3							
405				2	1							
400			1	2	1							
395			1	2								
390	1	1	1	6	3							
385	2		1	6	1							
380	2			6	5							1
375	3			2								
370	2			6	1							
365	3		1	6	1							
360	7		1	9	1							
355		3	1	11	4							
350	4	2	1	6	2							
345	4	1		12	4							
340	2	1		11	4							
335	5	2	1	7	3							
330	2		1	16	2							
325	1		2	13	5							
320	2	4	1	13	5							1
315	4			10	6							
310				15	8							
305	2			8	5							
300				13	5							
295	3			6	2							1
290	3			7	4							1
285	4			3								
280	3			3	1							
275	2			2								
270	1											4
265	3			2								1
260	3											2
255	5											7
250	2											7
245	5											10
240	3											13
235	1											7
230	4				1							5
225	1			1	1							3
220	2			1	1							5
215												5
210				1	1						1	4
205												3
200	1				2							2
195	1			1				1				
190	1							1				1
185	1				2							
180	1				5	1						
175			1	1	2		1	1				
170	2				2		1		1			
165	2			1	3		1					
160				1	4	3		3				1
155	1				7	6	6					
150			1		10	4	6					
145	1		2	1	4	16	3	1				1
140	1		2		16	17	5	2				
135			2		8	17	2	1			2	2
130	2		2	1	21	26	3	1				
125	3		1	4	29	25	6				1	2
120			3	1	24	22	4	1			4	3
115	2	2		1	27	12	1				4	8
110	2	1	2	1	11	14	2				13	5
105	2		3	3	12	4	1	1		1	14	8
100			3	4	9	3	6	1		2	18	3
95	2		3	2	5	2	3				18	8
90	3		3	1	4	2	3	1		4	22	19
85	2		2		3		5			2	33	21
80			1	1	4		4			5	54	22
75			1		1	1	1			10	54	29
70					1		1			3	28	16
65			2							4	14	3
60		1									5	3
55										1	2	
				1(35)							1(45)	
Total	128	19	49	239	301	175	65	15	1	32	288	239

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Table 119. Length-frequency distributions by month of 1175 windowpane, Scophthalmus aquosus, of the 1816 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January		February		March		April		May		June		July		August		September		October		November		December	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
330																					1			
⋮																								
315							1		1															
310			1				2	1				1												
305			2		1	1	1		1		1													
300	2				1		2		5		1						1		1		1			
295			1		2		3	1	4	1			1								1		1	
290	3					1	2		3	1	1		1				2		1		3	1		
285	1		3					1	2		1	1			1		1				2		1	
280	1		1		4		1	1	3		3		2				4				2			
275			2		1	1	2		3		2						2		2		1			
270	1					1	3			1	4		1		2		1				6		2	
265	1		1		2	2	4	1	3		1		1		1				1		2			
260			3		1		2	2	6	2	3		1		1		1				4		3	
255			2		2	1	5		4	1	6				1		1		1		7		1	
250	1		1		1				2	2	4		1		1				3		9		2	
245	1				2		4		7	1	4		3				1		4		6		2	
240			1		2		1		5		3								2		5		3	1
235			1		3				6		4		2				2		2		9		1	
230	1		4		1		4	1	10		7		1				1		2		10		1	
225	1		3		2	1	1				2								5		7			
220			1		1	1	2		3		1						3		5		9		1	
215	1						2		1										4		4			
210	2		2			1	2	1			2				2		4		1		9		1	
205					2		3		2		1						2				2			
200			3		1		2						1		1		3		2		5		1	
195	1				4			1	2						2		2				5		1	
190							1		1						2				2		4			
185					1				1	1	1				1				5		3			
180			1		2	1	2		1				1				1		3		3		1	
175	3		1		2		1		1						1				2		1			
170	1				1							1		2					1		2			
165			1		1		1				1	1	1	1					1				1	
160						1			1			2	4				1		2		1			
155			2			3						1	1	1			2				1			
150										1		1	3	1	1		2							
145					1					1		2	5	4	1				1		1			
140						4				1	1		7	3			3	1			1			
135						1					2		4	5	1		1							
130			1			1		1				1	3		1		3				1		1	
125						1		1		1			2	1	1	1	1	1						
120			1									1	4										1	
115												1	1		1		2							
110						2					1	1	2		3			1						
105	1				1	1				1			2		2		1		1				1	
100					1			1				1		2	4			1					1	1
95	1				1	2						4		2	2	2								
90	1				1	1				1		6		2	2	5					1			
85			3									7			2	4		2						
80			1		1	3	1	2		1		4		7		3								
75			1		3	1	1	9		2		1	1	9	1	1								
70	3		2		3	8	1	13		2				23										
65	3		5		10	6	1			1			3	14	1									
60	7		5		10	6		1		4			2	19							1			
55	9		3		7	2		8		2			2	12										
50	7		1		1	2	2	21		2			9	2	1	1								
45	3		2		1	3		24		1			9	2										
40	1				1	3	1	9					6		2						1			
35						2		6				2	3	1										
30					1	1							3								1			
⋮																								
10	1																							
Total	58	0	62	0	83	65	61	106	78	31	57	39	93	113	42	17	48	6	54	0	132	1	27	2

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Table 120 . Length-frequency distributions by month of 420 white hake, Urophycis tenuis, of the 828 collected in the vicinity of Little Egg Inlet, New Jersey in 1974.*

	January	April	May	June	July	August
370			1			
365		1				
⋮						
335	2					
330	1					
325						
320	1					
⋮						
300	1					
⋮						
210						1
⋮						
185				1		1
⋮						
170					2	2
165				1	1	2
160				3		4
155					1	4
150						9
145			1		4	11
140				1	5	8
135			1	2	2	7
130			1	2	11	8
125			1	5	12	3
120			4	5	2	3
115			4	3	16	5
110			3	4	12	1
105			3	4	10	
100			10	4	10	
95			7	3	7	
90		1	7	5	10	1
85			6	3	7	
80			7	11	4	
75			7	6	6	
70			6	8	2	
65			5	5	1	
60		2	9	5	1	
55			9	4		
50		4	7	3		
45		1	9			
40		4	3			
35			6			
30			1			
Total	5	13	118	88	126	70

* 399 taken in the ocean and 21 in the bays

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Table 121. Length-frequency distributions by month of 529 bluefish, Pomatomus saltatrix, of the 567 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	May		June		July		August		September		October		November	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
			1(720)								1(580)			
											1(540)			
											1(525)		1(475)	
			1(465)								1(465)			
430					1						1			
425											1			
⋮														
405											1			
⋮														
390											1			
385											1			
380											1			
375											2			
370											1			
365									1		3			
360									3		2			
355									5					
350														
345									2					
340					1						2			
335														
330					1									
325								1	1					
⋮														
305							1							
⋮														
280				1										
275														
270											2			
⋮														
250				3										
245														
240				1						1				
235		1												
230				1										
225										1				
220											1			
215									1	1	1			
210														
205										1				
200										1				
195										1				
190										1				
185								1	1	3				
180													1	
175										1	3			
170										5	2		1	
165								1		4	2			
160								2		7			2	
155										2				
150								2		7	1			
145								2		10				
140								1		5	1			
135						1		6		1				
130						2		2	1	3	1			
125						2		7						
120						2	1	21						
115						5	2	24						
110						6		20						
105						28	1	9						
100						29		2			2			
95						43					3			
90					1	33		1			3			
85				1	1	40								
80				1	5	30								
75				3	2	15								
70				4	1	7								
65				6	1									
60				4		2								
55			1	2										
50		1	1	5		1								
45				4										
40		1		1										
35				1										
Total	0	3	4	38	14	246	5	102	15	55	42	0	5	0

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Table 122. Length-frequency distributions by month of 439 winter flounder, Pseudopleuronectes americanus, of the 464 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January		February		March		April		May		June		July	August		September		October		November		December	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
375					1																			
370									1															
365							1																	
360			1						1															
355					1																			
350			1				1																	
345																								
340							1		1															
335					1		1	1																
330							1	1																
325			1				1																	
320	1		1		2	1			1															
315									1	1														
310			1			1	2		1															
305			1		1	1	3		1	1														
300			1		1			1	3															
295			1		4	1			2															
290			1		5	1		1	3	1														
285			1		3		3		2	1														
280	1		2		1	2	1	1	2															
275									1															
270					2				1	1														
265					1		1	1	2														1	
260			1					3	1															
255					2	2	1	1	1															
250						1	3		1															
245								2	2															
240					1	3			3	1		1				1				1		1		
235		1	1	1	1																			
230					1	1						1			1									
225					2	1	1		1		1					3				1				1
220						1	1	1		1		1								1				
215					1		1							1	1									
210												2		2	1	1			1					
205				1		2			1	2					1						1			
200						1			1	3		1												
195						1			1	4	1	5			1	2								
190								1		1	1	2				1								
185						1		1			1	2												
180					1	3		3		2	1	2				1								1
175						1			1	5	2													
170			1		1	2		2		1														
165				1			1	1		2														
160				1	1	2		2		1	1													
155	1					1		1		1														
150	1					2		2	1	1														
145				1	1	2		1		1														
140	1					3	1					1										1		
135			1			5		1																
130	1					4										1		1						
125				1		3	1								1	3	1							
120			2												2									
115						1									2	1			1					
110															10	4								
105														3	8	1								
100														5	12									
95														12	2	2								
90														10	1									
85														6	3	2								
80														10	6									
75												1		2	5	1								
70												2		2	4									
65												2		1	2									
60												1		6										
55												1		1										
50												2	1	3										
45												1										1		
Total	6	1	18	6	35	50	26	28	37	31	8	28	1	64	0	63	1	24	0	2	3	3	2	2

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Table 123. Length-frequency distributions by month of 338 black sea bass, Centropristis striata, of the 340 collected in the vicinity of Little Egg Inlet, New Jersey in 1974.

	March		April		May		June		July		August		September		October		November	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
350											1							
345							1											
:																		
310									1									
:																		
275											1							
270																		
265											1							
260											1							
255			1				1								1			
250															2			
245																		
240																		
235															1			
230							2				1			1	2			
225											1				4			
220									1						3			
215											2				4			
210											1				6	1		
205														1	4			
200									1				2	4	10			
195														4	7	1		
190														3	6			
185											4		1	4	8			
180											1	1	2	4	9	1		
175											4			4	3			
170											1			4	1			
165												1		1	5			1
160											3	2		2	6			
155										1	3			4	3			
150											2		1	1	2			
145								1			2			4	2			
140											2			1	1			
135								1		1	2			1				
130											1							
125						1					2			2				
120						2					3							
115						1		1										
110						3					1							
105			1			1												1
100						4												
95						4					1							
90						7		1										
85				1		6			1									
80			1	1		9			1									
75		1				9											1	
70			1	2		4												
65	1		1	3		12							2		3			
60	1		2	2		8											1	
55	1			2		5									1			
50					1	3							1		3	1		
45						1							1		4			
40													4					
35													3					
30													3					
25													2					
Total	3	1	7	11	1	80	4	4	5	2	41	4	22	45	101	4	2	1

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Table 124. Length-frequency distributions by month of 172 American shad, Alosa sapidissima, of the 200 collected in the vicinity of Little Egg Inlet, New Jersey in 1974.

	January	February	March	April	May
570				1	
⋮					
545				1	
540				3	
535				1	
530					
525				3	
520				3	
515				3	
510				2	
505				3	1
500				3	
495					
490				5	
485				4	
480				8	1
475				2	
470				3	
465				4	
460				8	
455				3	
450				8	
445				8	
440				3	1
435				2	2
430			1	6	1
425				4	
420				2	
415				2	
410				3	2
405				2	1
400				3	1
395				1	
390				2	
385				2	
380				2	
375				2	
370				1	
365				1	
⋮					
310					1
⋮					
285					1
280				1	
275				3	
270				4	
⋮					
255				2	
⋮					
240				1	
235					1
230					1
225					1
220					2
215					1
⋮					
160				1	
⋮					
140			1		
135					1
130				1	
125			4		
120					
115		2	1		
110		1	2		3
105	1		1		
100	1	1	2		
95	3	1			
90			1		
Total	5	5	13	127	22

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Table 125. Length-frequency distributions by month of 142 summer flounder, Paralichthys dentatus of the 171 collected offshore and in the bays in the vicinity of Little Egg Inlet, New Jersey in 1974.

	May		June		July		August		September		October		November	
	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays	Ocean	Bays
465											1			
:														
445							1							
:														
415								1						
410									1					
405														
400				1										
395											1			
390		1	1											
385	2				1									
380					1				2	1				
375		1						1	2					
370														
365										1				
360														
355				1				2	1	1				
350								2	1					
345		1												
340		1						1						
335			2			1		2	1					
330								1						
325	1			2				1						
320	1			1		2		1						
315	1	1		1										
310	1			1		1								
305				2	1	2	1							
300		1		3		3					1			
295		1												
290														
285	1	1												
280	1													
275												1		
270				1					1	1	1			
265	1													
260									1	1				
255									1					
250		1							2		1			
245		1							3					
240									4		1			
235									1	1	1	1		
230									5		1	1		
225										2			1	
220									2	1	1			
215									1	1			1	1
210											1		1	
205								1	1	1	1		1	
200											1	1		
195									1	1				
190									1	1				
185												1		
180														1
:														
160								1						
155						2								
150						1		1		1				
145														
140						1								
135						1								
130														
125						1								
:														
40		1												
35									1					
30		1												
Total	9	12	3	13	3	15	2	15	33	14	12	5	4	2

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Table 126. Length-frequency distributions by month of 73 tautog, *Tautoga onitis*, of the 76 collected in the vicinity of Little Egg Inlet, New Jersey in 1974.*

	January	February	March	April	May	June	July	August	September	October	November	December
345				1								
310					1							
295					1							
290					1							
285										1		
280												
260					1					1		
245				1								
240										2	1	
235					1					2		
230	1								1	2		
225									1			
220	1				1							
215									3	2		
210									2	2		
205					1							
200												
195									2			
190					1				2			
185					1							
180							1		1			
175							2		1			
170									2	1		
165												
160				1	1							
155												
150					1		1			1		
145												
140									1	1		1
120					2							
115		1										
110												
105					1	1						
100												
95	1		1									
80			1	1						1		
75			1						2			
70			1									
65			1									
60					1				2			
45			1									
40									1			
Total	3	1	6	4	15	1	4	0	21	16	1	1

* 51 taken in the bays and 12 in the ocean

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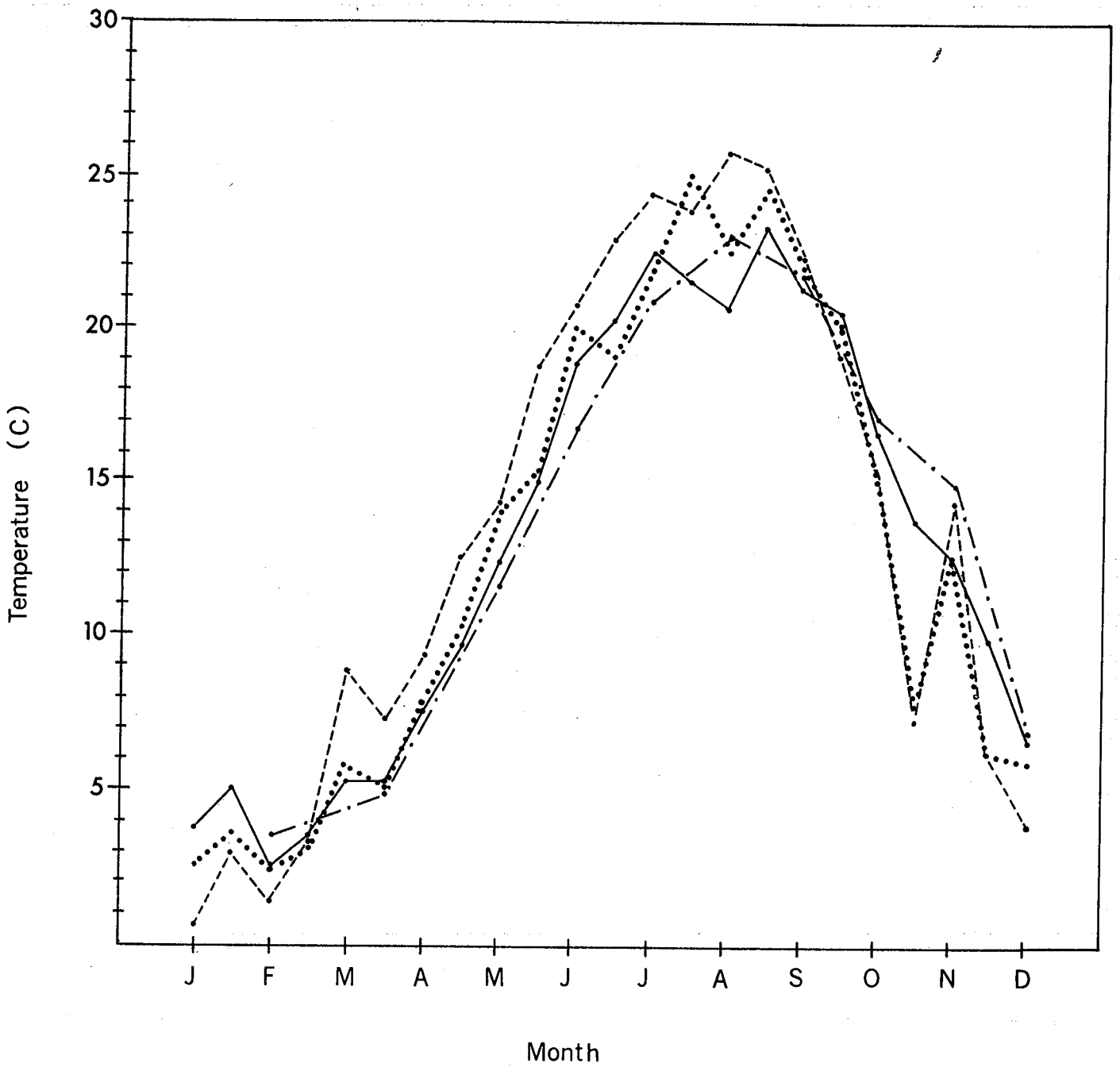

Fig. 1. Bimonthly surface temperature means in the inner Great Bay (-----), Little Egg Inlet (·····), the AGS Site (_____), and Offshore (·—·—), New Jersey during 1974.

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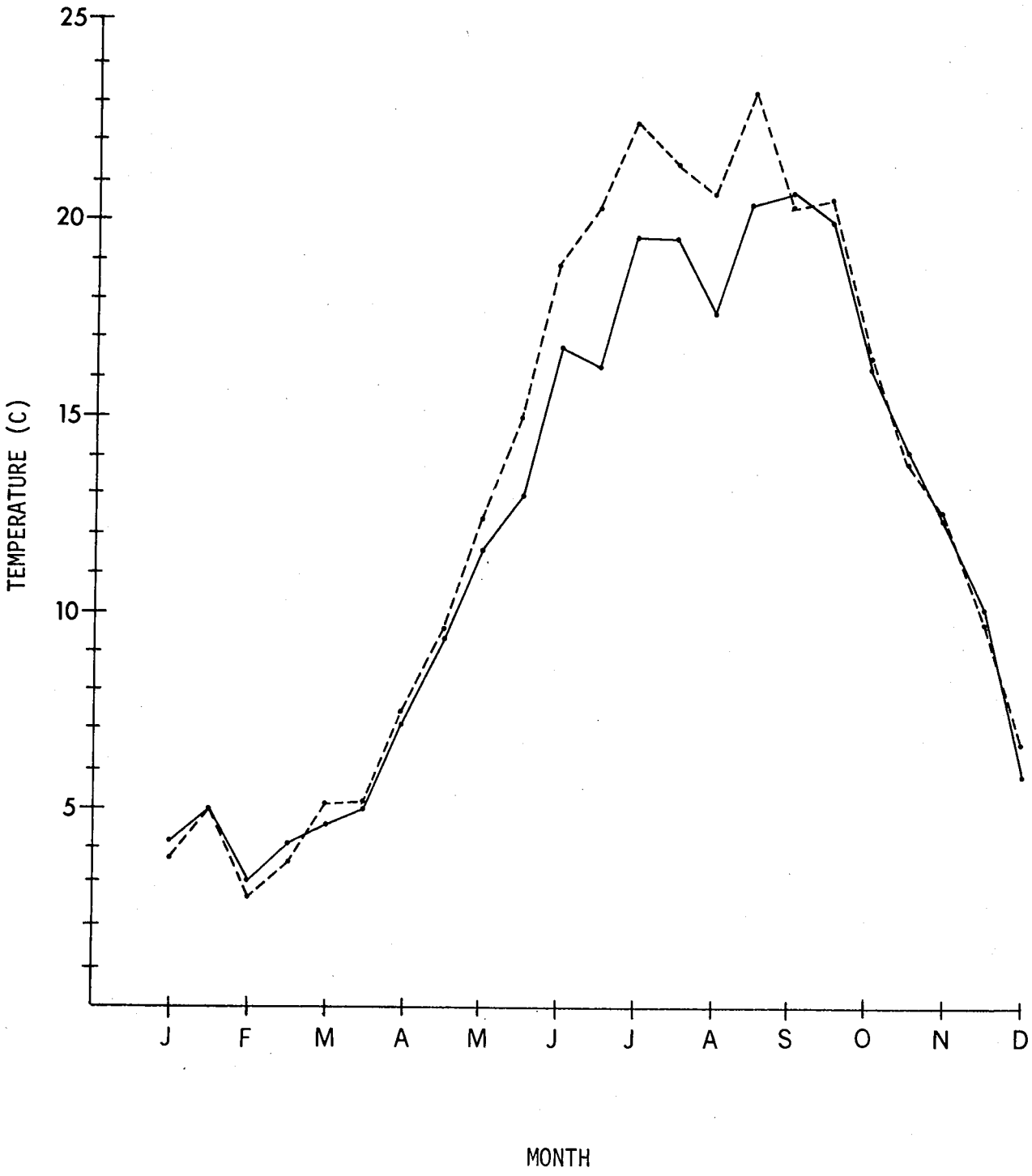

Fig. 2. Bimonthly surface temperature (- - - -) and bottom temperature (———) means at the AGS Site during 1974.

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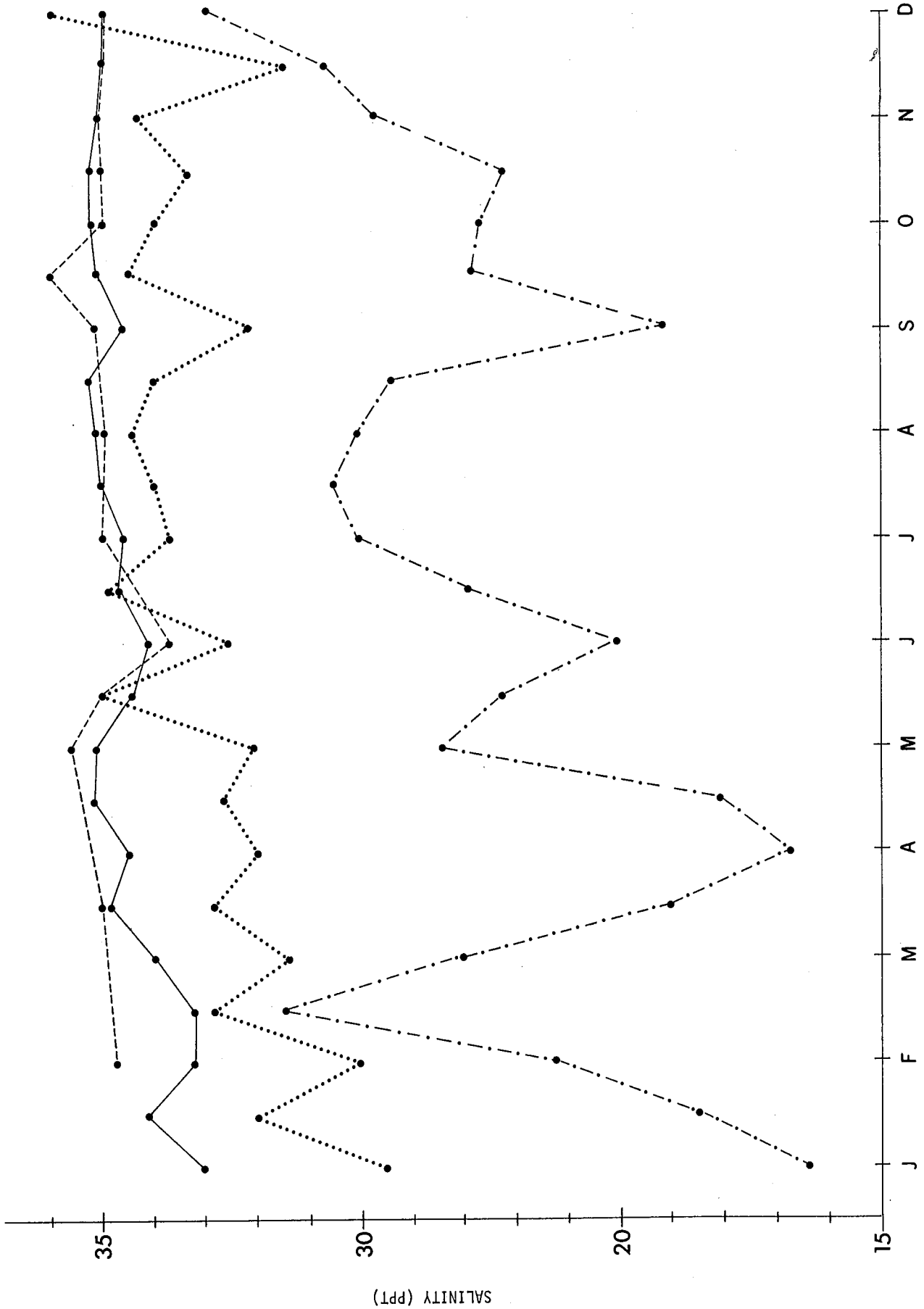

Fig. 3. Bimonthly surface salinity means in inner Great Bay (—·—), Little Egg Inlet (·····), the AGS Site (——), and Offshore (– – – –), New Jersey during 1974.

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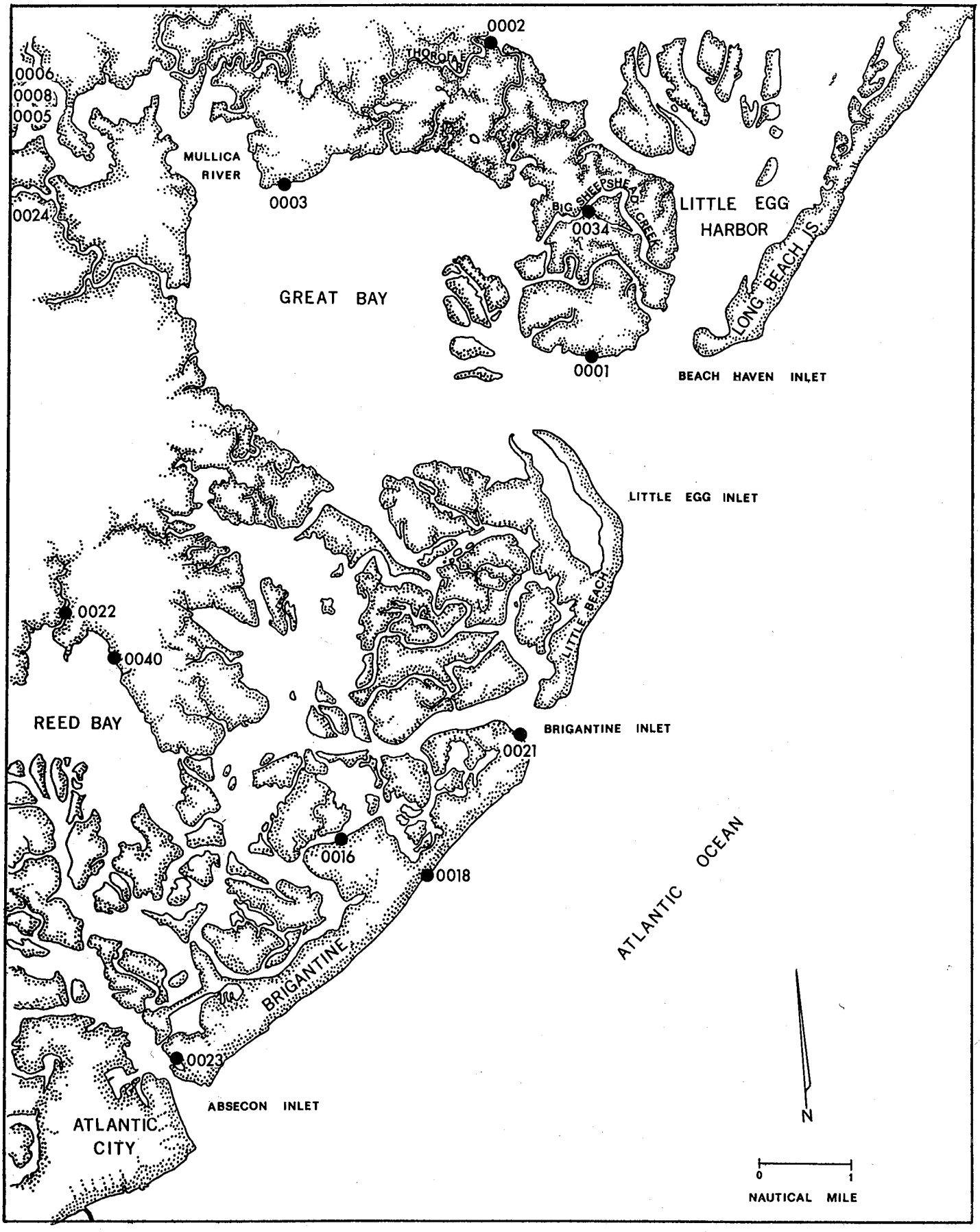

Fig. 4. Seine stations sampled in 1974. All stations but 0023 were sampled with 15- and 25-ft seines. Station 0023 was sampled with 15- and 250-ft seines.

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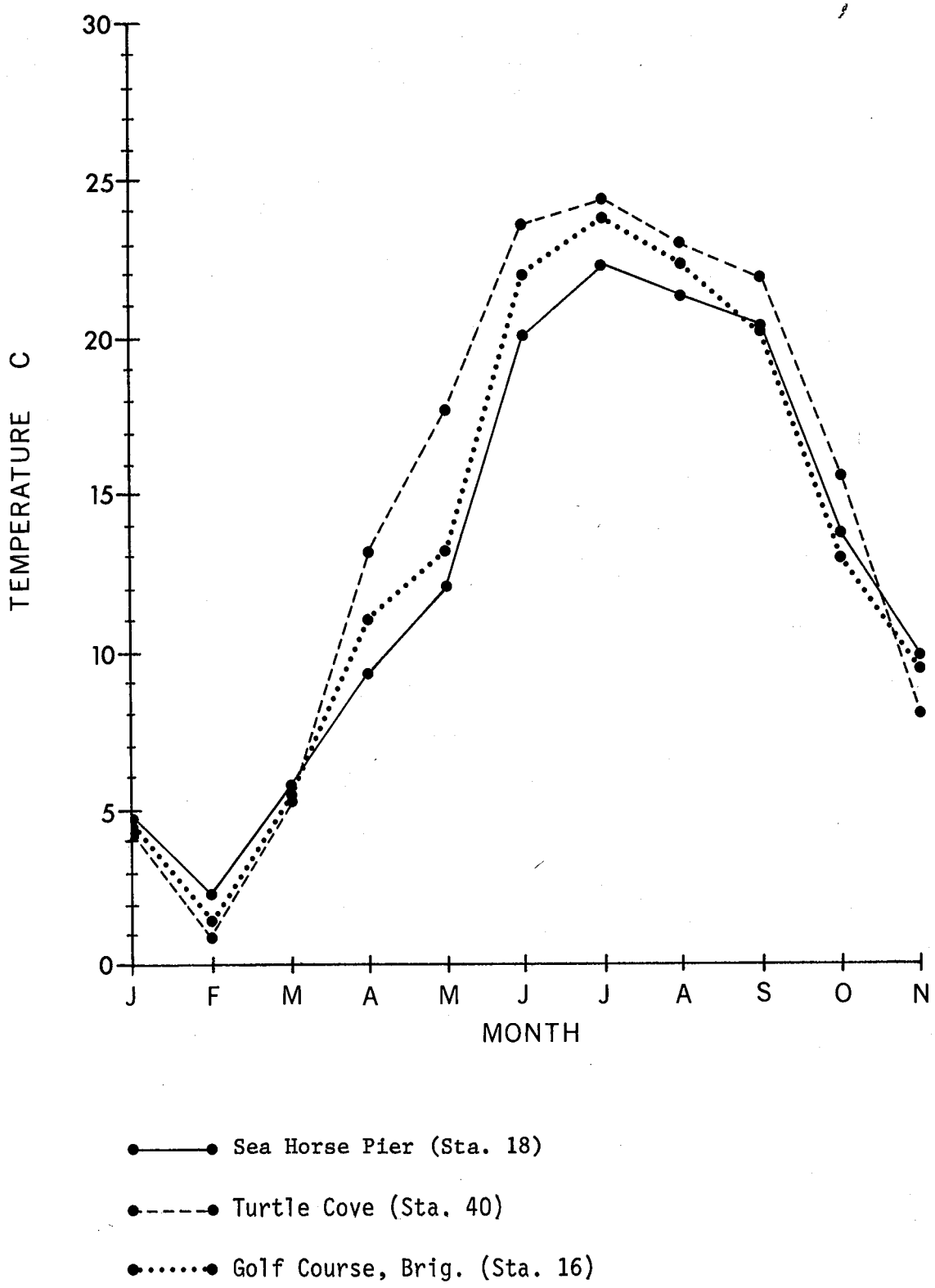

Fig. 5. Surface temperature for one seine station of each habitat type for 1974.

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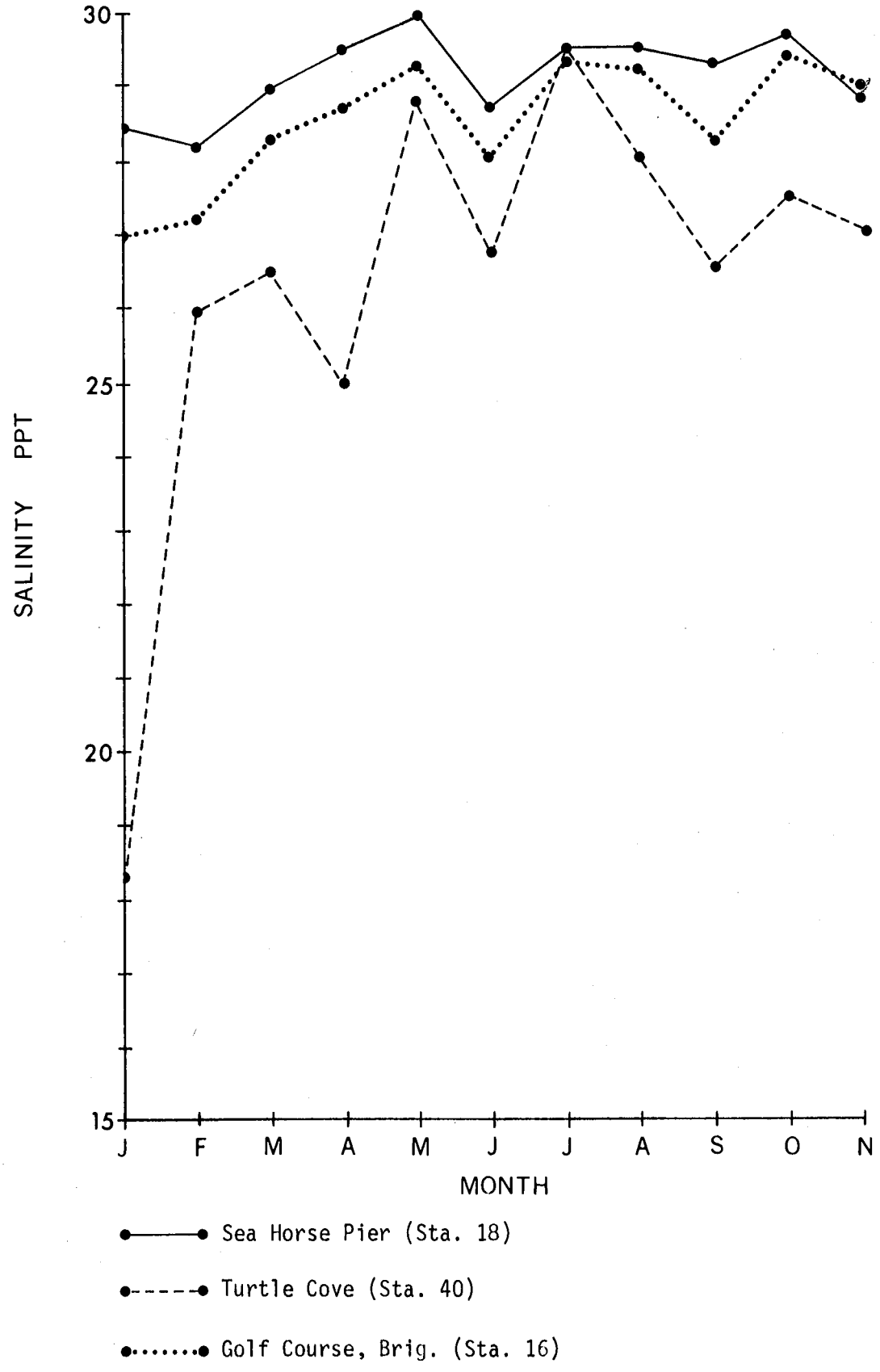

Fig. 6. Surface salinity for one seine station of each habitat type for 1974.

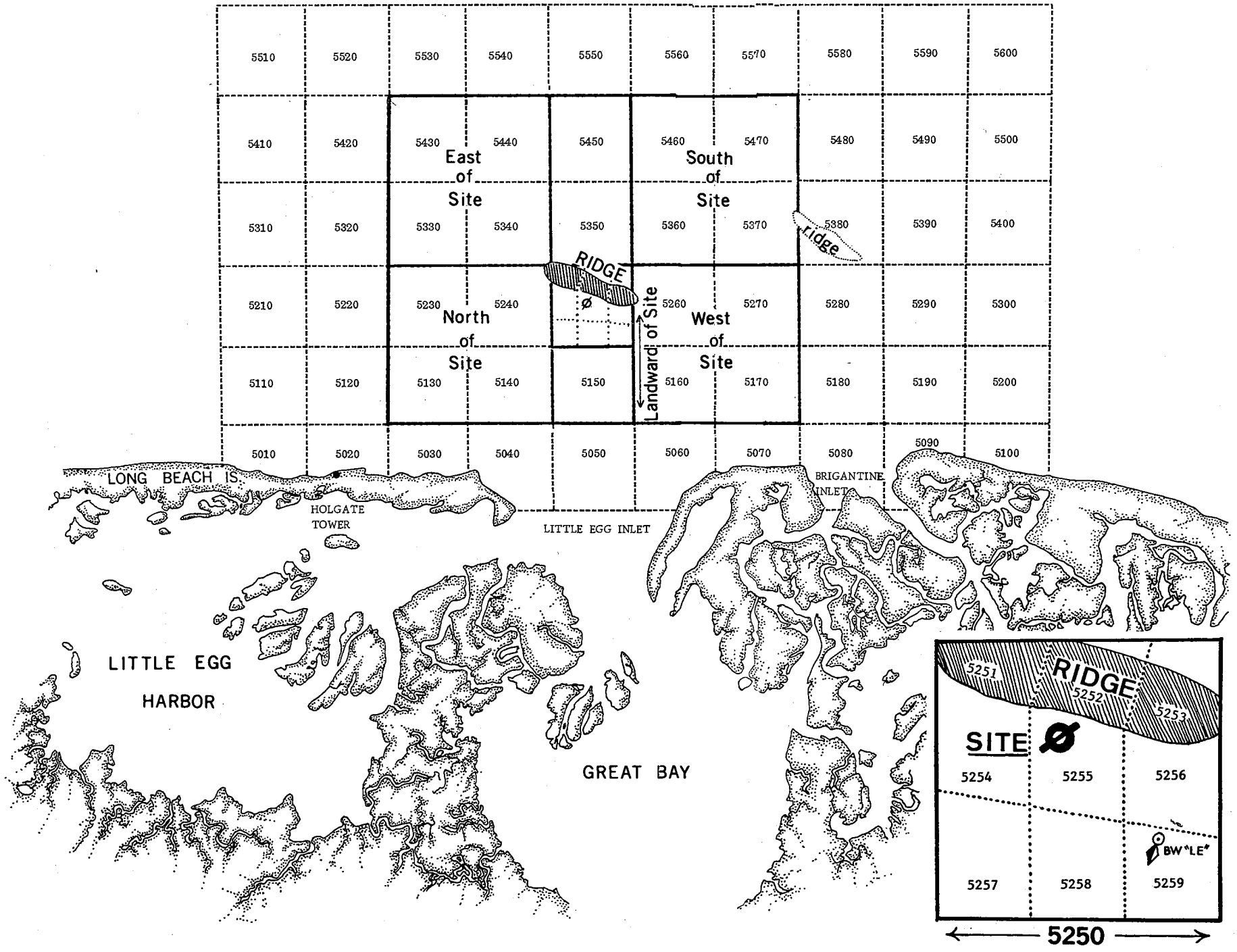

Fig. 7. Map of New Jersey coast from Little Egg Harbor to Brigantine. Vicinity of the Site sampling regions and quadrates shown.

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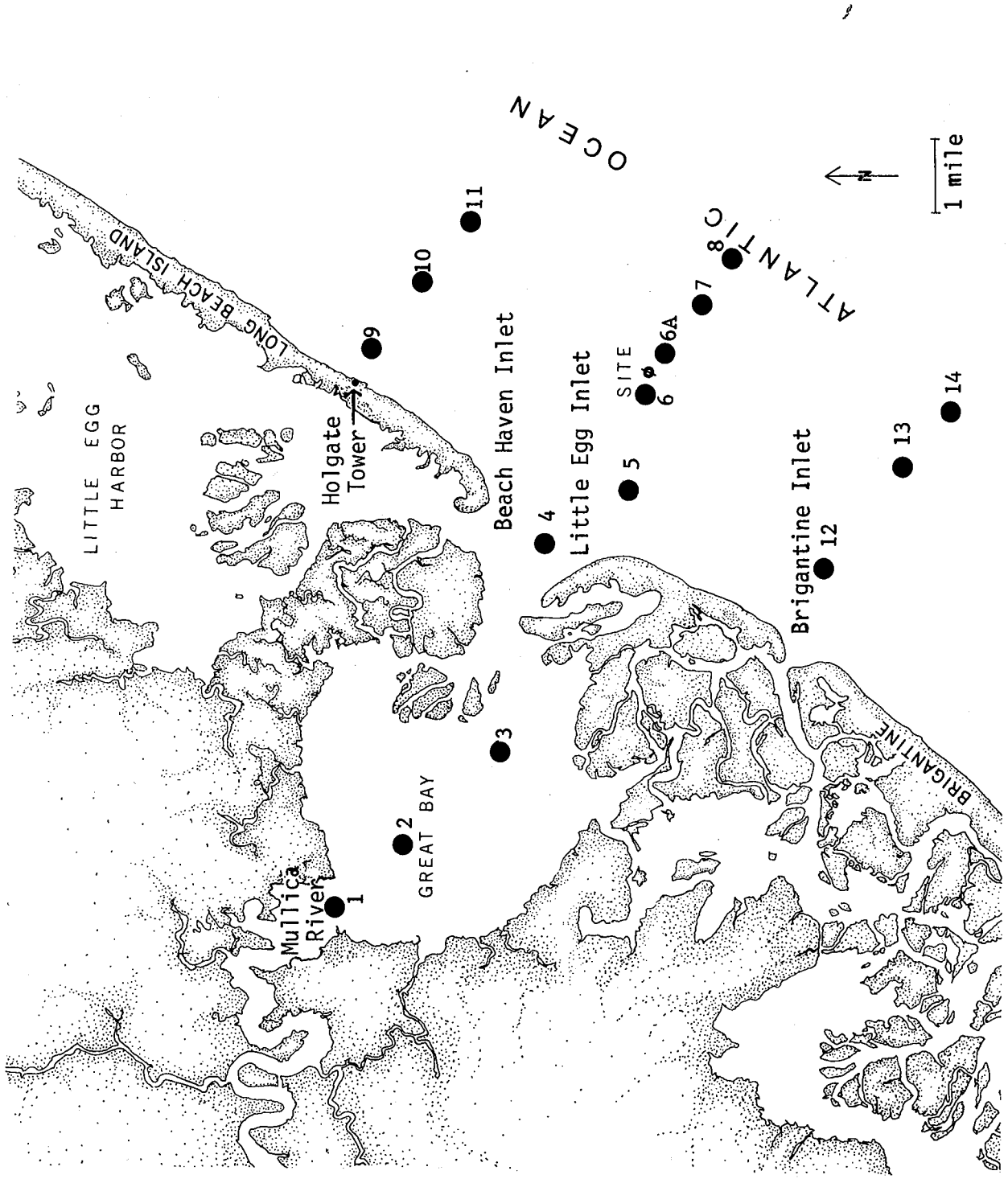

Fig. 8. Trawl stations regularly sampled with a 25-ft trawl from 1972-1974.

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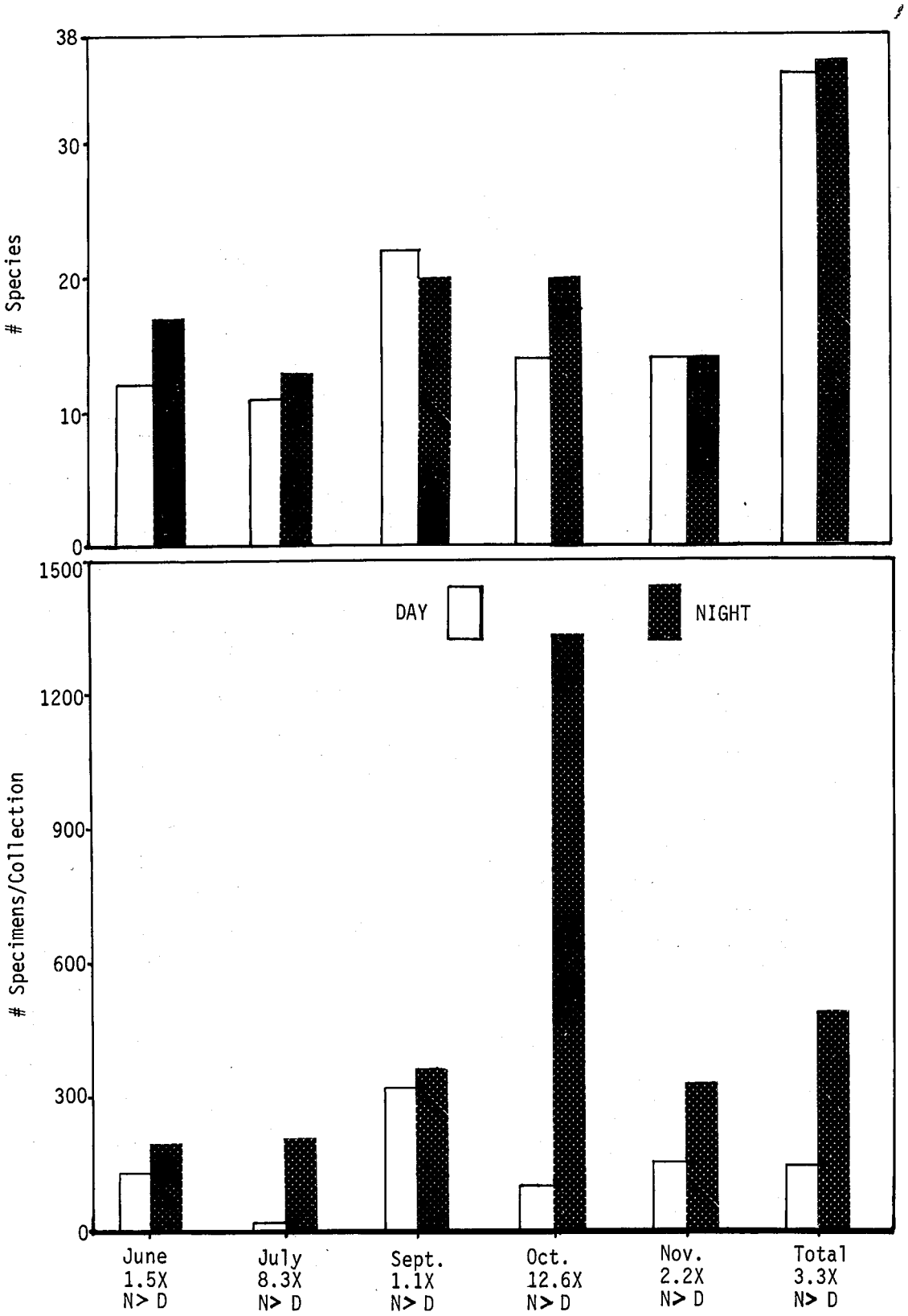

Fig. 9. Number of specimens/collection and number of species of fishes taken by 25-ft trawl at day and night from June to November, 1974 in the vicinity of the Site off Little Egg Inlet, N. J.

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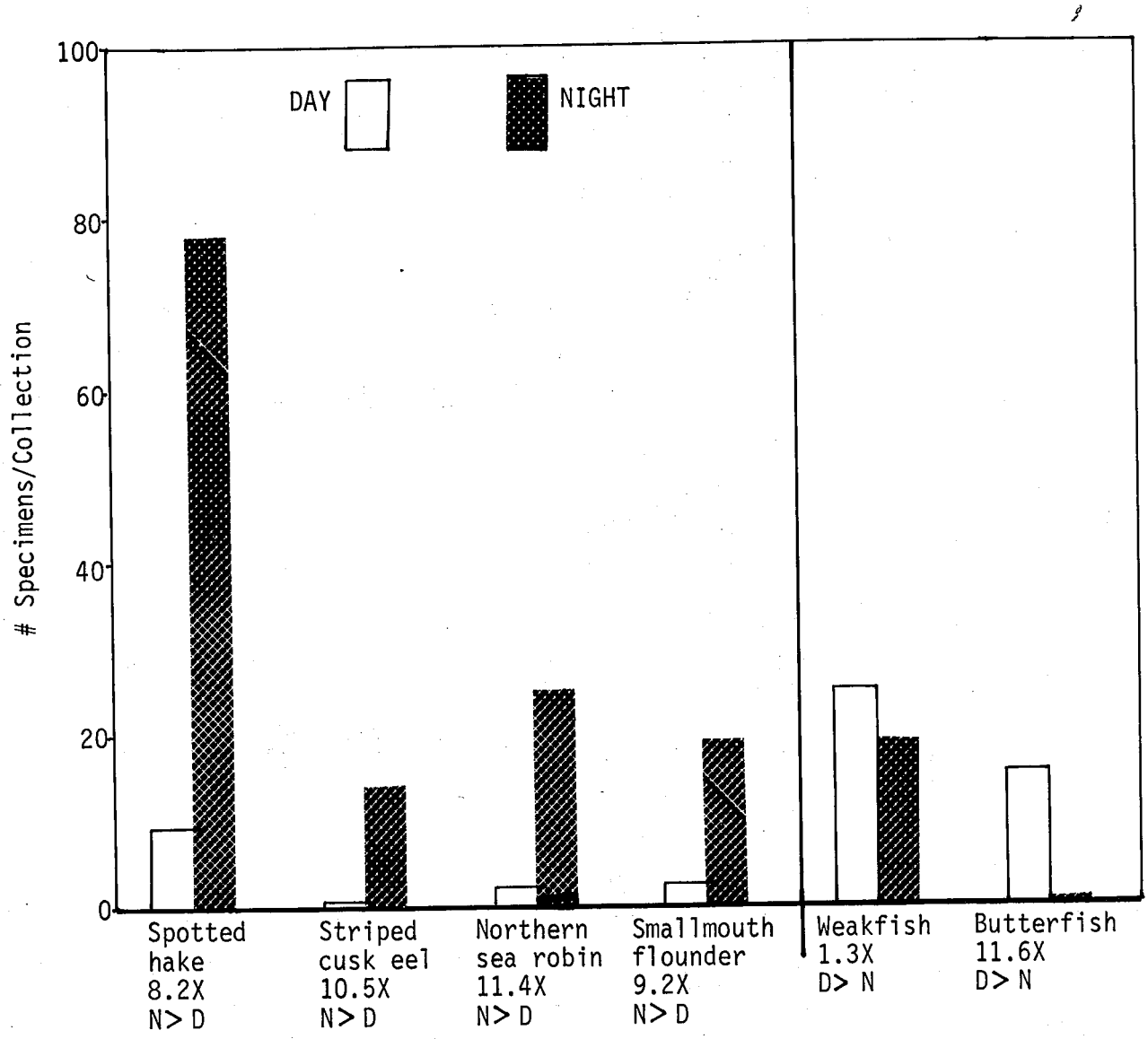

Fig. 10. Number of specimens/collection of six fishes taken by 25-ft trawl at day and night from June to November, 1974 in the vicinity of the Site off Little Egg Inlet, N. J.

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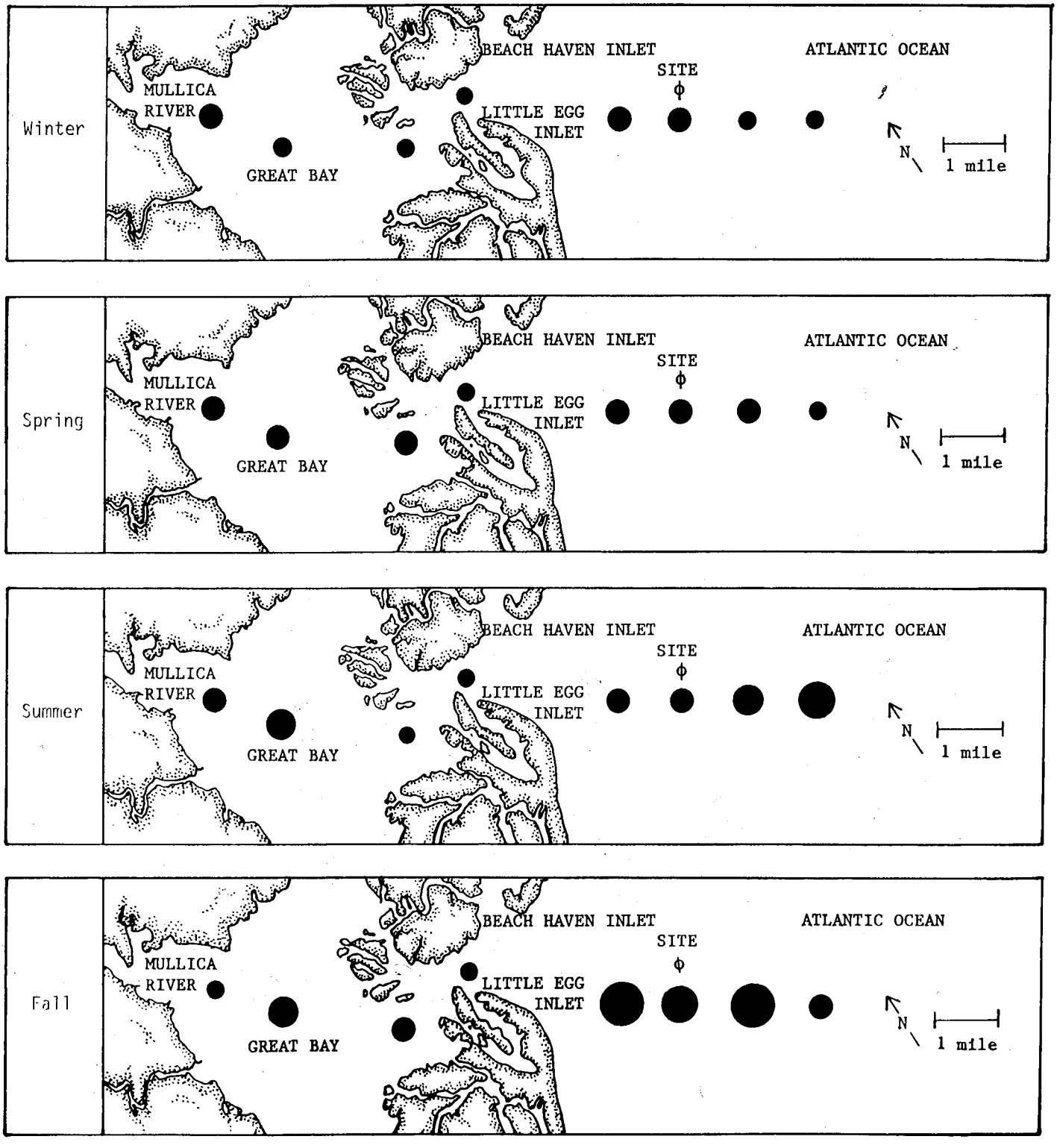

Fig. 11. Relative abundance of fishes collected during 1974 with a 25-ft trawl.

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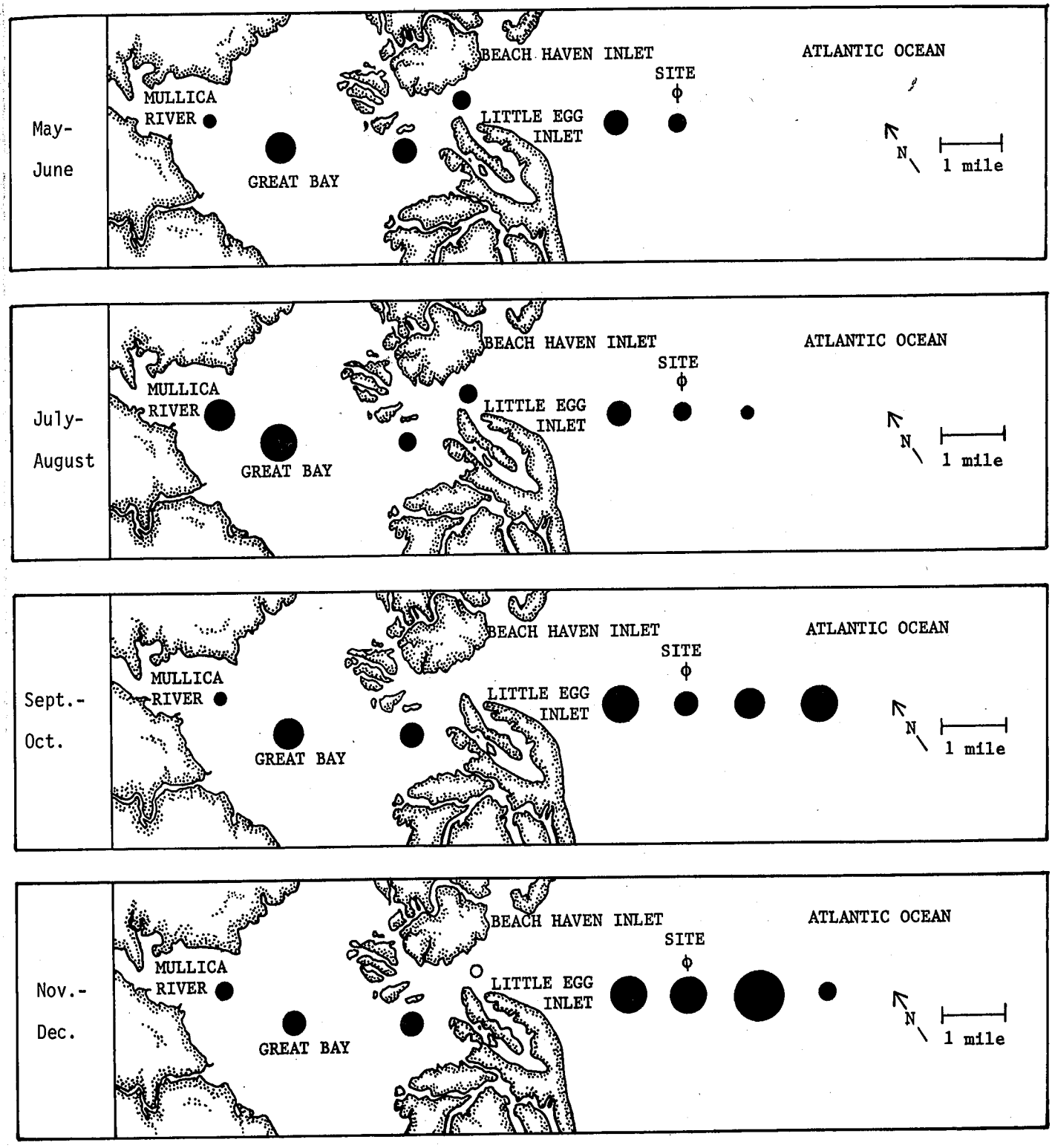

Fig. 12. Relative abundance of bay anchovy collected during 1974 with a 25-ft trawl.

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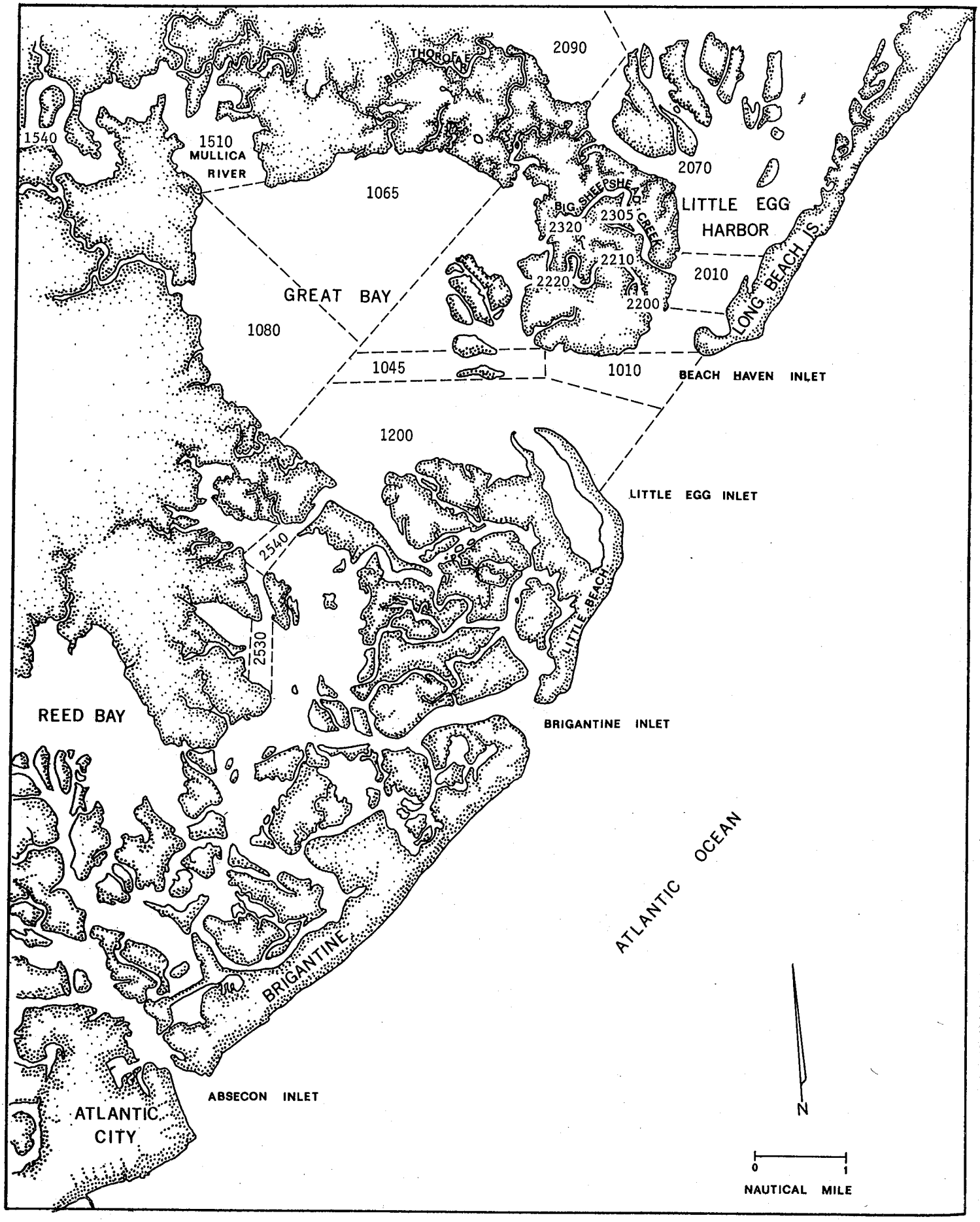

Fig. 13. Trawl zones sampled in 1974.

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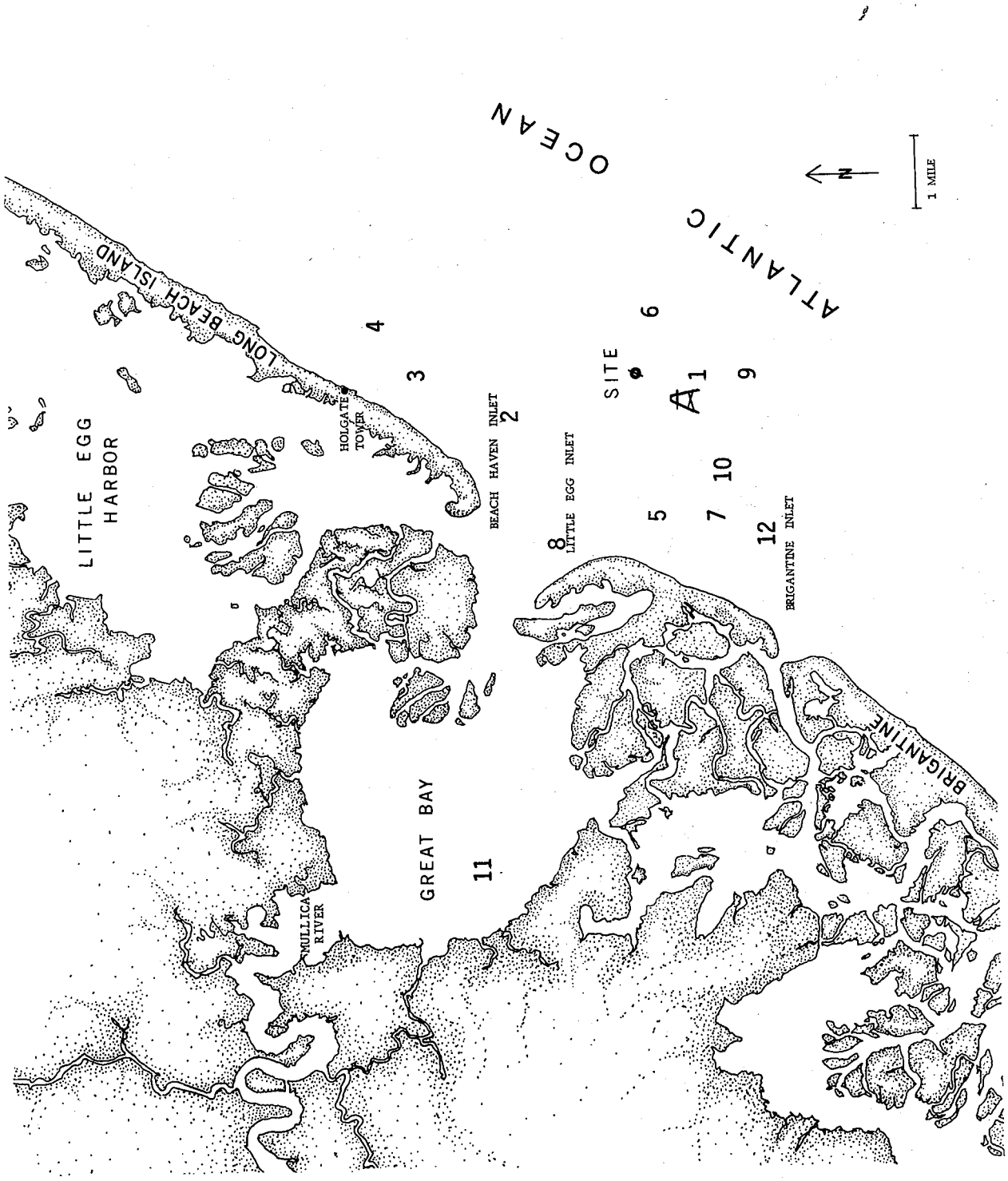

Fig. 14. Location of longline stations for sharks in 1973 and 1974. Stations 1-4 were sampled in 1973 and stations 1 and 5-12 were sampled in 1974.

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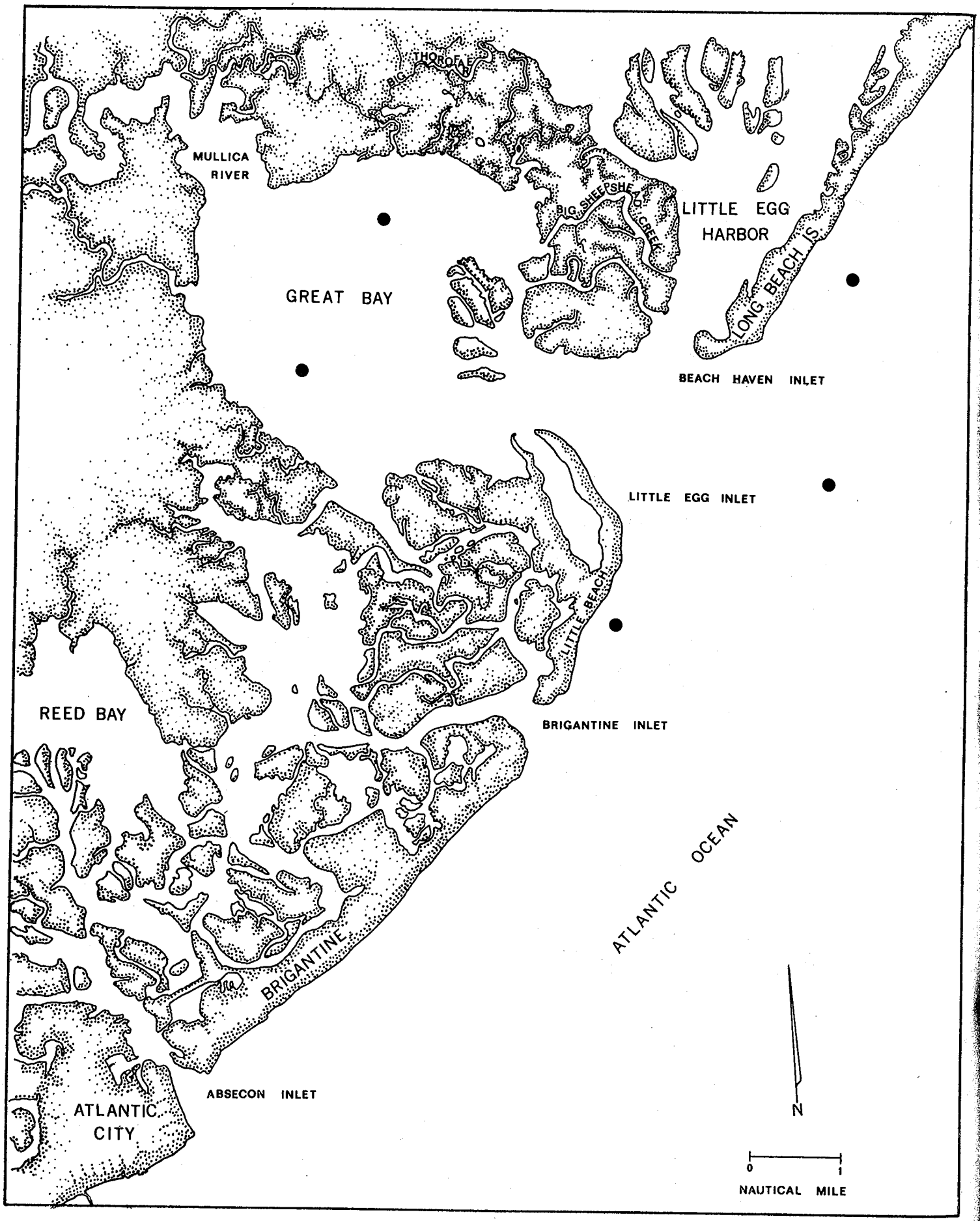

Fig. 15. Gill net stations sampled in 1974.

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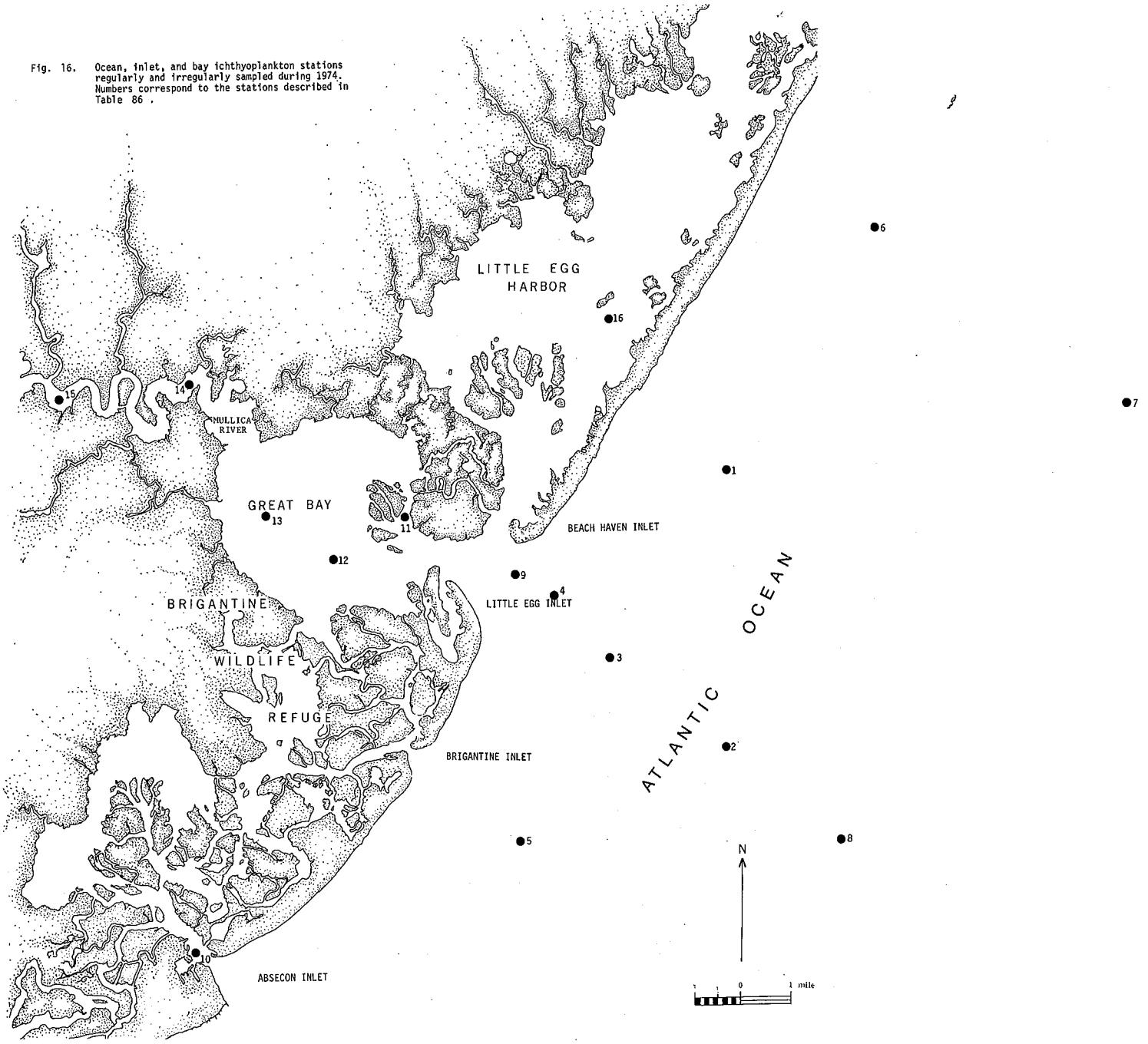
Fig. 16. Ocean, inlet, and bay ichthyoplankton stations regularly and irregularly sampled during 1974. Numbers correspond to the stations described in Table 86 .



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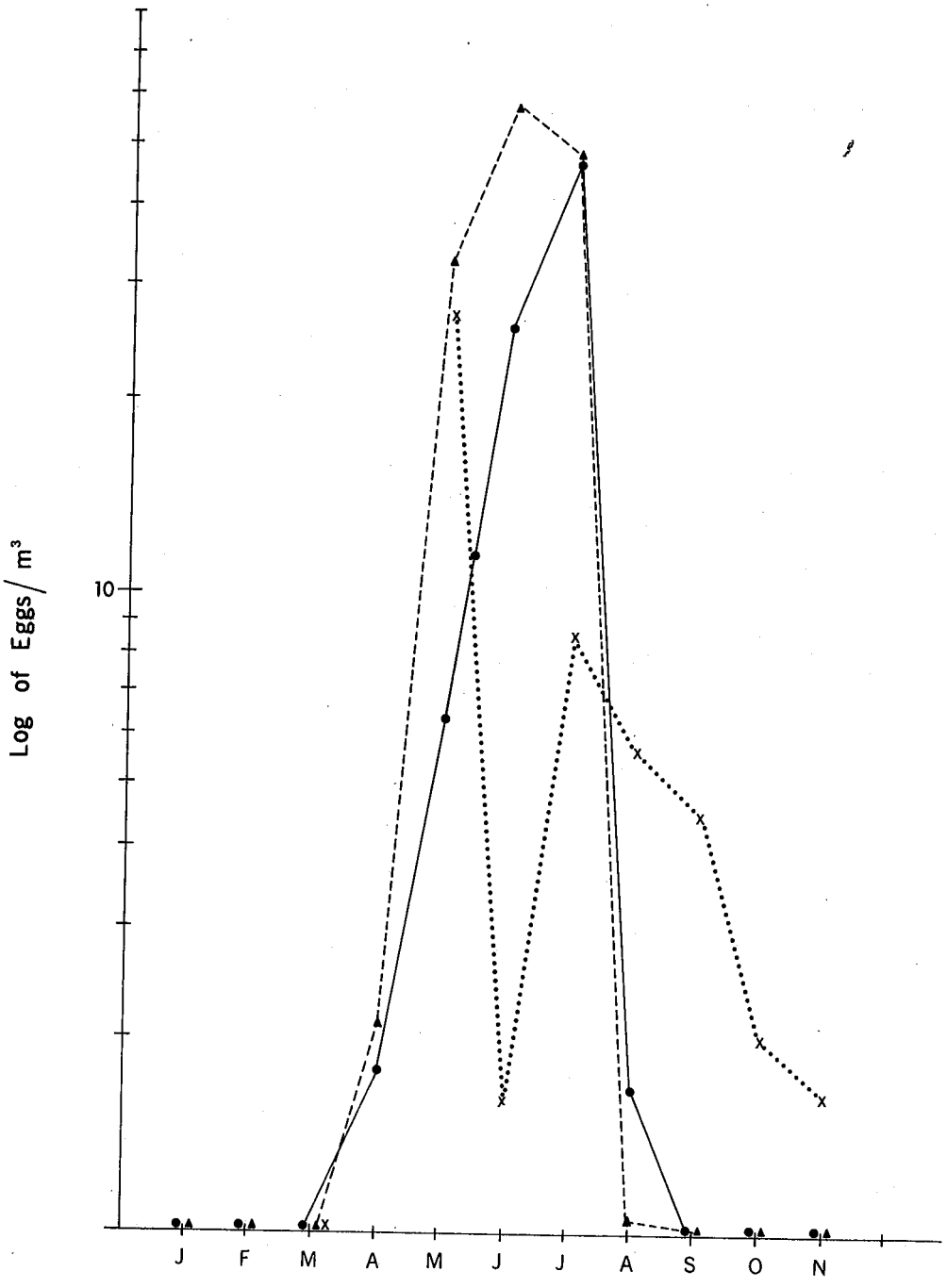

* Densities for stations in Great Bay and in the vicinity of the Site were based on two samples/station per month. Densities for stations north and offshore of the study area were based on one sample/station per month. The figure accurately represents the trend in all areas.

** Data from Great Bay accurately represent the trend in the Mullica River and Little Egg Inlet.

Fig, 17. Average monthly (*) densities of fish eggs collected in Great Bay (**), the vicinity of the Site, and north and offshore of the study area from January through November, 1974.

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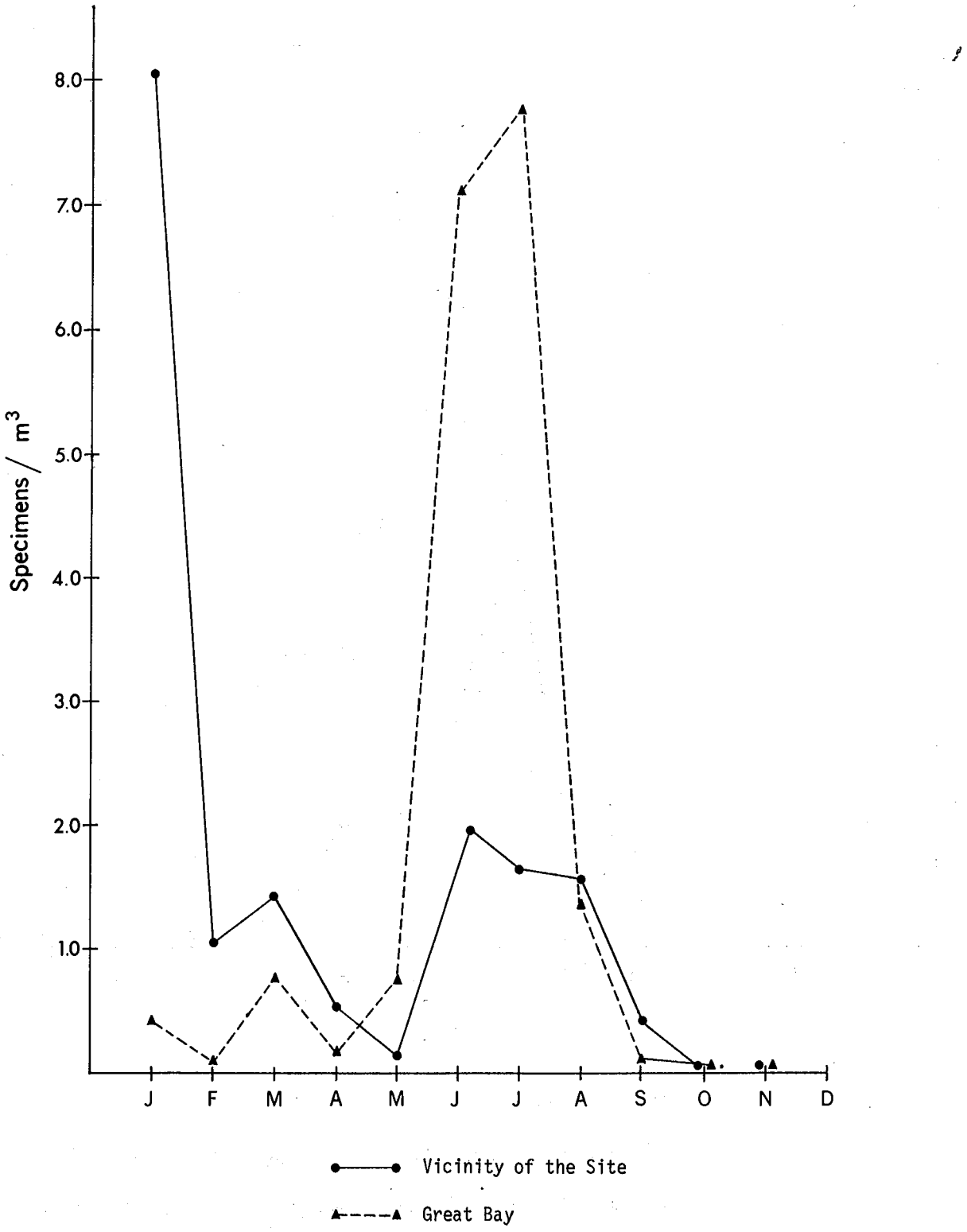

* Based on two samples/station per month.

** Data from Great Bay accurately represent the trend in the Mullica River and Little Egg Inlet.

Fig. 18. Average monthly (*) densities of larval and juvenile fishes collected in Great Bay (**) and the vicinity of the Site from January through November, 1974.

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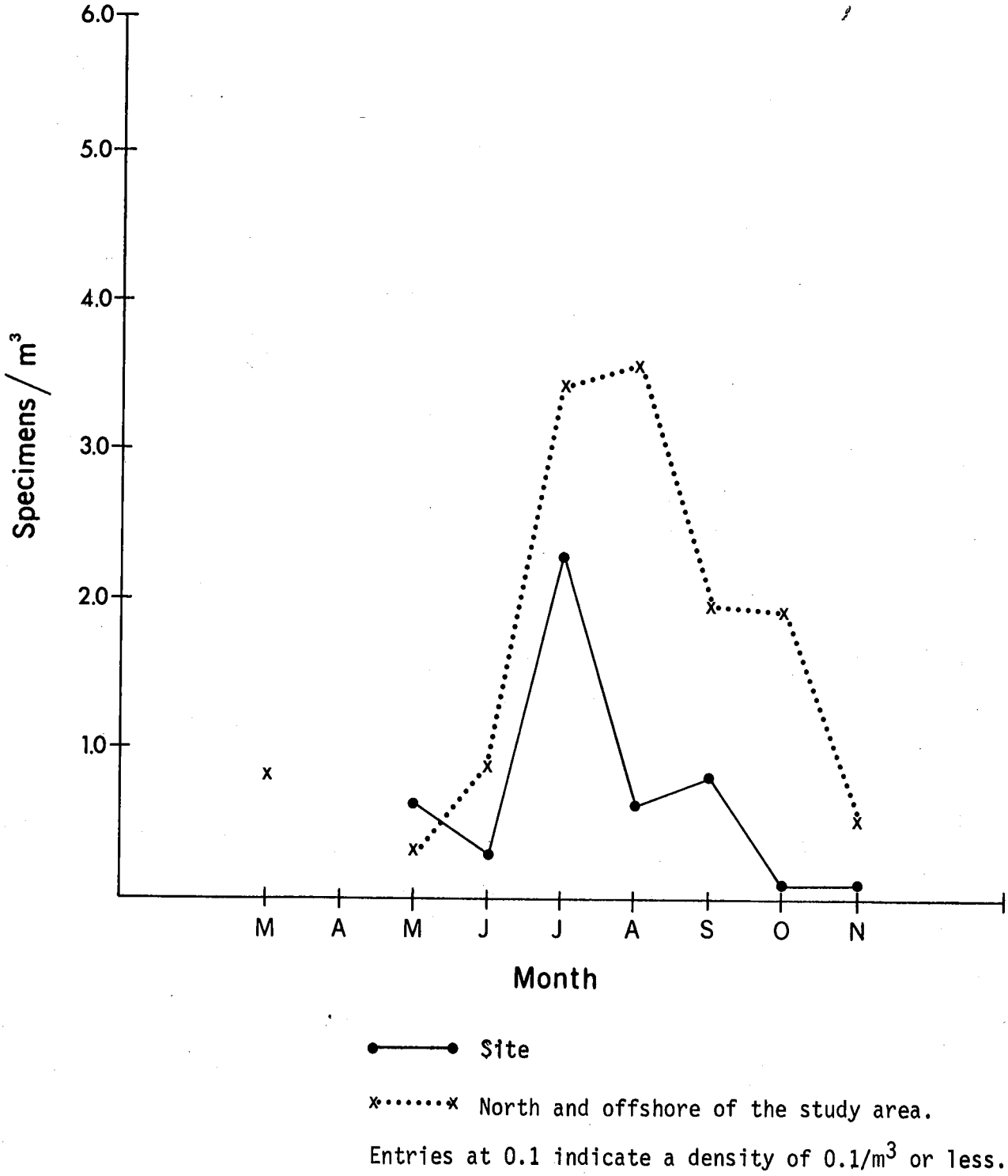

* Based on one sample/station per month.

Fig. 19. Monthly (*) densities of larval and juvenile fishes collected at the Site and north and offshore of the study area in March and from May through November, 1974.

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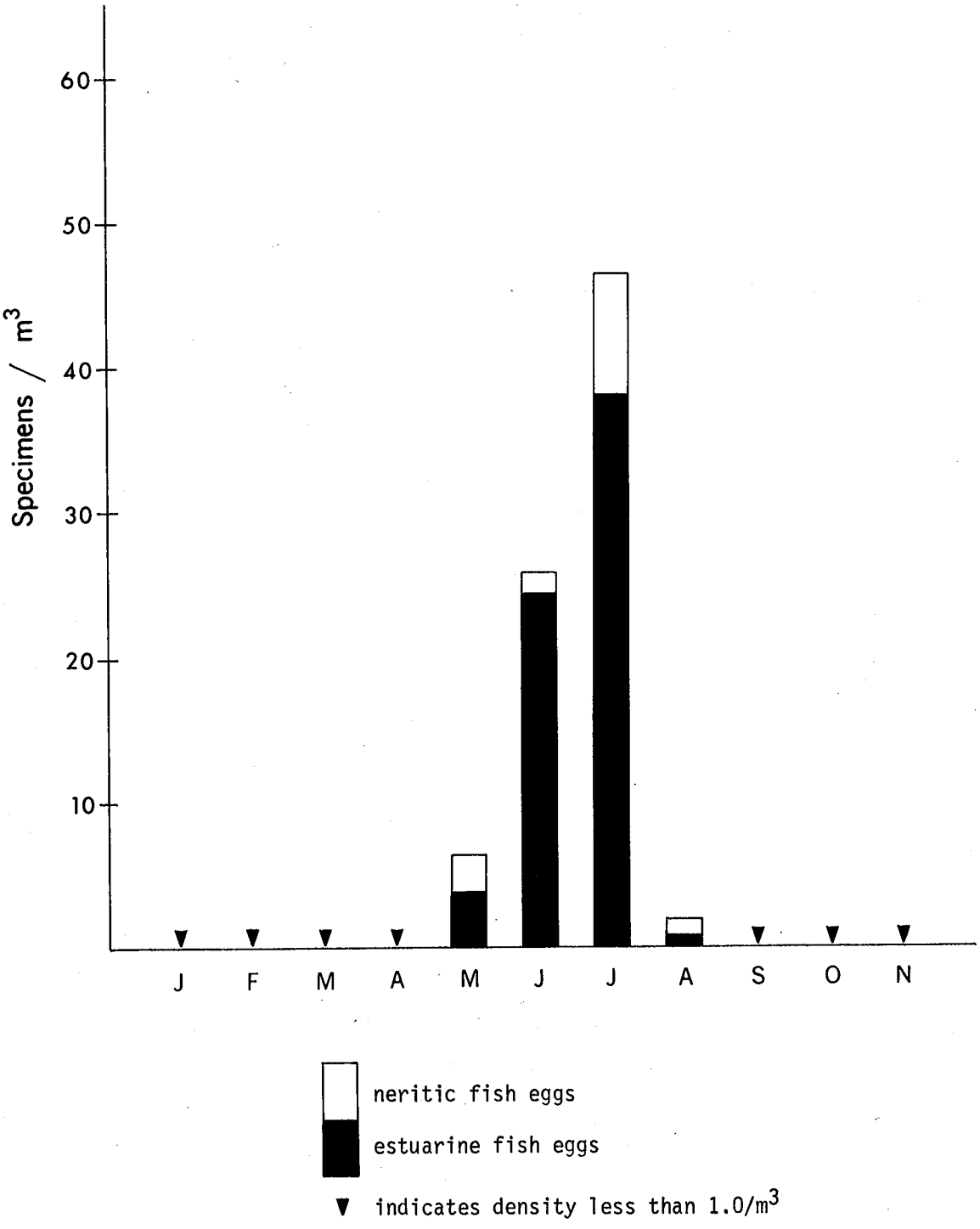

Fig. 20. Average monthly densities of estuarine and neritic fish eggs in the vicinity of the Site from January through November, 1974.

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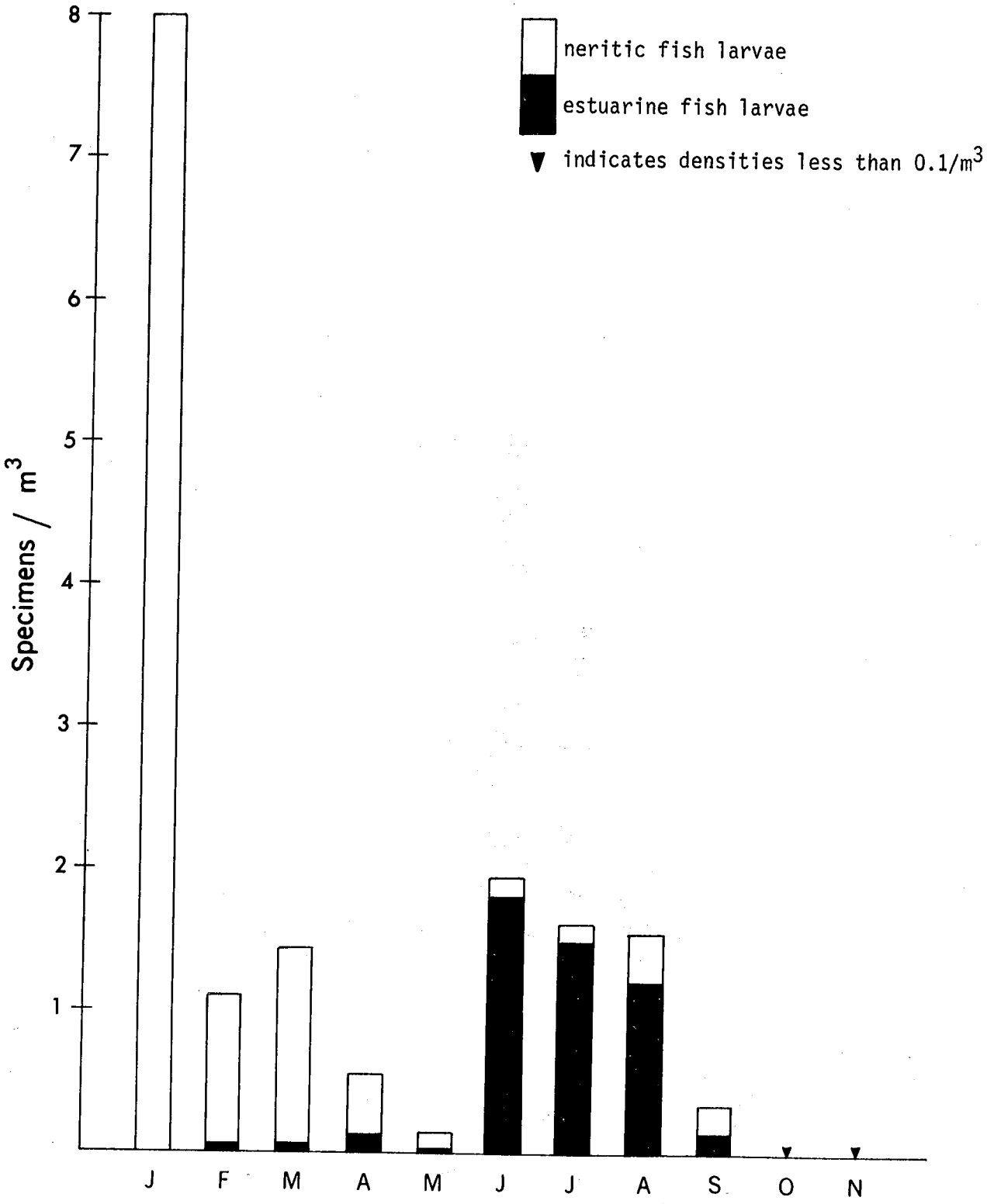

Fig. 21. Average monthly densities of estuarine and neritic fish larvae in the vicinity of the Site from January through November, 1974.

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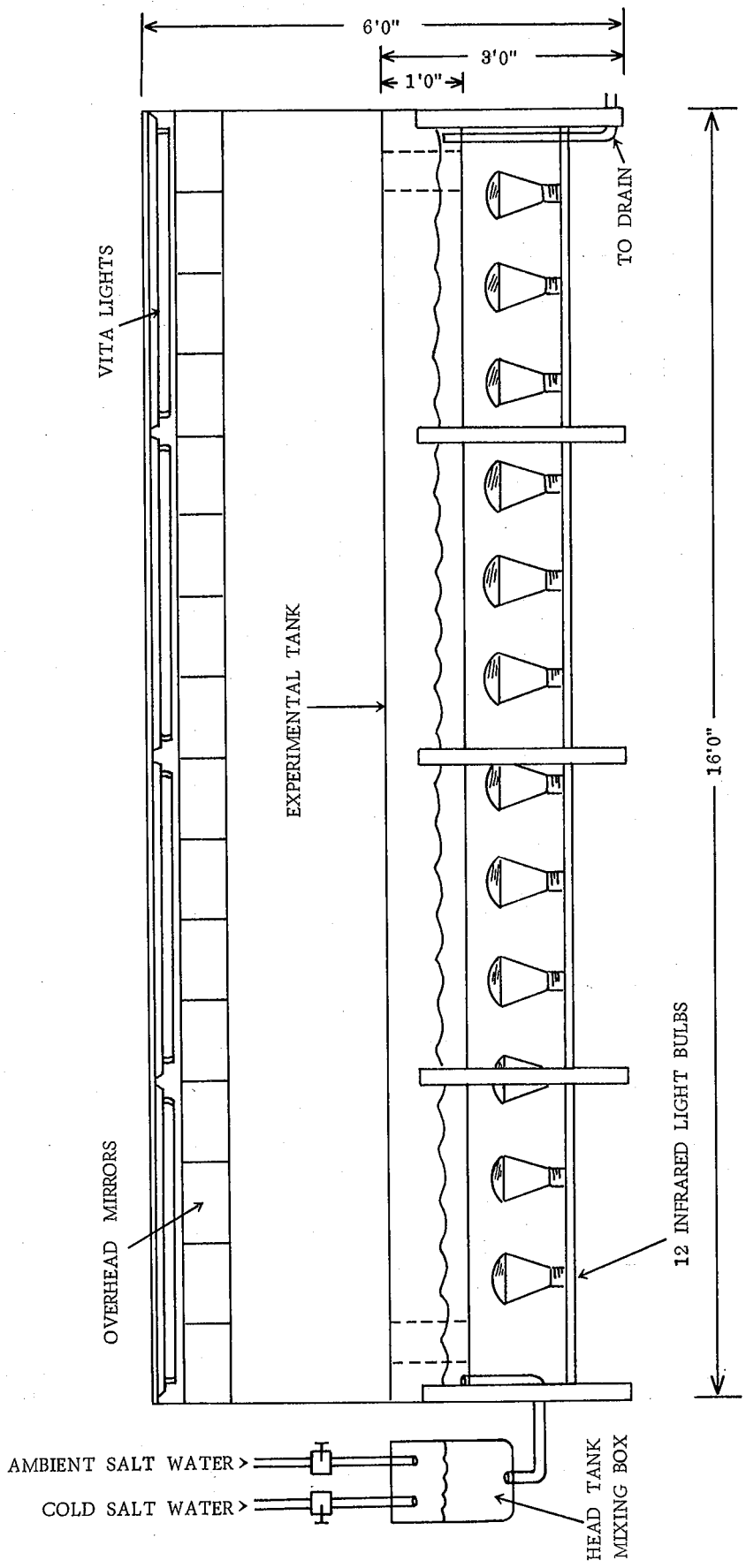

Fig. 22. A schematic diagram of the horizontal temperature preference apparatus (side view).

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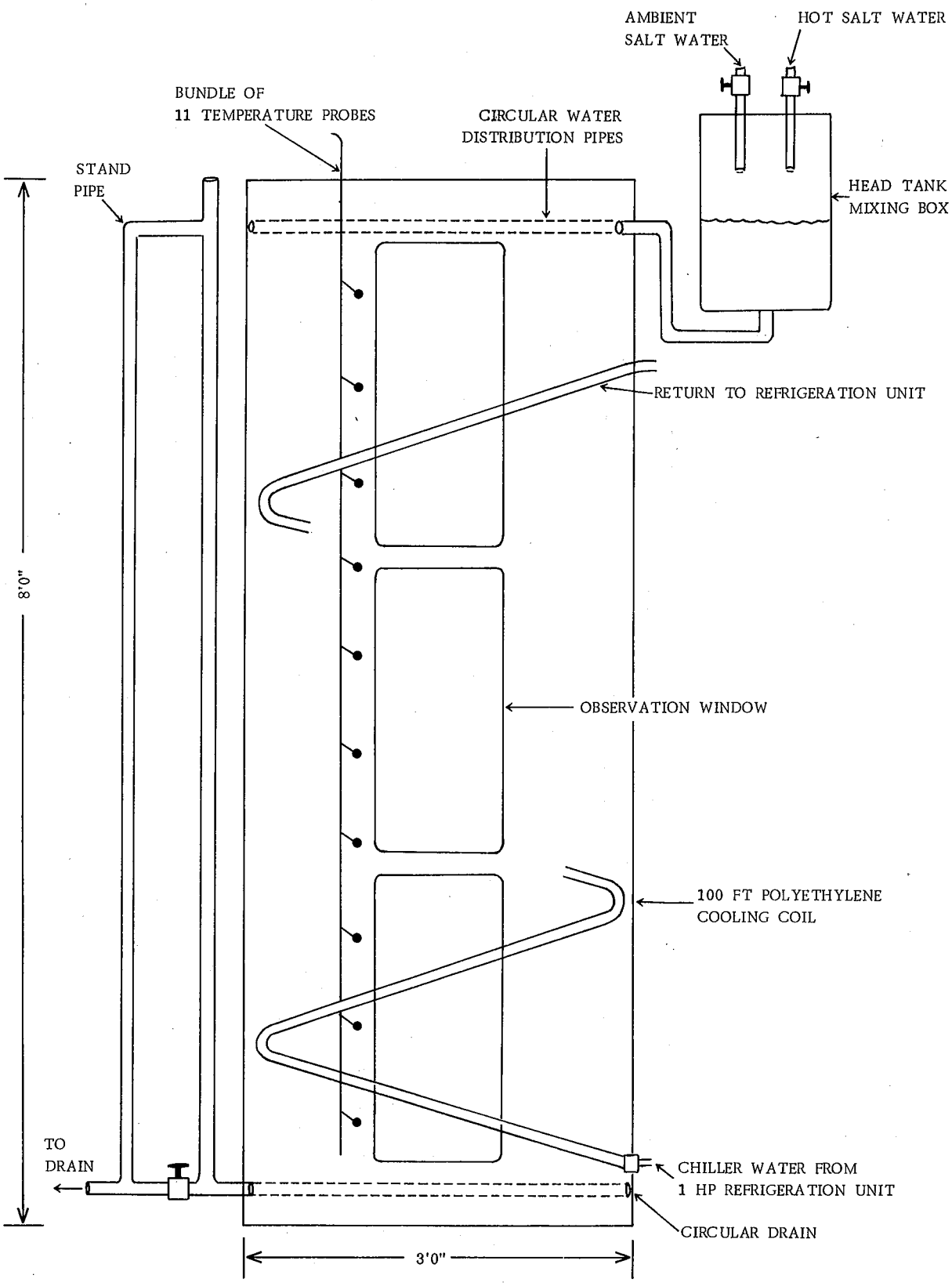
Fig. 23. A schematic diagram of the vertical temperature preference apparatus (side view).



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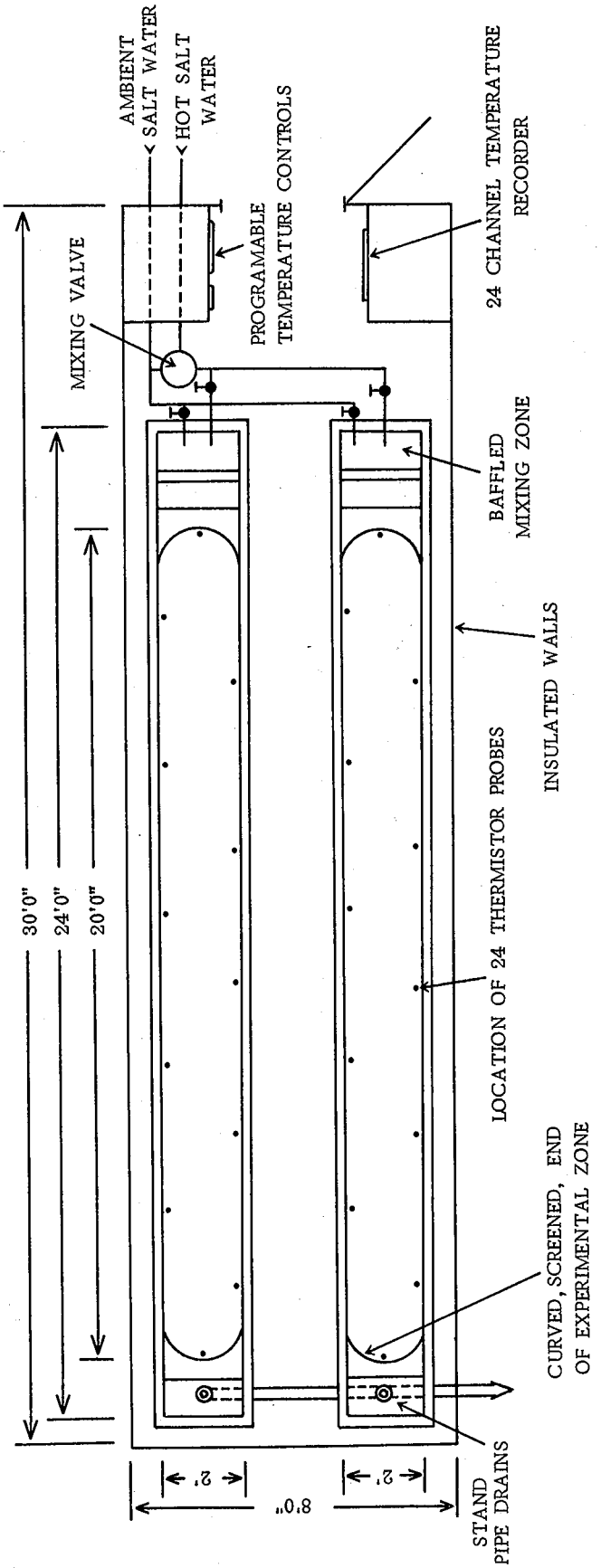

Fig. 24. A schematic diagram of the temperature avoidance system (top view).

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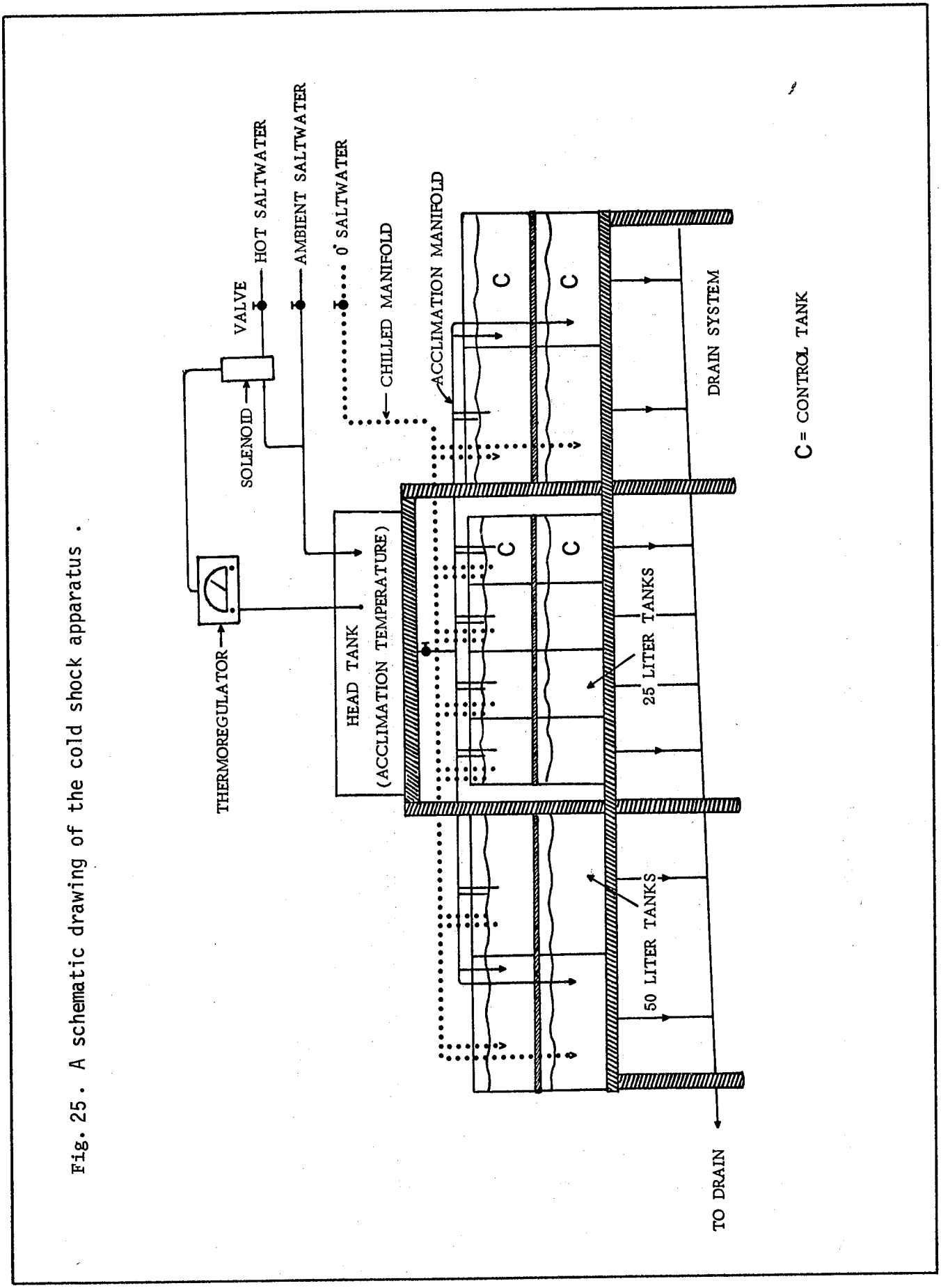

Fig. 25. A schematic drawing of the cold shock apparatus.

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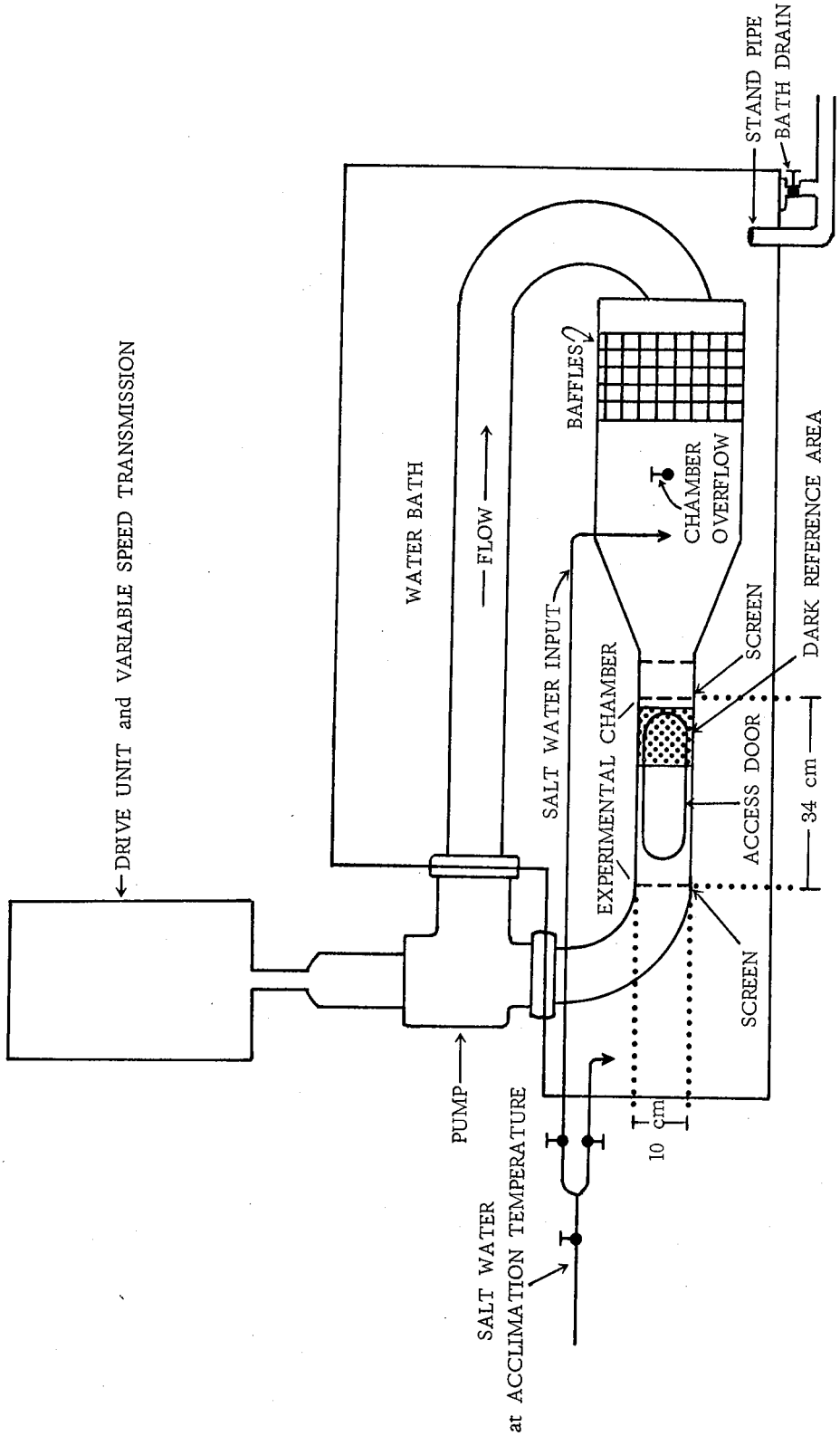

Fig. 26. Schematic diagram of modified Beamish apparatus.

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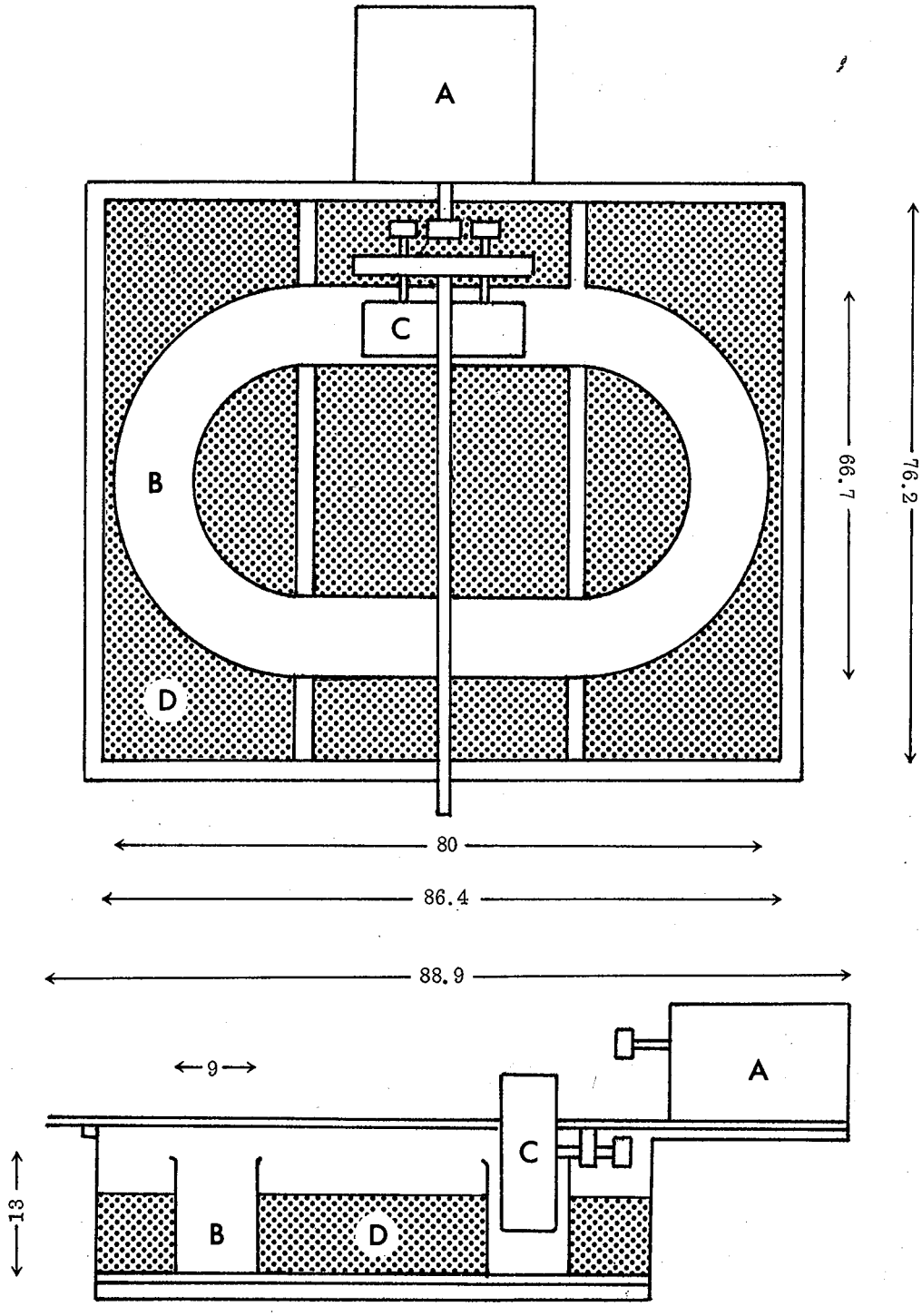

Fig. 27. Schematic diagram of the modified MacLeod Apparatus. Dimensions are given in centimeters.

A - Motor
B - Test Chamber
C - Paddle Wheel
D - Rectangular Water Bath (adapted from King, 1969)

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APPENDIX I

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Appendix Table 1. Physicochemical parameters measured while taking biological collections at the proposed Site for the Atlantic Generating Station approximately 2.8 nautical miles SE of Little Egg Inlet (zones 5250, 5254 to 5259), New Jersey during 1974.

	TEMPERATURE			SALINITY		OXYGEN			
		WATER							Collection No., Code & Depth
DATE	Air	Surface	Bottom	Surface	Bottom	Surface	Bottom	Tide	REMARKS
5255 1-02-74	0.0	5.0	5.0	28.3	28.3	10.3	10.4	ebb1	TRT-74-003 1m pk n, 35 ft
5250 1-07-74	4.0	4.9	5.0	28.0	29.5	10.7	10.5	ebb 2	FJM-74-008 500' gill net, 28 ft
5255 1-08-74	1.0	4.0	4.0	28.0	30.0	10.5	10.3	ebb 1	CBM-74-003 25' trawl, 34 ft
5255 1-15-74	5.5	2.5	3.5	28.0	28.0	11.2	10.8	flood 2	EVG-74-005 cl dr, 35 ft
5255 1-15-74	5.5	2.5	3.5	28.0	28.0	11.2	10.8	flood 2	EVG-74-007 cl dr, 35 ft
5255 1-22-74	9.0	4.5	4.0	27.5	30.0	10.9	10.5	ebb 1	RPS-74-004 25' trawl, 40 ft
5255 1-24-74	6.0	4.5	5.0	30.0	30.0	10.1	10.7	ebb 1	TRT-74-006 1, ½m pl n, 41ft
5255 1-24-74	6.0	4.5	5.0	30.0	30.0	10.1	10.7	ebb 2	TRT-74-005 1, ½m pl n, 41ft
5255 1-25-74	7.0	5.0	5.0	30.0	30.0	10.8	10.6	ebb 2	EVG-74-012 p, gr, 35 ft
5258 1-25-74	7.0	5.0	5.0	29.0	30.0	10.8	10.4	-	EVG-74-013 p, gr, 29 ft
5255 1-25-74	9.5	6.5	6.0	28.5	30.0	YSI not present		-	EVG-74-019 cl dr, 38 ft
5255 2-11-74	2.0	2.0	2.0	28.5	30.0	-	-	ebb 1	CBM-74-018 25' trawl, 40 ft
5255 2-12-74	7.0	3.0	4.0	27.5	29.5	12.0	11.2	high	TRT-74-016 1, ½m pl n, 40ft
5255 2-13-74	8.5	3.0	3.0	28.0	31.0	-	-	ebb 1	EVG-74-024 p grab, 36 ft
5256 2-13-74	8.0	3.0	3.0	29.0	31.0	12.0	11.3	flood 2	EVG-74-023 p grab, 35 ft
5254 2-13-74	6.0	3.0	4.0	28.5	30.0	12.4	11.0	flood 2	FJM-74-037 gill net, 35 ft
5255 2-21-74	6.5	3.7	3.8	29.0	30.0	11.4	10.4	ebb 2	CBM-74-025 25' trawl, 36 ft
5255 2-27-74	1.0	3.5	4.0	27.8	29.5	9.2	9.6	ebb 1	DPS-74-006 1; ½m pl n, 40 ft
5255 2-27-74	1.0	3.5	4.0	27.8	29.5	9.8	9.6	ebb 1	DPS-74-005 1; ½m pl n, 40 ft
5255 2-28-74	7.5	4.0	4.0	28.0	29.0	10.8	10.2	flood 2	JJH-74-030 cl dr, 36 ft
5252 2-28-74	7.5	4.0	4.0	29.0	30.0	10.6	10.3	flood 2	JJH-74-031 cl dr, 25 ft
5250 3-04-74	8.0	4.0	30.0	28.0	29.0	10.8	10.6	flood 1	CBM-74-033 midw trawl,20 -ft
5250 3-04-74	8.0	3.0	3.5	28.5	30.0	YSI not working		ebb 2	CBM-74-031 midw trawl, 20 ft
5250 3-06-74	12.0	6.5	5.0	28.5	29.0	10.4	10.0	ebb 2	CBM-74-036 25' trawl, 33 ft
5254 3-08-74	9.0	6.7	5.2	28.5	29.5	11.2	11.4	ebb 1	DJD-74-041 gill net, 32 ft
5250 3-11-74	3.0	5.0	5.0	29.5	30.0	YSI not working		flood 2	CBM-74-043 midw trawl, 45 ft
5255 3-11-74	6.0	7.2	7.2	30.0	30.0	9.3	9.2	ebb 1	TRT-74-020 1; ½m pl n, 37ft
5255 3-14-74	2.0	4.0	3.5	30.0	30.0	11.4	10.8	ebb 1	EVG-74-034 cl dr, 32-36 ft

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Appendix Table 1. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
5250 3-19-74	5.0	5.0	5.0	29.5	30.0	9.6	10.6	ebb 2	CBM-74-049 25' trawl, 40 ft
5255 3-25-74	0.0	5.5	5.0	30.0	30.0	8.5	8.4	ebb 2	TRT-74-034 ½ pl net, 32 ft
5255 3-25-74	-1.5	5.0	5.0	29.8	29.8	10.8	10.4	ebb 1	EVG-74-041 p grab, 35 ft
5250 4-02-74	8.0	6.0	6.5	29.0	30.0	10.2	10.4	ebb 2	FJM-74-047 25' trawl, 36 ft
5255 4-08-74	11.0	8.0	7.5	30.0	30.0	10.2	10.0	ebb 1	TRT-74-047 bongo n, 10-40 ft
5255 4-11-74	11.0	7.0	7.0	29.0	30.5	10.4	10.8	ebb 2	FAS-74-004 cl dr, 35 ft
5250 4-15-74	13.5	9.0	8.0	30.0	31.0	9.0	9.2	flood 1	CBM-74-067 25' trawl, 30 ft
4-26-74	12.5	10.0	9.2	30.0	30.2	9.6	9.2	flood 2	EVG-74-053 p. grab, 35 ft
4-26-74	12.5	9.5	9.5	30.5	30.5	9.6	9.4	ebb 1	EVG-74-055 p. grab, 34 ft
5250 5-02-74	10.0	9.0	9.0	30.5	31.0	9.7	9.6	ebb 2	CBM'74-087 25' trawl, 35 ft
5255 5-08-74	9.5	11.3	11.0	30.0	30.0	9.3	8.8	flood 2	TRT-74-063 0.1m^2 Bongo, 35 f
5255 5-13-74	18.0	14.0	12.0	30.5	31.2	9.0	8.6	flood 1	JHC-74-113 Phy-Pro, 35 ft
5255 5-13-74	18.0	14.0	12.0	29.5	30.2	9.0	8.6	flood 1	JJH-74-045 cl dr, 35 ft
5250 5-15-74	15.0	14.0	13.8	30.0	30.0	9.6	9.2	ebb 2	DJD-74-055 900' g net, 35 ft
5255 5-21-74	17.0	15.0	13.0	30.0	30.5	8.4	7.5	ebb 1	JHC 74-121 Phy-Pro, 35 ft
5255 5-21-74	17.0	15.0	13.0	30.0	30.5	8.4	7.5	ebb 1	TRT 74-068 0.1m^2 bongo, 35 f
5255 5-21-74	20.0	15.0	11.0	30.0	31.0	7.4	7.6	ebb 1	JJH-74-055 po grab, 40 ft
5250 5-29-74	16.0	15.0	14.5	27.5	28.0	8.6	9.1	flood 1	CBM-74-104 25' trawl, 30 ft
5255 6-04-74	19.0	16.0	15.2	28.6	28.5	8.2	7.8	ebb 1	GJM-74-001 lob pots, 35 ft
5256 6-05-74	19.0	17.0	17.0	29.0	29.0	8.1	7.3	flood 1	TRT-74-077 1/2m pl n, 35 ft
5255 6-10-74	24.0	21.0	18.0	28.6	30.0	6.8	8.0	flood 2	JJH-74-067 cl dr, 32 ft
5250 6-11-74	22.0	19.0	16.0	29.0	29.5	9.5	8.2	flood 2	CBM-74-111 25' trawl, 35 ft
5250 6-11-74	20.0	18.5	16.0	30.0	30.5	9.2	10.4	low	CBM-74-114 25' trawl, 38 ft
5255 6-14-74	24.0	20.5	18.2	29.5	29.5	7.1	8.0	flood 1	JJH-74-077 ponar gr, 40 ft
5250 6-14-74	20.0	20.0	18.0	29.5	30.0	7.2	7.2	flood 1	CBM-74-116 25' trawl, 34 ft
5255 6-18-74	23.0	21.0	17.0	29.5	30.0	8.3	6.5	ebb 1	DJD-74-068 lob pots, 37 ft
5258 6-20-74	24.5	21.5	15.5	29.0	30.3	7.0	6.2	flood 1	TRT-74-079 0.1m^2 bongo, 37f
5258 6-20-74	24.0	20.2	17.0	30.0	30.3	7.2	7.8	flood 2	TRT-74-083 0.1m^2 bongo, 22

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Appendix Table 1. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
5258 6-20-74	21.3	19.2	16.0	30.0	30.0	7.8	-	ebb 1	TRT-74-085 1/2m pl n, 40ft
5258 6-20-74	22.0	19.8	16.0	30.0	30.3	8.0	5.2	ebb 2	TRT-74-086 0.1m^2 bongo, 39
5255 6-24-74								flood 2	JHC-74-149 Phy-Pro, 39 ft
5255 7-01-74	22.5	20.0	20.0	29.0	29.5	8.0	6.7	ebb 1	EVG-74-065 cl dr, 36 ft
5250 7-01-74	22.5	20.5	19.0	29.0	29.5	7.8	7.4	ebb 2	CBM-74-126 25' trawl, 38 ft
5255 7-02-74	23.0	21.0	17.0	29.5	30.0	8.3	6.5	ebb 1	DJD-74-081 Lob pots, 37 ft
5255 7-08-74	27.0	22.0	19.5	30.0	30.0	7.4	6.4	ebb 2	DPS-74-042 0.1m^2 Bon, 27ft
5250 7-08-74	25.0	22.0	17.0	30.0	30.0	7.5	4.8	flood 2	CBM-74-137 25' trawl, 39ft
5250 7-08-74	27.0	23.3	17.5	30.0	30.5	7.2	4.4	flood 1	TRT-74-094 1/2m pl n, 38ft
5250 7-08-74	25.0	22.0	17.0	30.0	30.0	7.5	4.8	flood 2	TRT-74-095 ½m pl n, 39 ft
5250 7-08-74	27.0	23.3	17.5	30.0	30.5	7.2	4.4	flood 1	CBM-74-134 25' trawl, 38 ft
5255 15-74	24.5	22.5	-	30.0	-	8.3	-	ebb 2	TRT-74-096 0.03m^2 Bon,
5255 -15-74	25.0	22.8	-	30.0	-	8.0	-	low	TRT-74-098 0.1m^2 Bong,
5255 7-15-74	-	22.9	-	29.0	-	8.2	-	flood 1	TRT-74-100 0.1m^2 Bong,
5255 7-15-74	-	23.0	-	29.0	-	8.2	-	flood 2	TRT-74-103 0.03m^2 Bong.
5255 7-15-74	28.0	24.5	22.0	29.5	30.0	7.1	5.5	flood 1	EVG-74-071 po grab, 38 ft
5258 7-15-74	27.0	24.0	24.0	29.0	30.0	7.8	7.4	flood 2	EVG-74-074 po grab, 39 ft
5255 7-16-74	27.0	24.0	24.0	29.5	30.0	7.2	6.6	flood 2	EVG-74-075 ponar gr, 39 ft
5256 7-16-74	25.0	22.3	22.3	30.0	30.0	7.0	6.4	flood 1	DJD-74-098 Long line, 40 ft
5255 7-18-74	22.0	20.5	19.7	29.5	30.0	9.0	8.7	ebb 1	DJD-74-086 Lob pots, 40 ft
5254 7-22-74	23.0	22.0	19.5	30.3	30.0	7.9	6.2	flood 1	TRT-74-107 0.1m^2 Bon, 36 ft
5254 7-22-74	24.0	21.5	18.7	30.0	30.3	7.6	6.2	ebb 2	TRT-74-104 ½m pl net, 39 ft
5254 7-22-74	21.0	21.5	19.0	30.0	30.0	7.2	6.5	flood 2	TRT-74-110 0.03m^2 Bong, 38ft
5254 7-22-74	-	21.2	18.8	30.0	30.0	7.8	6.3	flood 2	TRT-74-111 ½m pl net, 43 ft
5254 22-74	21.5	21.4	18.8	30.0	30.0	7.4	6.0	ebb 1	TRT-74-112 0.03m^2 Bon, 40ft
5255 8-02-74	26.0	24.2	19.5	30.0	30.0	8.8	3.5	ebb 2	TRT-74-118 0.1m^2 bon, 37 ft
5250 8-05-74	25.0	20.0	16.5	30.0	30.5	6.8	5.6	ebb 1	RPS-74-094 25' trawl, 38 ft
5250 8-05-74	25.0	19.0	15.8	30.5	31.0	7.5	5.9	ebb 1	CBM-74-148 25' trawl, 40 ft

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Appendix Table 1. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
5255 8-06-74	25.0	21.8	19.9	30.0	30.0	7.8	6.6	ebb 1	DJD-74-102 Lob pots, 40ft
5250 8-06-74	22.0	20.0	16.2	30.0	30.5	7.1	4.8	ebb 1	CBM-74-155 900' g net, 40 ft
5255 8-08-74	22.0	20.0	19.0	30.5	31.0	8.8	9.0	ebb 1	EVG-74-079 cl dr, 35 ft
5255 8-13-74	22.0	19.8	16.0	30.0	30.6	7.1	5.8	flood 2	GJM -74-003 Lob pots, 40ft
5250 8-19-74	25.0	22.0	21.5	30.0	30.5	11.4	9.3	ebb 1	CBM-74-159 25' trawl, 36 ft
5255 8-26-74	23.0	21.0	21.0	30.0	30.0	7.2	6.9	ebb 2	GJM-74-005 Lob pots, 40ft
5255 8-29-74	26.0	25.0	21.0	3-10	30.5	7.3	7.5	ebb 2	JJH-74-091 ponar grab, 38ft
5254 8-29-74	28.0	24.0	21.0	30.0	30.5	8.2	7.6	ebb 2	JJH-74-093 ponar grab, 38ft
5255 8-30-74	25.0	24.0	19.0	30.5	31.0	8.6	7.2	flood 1	TRT-74-122 1/2m pl net, 35ft
5255 8-30-74	25.0	24.0	19.0	30.5	31.0	8.6	7.2	flood 1	TRT-74-121 0.1m^2 bongo, 35.5
5250 9-04-74	17.5	22.0	17.0	30.0	30.5	7.5	4.4	ebb 1	RPS-74-107 25' trawl, 40 ft
5255 9-06-74	20.0	21.0	21.0	31.0	31.0	6.5	6.0	ebb 1	JHC-74-190 Phy-Pro, 37 ft
5250 9-09-74	22.5	21.5	22.0	30.0	30.0	7.1	6.2	ebb 1	CBM-74-169 25' trawl, 33 ft
5250 9-09-74	21.0	22.0	22.0	29.0	29.5	9.0	8.2	ebb 2	CBM-74-172 25' trawl, 37 ft
5255 9-09-74	22.0	20.5	20.5	29.0	30.0	7.6	7.2	flood 1	TRT-74-131 36 1/2m pl net (500
5255 9-09-74	22.0	20.5	20.7	28.5	29.5	7.9	8.4	flood 1	TRT-74-132 0.1m^{2}bongo, 37ft
5255 9-09-74	22.0	21.0	21.0	29.0	30.0	7.8	6.4	ebb 2	TRT-74-129 0.1m2bongo, 37ft
5255 9-09-74	25.5	22.5	20.5	30.0	30.0	7.0	6.4	flood 2	TRT-74-124 0.1m^{2}bongo, 37ft
5255 9-14-74	20.0	22.0	22.0	30.0	30.5	7.0	7.4	flood 2	JJH-74-113 clam dredge, 32f
5250 9-16-74	19.0	25.0	21.0	29.5	30.0	7.2	7.8	ebb 1	DAH-74-054 25' trawl, 30ft
5257 9-17-74	23.0	21.5	21.5	30.0	30.0	7.6	7.1	ebb 1	DJD-74-118 900' gill net, 37f
5255 9-23-74	19.5	21.0	20.2	30.0	30.0	6.5	6.2	-	EVG-74-095 ponar grab 40ft
5255 9-24-74	13.5	19.2	19.2	31.0	31.0	4.3	4.6	flood 1	JHC-74-196 Phy-Pro, 38 ft
5255 9-25-74	17.0	18.5	18.9	30.0	30.0	7.9	7.6	ebb 1	TRT-74-135 0.1m^{2}bongo, 38ft
5255 9-30-74	17.0	18.5	18.9	30.0	30.0	7.9	7.6	ebb 1	TRT-74-136 1/2m pl net(500)
5250 10-01-74	15.0	19.0	19.0	30.5	30.5	7.4	6.8	ebb 1	CBM-74-177 25' trawl, 39 ft
5255 10-07-74	18.0	17.0	16.5	29.9	30.0	8.2	7.8	ebb 1	TRT-74-139 ½m pl net, 35-43
5250 10-07-74	17.5	16.0	16.0	30.0	30.0	7.8	7.4	ebb 2	CBM-74-185 25' trawl, 35 ft

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Appendix Table 1. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
5250 10-07-74	16.0	16.0	16.0	30.0	30.5	7.2	6.4	flood 1	CBM-74-188 25' trawl, 32-35f
5255 10-07-74	18.0	17.0	16.5	29.9	30.0	8.2	7.8	ebb 1	TRT-74-138 0.1m^{2}bong. 43 ft
5255 10-11-74	17.5	17.0	16.0	30.5	30.5	6.8	7.2	flood 1	EVG-74-103 pon gr. 35 ft
5250 10-15-74	18.0	16.0	16.0	30.5	30.5	9.0	8.6	ebb 1	CBM-74-190 25' trawl, 40ft
5258 10-11-74	18.0	16.5	16.0	30.5	30.5	7.1	7.3	flood 1	EVG-74-106 ponar gr,
5252 10-11-74	17.5	16.0	16.0	30.5	30.5	7.2	7.2	flood 1	EVG-74-105 ponar grab 28ft
5255 10-17-74	13.0	15.5	15.8	31.0	31.0	7.0	7.4	flood 2	RPS-74-136 900' gill n, 37ft
5255 10-21-74	7.0	13.0	13.2	30.0	30.0	9.1	9.0	flood 2	TRT-74-144 0.1m2bongo, 43ft
5255 10-21-74	7.0	13.0	13.2	30.0	30.0	9.1	9.0	flood 2	TRT-74-145 1/2m pl net, 43ft
5255 11-04-74	17.0	15.0	14.0	30.5	30.0	8.2	7.9	ebb 2	TRT-74-150 0.1m^{2}bongo, 42ft
5255 11-04-74	17.0	15.0	14.0	30.5	30.0	8.2	7.9	ebb 2	TRT-74-151 1/2m pl net 42ft
5250 11-04-74	17.0	13.0	12.7	30.0	30.5	8.8	8.1	flood 2	CBM-74-198 25' trawl, 40 ft
5250 11-04-74	17.0	13.0	12.7	30.0	30.5	8.8	8.1	flood 2	RPS-74-139 25' trawl, 40 ft
5257 11-06-74	13.5	12.0	12.5	30.0	30.0	7.9	7.9	flood 2	DJD-74-129 900' Gill net 18-30
5254 11-15-74	8.0	10.5	10.5	30.0	30.5	8.7	8.7	ebb 2	JJH-74-154 ponar grab 38 ft
5255 11-15-74	9.0	10.5	10.5	30.5	30.5	8.8	8.9		JJH-74-152 ponar grab 41ft
5250 11-11-74	12.0	11.5	12.0	29.5	30.0	7.8	8.4	ebb 2	DAH-74-101 25' trawl 37ft
5250 11-18-74	11.5	9.5	10.0	30.0	30.5	9.3	9.4	ebb 2	CBM-74-204 25' trawl 30 ft
5250 11-18-74	10.0	10.0	10.0	30.0	30.0	9.4	9.2	ebb 2	CBM-74-206 25' trawl 45 ft
5250 11-18-74	10.0	9.0	9.5	30.0	30.0	9.4	9.5	flood 1	CBM-74-209 25' trawl 35 ft
5255 11-18-74	10.0	10.7	11.3	30.0	30.5	9.7	9.6	flood 2	ZOO-74-159 43' Clarke-Bumpus#20
5250 12-05-74	2.0	6.8	6.0	30.0	30.5	9.2	9.2	flood 2	CBM-74-215 25'trawl 40 ft

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Appendix Table 2. Physicochemical parameters measured while taking biological collections in and around Little Egg Inlet (zone 1010), New Jersey during 1974.

	TEMPERATURE			SALINITY		OXYGEN			
		WATER							Collection No., Code & Depth
DATE	Air	Surface	Bottom	Surface	Bottom	Surface	Bottom	Tide	REMARKS
1-02-74	9.5	3.0	3.0	27.0	27.0	11.2	11.2	flood 1	JJH-74-002 cl dr, 5.0 ft
1-02-74	9.0	4.0	4.0	28.0	30.0	11.2	11.2	flood 1	JJH-74-003 cl dr, 35 ft
1-02-74	6.0	4.0	4.0	26.0	28.0	10.4	10.6	flood 1	JJH-74-001 cl dr, 20 ft
1-04-74	1.5	4.0	4.2	26.0	28.0	11.0	11.0	flood 1	DPS-74-001 ½m pl n, 20 ft
1-07-74	4.0	4.0	4.0	27.0	27.0	10.2	10.2	ebb 1	JJH-74-010 po gr, 7 ft
1-07-74	5.0	4.0	4.5	28.0	28.0	10.4	10.4	ebb 1	JJH-74-007 po gr, 15 ft
1-07-74	6.0	5.0	5.0	28.0	28.0	10.0	10.0	ebb 1	JJH-74-006 po gr, 3.5 ft
1-15-74	3.0	0.0	0.2	20.0	24.0	10.8	11.8	flood 2	FJM-74-016 16' trawl, 50 ft
1-15-74	3.0	0.0	-0.2	20.0	24.0	10.8	11.8	flood 2	DJD-74-004 16' trawl, 50 ft
1-15-74	3.0	0.0	0.2	20.0	24.0	10.8	11.8	flood 2	DJD-74-005 16' trawl, 50 ft
1-15-74	3.0	0.0	-0.2	20.0	24.0	10.8	11.8	flood 1	FJM-74-015 25' trawl, 50 ft
1-16-74	3.0	2.5	2.7	28.9	28.9	10.9	10.6	flood 1	JHC-74-011 Phy-pro, 10 ft
1-16-74	3.0	2.0	3.0	23.0	26.0	11.7	11.3	low	ZOB-74-004 C1-B #20, 20 ft
1-24-74	10.0	5.0	6.0	28.0	28.0	10.8	11.0	flood 2	JJH-74-011 cl dr, 15-25 ft
1-24-74	10.0	5.0	5.0	28.0	28.0	10.6	10.2	ebb 1	JJH-74-012 - , 25-30 ft
2-01-74	-	6.0	6.0	22.0	-	10.1	9.4	flood 1	TRT-74-010 ½ pl n, 20 ft
2-13-74	5.0	2.5	3.5	27.0	27.0	12.4	11.8	flood 2	ZOB-74-016 C1-B #20, 20 ft
2-13-74	5.0	2.5	3.5	27.0	27.0	12.4	11.8	flood 2	ZOB-74-017 - , 20 ft
2-14-74	8.0	2.0	2.5	27.0	28.0	11.3	11.2	flood 1	EVG-74-027 cl dr, 5-7 ft
2-14-74	6.0	2.0	2.8	24.0	27.0	14.0	13.0	flood 1	DJD-74-032 16' trawl, 20 ft
2-14-74	6.0	2.0	2.8	24.0	27.0	14.0	12.0	flood 1	FJM-74-044 16' trawl, 20 ft
2-14-74	7.0	2.0	2.5	25.0	27.0	11.2	10.8	ebb 2	EVG-74-026 cl dr, 18 ft
2-14-74	8.0	2.0	3.0	25.0	28.0	11.1	10.6	ebb 2	EVG-74-028 cl dr, 15-25 ft
2-19-74	5.0	3.0	2.5	28.0	28.0	11.0	11.0	ebb 1	JJH-74-022 po gr, 18 ft
2-19-74	5.0	2.5	2.5	27.0	27.0	11.0	11.0	ebb 1	JJH-74-021 po gr, 3 ft
2-19-74	5.0	3.0	2.5	28.0	28.0	10.8	11.0	-	JJH-74-025 po gr, 9 ft
2-21-74	2.0	3.0	3.0	29.3	29.3	10.9	11.4	ebb 1	JHC-74-041 Phy-Pro, 10 ft
3-08-74	10.0	5.5	6.0	20.0	20.0	10.0	9.8	ebb 1	JJH-74-032 cl dr, 25 ft

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Appendix Table 2. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
3-08-74	10.0	6.0	5.5	30.0	30.0	8.8	9.0	ebb 2	JJH-73-035 cl dr, 7 ft
3-08-74	10.0	7.0	6.0	30.0	30.0	9.2	8.8	ebb 2	JJH-73-034 cl dr, 15-25 ft
3-12-74	6.5	6.5	6.5	22.0	24.0	10.7	10.6	ebb 2	FJM-74-075 25' trawl, 28 ft
3-12-74	5.0	5.7	5.5	30.0	30.0	10.4	10.8	flood 2	TRT-74-023 ½m pl n, 20 ft
3-15-74	5.5	4.8	5.0	25.0	27.5	11.0	10.4	flood 2	FJ,M-74-063 16' trawl, 35 ft
3-22-74	7.0	6.5	6.5	22.0	24.0	10.7	10.6	ebb 2	RPS-74-022 16' trawl, 28 ft
3-25-74	-0.5	5.5	5.0	26.0	28.0	8.6	8.7	-	TRT-74-035 ½m pl n, 17 ft
3-26-74	4.5	5.5	5.8	29.5	29.5	9.4	9.0	ebb 2	JHC-74-073 Phy-Pro, 9 ft
3-26-74	5.0	5.0	5.0	30.0	30.0	10.2	10.2	ebb 1	TRT-74-040 ½m pl n, 25 ft
3-27-74	2.0	4.0	4.0	29.5	29.5	9.9	10.0	flood 2	EVG-74-046 po gr, 15 ft
3-27-74	3.0	4.5	4.5	29.5	29.5	10.1	10.1	inlet	EVG-74-047 po gr, 5 ft
3-27-74	3.0	4.5	5.0	29.0	29.0	10.3	10.1	ocean	EVG-74-048 po gr, 10 ft
3-27-74	9.0	6.0	5.5	28.5	29.0	10.2	10.2	ebb 1	ZOB-74-036 Cl-B #20, 17 ft
4-08-74	9.2	6.7	-	30.0	30.3	-	-	flood 2	DPS-74-010 0.03m^{2}bongo, 18
4-16-74	13.0	11.0	11.0	22.0	27.5	9.2	8.6	flood 1	RCB-74-051 16'trawl, 30 ft
4-17-74	17.0	10.0	10.0	25.0	28.0	9.2	8.6	ebb 2	JJH-74-037 cl dr, 17 ft
4-17-74	16.0	13.0	12.0	22.0	28.0	8.6	8.0	flood 1	JJH-74-038 cl dr, 15-18 ft
4-17-74	16.0	12.0	11.5	28.0	28.0	9.6	9.0	flood 1	JJH-74-039 cl dr, 6 ft
4-22-74	15.5	10.5	11.0	30.8	30.8	9.2	9.2	ebb 1	JHC-74-093 Phy-pro, 9 ft
4-25-74	9.0	7.8	8.8	30.5	30.5	9.5	9.4	flood 2	EVG-74-057 po gr, 17 ft
4-25-74	9.0	9.5	9.0	30.5	30.5	8.5	9.0	-	EVG-74-059 po gr, 6 ft
4-25-74	9.0	7.8	8.5	30.5	30.5	9.0	8.6	flood 2	EVG-74-060 po gr, 12 ft
4-26-74	-	10.5	10.0	30.0	30.0	10.0	10.0	ebb 1	TRT-74-057 0.03m^{2}bongo, 20
5-08-74	13.0	10.8	11.0	30.0	30.0	8.8	8.4	flood 2	DPS-74-016 0.03m^2 bongo, 20
5-13-74	17.0	14.9	14.0	25.5	30.0	7.6	7.4	flood 1	HKH-74-067 16' trawl, 23 ft
5-14-74	21.0	16.5	15.0	26.0	28.0	8.2	7.5	flood 1	JJH-74-048 cl dr, 15 ft
5-14-74	20.0	15.0	15.0	28.0	28.0	7.6	7.6	flood 2	JJH-74-049 cl dr, 20 ft
5-21-74	28.0	14.5	14.0	30.0	30.0	7.2	7.0	ebb 1	JJH-74-047 po gr, 7 ft

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Appendix Table 2. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
5-21-74	24.0	15.5	15.0	30.0	30.0	8.0	7.2	ebb 2	JJH-74-050A po grab, 9 ft
5-22-74	20.0	15.0	15.5	30.0	30.0	9.0	8.4	flood 2	DPS-74-021 0.03,m^2 bongo, -f
5-22-74	19.0	16.0	15.0	30.0	30.0	8.2	7.6	ebb 1	JHC-74-128 Phy-Pro, 10 ft
6-05-74	-	20.8	19.8	25.0	27.5	7.8	7.2	high	DPS-74-031 15ft
6-06-74	25.0	19.0	20.0	28.0	28.0	5.8	6.2	ebb 1	JJH-74-062 cl dr, 20 ft
6-06-74	18.5	17.0	18.0	30.0	30.0	7.6	7.5	flood 2	JJH-74-059 cl dr, 7 ft
6-13-74	21.0	20.0	21.0	28.5	28.5	6.3	6.2	flood 1	JJH-74-074 ponar gr, 7 ft
6-20-74	22.0	20.0	18.0	30.0	30.0	7.4	6.8	ebb 1	RPS-74-055 16' trawl, 40 ft
6-21-74	-	19.0	19.0	30.0	30.0	7.6	6.3	-	DPS-74-037 1/2m pl n, 21ft
7-01-74	25.0	22.0	21.5	27.0	27.0	7.3	7.3	ebb 2	RPS-74-075 25' trawl, 10 ft
7-03-74	29.0	22.0	22.0	27.5	28.0	6.1	6.0	-	FAS-74-011 cl dr, 20 ft
7-03-74	25.0	20.5	20.0	29.5	30.0	6.4	6.2	-	FAS-74-009 cl dr, 20 ft
7-03-74	28.5	21.0	21.5	29.0	29.0	6.8	6.1	-	FAS-74-008 cl dr, 6 ft
7-08-74	30.0	21.0	21.0	30.0	30.0	6.2	6.2	ebb 2	TRT-74-093 0.03m^2 Bong, 23ft
7-18-74	26.5	24.0	23.5	29.0	29.0	5.3	5.2	ebb 2	FAS-74-013 po gr, 6 ft
7-18-74	24.0	23.5	23.5	29.0	29.0	5.3	5.1	ebb 2	FAS-74-016 po gr, 7 ft
7-22-74	26.0	31.2	21.0	30.0	30.0	7.0	6.3	flood 2	CBM-74-141 16' trawl, 40 ft
7-22-74	-	-	-	-	-	-	-	ebb 2	DPS-74-044 0.03m2 Bong, 17ft
8-01-74	30.0	23.0	23.0	30.0	29.5	5.6	5.3	ebb 1	JJH-74-083 cl dr, 7 ft
8-01-74	32.0	26.5	25.5	28.5	29.0	5.4	5.7	ebb 1	JJH-74-084 cl dr, 20 ft
8-02-74	29.0	23.2	22.2	28.0	30.0	6.8	6.2	ebb 1	DPS-74-050 .03m^2 bong, 28ft
8-05-74	25.0	19.0	19.5	30.0	30.5	6.0	6.5	ebb 1	RPS-74-097 25' trawl, 15 ft
8-06-74	23.0	18.3	-	30.5	-	6.2	-	high	ZOB-74-081 Cl-Bump#20, 18ft
8-15-74	21.5	22.5	22.5	30.0	30.0	9.0	9.2	ebb 2	EVG-74-084 ponar gr, 7 ft
8-15-74	24.0	21.5	21.5	30.0	30.0	8.2	8.2	-	EVG-74-081.1 ponar gr, 4.5ft
8-20-74	26.0	22.2	22.8	30.0	30.0	6.0	6.5	flood 2	DAH-74-037 25' trawl, 23 ft
8-30-74	29.0	27.0	25.1	28.0	29.0	6.2	5.4	ebb 2	DPS-74-061 .03m^2bongo, 15ft
9-03-74	24.5	23.0	23.0	20.0	31.0	7.3	7.2	ebb 1	EVG-74-089 cl dredge, 10ft

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Appendix Table 2. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
9-03-74	24.5	23.5	23.0	30.0	30.0	7.4	7.4	ebb 1	EVG-74-090 cl dredge, 17 ft
9-10-74	24.0	20.3	20.5	23.0	27.5	6.9	6.6	low	DPS-74-062 0.03m^{2}bong, 25ft
9-17-74	27.0	21.0	21.0	30.0	30.0	6.6	5.8	flood 2	JJH-74-146 ponar gr, 7 ft
9-17-74	27.0	21.0	21.0	30.0	30.0	6.8	6.5	flood 2	JJH-74-147 ponar gr, 11 ft
9-24-74	14.0	16.5	16.5	29.0	29.5	7.5	7.0	flood 1	RPS-74-123 16' trawl, 15 ft
9-25-74	20.0	19.5	19.0	30.0	30.0	-	-	high	DPS-74-073 0.03m^{2}bong, 25ft
10-09-74	13.0	13.5	14.0	28.0	30.0	8.6	8.2	flood 1	DPS-74-074 0.03m^{2}bong.18 ft
10-22-74	6.5	7.0	7.0	28.0	29.0	8.5	9.6	flood 1	FAS-74-018 ponar gr, 5 ft
10-22-74	14.0	11.0	11.0	30.0	30.5	8.2	7.6	flood 2	FAS-74-021 ponar gr, 11 ft
10-22-74	6.5	7.0	7.0	28.0	29.0	8.5	9.6	flood 1	FAS-74-023 cl. dredge, 5 ft
10-22-74	6.0	7.0	7.2	26.5	27.5	9.2	9.3	flood 1	DAH-74-080 16' trawl, 24 ft
11-05-74	19.0	15.0	14.5	30.0	30.0	7.4	7.6	flood 2	TRT-74-152 0.03m^{2}Bong. 24ft
11-04-74	19.8	15.0	15.0	30.0	30.0	9.6	9.4	ebb 1	RPS-74-142 25' trawl 22'
11-13-74	14.0	11.0	11.0	29.5	29.5	8.5	8.4	ebb 2	EVG-74-110 ponar grab 7'
11-25-74	14.0	6.3	6.0	26.5	27.0	10.4	11.4	ebb 1	RPS-74-156 16' trawl 20'

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Appendix Table 3. Physicochemical parameters measured while taking biological collections in and around Little Egg Inlet (zone 1015 [1020 + 1030]), New Jersey during 1974.

	TEMPERATURE			SALINITY		OXYGEN			
		WATER							Collection No., Code & Depth
DATE	Air	Surface	Bottom	Surface	Bottom	Surface	Bottom	Tide	REMARKS
2-21-74	6.0	4.0	4.0	26.5	26.5	11.4	11.6	ebb 2	FJM-74-057 25' trawl, 16 ft
3-29-74	9.0	6.0	6.0	26.5	29.0	11.2	11.2	ebb 2 to flood 2	HKH-74-024 25' trawl, 17 ft
4-02-74	13.0	8.5	8.0	24.0	27.5	10.0	9.8	flood 1	FJM-74-080 25' trawl, 20 ft
1020 4-17-74	17.0	12.5	12.0	25.0	25.0	8.8	8.8	flood 2	JJH-74-041 cl dr, 10 ft
1020 4-25-74	9.0	9.0	9.0	30.5	30.5	9.2	10.6	flood 1	EVG-74-058 po gr, 10 ft
1020 5-14-74	21.0	15.0	14.5	25.0	28.0	7.5	7.2	flood 2	JJH-74-047 cl dr, 20 ft
1020 5-14-74	20.0	15.0	15.0	28.0	28.0	7.5	8.0	flood 2	JJH-74-050 cl dr, 10 ft
1015 5-20-74	14.4	24.0	15.0	30.0	30.0	8.6	8.6	ebb 2	RCB-74-072 25' trawl, - ft
1020 5-21-74	23.0	14.5	14.0	30.0	30.0	8.1	7.8	ebb 1	JJH-74-048 A po grab, 15 ft
1020 5-21-74	27.0	17.0	16.0	30.0	30.0	7.6	7.8	ebb 1	JJH-74-049 A po grab, 10 ft
1020 6-06-74	25.0	21.0	22.0	27.0	28.0	8.0	7.0	ebb 1	JJH-74-061 cl dr,
1020 6-06-74	19.0	19.5	19.0	29.0	30.0	6.0	6.8	ebb 1	JJH-74-060 cl dr, 15 ft
1020 6-13-74	26.0	21.0	21.0	27.5	28.0	6.1	5.9	flood 1	JJH-74-072 ponar gr, 15 ft
1020 6-13-74	26.0	22.0	22.0	26.0	26.0	6.8	6.9	flood 1	JJH-74-073 ponar gr, 6 ft
1015 6-25-74	17.0	18.5	18.2	29.5	29.5	8.4	8.3	flood 1	CBM-74-121 25' trawl, 14ft
1020 7-03-74	28.0	24.0	24.0	29.5	29.0	7.0	6.8	-	FAS-74-0010 cl dr, 11 ft
1020 7-18-74	25.0	22.0	23.0	29.0	29.0	5.8	5.5	ebb 2	FAS-74-014 po gr, 15 ft
1020 7-18-74	25.5	24.5	24.0	28.0	28.0	6.1	6.0	ebb 1	FAS-74-015 po gr, 10 ft
1020 8-01-74	30.0	26.0	26.0	29.0	29.0	6.0	6.2	ebb 1	JJH-74-087 cl dr, 10 ft
1020 8-15-74	21.5	21.5	21.5	30.0	30.0	9.5	10.7	ebb 2	EVG-74-082 ponar gr, 15ft
1020 8-15-74	21.5	23.0	23.0	28.0	27.0	10.1	10.2	ebb 1	EVG-74-083 ponar gr, 9 ft
1015 9-04-74	19.0	20.0	21.0	30.0	30.0	6.8	7.0	ebb 1	RCB-74-119 25' trawl, 15 ft
1020 9-03-74	24.0	23.0	23.0	30.0	30.0	8.4	7.8	ebb 1	EVG-74-088 cl dredge, 10 ft
1020 9-03-74	24.0	23.0	23.0	31.0	30.0	6.8	7.4	flood 2	EVG-74-087 cl dredge, 20 ft
1020 9-17-74	21.0	21.0	18.0	28.0	28.0	6.4	5.2	flood 2	JJH-74-144 ponar gr, 12 ft
1015 10-15-74	20.0	17.0	16.5	30.0	29.5	10.2	9.8	ebb 2	CBM-74-193 25' trawl, 11 ft
1020 10-22-74	11.5	9.0	10.0	29.5	30.0	8.0	7.6	flood 2	FAS-74-019 ponar gr, 16ft
1020 10-22-74	10.0	8.0	8.0	28.5	28.5	8.8	8.8	flood 2	FAS-74-020 ponar gr, 11 ft

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Appendix Table 3. (cont.)

DATE	TEMPERATURE: Air	TEMPERATURE: WATER Surface	TEMPERATURE: WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
1020 11-13-74	14.0	10.5	10.5	28.0	28.0	9.0	9.0	ebb 1	EVG-74-108 ponar grab 10'
1020 11-13-74	13.0	11.0	11.0	29.5	29.5	8.9	8.6	ebb 1	EVG-74-107 ponar grab 15'
1015 12-03-74	6.0	6.0	6.0	31.0	31.5	8.8	9.8	flood 2	CBM-74-210 25' trawl, 25 ft

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Appendix Table 4. Physicochemical parameters measured while taking biological collections in and around Little Egg Inlet (zones 5050 and 5060), New Jersey during 1974.

AREA Nearshore 5050

DATE	TEMPERATURE: Air	WATER: Surface	WATER: Bottom	SALINITY: Surface	SALINITY: Bottom	OXYGEN: Surface	OXYGEN: Bottom	Tide	Collection No., Code & Depth REMARKS
6-10-74								ebb 1	JHC-74-144 Phy-Pro, 19 ft
6-24-74								flood 2	JHC-74-146 Phy-Pro, 18 ft
8-01-74	32.0	23.5	22.0	30.0	30.0	6.3	6.1	ebb 1	JJH-74-085 61 dr, 20 ft
9-17-74	25.0	21.5	21.5	30.0	30.0	6.0	5.0	flood 2	JJH-74-145 ponar grab, 15ft

AREA Nearshore - 5060

DATE	TEMPERATURE: Air	WATER: Surface	WATER: Bottom	SALINITY: Surface	SALINITY: Bottom	OXYGEN: Surface	OXYGEN: Bottom	Tide	Collection No., Code & Depth REMARKS
3-08-74	9.5	7.0	7.0	28.0	28.5	11.1	11.2	ebb 2	DJD-74-042 gill net, 12 ft

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Appendix Table 5. Physicochemical parameters measured while taking biological collections in inner areas of Great Bay (zone 1075 [1065 + 1080]), New Jersey during 1974.

DATE	TEMPERATURE: Air	TEMPERATURE: WATER: Surface	TEMPERATURE: WATER: Bottom	SALINITY: Surface	SALINITY: Bottom	OXYGEN: Surface	OXYGEN: Bottom	Tide	Collection No., Code & Depth REMARKS
1065 1-15-74	2.0	0.3	0.0	13.0	22.0	12.2	13.4	flood 1	FJM-74-013 25' trawl, 8 ft
1065 1-15-74	7.5	1.0	0.5	16.0	18.5	13.4	13.4	flood 2	DJD-74-010 16' trawl, 8 ft
1065 1-15-74	4.5	1.0	0.5	16.0	18.5	13.4	13.4	flood 2	FJM-74-020 16' trawl, 8 ft
1065 1-15-74	2.0	0.3	0.0	12.0	22.0	12.2	13.4	flood 1	DJD-74-002 16' trawl, 8 ft
1080 1-15-74	4.5	1.0	0.5	15.0	17.5	12.8	12.5	flood 2	DJD-74-012 16' trawl, 7 ft
1080 1-15-74	2.0	0.2	0.0	26.5	26.5	12.2	12.7	flood 1	FJM-74-012 25' trawl, 6 ft
1070 1-16-74	5.0	1.0	-	19.2	-	11.8	-	flood 1	JHC-74-016 Phy-Pro, 7 ft
1070 1-16-74	5.0	1.0	-	18.2	-	11.8	-	flood 1	ZOB-74-009 C1-B #20, 7 ft
1080 1-25-74	11.0	6.0	5.5	18.0	24.0	11.4	11.5	ebb 1	DJD-74-020 500' g net, 7 ft
1065 2-08-74	-2.5	0.5	0.8	24.5	-	12.8	12.3	ebb 1	DJD-74-028 25' trawl, 12 ft
1080 2-08-74	-2.5	0.2	0.2	19.5	22.0	12.6	12.5	flood 2	FJM-74-027 16' trawl, 10 ft
1070 2-13-74	7.0	2.0	-	20.5	-	13.6	-	flood 2	ZOB-74-022 C1-B #20, 8 ft
1065 2-14-74	6.0	2.0	2.0	22.0	22.0	14.6	14.6	ebb 2	DJD-74-031 16' trawl, 6 ft
1080 2-14-74	3.5	2.0	2.0	20.0	20.5	13.9	14.5	ebb 2	JFM-74-041 16' trawl, 5 ft
1075 2-21-74	4.0	3.3	3.5	26.5	24.0	12.0	10.8	ebb 1	FJM-74-055 25' trawl, 7 ft
1080 3-07-74	15.0	9.5	8.0	24.0	26.5	11.0	10.7	ebb 1	HKH-74-014 500' gill n, 8 ft
1080 3-07-74	15.0	20.0	10.0	23.5	24.0	10.8	10.7	ebb 2	HKH-74-0015 500' gill n, 7 ft
1080 3-07-74	-	9.0	9.0	21.0	26.5	10.2	10.1	flood 2	HKH-74-013 500' gill n, 9 ft
1080 3-13-74	-	6.2	-	24.5	-	10.2	-	flood 2	TRT-74-026 ½m pl n(500), -
1080 3-15-74	2.0	4.5	4.5	19.0	20.5	11.2	11.0	flood 1	RCB-74-020 16' trawl, 5 ft
1065 3-15-74	7.0	4.2	4.2	26.5	26.5	11.9	11.9	flood 2	FJM-74-062 16' trawl, 6 ft
1075 3-19-74	11.0	7.6	7.5	20.5	20.0	11.1	10.7	flood 2	HKH-74-026 25' trawl, 5 ft
1080 3-22-74	4.5	6.0	6.0	20.0	23.5	10.0	9.8	ebb 1	RPS-74-019 16' trawl, 6 ft
1065 3-22-74	4.0	6.0	6.0	22.0	22.5	10.8	10.5	ebb 1	RPS-74-021 16' trawl, 5 ft
1080 3-26-74	5.5	5.6	-	15.0	-	10.8	-	flood 1	TRT-74-037 ½m pl n(500), -
1070 3-26-74	5.5	6.8	-	18.8	-	10.4	-	flood 2	JHC-74-079 Phy-Pro, 6 ft
1070 3-27-74	2.0	6.0	-	18.0	-	11.0	-	flood 2	ZOB-74-027 C1-B #20, 8 ft
1075 4-02-74	13.0	9.0	8.5	15.5	17.5	10.2	10.1	flood 1	FJM-74-082 25' trawl, 8 ft
1080 4-08-74	12.0	10.0	9.0	18.0	20.0	-	-	ebb 1	DPS-74-014 .03m^{2}bongo, 7 ft

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Appendix Table 5. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
1080 4-16-74	12.5	12.0	-	18.0	-	9.0	-	flood 1	DJD-74-049 900' gill n, 5 ft
1065 4-16-74	11.0	11.5	11.0	13.5	14.0	9.7	9.6	ebb 2	RCB-74-050 16' trawl, 6 ft
1080 4-16-74	9.5	11.5	11.0	16.5	17.0	9.5	9.8	ebb 1	CBM-74-073 25' trawl, 7 ft
1070 4-22-74	21.0	14.2	14.0	19.5	21.5	9.2	8.9	ebb 1	JHC-74-098 Phy-pro, 7 ft
1080 4-26-74	-	13.0	12.0	23.0	25.0	10.4	10.7	flood 2	TRT-74-054 0.3m^{2}bongo, 10
1080 5-06-74	13.0	13.5	13.0	24.0	25.5	9.1	9.0	ebb 1	RPS-74-040 900' gill net, 9 ft
1065 5-06-74	14.0	14.0	13.0	25.0	25.5	9.8	9.4	ebb 1	RPS-74-041 900' gill net, 8 ft
1080 5-08-74	14.0	14.0	14.0	22.0	22.0	9.3	9.0	ebb 2	DPS-74-019 0.03m^2 bongo, 6
1080 5-13-74	15.0	15.2	15.0	24.0	24.5	8.2	8.0	flood 2	HKH-74-072 16' trawl, 5 ft
1065 5-13-74	15.0	15.1	15.1	22.0	22.0	8.5	8.1	flood 2	HKH-74-073 16' trawl, 8 ft
1075 5-20-74	10.0	16.0	17.5	23.5	23.5	8.1	7.3	flood 2	RCB-74-070 25' trawl, 10 ft
1080 5-22-74	24.0	20.0	19.0	22.0	26.0	8.2	7.2	ebb 1	DPS-74-024 0.03m^2 bongo, 7
1070 5-22 74	25.5	20.5	19.0	21.5	26.0	8.5	8.0	ebb 2	JHC-74 133 Phy-Pro, 7 ft
1080 6-05-74	-	20.8	20.2	20.0	23.0	8.5	7.3	-	DPS-74-028 7 ft
1080 6-17-74	21.0	22.9	22.8	22.0	25.0	7.4	6.5	ebb 2	DJD-74-077 900' gill n, 7 ft
1065 6-17-74	26.0	23.0	23.0	21.0	22.0	6.8	6.4	ebb 2	DJD-74-078 900' gill n, 8 ft
1080 6-20-74	27.0	23.5	23.5	21.5	22.0	8.2	7.2	ebb 2	DAH-74-013 16' trawl, 5 ft
1065 6-20-74	28.0	24.0	24.0	23.5	24.0	6.8	6.2	ebb 2	RPS-74-064 16' trawl, 5 ft
1080 6-21-74	-	24.5	24.2	24.0	24.5	9.1	8.3	-	DPS-74-034 1/2m pl n, 6 ft
1075 6-25-74	17.0	20.0	20.0	25.5	25.0	8.3	7.9	flood 2	CBM-74-123 25' trawl, 7 ft
1065 7-01-74	26.0	23.2	23.0	23.0	24.0	8.0	7.7	flood 1	RPS-74-076 25' trawl, 8 ft
1080 7-01-74	27.0	24.0	23.5	27.0	22.0	8.0	8.0	flood 1	RPS-74-078 25' trawl, 7 ft
1080 7-08-74	-	26.0	26.0	25.0	25.0	6.6	6.6	flood 2	TRT-74-090 0.03m^2 Bong, 8 ft
1080 7-22-74	-	25.1	24.5	24.0	25.5	9.4	7.6	ebb 1	DPS-74-047 0.03m^2 Bong, 7ft
1080 7-18-74	25.5	24.0	24.0	26.0	26.0	7.5	6.3	ebb 2	DJD-74-103 900' g net, 7 ft
1080 7-22-74	26.0	24.0	24.0	24.2	24.7	7.0	6.9	ebb 1	CBM-74-146 16' trawl, 5 ft
1065 7-22-74	26.0	23.0	23.0	28.0	28.0	6.6	6.8	flood 2	CBM-74-140 16' trawl, 7 ft
1080 8-02-74	29.5	26.1	26.0	24.5	24.5	7.4	7.0	ebb 1	DPS-74-053 0.03m^{2}bongo, 7ft

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Appendix Table 5. (cont.)

DATE	TEMPERATURE Air	WATER Surface	WATER Bottom	SALINITY Surface	SALINITY Bottom	OXYGEN Surface	OXYGEN Bottom	Tide	Collection No., Code & Depth REMARKS
1080 8-05-74	28.0	26.9	26.9	24.0	24.0	6.3	6.1	ebb 2	RPS-74-100 25' trawl, 7 ft
1070 8-06-74	25.5	24.5	-	26.0	-	6.4	-	ebb 1	ZOB-74-086 C1 Bump#20, 8ft
1070 8-06-74	26.0	25.5	-	26.0	-	6.4	-	high	ZOB-74-087 C1 Bump#20, 8ft
1065 8-19-74	27.0	25.0	24.9	25.0	25.0	6.4	6.2	flood 2	DJD-74-110 900' gill net, 10ft
1080 8-19-74	26.0	25.0	25.0	25.5	25.5	5.6	5.5	flood 2	DJD-74-109 900' gill net, 9ft
1080 8-19-74	26.0	25.0	25.0	25.5	25.5	5.6	5.5	flood 2	DJD-74-108 Longline, 9ft
1080 8-19-74	24.5	24.0	-	23.5	-	8.2	-	flood 2	CBM-74-166 night light, 7ft
1065 8-20-74	30.0	26.0	25.5	28.0	28.0	8.6	8.9	ebb 1	EAI-74-024 16' trawl, 10ft
1080 8-20-74	25.0	25.0	25.0	26.0	26.5	7.9	7.3	flood 2	EAI-74-019 16' trawl, 5 ft
1080 8-22-74	26.0	24.1	24.0	22.0	22.0	6.4	6.5	flood 2	DJD-74-112 900' gill net, 6ft
1080 8-30-74	31.0	27.6	27.3	20.0	20.0	6.4	5.6	ebb 2	DPS-74-058 0.03m^{2}bongo, 7ft
1075 9-04-74	20.0	22.5	23,0	22.0	22.0	7.3	8.0	ebb 2	RCB-74-122 25' trawl, 8 ft
1080 9-10-74	28.0	22.0	21.1	16.5	19.0	6.0	5.3	flood 2	DPS-74-065 .03m^{2}bongo, 6ft
1080 9-16-74	18.0	22.0	22.0	22.0	22.0	-	-	flood 2	CBM-74-175 night/light, 7ft
1080 9-18-74	25.0	22.5	21.5	24.0	27.0	6.8	6.0	ebb 1	DJD-74-120 900' gill n, 10ft
1080 9-24-74	15.0	16.5	16.5	24.5	25.0	6.8	6.8	flood 2	RPS-74-126 16' trawl, 7 ft
1065 9-24-74	15.5	16.0	16.0	22.5	22.5	7.0	7.0	flood 1	RPS-74-122 16' trawl, 6 ft
1080 9-25-74	19.0	19.0	18.0	21.0	22.0	-	-	flood 1	DPS-74-070 .03m^{2}bongo, 7ft
10-09-74	17.3	14.2	14.0	22.0	24.0	8.0	8.2	flood 1	DPS-74-077 0.03m^{2}bong. 6ft
1075 10-15-74	22.5	16.0	16.5	23.5	23.5	8.4	8.4	ebb 2	CBM-74-195 25' trawl, 6 ft
1080 10-21-74	3.5	7.0	7.0	25.0	25.0	9.2	10.5	flood 1	DJD-74-128 900' gill, 7 ft
1080 10-22-74	11.0	8.0	8.0	20.0	20.5	9.1	9.1	flood 2	DAH-74-083 16' trawl, 6 ft
1065 10-22-74	12.0	7.5	8.0	22.0	25.0	9.2	9.2	flood 2	DAH-74-084 16' trawl, 6 ft
1080 11-04-74	23.0	16.8	16.0	26.0	27.5	9.1	9.1	ebb 1	RPS-74-144 25' trawl 8'
1080 11-05-74	-	14.8	14.8	22.0	22.0	7.6	8.2	flood 2	TRT-74-155 # 56 7'
1080 11-07-74	11.0	12.0	12.0	26.0	26.0	7.8	8.5	flood 2	HKH-74-101 900' gillnet 8'
1080 11-25-74	12.0	6.5	6.2	27.0	27.0	-	-	flood 1	RPS-74-161 16' trawl 5'
1065 11-25-74	13.5	6.0	6.0	24.5	24.5	11.4	11.8	ebb 2	RPS-74-155 16' trawl 5'
1075 12-03-74	6.5	4.0	4.0	28.0	28.0	10.0	10.5	flood 2	CBM-74-212 25' trawl, 9ft.

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Appendix Table 6. Physicochemical parameters measured while taking biological collections north and offshore of the Site area (zones 5850, 5650, 5620, 4340, 4940), New Jersey during 1974.

	TEMPERATURE								
		WATER		SALINITY		OXYGEN			Collection No., Code & Depth
DATE	Air	Surface	Bottom	Surface	Bottom	Surface	Bottom	Tide	REMARKS
5850 6-05-74	19.5	17.3	16.0	30.0	30.0	10.2	9.2	ebb 2	TRT-74-075 0.1m^{2}bongo, 60ft
5850 6-05-74	19.0	16.5	14.2	29.0	29.0	10.7	8.6	ebb 2	ZOO-74-069 Cl-Bump#20, 57ft
4340 6-05-74	18.0	17.0	15.8	28.0	30.0	11.1	9.4	ebb 1	ZOO-74-068 Long net, 55 ft
5850 10-07-74	20.0	18.0	17.0	30.0	31.0	8.0	9.2	ebb 1	TRT-74-140 0.1m^{2}bongo, 61ft
4940 10-07-74	19.5	17.0	16.8	30.0	32.0	8.4	8.8	ebb 2	TRT-74-141 0.1m^{2}bongo, 60ft
4340 10-07-74	19.0	16.5	16.5	30.0	31.0	9.5	10.0	ebb 2	TRT-74-142 0.1m^{2}bongo, 63ft
4340 11-04-74	16.3	15.0	15.0	30.0	30.5	6.4	6.2	flood 2	TRT-74-147 0.1m^{2}bongo, 55ft
4940 11-04-74	18.0	15.0	15.0	30.5	30.5	7.0	6.8	ebb 1	TRT-74-148 0.1m^{2}bongo, 73ft
5850 11-04-74	18.0	15.0	15.0	30.0	30.5	7.9	7.0	ebb 1	TRT-74-149 0.1m^{2}bongo, 60ft
5620 12-11-74	5.0	6.0	7.0	30.0	30.0	10.4	9.4	flood 1	TRT-74-162 ponar, 56 ft
5650 12-11-74	8.0	7.0	7.0	30.5	30.0	9.6	9.6	flood 1	TRT-74-163 ponar, 59 ft
5650 12-11-74	8.0	7.0	7.0	30.5	30.0	9.6	9.6	flood 1	TRT-74-164 1/2mpl.net, 59'
12-11-74	8.0	7.0	7.0	30.0	30.5	9.8	9.8	flood 1	TRT-74-165 ponar, 55 ft

Appendix Table 7. Number of fishes taken by 15- and 25-ft seines in both day and night collections in Great Bay in 1974.

Day/Night	D	N	D	D	D	D	D	D	N	D	D	D
Station	0003	0003	0034	0001	0003	0001	0034	0003	0003	0034	0001	0034
Depth (feet), sampled	0-2	0-2	0-2	0-2	0-3	0-2.5	0-3.5	0-2	0-2	0-3	0-2	0-3
Coll. No.	DJD-74-013	DJD-74-018	DJD-74-015	DJD-74-016	RCB-74-002	RCB-74-003	RCB-74-004	FJM-74-030	FJM-74-035	FJM-74-032	FJM-74-033	RPS-74-011
Date	16 January	16 January	16 January	16 January	29 January	29 January	29 January	12 February	12 February	12 February	12 February	26 February
Hour	0820-0835	2010-2025	0915-0930	0940-0955	1045-1115	1125-1200	1210-1245	0855-0920	2050-2110	0955-1015	1020-1035	1015-1035
Tide	Ebb 2	Ebb 2	Ebb 2	Flood 1	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2
Air Temp. (C)	03.0	05.0	01.8	03.0	11.0	15.0	12.0	-0.5	01.0	-0.5	01.5	-3.0
Temp. (C), surface	01.0	02.3	00.5	01.0	07.5	08.0	08.1	-0.5	00.0	00.0	00.3	-1.0
Sal. (ppt), surface	17.0	17.5	25.0	22.5	22.0	26.0	25.0	18.5	17.0	26.0	23.5	27.0
Oxygen (ppm), surface	12.4	13.0	12.2	12.4	10.0	10.0	09.8	12.9	12.7	13.0	12.5	14.2
Fundulus majalis	-	1	-	-	1	4	-	-	-	-	-	-
Menidia beryllina	-	2	1	-	-	-	-	-	-	-	-	-
M. menidia	-	9	-	1	1	5	-	-	-	-	-	-
Apeltes quadracus	-	-	-	-	-	1	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	7	-	-	-	-	-	-
Mugil curema	-	-	-	-	-	5	1	-	-	-	-	-
Total species	0	3	1	1	2	5	1	0	0	0	0	0
Total specimens	0	12	1	1	2	22	1	0	0	0	0	0

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Appendix Table 7. (cont.)

Day/Night	D	D	D	N	D	D	D	D	D	D	N	D
Station	0003	0001	0003	0003	0034	0001	0003	0001	0034	0003	0003	0001
Depth (feet), sampled	0-3.0	0-2.0	0-3.0	0-3.0	0-2.5	0-2.0	0-3.0	0-2.5	0-3.0	0-3.0	0-3	0-2
Coll. No.	RPS-74-009	RPS-74-012	RCB-74-013	RCB-74-018	RCB-74-015	RCB-74-016	RCB-74-030	RCB-74-033	RCB-74-032	RPS-74-029	RPS-74-034	RPS-74-031
Date	26 February	26 February	12 March	12 March	12 March	12 March	28 March	28 March	28 March	4 April	4 April	4 April
Hour	0915-0940	1045-1115	0835-0910	2030-2100	0945-1000	1010-1025	0935-1000	1035-1110	1115-1135	1045-1115	2300-2330	1215-1240
Tide	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 2	Ebb 2	Ebb 2
Air Temp. (C)	-4.0	-0.5	-	9.0	-	-	7.0	9.5	8.0	13.0	13.0	16.0
Temp. (C), surface	0.0	-2.0	6.5	5.5	5.0	5.2	6.0	6.0	6.0	11.0	10.0	10.0
Sal. (ppt), surface	24.0	26.5	26.5	22.5	28.0	26.0	23.5	25.0	26.0	19.5	20.0	27.0
Oxygen (ppm), surface	12.6	14.8	11.0	10.1	11.1	11.5	11.0	10.0	10.0	10.2	10.2	11.2
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	2	-
Urophycis regius	-	-	-	-	-	-	-	-	-	-	2	-
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	1
Fundulus heteroclitus	-	-	-	-	-	-	-	1	1	1	-	-
F. majalis	-	-	-	1	2	-	-	1	-	-	-	-
Menidia beryllina	-	-	1	2	2	4	-	7	2	1	-	6
M. menidia	-	-	-	19	-	1	-	6	1	-	4	21
Apeltes quadracus	-	-	-	3	-	1	-	3	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	8	-	9	-	-	-	-
Syngnathus fuscus	-	-	-	1	-	-	-	-	-	-	1	-
Mugil curema	-	-	1	1	-	-	-	-	-	1	-	-
Psuedopleuronectes americanus	-	-	-	-	-	-	-	-	1	-	-	-
Total species	0	0	2	6	2	4	0	6	4	3	4	3
Total specimens	0	0	2	27	4	14	0	27	5	3	9	28

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Appendix Table 7. (cont.)

Day/Night	D	D	D	D	D	N	D	D	D	D	D	D
Station	0034	0003	0034	0001	0003	0003	0034	0001	0003	0001	0034	0001
Depth (feet), sampled	0-2	0-4	0-4	0-2	0-2.5	0-2.5	0-3	0-2	0-3	0-1.5	0-3	0-1.5
Coll. No.	RPS-74-032	CBM-74-081	CBM-74-082	CBM-74-085	RCB-74-056	RCB-74-061	RCB-74-058	RCB-74-059	DJD-74-057	DJD-74-059	DJD-74-060	RCB-74-077
Date	4 April	24 April	24 April	24 April	7 May	7 May	7 May	7 May	22 May	22 May	22 May	6 June
Hour	1245-1315	1150-1210	1300-1320	1350-1410	0910-0930	2055-2120	1015-1030	1035-1110	1000-1020	1145-1210	1250-1310	1105-1140
Tide	Ebb 2	Ebb 1	Ebb 2	Ebb 2	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 1
Air Temp. (C)	16.0	11.0	11.0	11.5	09.5	09.0	11.0	14.5	27.0	24.0	25.0	21.5
Temp. (C), surface	12.0	13.0	11.8	11.2	12.5	13.3	12.0	13.0	20.5	23.0	21.0	24.0
Sal. (ppt), surface	25.5	25.0	28.5	29.0	28.5	27.5	29.5	28.5	24.5	29.0	29.5	26.0
Oxygen (ppm), surface	10.2	09.7	10.2	09.2	09.4	08.6	09.2	09.8	07.9	08.2	08.1	08.0
Brevoortia tyrannus	-	-	-	-	-	-	-	-	156	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	35	-	-	-
Pollachius virens	-	-	-	1	-	-	1	-	-	-	-	-
Urophycis tenuis	1	-	-	-	-	-	-	-	-	-	-	-
Cyprinodon variegatus	1	-	-	-	-	-	9	12	-	1	-	-
Fundulus heteroclitus	4	-	-	5	-	-	1	8	1	34	64	12
F. majalis	-	-	1	15	1	-	-	23	-	-	2	6
Lucania parva	-	-	-	-	-	-	-	-	-	1	-	-
Menidia beryllina	1	1	-	6	-	-	-	-	1	-	3	-
M. menidia	4	-	18	18	1	4	4	1	5	3	-	12
Apeltes quadracus	2	-	1	1	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	2	-	-	-	-	-	-	-	-
Mugil curema	-	-	-	2	-	-	1	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	1	-	-	-
Total species	6	1	3	8	2	1	5	4	6	4	3	3
Total specimens	13	1	20	50	2	4	16	44	199	39	69	30

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Appendix Table 7. (cont.)

Day/Night	D	N	D	D	D	D	D	N	D	D	D	D
Station	0003	0003	0034	0003	0034	0001	0003	0003	0034	0001	0001	0034
Depth (feet), sampled	0-3	0-3.5	0-2.5	0-3	0-2.5	0-2	0-3	0-3	0-3	0-2	0-3	0-3
Coll. No.	RCB-74-074	RCB-74-079	RCB-74-076	RCB-74-087	RCB-74-089	RCB-74-090	DJD-74-091	DJD-74-096	DJD-74-093	DJD-74-094	RPS-74-087	RPS-74-088
Date	6 June	6 June	6 June	19 June	19 June	19 June	11 July	11 July	11 July	11 July	24 July	24 July
Hour	0900-0935	2110-2140	1025-1100	0900-0920	1015-1045	1100-1130	0850-0910	2100-2120	1005-1030	1040-1105	0945-1030	1115-1145
Tide	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2
Air Temp. (C)	22.5	18.0	26.5	30.0	26.0	28.0	27.0	21.0	23.0	26.0	22.0	23.0
Temp. (C), surface	20.5	21.0	21.0	23.0	23.0	25.0	25.9	25.0	24.0	24.0	21.0	22.0
Sal. (ppt), surface	24.0	22.0	27.5	24.0	28.0	28.0	25.5	25.0	28.0	28.0	28.0	29.5
Oxygen (ppm), surface	7.5	8.1	6.6	7.3	6.2	7.2	7.6	7.2	7.8	8.4	9.0	6.8
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	9	-
Alosa pseudoharengus	-	1	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	22	-	-	-	-	-	-	1	-	-	-	-
Anchoa mitchilli	1	-	-	45	-	-	-	1	-	-	-	-
Rissola marginata	-	3	-	-	-	-	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	1	3	-	-	-	-	-	-	-
Fundulus heteroclitus	-	-	12	-	48	3	9	-	-	5	24	10
F. majalis	-	-	3	-	4	-	-	-	-	1	11	3
Lucania parva	-	-	-	-	-	-	-	-	-	-	2	-
Menidia beryllina	37	-	-	-	-	-	-	-	-	-	-	-
M. menidia	53	3	-	27	200+	80+	7	13	43	9	325+	167
Gasterosteus aculeatus	-	-	-	2	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	1	-	-	5	-	-	-	-	1	-
Mycteroperca microlepis	-	1	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	1	-	-	1	1	1	-	-	-	-	-	-
Trachinotus falcatus	-	-	-	-	-	-	1	2	-	5	1	-
Leiostomus xanthurus	-	-	-	-	-	1	-	-	-	-	-	-
Mugil curema	-	-	-	-	7	-	-	-	-	-	-	-
Sphyraena borealis	-	-	-	-	-	-	-	-	-	-	-	2
Paralichthys dentatus	-	-	-	-	-	-	1	-	-	-	-	-
Chilomycterus schoepfi	-	-	-	-	-	-	-	1	-	-	-	-
Total species	5	4	3	5	6	5	4	5	1	4	7	4
Total specimens	114	8	16	76	263+	90+	18	18	43	20	373+	182

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Appendix Table 7. (cont.)

Day/Night	D	D	N	D	D	D	D	D	D	N	D	D
Station	0003	0003	0003	0034	0001	0001	0034	0003	0003	0003	0001	0034
Depth (feet) sampled	0-2	0-2	0-2.5	0-3	0-2	0-2.5	0-3	0-3	0-3.5	0-3	0-3	0-3.5
Coll. No.	RPS-74-090	DAH-74-030	DAH-74-035	DAH-74-032	DAH-74-033	RCB-74-111	RCB-74-112	RCB-74-114	DAH-74-046	DAH-74-051	DAH-74-048	DAH-74-049
Date	24 July	7 August	7 August	7 August	7 August	21 August	21 August	21 August	12 September	12 September	12 September	12 September
Hour	1250-1315	0935-0955	2145-2215	1115-1145	1210-1245	0955-1035	1040-1110	1155-1225	0845-0915	2045-2130	1045-1140	1200-1250
Tide	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Flood 2	Ebb 2	Ebb 2	Flood 1	Flood 2
Air Temp. (C)	23.0	19.0	19.0	19.0	19.0	25.0	25.0	25.0	28.0	24.5	27.0	29.5
Temp. (C), surface	23.0	23.0	22.0	21.5	19.5	24.4	25.0	25.5	24.0	25.0	26.0	26.0
Sal. (ppt), surface	27.0	26.0	26.5	28.5	28.5	28.0	28.0	25.0	22.0	22.0	25.8	27.0
Oxygen (ppm), surface	8.4	6.4	5.7	6.3	6.5	6.1	6.4	6.6	7.5	7.2	7.8	6.0
Anguilla rostrata	-	-	-	-	2	-	-	-	-	-	4	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	1
A. mitchilli	-	-	-	1	-	-	-	-	-	3	-	5
Rissola marginata	-	-	1	-	-	-	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	2
Fundulus heteroclitus	-	-	1	3	-	-	4	-	-	-	2	136+
F. majalis	-	1	1	1	1	24	-	-	-	2	5	-
Menidia beryllina	-	-	-	-	-	-	-	-	-	-	1	1
M. menidia	52	65	50	250+	8	32	77	65	4	6	153	933+
Syngnathus fuscus	-	-	-	-	-	-	1	-	-	-	5	2
Pomatomus saltatrix	-	3	-	-	-	-	2	-	-	-	-	-
Trachinotus carolinus	-	-	-	-	-	1	-	-	-	-	-	-
T. falcatus	1	3	-	-	-	4	-	-	-	2	-	-
Stenotomus chrysops	-	-	-	-	-	-	1	-	-	-	-	-
Bairdiella chrysura	-	-	2	-	1	-	-	-	-	-	-	1
Menticirrhus saxatilis	-	7	-	-	-	-	-	-	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	1	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	-	9
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	2
Total species	2	5	5	4	4	4	5	1	1	4	7	10
Total specimens	53	79	55	255+	12	61	85	65	4	13	171	1092+

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Appendix Table 7. (cont.)

Day/Night	D	D	D	D	N	D	D	D	D	D	D	N
Station	0001	0034	0003	0003	0003	0001	0034	0001	0034	0003	0003	0003
Depth (feet), sampled	0-1.5	0-2.5	0-3	0-2.5	0-2	0-2	0-2.5	0-1.5	0-2.5	0-3.5	0-3	0-2
Coll. No.	RCB-74-135	RCB-74-136	RCB-74-138	RCB-74-139	HKH-74-088	RCB-74-141	RCB-74-142	RCB-74-145	RCB-74-146	RCB-74-148	RPS-74-146	RPS-74-151
Date	25 September	25 September	25 September	10 October	10 October	10 October	10 October	25 October	25 October	25 October	12 November	12 November
Hour	1000-1035	1040-1115	1205-1235	0910-0935	2100-2130	1040-1110	1120-1210	1015-1040	1045-1110	1145-1210	0900-0910	2115-2135
Tide	Flood 2	Flood 2	Ebb 1	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 2	Ebb 2	Flood 1	Ebb 1	Ebb 1
Air Temp. (C)	17.0	17.0	20.0	19.0	13.0	19.5	23.0	15.0	16.0	17.0	14.0	13.0
Temp. (C), surface	16.0	15.0	17.5	13.0	14.0	15.0	16.0	12.0	11.0	11.0	10.5	12.5
Sal. (ppt), surface	29.5	28.0	23.0	25.5	25.5	28.0	29.0	28.5	28.0	23.5	25.5	26.0
Oxygen (ppm), surface	8.2	7.5	7.4	9.2	9.2	9.8	8.5	9.7	9.4	9.4	9.1	12.1
Anchoa mitchilli	-	-	-	-	3	-	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	7	-	3	-	-	-
Fundulus heteroclitus	200+	225+	-	-	-	-	375+	15	130+	3	-	-
Fundulus majalis	12	1	-	1	-	2	-	15	1	-	-	1
Menidia beryllina	-	-	-	-	-	-	40	-	3	5	1	-
Menidia menidia	11	18	55	14	24	18	17	6	5	17	5	2
Syngnathus fuscus	1	-	-	-	-	-	-	-	-	-	-	-
Trachinotus falcatus	1	-	-	-	2	-	-	-	-	-	-	-
Bairdiella chrysura	1	-	-	-	-	-	-	-	-	-	-	-
Gobiosoma bosci	-	3	-	-	1	-	-	-	-	-	-	-
Pseudopleuronectes americanus	2	-	-	-	-	-	-	-	-	-	-	-
Total species	7	4	1	2	4	2	4	3	5	3	2	2
Total specimens	228+	247+	55	15	30	20	439+	36	142+	25	6	3

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Appendix Table 7. (cont.)

Day/Night	D	D	D	D	D
Station	0034	0001	0003	0034	0001
Depth (feet), sampled	0-3	0-2	0-2	0-3	0-2
Coll. No.	RPS-74-148	RPS-74-149	RCB-74-149	RCB-74-151	RCB-74-152
Date	12 November	12 November	22 November	22 November	22 November
Hour	0955-1012	1020-1045	0905-0925	1010-1030	1040-1110
Tide	Ebb 1	Ebb 2	Flood 1	Flood 1	Flood 2
Air Temp. (C)	13.0	14.0	6.0	7.0	6.5
Temp. (C), surface	11.0	12.5	6.3	4.8	6.0
Sal. (ppt), surface	28.0	28.5	20.0	27.5	28.0
Oxygen (ppm), surface	8.9	9.8	10.8	11.3	10.7
Fundulus heteroclitus	-	-	10	103	8
Fundulus majalis	-	3	-	-	17
Menidia beryllina	92+	-	8	1	4
Menidia menidia	-	1	19	1	80+
Morone americana	-	-	1	1	-
Total species	1	2	4	4	4
Total specimens	92+	4	38	106	109+

+ A number followed by a + indicates a conservative estimate.

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Appendix Table 8. Number of fishes taken by 15- and 25-ft seines in both day and night collections in Little Egg Harbor in 1974.

Day/Night	D	N	D	D	N	D	D	N	D	D	N	D
Station	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002
Depth (feet), sampled	0-2	0-2	0-3.5	0-2	0-2	0-2	0-2.5	0-2.5	0-3	0-2	0-2	0-4
Coll. No.	DJD-74-014	DJD-74-019	RCB-74-005	FJM-74-031	FJM-74-036	RPS-74-010	RCB-74-014	RCB-74-019	RCB-74-031	RPS-74-030	RPS-74-035	CBM-74-083
Date	16 January	16 January	29 January	12 February	12 February	26 February	12 March	12 March	28 March	4 April	4 April	24 April
Hour	0845-0905	2035-2055	1250-1320	0930-0950	2120-2140	0950-1010	0920-0940	2110-2140	1145-1220	1130-1145	2335-2400	1230-1250
Tide	Ebb 2	Ebb 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 1	Flood 1	Flood 2	Ebb 2	Ebb 2	Ebb 1
Air Temp. (C)	01.8	05.0	13.0	-0.5	01.0	-3.5	-	06.0	07.0	13.0	14.0	11.0
Temp. (C), surface	00.5	02.0	09.0	00.0	00.8	00.5	05.5	05.0	07.0	10.0	09.5	12.7
Sal. (ppt), surface	23.0	22.5	24.0	25.5	24.5	24.5	26.0	25.5	25.5	24.0	24.0	25.5
Oxygen (ppm), surface	12.9	13.2	09.8	12.9	12.1	12.6	10.8	09.8	10.0	12.2	10.8	09.0
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	1	-
Alosa aestivalis	-	-	2	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	3
Fundulus heteroclitus	-	2	-	-	2	-	-	-	1	9	9	1
F. majalis	-	3	11	-	2	-	13	19	3	3	-	2
Menidia beryllina	-	-	-	-	1	-	2	2	4	14	4	-
M. menidia	-	3	89	-	-	-	-	10	41	31	96	1
Apeltes quadracus	-	6	-	1	4	-	-	3	-	-	-	-
Gasterosteus aculeatus	-	-	1	-	-	-	1	20	7	-	-	-
Ammodytes sp.	-	-	2	-	-	-	-	-	-	-	-	-
Total species	0	4	5	1	4	0	3	5	5	4	4	4
Total specimens	0	14	105	1	9	0	16	54	56	57	110	7

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Appendix Table 8. (cont.)

Day/Night	D	N	D	D	N	D	D	N	D	D	N	D
Station	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002	0002
Depth (feet), sampled	0-3	0-3	0-3	0-2.5	0-3	0-3	0-2.5	0-2.5	0-3	0-2	0-2.5	0-3.5
Coll. No.	RCB-74-057	RCB-74-062	DJD-74-058	RCB-74-075	RCB-74-080	RCB-74-088	DJD-74-092	DJD-74-097	RPS-74-089	DAH-74-031	DAH-74-036	RCB-74-113
Date	7 May	7 May	22 May	6 June	6 June	19 June	11 July	11 July	24 July	7 August	7 August	21 August
Hour	0945-1010	2130-2155	1050-1110	0950-1015	2150-2230	0945-1010	0930-0955	2135-2200	1210-1235	1030-1100	2300-2335	1120-1145
Tide	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Ebb 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2
Air Temp. (C)	11.0	09.0	26.0	25.0	18.5	26.5	23.0	22.0	23.0	19.0	19.0	26.0
Temp. (C), surface	12.8	13.0	20.0	21.7	21.0	24.0	25.7	25.0	23.0	22.0	21.0	25.2
Sal. (ppt), surface	28.0	27.5	27.5	26.0	26.0	27.0	26.0	26.5	28.0	25.5	26.2	26.0
Oxygen (ppm), surface	9.7	9.2	7.8	8.8	7.8	6.8	8.2	7.4	9.6	6.6	5.7	6.8
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	1	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	2	-	1	-	-	18	1	-	-	2	9
Urophycis regius	-	1	-	-	-	-	-	-	-	-	-	-
Rissola marginata	-	-	-	-	3	-	-	-	-	-	-	-
Strongylura marina	-	-	-	-	-	-	-	-	-	1	1	-
Cyprinodon variegatus	1	3	3	-	-	-	-	-	-	-	-	-
Fundulus heteroclitus	-	-	5	-	2	1	4	7	-	12	9	-
F. majalis	7	10	184	3	107	-	1	3	3	10	19	-
Lucania parva	-	3	-	-	-	-	-	-	-	-	-	-
Menidia beryllina	-	-	-	-	-	-	-	-	-	1	2	-
M. menidia	8	16	-	1	-	150+	175+	285+	86	84	263+	3
Syngnathus fuscus	-	-	1	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	2	1	1	-	-	-	4
Trachinotus falcatus	-	-	-	-	-	-	-	1	-	-	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	1	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	1	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	1	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	1	4	-
Sphyraena borealis	-	-	-	-	-	-	-	2	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	-	-	-	3	-
Pseudopleuronectes americanus	-	-	-	-	1	-	-	-	-	-	-	-
Total species	3	6	4	3	4	3	5	7	4	7	9	3
Total specimens	16	35	193	5	113	153+	199+	300+	91	110	304+	16

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Appendix Table 8. (cont.)

Day/Night	D	N	D	D	N	D	D	N	D
Station	0002	0002	0002	0002	0002	0002	0002	0002	0002
Depth (feet), sampled	0-3	0-2.5	0-3	0-3	0-2	0-3	0-3	0-3	0-2.5
Coll. No.	DAH-74-047	DAH-74-052	RCB-74-137	RCB-74-140	HKH-74-089	RCB-74-147	RPS-74-147	RPS-74-152	RCB-74-150
Date	12 September	12 September	25 September	10 October	10 October	25 October	12 November	12 November	22 November
Hour	0945-1015	2200-2240	1120-1155	0945-1025	2150-2220	1115-1135	0930-0945	2200-2230	0940-1005
Tide	Ebb 2	Ebb 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Ebb 1	Ebb 1	Flood 1
Air Temp. (C)	27.8	24.0	18.5	17.0	13.0	16.0	13.0	13.5	6.0
Temp. (C), surface	24.0	25.0	16.5	14.0	14.0	11.0	10.5	12.5	4.5
Sal. (ppt), surface	26.0	25.0	26.0	28.5	29.0	27.5	27.0	27.0	26.0
Oxygen (ppm), surface	7.5	7.4	8.8	9.4	9.5	11.2	9.6	11.1	13.5
Brevoortia tyrannus	-	1	-	-	-	-	-	-	-
Anchoa hepsetus	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	3	22	-	-	2	-	-	-	-
Cyprinodon variegatus	-	-	-	1	1	8	5	-	2
Fundulus heteroclitus	-	-	-	4	-	41	150+	1	16
Fundulus majalis	1	2	3	-	-	28	4	2	2
Menidia beryllina	19	-	-	7	-	-	5	-	3
Menidia menidia	295	189	200+	37	112	9	20	110+	3
Syngnathus fuscus	-	-	1	1	1	-	-	-	-
Pomatomus saltatrix	-	1	-	-	-	-	-	-	-
Lutjanus griseus	-	-	-	1	-	-	-	-	-
Bairdiella chrysura	-	2	-	-	-	-	-	-	-
Mugil curema	-	7	-	-	-	-	-	-	-
Gobiosoma bosci	-	-	-	-	2	-	-	-	-
Total species	5	7	3	6	5	4	5	3	5
Total specimens	319	224	204+	51	118	86	184+	113+	26

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Appendix Table 9. Number of fishes taken by 15- and 25-ft seines during day collections in the Mullica River in 1974.

Day/Night	D	D	D	D	D	D	D	D	D	D	D	D
Station	0005	0005	0005	0005	0005	0005	0005	0006	0008	0005	0006	0008
Depth (feet), sampled	0-1.5	0-3.5	0-3	0-3	0-3.5	0-2	0-2	0-3	0-3	0-4	0-3	0-3
Coll. No.	DJD-74-017	RCB-74-001	FJM-74-034	RCB-74-012	RCB-74-017	RCB-74-029	RPS-74-033	RCB-74-042	RCB-74-043	CBM-74-080	DJD-74-053	DJD-74-054
Date	16 January	29 January	12 February	22 February	12 March	28 March	4 April	9 April	9 April	24 April	26 April	26 April
Hour	1050-1105	0940-1010	1100-1120	1345-1400	1100-1130	0850-0920	1420-1445	1115-1130	1145-1210	1045-1115	1455-1510	1525-1545
Tide	Ebb 2	Flood 1	Flood 2	Ebb 2	Flood 2	Flood 1	Ebb 2	Flood 2	Ebb 1	Flood 2	Ebb 1	Ebb 1
Air Temp. (C)	08.0	11.0	02.5	14.0	-	06.0	21.0	08.9	09.4	11.0	20.5	20.5
Temp. (C), surface	00.5	08.0	00.5	05.2	07.8	06.0	12.0	10.0	11.0	14.2	16.8	17.9
Sal. (ppt), surface	03.0	04.0	07.5	14.0	10.5	02.0	02.5	00.0	00.0	11.5	03.0	00.0
Oxygen (ppm), surface	13.3	11.0	13.1	12.6	10.7	12.0	10.4	09.9	09.8	07.8	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	10	-	25
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	2	-	-
Notemigonus crysoleucas	-	-	-	-	-	-	-	1	6	-	-	-
Fundulus diaphanus	-	-	-	-	-	-	-	-	6	-	2	21
F. heteroclitus	-	-	-	-	-	-	6	-	-	2	-	-
F. majalis	-	1	-	-	-	-	-	-	-	-	-	-
Menidia beryllina	-	2	-	1	2	-	1	-	-	1	-	-
M. menidia	-	-	-	6	30	-	-	-	-	5	-	-
Lepomis gibbosus	-	-	-	-	-	-	-	-	-	-	-	1
Etheostoma olmstedi	-	-	-	-	-	-	-	-	1	-	-	-
Mugil curema	-	-	-	-	2	-	-	-	-	4	-	-
Total species	0	2	0	2	3	0	2	1	3	6	1	3
Total specimens	0	3	0	7	34	0	7	1	13	24	2	47

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Appendix Table 9. (cont.)

Day/Night	D	D	D	D	D	D	D	D	D	D	D	D	D
Station	0005	0006	0008	0005	0006	0008	0005	0006	0008	0005	0006	0008
Depth (feet), sampled	0-3.5	0-2.5	0-3.0	0-3.0	0-2.5	0-1.5	0-3.0	0-2.0	0-2.0	0-3.0	0-2.5	0-3.0
Coll. No.	RCB-74-060	RCB-74-068	RCB-74-069	DJD-74-056	DJD-74-063	DJD-74-064	RCB-74-078	DAH-74-007	DAH-74-008	RCB-74-091	RCB-74-093	RCB-74-094
Date	7 May	10 May	10 May	22 May	30 May	30 May	6 June	13 June	13 June	19 June	26 June	26 June
Hour	1135-1210	0925-1010	1020-1110	0900-0925	1055-1125	1150-121	1215-1255	1045-1110	1130-1200	1220-1300	1005-1040	1105-1130
Tide	Ebb 1	Flood 1	Flood 2	Flood 2	Ebb 2	Ebb 2	Ebb 1	Flood 1	Flood 1	Ebb 2	Flood 1	Flood 1
Air Temp. (C)	14.5	17.5	19.5	23.0	20.0	20.0	27.0	26.5	26.0	28.0	19.5	20.5
Temp. (C), surface	15.2	15.0	15.5	19.0	18.5	18.8	21.5	24.2	25.8	25.0	19.2	20.0
Sal. (ppt), surface	15.0	1.0	0.0	12.0	1.5	0.0	12.0	0.0	0.0	12.0	3.5	1.5
Oxygen (ppm), surface	8.2	8.4	8.5	7.6	7.8	7.4	6.9	6.4	8.3	6.4	5.0	5.8
Anguilla rostrata	-	2	-	1	-	-	-	-	-	-	-	8
Alosa pseudoharengus	-	-	-	-	-	9	-	-	-	-	3	-
Alosa sp.	-	-	-	-	-	-	-	-	70	-	-	-
Brevoortia tyrannus	-	1	1	82	15	580	5	-	15	-	-	-
Anchoa mitchilli	2	-	-	22	32	-	-	-	-	-	-	-
Synodus foetens	-	-	-	-	-	-	1	-	-	-	-	-
Notemigonus crysoleuca	-	-	9	-	-	1	-	-	-	-	-	-
Catostomus commersoni	-	-	-	-	-	10	-	-	88	-	-	-
Fundulus diaphanus	-	4	203	-	-	119	-	-	58	-	1	105
F. heteroclitus	-	46	-	2	64	2	2	125	-	3	3	-
Menidia beryllina	-	-	-	-	-	3	-	-	-	-	1	-
M. menidia	2	-	-	-	1	-	2	-	-	18	-	-
Syngnathus fuscus	1	-	-	-	-	-	-	-	-	-	2	1
Morone americana	-	-	1	-	-	-	-	1	122	-	8	18
M. saxatilis	-	-	-	-	-	7	-	-	-	-	-	-
Etheostoma olmstedi	-	-	-	-	-	-	-	-	-	-	-	1
Perca flavescens	-	-	-	-	-	2	-	-	2	-	-	-
Pomatomus saltatrix	-	-	-	-	1	-	-	-	-	1	1	-
Leiostomus xanthurus	-	-	-	-	13	-	6	2	-	5	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	1	-
Gobiosoma bosci	1	-	-	-	-	-	-	-	-	1	-	-
Paralichthys dentatus	-	-	-	-	1	-	-	-	-	-	-	-
Trinectes maculatus	-	3	-	-	8	-	-	-	-	-	-	1
Total species	4	5	4	4	8	9	5	3	6	5	8	6
Total specimens	6	56	214	107	135	733	16	128	355	28	20	134

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Appendix Table 9. (cont.)

Day/Night	D	D	D	D	D	D	D	D	D	D	D	D
Station	0006	0008	0005	0005	0006	0008	0005	0005	0005	0005	0005	0005
Depth (feet), sampled	0-2	0-3	0-3	0-3	0-2	0-3	0-3.5	0-3	0-3.5	0-3.5	0-3.5	0-3
Coll. No.	RPS-74-080	RPS-74-081	DJD-74-095	RPS-74-091	RCB-74-104	RCB-74-105	DAH-74-034	RCB-74-110	DAH-74-050	RCB-74-134	RCB-74-143	RCB-74-144
Date	10 July	10 July	11 July	24 July	25 July	25 July	7 August	21 August	13 September	25 September	10 October	25 October
Hour	1000-1040	1100-1135	1145-1205	1400-1435	1015-1055	1105-1140	1350-1410	0855-0925	1325-1415	0845-0915	1225-1310	0930-0950
Tide	Flood 1	Flood 1	Flood 2	Flood 2	Flood 1	Flood 1	Ebb 1	Flood 1	Flood 1	Flood 1	Flood 1	Ebb 2
Air Temp. (C)	32.0	32.5	26.0	23.0	23.0	24.0	19.0	25.5	31.0	15.0	24.0	15.0
Temp. (C), surface	29.0	29.0	27.0	23.0	22.0	23.5	23.5	25.0	24.5	18.0	15.0	10.0
Sal. (ppt), surface	0.5	0.0	15.0	20.5	3.0	1.0	16.0	10.0	5.0	13.0	12.5	13.5
Oxygen (ppm), surface	6.6	7.0	8.8	7.8	5.6	6.2	5.8	6.2	5.5	7.6	8.2	10.0
Anguilla rostrata	-	-	-	-	-	1	-	-	-	-	-	-
Alosa pseudoharengus	-	4	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	2	-	-	-	-	-
Notemigonus crysoleucas	-	1	-	-	-	-	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	-	-	-	-	-	2
Fundulus diaphanus	10	63	-	-	-	71	-	-	-	-	-	-
F. heteroclitus	57	1	-	-	70+	5	-	-	1	-	6	1
Menidia beryllina	1	13	-	-	-	1	-	-	-	-	27	1
M. menidia	-	-	135+	98	-	8	187	206	168+	57	25	-
Syngnathus fuscus	-	-	1	-	-	-	-	1	-	-	2	-
Morone americana	1	20	-	-	-	30	-	-	-	-	-	-
Pomatomus saltatrix	1	-	-	-	-	-	-	-	-	-	-	-
Caranx hippos	-	-	-	-	-	-	-	-	1	-	-	-
Selene vomer	-	-	-	1	-	-	-	-	-	-	-	-
Bairdiella chrysura	-	-	-	-	-	-	3	25	-	-	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	2	3	-	1	-
Total species	5	6	2	3	1	6	3	4	4	1	5	3
Total specimens	70	102	136+	100	70+	116	192	234	193+	57	61	4

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Appendix Table 9. (cont.)

Day/Night	D	D
Station	0005	0005
Depth (feet), sampled	0-3	0-2.5
Coll. No.	RPS-74-150	RCB-74-153
Date	12 November	22 November
Hour	1115-1130	1140-1155
Tide	Ebb 2	Flood 2
Air Temp. (C)	16.0	6.5
Temp. (C), surface	10.5	7.0
Sal. (ppt), surface	19.5	11.5
Oxygen (ppm), surface	9.7	10.6
Fundulus heteroclitus	-	8
Menidia beryllina	2	-
Menidia menidia	17	-
Total species	2	1
Total specimens	19	8

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Appendix Table 10. Number of fishes taken by 15- and 25-ft seines in both day and night collections in bay waters behind Brigantine in 1974.

Day/Night	D	N	D	D	D	D	N	D	D	D	N	D
Station	0016	0016	0040	0040	0016	0016	0016	0040	0016	0016	0016	0040
Depth (feet), sampled	0-4	0-2	0-2.5	0-2	0-2.5	0-3	0-2.5	0-3	0-2	0-3	0-3	0-3
Coll. No.	CBM-74-011	CBM-74-016	CMB-74-014	DJD-74-022	DJD-74-025	HKH-74-007	HKH-74-011	RPS-74-014	RPS-74-015	HKH-74-017	HKH-74-022	HKH-74-021
Date	16 January	16 January	16 January	29 January	29 January	12 February	12 February	26 February	26 February	12 March	12 March	12 March
Hour	0850-0910	-	1110-1125	1110-1140	1440-1500	0930-0945	2130-2147	1255-1315	1410-1430	0900-0918	2100-2115	1120-1133
Tide	Ebb 2	Ebb 2	Flood 1	Flood 2	Ebb 1	Flood 1	Flood 1	Ebb 1	Ebb 1	Flood 1	Flood 1	Flood 2
Air Temp. (C)	03.5	08.0	06.0	11.0	10.5	00.8	02.0	-2.0	-0.5	04.0	03.0	05.2
Temp. (C), surface	01.3	02.5	00.0	09.1	09.0	01.0	01.0	01.0	02.5	05.3	05.0	05.1
Sal. (ppt), surface	26.5	26.5	10.5	26.0	28.0	27.0	27.5	26.0	27.0	28.5	28.5	27.0
Oxygen (ppm), surface	11.4	11.9	10.8	10.2	10.71	11.1	11.5	13.6	12.4	10.2	11.0	10.2
Alosa aestivalis	-	-	-	-	-	-	-	-	-	-	-	1
Fundulus diaphanus	-	-	-	177	-	-	-	-	-	-	-	-
F. heteroclitus	-	10	-	-	1	-	1	-	-	2	2	-
F. majalis	-	9	-	-	1	-	1	-	-	2	2	-
Menidia beryllina	1	1	-	30	-	-	-	-	-	1	1	3
M. menidia	1	7	-	60	-	-	-	-	4	1	17	21
Apeltes quadracus	-	5	-	4	-	-	3	1	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	-	5	-	-
Mugil curema	-	-	-	6	20	-	-	-	-	-	-	1
Total species	2	5	0	5	3	0	3	1	1	5	4	4
Total specimens	2	32	0	277	22	0	5	1	4	11	22	26

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Appendix Table 10. (cont.)

Day/Night	D	D	D	N	D	D	D	D	N	D	D	D
Station	0040	0016	0016	0016	0040	0016	0040	0016	0016	0040	0016	0040
Depth (feet), sampled	0-2	0-2.5	0-2.5	0-3	0-2.5	0-3	0-2.5	0-3	0-3	0-3	0-3	0-2.5
Coll. No.	RPS-74-025	RPS-74-026	RCB-74-034	RCB-74-039	RCB-74-038	HKH-74-040	HKH-74-044	RPS-74-042	RPS-74-047	RPS-74-046	DAH-74-001	DAH-74-005
Date	28 March	28 March	4 April	4 April	4 April	24 April	24 April	7 May	7 May	7 May	22 May	22 May
Hour	1000-1030	1145-1210	0850-0915	2105-2130	1215-1245	1120-1135	1455-1515	0815-0840	2030-2110	1105-1130	0855-0910	1215-1240
Tide	Flood 1	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Flood 2	Flood 2	Ebb 1	Flood 2	Ebb 2
Air Temp. (C)	06.0	08.0	15.0	14.0	14.0	12.0	12.0	08.0	10.0	13.0	25.0	27.0
Temp. (C), surface	05.5	06.5	10.0	10.0	14.0	13.0	12.5	12.5	11.0	13.0	16.2	22.5
Sal. (ppt), surface	26.0	28.0	27.5	28.5	22.5	30.0	27.5	29.0	29.0	28.5	30.0	29.0
Oxygen (ppm), surface	10.3	10.4	-	-	-	10.0	10.8	08.9	08.8	08.9	07.8	09.1
Anguilla rostrata	-	-	2	4	3	-	-	-	-	-	-	1
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	12
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	22
Cyprinodon variegatus	-	1	-	-	-	-	-	-	-	-	-	-
Fundulus diaphanus	-	-	-	-	1	-	-	-	-	-	-	-
F. heteroclitus	2	1	-	2	13	-	-	-	1	-	-	-
F. majalis	1	-	1	13	2	5	3	1	80	-	-	1
Menidia beryllina	1	-	-	-	-	-	2	-	-	-	-	1
M. menidia	-	-	3	-	11	-	1	1	30	6	-	12
Apeltes quadracus	-	-	-	-	4	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	-	-	-	1	-	-	-
Morone americana	-	-	-	-	-	-	-	-	-	-	-	1
Mugil curema	3	-	-	-	-	-	-	-	-	-	-	-
Total species	4	2	3	3	6	1	3	2	4	1	0	7
Total specimens	7	2	6	19	34	5	6	2	112	6	0	50

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Appendix Table 10. (cont.)

Day/Night	D	N	D	D	D	D	N	D	D	D	D	N
Station	0016	0016	0040	0040	0016	0016	0016	0040	0016	0040	0016	0016
Depth (feet), sampled	0-2.5	0-2.5	0-2.5	0-3	0-2	0-3	0-3	0-3	0-2	0-3	0-3	0-3
Coll. No.	DJD-74-069	DJD-74-074	DJD-74-073	RPS-74-051	RPS-74-054	EAI-74-001	EAI-74-006	EAI-74-005	HKH-74-083	HKH-74-087	EAI-74-010	EAI-74-015
Date	6 June	6 June	6 June	19 June	19 June	11 July	11 July	11 July	24 July	24 July	7 August	7 August
Hour	0830-0850	2050-2115	1135-1155	0945-1020	1315-1400	0850-0935	2100-2145	1300-1345	0900-0920	1230-1255	0900-0950	2135-2205
Tide	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 1	Flood 2	Flood 1	High	Flood 2	Flood 2
Air Temp. (C)	22.0	19.0	24.0	26.0	24.0	22.5	18.8	25.0	22.0	22.0	17.0	18.5
Temp. (C), surface	20.0	21.0	23.0	24.0	25.0	24.2	24.8	25.9	22.7	22.5	21.3	20.0
Sal. (ppt), surface	27.0	28.0	25.0	28.5	29.0	29.0	29.5	29.0	29.5	30.0	29.0	29.5
Oxygen (ppm), surface	8.0	8.2	8.9	8.0	7.6	5.8	6.8	9.2	6.6	7.4	7.5	7.4
Anguilla rostrata	-	-	-	-	1	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	4	13	1	-	-	2	-	-	-	-
Anchoa mitchilli	-	-	21	-	-	-	-	-	11	-	-	3
Strongylura marina	-	-	-	-	-	1	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	1	-	-	-	-	-	-	-	-
Fundulus heteroclitus	1	-	3	6	29	-	7	27	-	-	-	32
Fundulus majalis	118	880+	-	-	6	-	1	1	5	3	9	75
Menidia beryllina	-	-	1	-	-	4	17	210+	-	-	-	-
Menidia menidia	2	2	26	107	40	1089+	768+	901+	167	160+	1447+	544+
Menidia sp.	-	-	7	-	-	-	-	-	-	-	-	-
Apeltes quadracus	-	-	-	-	5	-	-	-	-	-	-	-
Gasterosteus aculeatus	1	-	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	1	-	-	-	-	-	-	-
Syngnathus fuscus	2	-	-	-	14	2	2	-	-	-	-	-
Morone americana	-	-	1	-	-	-	-	-	-	-	-	-
Mycteroperca microlepis	-	-	-	-	1	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	2	-	-	2	-	1
Selene vomer	-	-	-	-	-	1	-	-	-	-	-	-
Trachinotus falcatus	-	-	-	-	-	-	-	2	-	10	-	-
Leiostomus xanthurus	2	-	1	1	32	-	1	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	4	1	2	-	-	-	-	-
Total species	6	2	7	5	11	6	8	6	3	4	2	5
Total specimens	126	882+	64	128	134	1098+	800+	1143+	183	175+	1456+	655+

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Appendix Table 10. (cont.)

Day/Night	D	D	D	D	N	D	D	D	D	N	D	D
Station	0040	0040	0016	0016	0016	0040	0016	0040	0016	0016	0040	0016
Depth (feet), sampled	0-3	0-2.5	0-3	0-2	0-2.5	0-3	0-2	0-2	0-2	0-2.5	0-3	0-2.5
Coll. No.	EAI-74-014	RPS-74-102	RPS-74-105	RCB-74-123	RCB-74-128	RCB-74-127	DJD-74-121	DJD-74-125	DAH-74-070	DAH-74-075	DAH-74-074	DAH-74-089
Date	7 August	21 August	21 August	12 September	12 September	12 September	25 September	25 September	10 October	10 October	10 October	25 October
Hour	1420-1455	1215-1255	1400-1445	0850-0915	2055-2120	1520-1545	0935-1000	1410-1430	0900-0920	2100-2135	1450-1510	1030-1100
Tide	Ebb 1	Flood 2	Ebb 1	Ebb 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Ebb 1	Flood 2	Ebb 2
Air Temp. (C)	18.0	25.5	25.0	25.0	24.5	29.0	15.0	20.0	17.0	14.8	23.0	16.0
Temp. (C), surface	20.9	25.0	25.5	22.5	23.0	27.0	15.1	16.7	13.5	14.0	16.7	11.3
Sal. (ppt), surface	27.5	28.5	29.0	28.0	28.0	25.0	28.5	28.0	30.0	29.8	29.0	28.5
Oxygen (ppm), surface	7.4	7.1	8.0	7.3	7.6	7.4	8.0	10.2	9.1	8.6	10.6	9.8
Anchoa mitchilli	27	1	-	-	-	41	-	-	-	15	6	-
Cyprinodon variegatus	-	-	-	1	6	-	-	-	-	-	5	21
Fundulus heteroclitus	-	-	2	1	37	-	-	-	10	12	-	20
F. majalis	1	5	-	6	22	-	37	-	12	14	-	15
Menidia beryllina	-	-	-	-	-	-	-	1	1	-	-	1
M. menidia	910	103	145	300	128	18	112	9	166	896	7	125+
Hippocampus erectus	-	-	-	-	-	-	1	-	-	-	-	-
Syngnathus fuscus	-	-	-	1	-	-	2	-	-	-	-	1
Caranx hippos	-	-	-	-	-	-	2	-	-	-	-	-
Menticirrhus saxatilis	-	1	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	2	-	-	3	-	-
Total species	3	4	2	5	4	2	6	2	4	5	3	6
Total specimens	938	110	147	309	193	59	156	10	189	940	18	183+

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Appendix Table 10. (cont.)

Day/Night	D	D	N	D	D	D
Station	0040	0016	0016	0040	0016	0040
Depth (feet), sampled	0-3	0-3	0-2	0-2	0-3	0-1.5
Coll. No.	DAH-74-091	HKH-74-103	HKH-74-108	HKH-74-106	DJD-74-133	DJD-74-135
Date	25 October	12 November	12 November	12 November	22 November	22 November
Hour	1445-1510	0920-0935	2130-2200	1120-1145	0950-1010	1115-1130
Tide	Flood 2	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 1
Air Temp. (C)	17.0	14.5	16.0	15.5	4.0	5.0
Temp. (C), surface	14.0	12.0	12.0	12.0	4.8	3.5
Sal. (ppt), surface	26.0	29.0	28.0	28.0	30.0	26.0
Oxygen (ppm), surface	8.5	9.6	9.4	10.2	10.1	10.7
Cyprinodon variegatus	39	-	3	-	2	2
Fundulus diaphanus	1	-	-	2	-	100+
Fundulus heteroclitus	73	14	8	20	24	250+
Fundulus majalis	5	2	85+	-	1	-
Menidia beryllina	12	2	-	26	3	11
Menidia menidia	-	100+	150+	11	3	5
Total species	5	4	4	4	5	5
Total specimens	130	118+	246+	59	33	368+

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Appendix Table 11. Number of fishes taken by 15- and 25-ft seines in both day and night collections in the Brigantine surf in 1974.

Day/Night	D	N	D	D	N	D	D	N	D	D	N	D
Station	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018
Depth (feet), sampled	0-4	0-4	0-3	0-2	0-4	0-2	0-2	0-2	0-2	0-3	0-3.5	0-3.5
Coll. No.	CMB-74-010	CBM-74-015	DJD-74-024	HKH-74-008	HKH-74-012	RPS-74-017	HKH-74-018	HKH-74-023	RPS-74-027	RCB-74-035	RCB-74-040	HKH-74-041
Date	16 January	16 January	29 January	12 February	12 February	26 February	12 March	12 March	28 March	4 April	4 April	24 April
Hour	0815-0835	2015-2035	1415-1435	1005-1020	2200-2220	1515-1540	0930-0945	2120-2141	1220-1245	0940-1005	2140-2155	1150-1205
Tide	Low	Low	Ebb 1	Flood 2	Flood 2	Ebb 2	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Ebb 2
Air Temp. (C)	03.0	08.0	11.0	01.0	03.0	02.0	05.0	03.0	05.5	16.0	14.0	12.5
Temp. (C), surface	03.0	04.0	07.8	02.0	02.2	02.5	05.5	04.8	07.0	09.0	08.5	10.5
Sal. (ppt), surface	28.0	28.0	29.5	28.0	28.5	28.0	29.5	29.0	28.5	29.0	29.5	30.0
Oxygen (ppm), surface	10.4	10.9	10.2	11.2	11.8	11.6	10.2	10.2	10.5	-	-	09.6
Menidia beryllina	-	-	-	-	1	-	-	-	-	-	-	-
Menidia menidia	1	-	8	-	1	-	-	-	-	-	-	-
Total species	1	0	1	0	2	0	0	0	0	0	0	0
Total specimens	1	0	8	0	2	0	0	0	0	0	0	0

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Appendix Table 11. (cont.)

Day/Night	D	N	D	D	N	D	D	N	D	D	N	D
Station	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018	0018
Depth (feet), sampled	0-2.5	0-3	0-2.5	0-3	0-3	0-3	0-4	0-4	0-2	0-3	0-3	0-3
Coll. No.	RPS-74-043	RPS-74-048	DAH-74-002	DJD-74-070	DJD-74-075	RPS-74-053	EAI-74-002	EAI-74-007	HKH-74-084	EAI-74-011	EAI-74-016	RPS-74-104
Date	7 May	7 May	22 May	6 June	6 June	19 June	11 July	11 July	24 July	7 August	7 August	21 August
Hour	0845-0910	2115-2145	0925-0940	0910-0925	2115-2140	1220-1245	0940-1010	2200-2245	0950-1005	1000-1030	2215-2250	1545-1615
Tide	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Ebb 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Ebb 2
Air Temp. (C)	12.5	10.0	19.0	22.0	18.0	24.0	23.5	22.5	22.0	17.0	17.0	25.0
Temp. (C), surface	10.8	10.0	15.5	18.5	19.8	22.0	23.2	21.5	22.3	20.0	19.0	24.5
Sal. (ppt), surface	30.0	30.0	30.0	27.5	28.5	30.0	29.5	29.0	30.0	29.0	30.0	29.5
Oxygen (ppm), surface	9.0	9.2	8.4	8.9	8.4	7.2	7.4	7.4	7.4	9.8	7.8	8.4
Anchoa mitchilli	-	-	-	-	-	-	2	-	-	-	-	-
Rissola marginata	-	-	-	-	-	-	-	1	-	-	-	-
Fundulus heteroclitus	-	-	-	-	-	-	2	1	-	-	-	-
F. majalis	-	-	-	-	-	-	-	-	1	-	-	-
Menidia menidia	-	-	4	1	1	1	-	2	3	2	5	1
Pomatomus saltatrix	-	-	-	-	-	-	7	-	-	-	-	-
Trachinotus carolinus	-	-	-	-	1	-	47	9	14	11	5	2
T. falcatus	-	-	-	-	-	-	1	-	-	-	-	-
T. goodei	-	-	-	-	-	-	-	-	-	1	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	1	-	1	11	3
Total species	0	0	1	1	2	1	5	5	3	4	3	3
Total specimens	0	0	4	1	2	1	59	14	18	15	21	6

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Appendix Table 11. (cont.)

Day/Night	D	N	D	D	N	D
Station	0018	0018	0018	0018	0018	0018
Depth (feet), sampled	0-2	0-3	0-3	0-2	0-2	0-3
Coll. No.	DAH-74-071	DAH-74-076	DAH-74-088	HKH-74-102	HKH-74-107	DJD-74-132
Date	10 October	10 October	25 October	12 November	12 November	22 November
Hour	0935-1000	2145-2210	0945-1010	0855-0910	2055-2115	0925-0940
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Flood 1
Air Temp. (C)	18.0	14.5	14.0	14.0	16.0	4.0
Temp. (C), surface	14.0	14.0	12.2	12.0	12.5	5.3
Sal. (ppt), surface	30.0	30.0	29.0	29.0	28.5	29.0
Oxygen (ppm), surface	10.6	9.4	8.9	9.2	9.1	10.0
Anchoa mitchilli	-	1	-	-	-	-
Fundulus heteroclitus	-	-	-	-	7	-
Fundulus majalis	-	-	-	-	1	-
Menidia menidia	35	9	17	4	8	1
Leiostomus xanthurus	-	5	-	-	-	-
Menticirrhus saxatilis	-	1	-	-	-	-
Total species	1	4	1	1	3	1
Total specimens	35	16	17	4	16	1

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Appendix Table 12. Number of fishes taken by 15- and 25-ft seines during day collections in Brigantine Inlet in 1974.

Day/Night	D	D	D	D	D	D	D	D	D	D	D	D
Station	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
Depth (feet), sampled	0-4	0-3	0-3	0-2	0-2	0-3	0-3	0-2	0-2	0-3.5	0-2.5	0-2
Coll. No.	CBM-74-012	DJD-74-023	HKH-74-009	RPS-74-016	HKH-74-019	RPS-74-028	RCB-74-036	HKH-74-042	RPS-74-044	DAH-74-003	DJD-74-071	RPS-74-052
Date	16 January	29 January	12 February	26 February	12 March	28 March	04 April	24 April	07 May	22 May	06 June	19 June
Hour	0930-0945	1345-1405	1035-1050	1445-1500	1000-1015	1315-1345	1015-1040	1240-1300	0915-0940	1000-1020	0935-0955	1140-1205
Tide	Flood 1	Ebb 1	Flood 2	Ebb 2	Flood 2	Ebb 1	Flood 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 2
Air Temp. (C)	04.0	11.0	02.5	00.5	05.0	07.0	12.0	11.0	09.0	26.0	22.0	24.0
Temp. (C), surface	02.0	09.5	01.0	03.0	05.5	06.5	09.0	10.5	11.0	17.5	19.5	23.0
Sal. (ppt), surface	27.0	29.5	27.5	28.0	29.0	27.0	28.0	30.0	30.0	30.0	27.0	30.0
Oxygen (ppm), surface	10.0	10.2	11.0	11.8	10.0	10.6	-	09.8	09.2	08.6	08.5	07.0
Brevoortia tyrannus	-	-	-	-	-	-	-	10	-	-	-	-
Fundulus majalis	-	1	-	-	-	-	-	-	-	-	-	-
Menidia beryllina	-	-	-	-	-	-	1	-	-	3	-	-
M. menidia	1	30	-	1	-	-	55	54	1	35	6	-
Total species	1	2	0	1	0	0	2	2	1	2	1	0
Total specimens	1	31	0	1	0	0	56	64	1	38	6	0

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Appendix Table 12. (cont.)

Day/Night	D	D	D	D	D	D	D	D	D	D	D
Station	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
Depth (feet), sampled	0-3	0-3	0-2	0-3	0-3.5	0-3	0-3	0-3.5	0-3	0-2	0-3
Coll. No.	RCB-74-098	EAI-74-003	HKH-74-085	EAI-74-012	RPS-74-103	RCB-74-125	DJD-74-123	DAH-74-072	DAH-74-087	HKH-74-104	DJD-74-131
Date	9 July	11 July	24 July	7 August	21 August	12 September	25 September	10 October	25 October	12 November	22 November
Hour	1535-1540	1030-1110	1030-1050	1045-1110	1500-1540	0955-1020	1045-1105	1010-1040	0910-0930	0940-1005	0900-0915
Tide	Ebb 2	Flood 2	Flood 2	Flood 2	Ebb 2	Ebb 2	Flood 1	Ebb 2	Ebb 2	Ebb 2	Flood 1
Air Temp. (C)	28.5	22.0	22.0	19.0	25.0	25.0	17.0	16.0	15.0	14.0	4.0
Temp. (C), surface	23.5	22.3	22.1	19.9	25.3	22.0	16.9	14.0	11.5	12.1	5.5
Sal. (ppt), surface	30.0	29.5	30.0	29.5	29.0	28.0	30.0	30.0	29.0	29.0	30.0
Oxygen (ppm), surface	6.7	6.2	7.6	7.9	8.0	7.8	8.9	10.4	9.4	10.1	9.8
Anchoa mitchilli	2	-	-	-	-	-	-	-	-	-	-
Cyprinodon variegatus	-	-	-	-	-	-	-	1	-	9	3
Fundulus heteroclitus	-	1	-	-	-	-	-	-	-	95	3
Fundulus majalis	1	-	-	-	-	-	-	-	-	-	-
Menidia beryllina	-	2	-	-	-	-	-	-	8	-	3
Menidia menidia	1	24	40	5	1500+	525+	3	204	55	1	5
Syngnathus fuscus	17	-	-	-	-	-	1	-	-	-	-
Menticirrhus saxatilis	1	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	-	1	-	-
Total species	5	3	1	1	1	1	2	2	3	3	4
Total specimens	22	27	40	5	1500+	525+	4	205	64	105	14

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Appendix Table 13. Number of fishes taken by 15- and 25-ft seines during day collections at Station 0022, Brigantine Wildlife Refuge, in 1974.

Day/Night	D	D	D	D	D	D	D	D	D	D	D	D
Station	0022	0022	0022	0022	0022	0022	0022	0022	0022	0022	0022	0022
Depth (feet), sampled	0-4	0-3	0-3	0-3	0-3	0-3	0-3.5	0-3	0-3	0-3.5	0-3	0-2
Coll. No.	CBM-74-013	DJD-74-021	HKH-74-010	RPS-74-013	HKH-74-020	RPS-74-024	RCB-74-037	HKH-74-043	RPS-74-045	DAH-74-004	DJD-74-072	RPS-74-050
Date	16 January	29 January	12 February	26 February	12 March	28 March	4 April	24 April	7 May	22 May	6 June	19 June
Hour	1035-1050	1035-1105	1150-1207	1230-1250	1100-1113	0900-0940	1100-1210	1400-1435	1030-1100	1130-1155	1055-1125	0850-0940
Tide	Flood 1	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 1	Ebb 1	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Air Temp. (C)	6.0	11.0	4.0	-2.0	5.2	6.0	14.0	12.0	12.0	32.0	24.0	26.0
Temp. (C), surface	1.0	9.2	0.5	0.0	5.0	4.5	14.0	12.5	12.8	20.0	23.0	22.5
Sal. (ppt), surface	0.0	21.0	14.0	20.5	25.5	0.0	2.5	24.5	28.0	24.5	20.0	26.0
Oxygen (ppm), surface	9.4	10.0	11.2	13.4	9.8	10.5	-	10.5	8.5	7.0	7.9	6.1
Anguilla rostrata	5	23	-	-	-	5	16	-	-	-	-	1
Alosa pseudoharengus	-	-	-	-	-	-	2	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	3	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	4	-
Cyprinodon variegatus	-	4	-	-	-	-	-	-	1	-	-	20
Fundulus diaphanus	1	225+	-	-	-	25	150+	5	61	7	100+	73
Fundulus heteroclitus	-	-	-	-	-	8	100+	28	2	-	160+	161
Fundulus majalis	-	-	-	-	-	-	1	1	19	-	2	10
Lucania parva	-	-	-	-	-	-	-	-	-	-	2	-
Menidia beryllina	1	151	-	1	-	-	-	184	41	67	16	48
Menidia menidia	-	-	-	-	-	2	1300+	71	5	100+	580+	20
Apeltes quadracus	3	6	-	-	-	46	200+	11	16	4	-	-
Gasterosteus aculeatus	-	-	-	-	-	-	1	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	20+	-	-	-	-	-
Morone americana	-	-	-	-	-	1	20	6	-	32	9	-
Mugil curema	-	3	-	-	1	-	33	1	2	1	1	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	1	-	-
Total species	4	6	0	1	1	6	11	9	8	7	9	7
Total specimens	10	412+	0	1	1	87	1843+	310	147	212+	874+	333

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Appendix Table 13. (cont.)

Day/Night	D	D	D	D	D	D	D	D	D	D
Station	0022	0022	0022	0022	0022	0022	0022	0022	0022	0022
Depth (feet), sampled	0-3	0-2	0-3	0-3.5	0-3	0-3	0-3.5	0-3.5	0-2	0-2.5
Coll. No.	EAI-74-004	HKH-74-086	EAI-74-013	RPS-74-101	RCB-74-126	DJD-74-124	DAH-74-073	DAH-74-090	HKH-74-105	DJD-74-134
Date	11 July	24 July	7 August	21 August	12 September	25 September	10 October	25 October	12 November	22 November
Hour	1200-1250	1200-1225	1320-1410	1030-1200	1045-1130	1330-1405	1345-1440	1330-1430	1055-1115	1045-1105
Tide	Flood 2	Flood 2	Ebb 1	Flood 2	Ebb 2	Flood 2	Flood 2	Flood 1	Ebb 2	Flood 1
Air Temp. (C)	23.0	22.0	18.5	25.5	30.0	20.0	23.0	17.0	15.5	5.0
Temp. (C), surface	25.2	22.5	20.5	24.8	25.0	17.0	16.5	14.0	12.0	2.0
Sal. (ppt), surface	27.5	31.0	22.5	29.0	0.0	27.0	26.8	16.0	20.0	1.0
Oxygen (ppm), surface	9.9	5.8	6.6	6.2	6.9	8.7	10.4	8.9	9.3	12.8
Elops saurus	13	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	20	-	25	-	77	-	13	-	-	-
Anchoa mitchilli	-	1	2	730+	1	-	200+	-	-	-
Cyprinodon variegatus	5	-	106	16	24	140+	6	5	1450+	2
Fundulus diaphanus	-	5	-	-	-	60+	52	261+	870+	107
Fundulus heteroclitus	52	38	262	16	245+	40+	31	58+	870+	2
Fundulus majalis	-	-	157	-	3	-	-	1	-	-
Lucania parva	2	-	-	-	-	-	-	-	-	-
Menidia beryllina	134+	100+	112	78	8	400+	930+	924+	580+	31
Menidia menidia	1517+	500+	605	339	250+	140+	185+	291+	1	30
Apeltes quadracus	-	-	-	1	-	-	2	-	-	-
Morone americana	-	-	-	-	-	1	-	-	-	-
Caranx hippos	-	-	-	-	1	-	-	-	-	-
Leiostomus xanthurus	3	-	1	-	1	-	-	-	-	-
Mugil curema	3	3	88	8	-	11	1	-	-	-
Gobiosoma bosci	-	-	-	-	-	1	2	-	-	-
Total species	9	6	9	7	9	8	10	6	5	5
Total specimens	1749+	647+	1358	1188+	610+	793+	1422+	1540+	3771+	172

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Appendix Table 14. Number of fishes taken by 15- and 25-ft seines during day collections at Port Republic spillpool in 1974.

Day/Night	D	D	D	D	D	D	D	D
Station	0024	0024	0024	0024	0024	0024	0024	0024
Depth (feet) sampled	0-3.5	0-3	0-3.5	0-3	0-3	0-3	0-3.5	0-3
Coll. No.	RCB-74-041	DJD-74-052	RCB-74-067	DJD-74-062	DAH-74-006	RCB-74-092	RPS-74-079	RCB-74-103
Date	9 April	26 April	10 May	30 May	13 June	26 June	10 July	25 July
Hour	1035-1050	1425-1445	0845-0910	1020-1035	1000-1025	0915-0950	0900-0935	0935-1005
Tide	Flood 2	Ebb 1	Flood 1	Ebb 2	Flood 1	Ebb 2	Low	Ebb 2
Air Temp. (C)	11.1	22.0	15.5	18.3	33.0	21.0	31.0	23.0
Temp. (C), surface	11.0	16.5	15.5	18.5	23.2	20.7	28.0	23.0
Sal. (ppt), surface	1.0	1.5	2.0	0.5	0.0	2.0	2.5	6.0
Oxygen (ppm), surface	9.7	-	9.2	9.1	8.1	6.6	7.8	6.0
Anguilla rostrata	-	4	1	3	2	3	-	-
Brevoortia tyrannus	-	-	-	4	-	-	-	18
Anchoa mitchilli	-	-	3	-	-	-	-	-
Fundulus diaphanus	46	250+	385+	8	57	46	16	225+
Menidia beryllina		3	-	-	3	12	7	7
Syngnathus fuscus	-	-	-	-	-	-	-	1
Morone americana	-	-	1	-	-	-	-	-
Lepomis gibbosus	-	-	-	-	-	-	-	1
Pomatomus saltatrix	-	-	-	1	-	4	2	1
Total species	1	3	4	4	3	4	3	6
Total specimens	46	257+	390+	16	62	65	25	253+

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Appendix Table 15. Number of fishes taken by 250-ft seine during Day/Night and 24-hour studies at a cove off Absecon Inlet, Brigantine, in 1974.

Day/Night	D	N	D	D	N	N	D	D	N
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-4	0-8	0-6	0-10	0-6	0-10	0-6	0-10	0-10
Coll. No.	FJM-74-023	FJM-74-025	RCB-74-006	FJM-74-050	RCB-74-008	FJM-74-052	RCB-74-010	CBM-74-055	CBM-74-057
Date	23 January	23 January	19 February	19 February	19 February	20 February	20 February	20 March	20 March
Hour	1615-1640	1910-1930	1005-1015	1610-1620	2220-2230	0415-0425	1005-1015	1720-1740	2000-2030
Tide	Flood 1	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Ebb 1
Air Temp. (C)	11.0	9.0	7.0	8.0	8.0	7.0	7.5	6.0	6.0
Temp. (C), surface	9.0	7.0	3.5	5.0	5.5	4.0	4.0	6.5	6.0
Sal. (ppt), surface	26.5	27.5	30.0	28.0	29.5	29.5	29.5	30.0	30.0
Oxygen (ppm), surface	9.7	11.8	10.8	-	10.9	10.8	11.0	11.0	10.8
Alosa aestivalis	-	10	1	-	-	-	-	-	1
A. pseudoharengus	-	-	-	-	-	-	-	-	2
A. sapidissima	-	1	-	-	-	-	-	-	6
Clupea harengus	-	1	-	-	-	-	-	-	2
Urophycis chuss	-	-	-	-	3	-	-	-	113
U. regius	-	-	-	-	-	-	-	-	2
Fundulus majalis	1	-	1	-	1	-	-	-	-
Menidia menidia	75+	-	45	2	23	2	5	-	1
Gasterosteus aculeatus	-	-	-	-	7	5	-	-	-
Morone saxatilis	-	1	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	10
Pseudopleuronectes americanus	-	1	-	-	-	1	-	3	3
Total species	2	5	3	1	4	3	1	1	9
Total specimens	76+	14	47	2	34	8	5	3	140

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Appendix Table 15. (cont.)

Day/Night	D	D	N	N	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-4	0-6	0-4	0-6	0-4	0-10	0-6	0-10	0-6	0-8
Coll. No.	DJD-74-043	RCB-74-044	DJD-74-045	RCB-74-046	DJD-74-047	HKH-74-061	RCB-74-063	HKH-74-063	RCB-74-065	HKH-74-065
Date	10 April	10 April	10 April	11 April	11 April	8 May	8 May	8 May	9 May	9 May
Hour	0900-0920	1500-1510	2100-2125	0300-0320	0855-0920	0900-0920	1510-1530	2100-2120	0310-0335	0905-0925
Tide	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2
Air Temp. (C)	3.0	9.0	7.5	6.5	9.0	15.0	13.5	13.0	13.0	15.5
Temp. (C), surface	6.0	8.5	7.0	5.5	6.5	12.0	16.5	12.0	11.0	12.5
Sal. (ppt), surface	28.5	30.0	30.0	30.0	28.5	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	9.9	10.4	9.8	9.8	10.1	9.2	8.6	9.0	9.0	9.4
Raja erinacea	-	-	2	1	-	3	1	-	3	-
Alosa aestivalis	-	-	5	2	-	-	-	227	21	-
A. pseudoharengus	-	-	4	-	-	-	-	6	18	-
A. sapidissima	-	-	1	-	-	-	-	1	-	-
Brevoortia tyrannus	-	-	2	-	-	-	-	1	-	-
Anchoa mitchilli	-	-	179+	1	-	-	1	92	1	-
Pollachius virens	-	-	1	-	-	-	-	-	-	-
Urophycis chuss	-	-	15	7	-	-	-	-	-	-
U. regius	-	-	60	66	1	21	60	10	137	6
Rissola marginata	-	-	-	-	-	-	-	-	2	-
Strongylura marina	-	-	-	-	-	2	-	1	-	-
Fundulus heteroclitus	-	1	1	1	-	-	-	-	-	-
F. majalis	-	-	-	-	-	-	8	-	-	-
Membras martinica	-	-	-	-	-	-	-	6	-	1
Menidia menidia	11	5	116+	19	138	1	11	8	33	9
Gasterosteus aculeatus	-	-	-	1	-	-	-	-	-	-
Hippocampus erectus	-	2	-	-	-	-	1	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	1	-	-	-
Morone saxatilis	-	-	1	-	-	-	-	-	-	-
Centropristis striata	-	-	3	5	-	1	5	8	4	-
Bairdiella chrysura	-	-	-	-	-	-	-	1	-	-
Astroscopus guttatus	-	-	-	-	-	-	-	-	1	-
Prionotus carolinus	-	-	-	-	-	-	1	-	-	-
Myoxocephalus aenaeus	-	-	1	1	-	-	-	-	-	-
Etropus microstomus	-	-	4	6	-	-	-	-	5	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	2	-
Scophthalmus aquosus	-	1	39	60	2	8	19	9	276	1
Pseudopleuronectes americanus	-	-	7	1	1	4	2	1	4	-
Total species	1	4	17	13	4	7	11	13	13	4
Total specimens	11	9	441+	171	142	40	110	371	507	17

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Appendix Table 15. (cont.)

Day/Night	D	D	N	N	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-8	0-8	0-8	0-8	0-10	0-8	0-8	0-8	0-8	0-8
Coll. No.	RCB-74-082	HKH-74-079	RCB-74-083	HKH-74-081	RCB-74-085	DAH-74-016	RCB-74-099	DAH-74-018	RCB-74-101	DAH-74-020
Date	10 June	10 June	10 June	11 June	11 June	16 July	16 July	16 July	17 July	17 July
Hour	0930-0955	1530-1540	2130-2155	0326-0340	0930-0950	0835-0925	1430-1445	2040-2100	0235-0300	0915-0935
Tide	Flood 2	Ebb 1	Flood 2	Ebb 2	Flood 1	Ebb 2	Flood 2	Ebb 1	Flood 1	Ebb 2
Air Temp. (C)	25.0	24.2	22.0	22.0	26.5	26.0	27.5	22.5	20.5	22.5
Temp. (C), surface	23.0	22.2	20.5	20.0	22.3	23.0	25.5	23.5	23.0	23.4
Sal. (ppt), surface	27.5	-	28.0	28.0	28.0	29.8	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	6.3	9.3	7.8	7.5	6.7	7.0	7.7	7.4	5.6	8.0
Mustelus canis	-	-	11	5	-	-	-	4	1	-
Brevoortia tyrannus	-	-	1	-	-	-	2231	-	6	-
Clupea harengus	1	1	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	30	81	12	37	-	-	-	-	-	-
Pollachius virens	-	-	1	-	-	-	-	-	-	-
Urophycis regius	-	2	-	7	-	-	-	-	1	-
Urophycis tenuis	-	-	-	-	-	-	-	-	-	1
Rissola marginata	-	-	4	4	-	-	-	-	10	1
Hyporhamphus unifasciatus	-	-	-	-	2	-	-	-	-	-
Fundulus heteroclitus	2	-	-	-	-	-	1	-	2	-
Fundulus majalis	-	-	2	2	-	-	-	-	-	-
Menidia beryllina	-	-	-	-	-	-	1	-	-	-
Menidia menidia	11	9	-	3	9	75	11	7	10	133
Apeltes quadracus	-	-	-	4	-	-	-	-	-	-
Fistularia tabacaria	-	-	-	-	-	-	1	-	-	-
Hippocampus erectus	1	-	-	3	-	1	-	-	-	-
Syngnathus fuscus	1	-	-	-	-	-	1	-	2	-
Pristigenys alta	-	-	-	-	-	1	-	-	-	-
Pomatomus saltatrix	10	1	5	3	-	38	156	3	12	19
Trachinotus carolinus	-	-	-	-	-	1	5	3	-	20
Trachinotus falcatus	-	-	-	-	-	-	1	-	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	-	8	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	1	-	-
Tautoga onitis	-	-	-	1	-	-	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	1	-
Sphyraena borealis	-	-	-	-	-	1	-	1	14	-
Astroscopus guttatus	-	-	-	-	-	-	1	-	2	-
Prionotus evolans	-	-	-	-	-	6	2	-	8	-
Etropus microstomus	-	1	-	2	-	20	1	-	-	6
Paralichthys dentatus	-	1	-	-	-	5	-	6	3	-
Scophthalmus aquosus	1	18	1	3	3	22	19	2	66	39
Pseudopleuronectes americanus	1	-	1	14	-	7	5	2	44	7
Monacanthus hispidus	1	-	-	1	-	1	-	1	-	-
Sphoeroides maculatus	-	-	-	-	-	3	-	-	-	-
Total species	10	9	9	14	3	13	14	10	16	8
Total specimens	59	115	38	89	14	181	2436	30	190	226

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Appendix Table 15. (cont.)

Day/Night	D	D	N	N	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-6	0-6	0-6	0-6	0-8	0-10	0-8	0-10	0-8	0-8
Coll. No.	RCB-74-106	DJD-74-104	EAI-74-017	DJD-74-106	RCB-74-108	RPS-74-114	RCB-74-130	RPS-74-116	RCB-74-132	RPS-74-118
Date	14 August	14 August	14 August	15 August	15 August	19 September	19 September	19 September	20 September	20 September
Hour	0840-0910	1425-1445	2030-2115	0255-0310	0845-0905	0815-0900	1400-1410	2000-2030	0200-0215	0710-0730
Tide	Ebb 2	Flood 2	Ebb 1	Flood 1	Ebb 1	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 1
Air Temp. (C)	24.0	-	24.0	21.0	24.0	24.0	27.5	23.0	22.5	20.0
Temp. (C), surface	22.0	27.2	22.2	22.0	21.0	22.0	24.0	23.0	22.3	22.2
Sal. (ppt), surface	28.0	28.0	29.0	28.0	29.5	30.0	29.5	29.0	29.0	29.0
Oxygen (ppm), surface	7.5	6.8	7.5	6.2	7.0	7.0	7.5	8.0	8.9	9.4
Mustelus canis	-	-	-	1	-	-	-	-	-	-
Anguilla rostrata	-	-	-	1	-	1	-	-	-	-
Brevoortia tyrannus	-	-	14	6	-	-	-	4	11	-
Anchoa hepsetus	-	4	-	-	-	1	-	-	-	-
A. mitchilli	-	10+	-	35+	-	9	-	3	6	-
Synodus foetens	-	-	-	-	-	1	1	1	3	2
Rissola marginata	-	-	1	3	-	-	-	2	6	-
Strongylura marina	-	2	-	-	-	6	2	2	3	2
Fundulus heteroclitus	-	1	-	-	-	-	1	-	-	-
F. majalis	-	-	2	-	-	-	-	2	4	1
Membras martinica	-	-	-	-	-	1	-	-	-	-
Menidia menidia	375+	40+	6	25+	254	4	-	1	1	98
Fistularia tabacaria	-	-	-	-	-	-	-	-	-	1
Hippocampus erectus	-	6	-	-	-	2	1	-	-	-
Syngnathus fuscus	-	1	-	1	3	3	-	3	-	-
Morone saxatilis	-	-	1	-	-	-	-	-	-	-
Centropristis striata	-	1	-	-	-	-	-	-	-	-
Epinephelus nigritus	-	1	-	-	-	-	-	-	-	-
Pomatomus saltatrix	3	83	4	1	35	13	5	5	13	14
Caranx hippos	-	-	-	-	-	-	-	-	-	1
Trachinotus carolinus	2	3	12	1	-	-	-	-	-	-
T. falcatus	1	6	11	-	-	-	-	-	-	-
T. goodei	-	-	1	-	-	-	-	-	-	-
Cynoscion regalis	-	2	5	-	-	-	-	3	12	-
Leiostomus xanthurus	61	25	35	13	24	10	-	4	-	-
Menticirrhus saxatilis	13	10	5	7	10	8	1	1	6	4
Tautoga onitis	-	-	-	-	-	3	-	-	-	-
Tautogolabrus adspersus	-	1	-	-	-	-	-	-	-	-
Mugil curema	-	-	-	-	-	-	15	1	9	7

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Appendix Table 15. (cont.)

Coll. No.	RCB-74-106	DJD-74-104	EAI-74-017	DJD-74-106	RCB-74-108	RPS-73-114	RCB-74-130	RPS-74-116	RCB-74-132	RPS-74-118
Sphyraena borealis	-	4	2	3	2	-	-	-	-	-
Prionotus carolinus	-	3	2	-	-	-	-	-	-	-
P. evolans	-	8	26	9	1	-	-	-	-	-
Citharichthys spilopterus	-	-	-	-	-	1	-	-	-	-
Etropus microstomus	-	-	-	-	-	1	-	3	4	-
Paralichthys dentatus	-	3	2	2	2	-	1	2	1	-
Scophthalmus aquosus	3	1	9	-	4	1	-	2	3	3
Pseudopleuronectes americanus	10	26	10	13	3	9	1	-	2	-
Lactophrys quadricornis ?	-	-	-	-	-	1	-	-	-	-
Monacanthus hispidus	-	33	-	6	-	-	-	-	-	-
Sphoeroides maculatus	-	3	-	1	1	2	-	-	-	-
Chilomycterus schoepfi	-	4	1	-	-	3	1	-	1	-
Total species	8	25	19	17	11	20	10	16	16	10
Total specimens	468+	281+	149	128+	339	80	29	39	85	133

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Appendix Table 16. Number of fishes taken by 15-ft seine during Day/Night and 24-hr studies at a cove off Absecon Inlet, Brigantine, in 1974.

Day/Night	D	N	D	D	N	N	D	D	N
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-3	0-3	0-3	0-3	0-3	0-3	0-2.5	0-3	0-3
Coll. No.	FJM-74-024	FJM-74-026	RCB-74-007	FJM-74-051	RCB-74-009	FJM-74-053	RCB-74-011	CBM-74-056	CBM-74-058
Date	23 January	23 January	19 February	19 February	19 February	20 February	20 February	20 March	20 March
Hour	1645-1655	1930-1940	1015-1025	1625-1630	2235-2240	0430-0435	1015-1025	1700-1715	2045-2100
Tide	Flood 1	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Ebb 1
Air Temp. (C)	11.0	9.0	7.0	8.0	8.0	7.0	7.5	6.0	6.0
Temp. (C), surface	9.0	7.0	3.5	5.0	5.5	4.0	4.0	6.5	6.0
Sal. (ppt), surface	26.5	27.5	30.0	28.0	29.5	29.5	29.5	30.0	30.0
Oxygen (ppm), surface	9.7	11.8	10.8	-	10.9	10.8	11.0	11.0	10.8
Fundulus heteroclitus	-	1	-	-	-	1	-	-	-
Menidia menidia	15	23	-	-	3	-	1	-	5
Gasterosteus aculeatus	-	-	-	-	-	1	-	-	-
Mugil curema	-	1	-	-	-	-	-	-	-
Total species	1	3	0	0	1	2	1	0	1
Total specimens	15	25	0	0	3	2	1	0	5

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Appendix Table 16. (cont.)

Day/Night	D	D	N	N	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet) sampled	0-3	0-2	0-2	0-2	0-1.5	0-2	0-2	0-2	0-2	0-2
Coll. No.	DJD-74-044	RCB-74-045	DJD-74-046	RCB-74-047	DJD-74-048	HKH-74-062	RCB-74-064	HKH-74-064	RCB-74-066	HKH-74-066
Date	10 April	10 April	10 April	11 April	11 April	8 May	8 May	8 May	9 May	9 May
Hour	0930-0940	1515-1525	2150-2205	0325-0330	0925-0935	0930-0940	1530-1540	2200-2210	0355-0405	0940-0950
Tide	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 2
Air Temp. (C)	3.0	9.0	7.5	6.5	9.0	15.0	13.5	13.0	13.0	15.5
Temp. (C), surface	6.0	8.5	7.0	5.5	6.5	12.0	16.5	12.0	11.0	12.5
Sal. (ppt), surface	28.5	30.0	30.0	30.0	28.5	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	9.9	10.4	9.8	9.8	10.1	9.2	8.6	9.0	9.0	9.4
Anchoa mitchilli	-	-	3	-	-	-	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	2	-
Rissola marginata	-	-	-	-	-	-	-	-	1	-
Fundulus heteroclitus	1	-	1	1	-	-	1	-	-	-
Fundulus majalis	-	-	-	-	-	-	1	-	-	-
Menidia menidia	-	-	1	1	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	1	-	-
Scophthalmus aquosus	-	-	-	1	-	-	-	-	-	-
Total species	1	0	3	3	0	0	2	1	2	0
Total specimens	1	0	5	3	0	0	2	1	3	0

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Appendix Table 16. (cont.)

Day/Night	D	D	N	N	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-3	0-2	0-2.5	0-2	0-2.5	0-3	0-2.5	0-2.5	0-3	0-3
Coll. No.	RCB-74-081	HKH-74-080	RCB-74-084	HKH-74-082	RCB-74-086	DAH-74-017	RCB-74-100	DAH-74-019	RCB-74-102	DAH-74-021
Date	10 June	10 June	10 June	11 June	11 June	16 July	16 July	16 July	17 July	17 July
Hour	0920-0930	1600-1610	2155-2205	0400-0410	1000-1005	0930-0945	1515-1525	2105-2120	0315-0320	0945-1000
Tide	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 1	Ebb 2	Flood 2	Ebb 2	Flood 1	Ebb 2
Air Temp. (C)	25.0	24.2	22.0	22.0	26.5	26.0	27.5	22.5	20.5	22.5
Temp. (C), surface	23.0	22.2	20.5	20.0	22.3	23.0	25.5	23.5	23.0	23.4
Sal. (ppt), surface	27.5	-	28.0	28.0	28.0	29.8	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	6.3	9.3	7.8	7.5	6.7	7.0	7.7	7.4	5.6	8.0
Fundulus heteroclitus	-	-	1	-	-	-	-	-	-	-
Menidia menidia	5	1	1	4	7	460	76	7	25	1050+
Gasterosteus aculeatus	-	-	3	66	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	1	-	-	-	-	-	-
Mycteroperca microlepis	-	-	1	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	1	-	-	-	-	1	-
Trachinotus carolinus	-	-	-	-	-	-	5	2	2	-
Trachinotus falcatus	-	-	-	-	-	-	1	1	1	-
Mugil curema	2	-	-	1	-	-	-	-	-	-
Total species	2	1	4	5	1	1	3	3	4	1
Total specimens	7	1	6	73	7	460	82	10	29	1050+

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Appendix Table 16. (cont.)

Day/Night	D	D	N	N	D	D	D	D	N	N	D
Station	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023	0023
Depth (feet), sampled	0-3	0-2	0-3	0-2	0-2.5	0-3	0-3	0-3	0-3	0-2.5	0-3
Coll. No.	RCB-74-107	DJD-74-105	EAI-74-018	DJD-74-107	RCB-74-109	RPS-74-115	RPS-74-115*	RCB-74-131	RPS-74-117	RCB-74-133	RPS-74-119
Date	14 August	14 August	14 August	15 August	15 August	19 September	19 September	19 September	19 September	20 September	20 September
Hour	0915-0925	1510-1520	2110-2120	0320-0330	0910-0920	0905-0925	0905-0925	1415-1425	2030-2100	0220-0230	0730-0800
Tide	Ebb 2	Flood 2	Ebb 2	Flood 1	Ebb 1	Flood 2	Flood 2	Ebb 2	Flood 2	Ebb 2	Flood 1
Air Temp. (C)	24.0	-	24.0	21.0	24.0	24.0	24.0	27.5	23.0	22.5	20.0
Temp. (C), surface	22.0	27.2	22.2	22.0	21.0	22.0	22.0	24.0	23.0	22.3	22.2
Sal. (ppt), surface	28.0	28.0	29.0	28.0	29.5	30.0	30.0	29.5	29.0	29.0	29.0
Oxygen (ppm), surface	7.5	6.8	7.5	6.2	7.0	7.0	7.0	7.5	8.0	8.9	9.4
Fundulus heteroclitus	2	1	-	-	-	-	1	-	-	-	-
Fundulus majalis	-	-	-	-	-	-	-	-	1	-	1
Menidia menidia	389+	175+	16	26	427+	41	20	7	3	3	2
Fistularia tabacaria	1	-	-	-	-	-	-	-	-	-	-
Trachinotus falcatus	4	-	1	-	-	-	-	-	1	-	-
Menticirrhus saxatilis	-	-	-	1	1	-	-	-	-	-	-
Mugil curema	-	-	1	-	-	-	4	-	1	-	-
Paralichthys dentatus	-	-	-	-	-	-	1	-	-	-	-
Total species	4	2	3	2	2	1	4	1	4	1	2
Total specimens	396+	176+	18	27	428+	41	26	7	6	3	3

* Extra collection taken near drain pipe at cove.

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Appendix Table 17 . Fishes taken in 15-minute bottom hauls of a 25-ft semiballoon trawl in the vicinity of the Site off Little Egg Inlet, New Jersey in 1974.

Location	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine
Zone	5150	5250	5350	5450	5020	5120	5220	5150	5250	5350	5450	5180
Depth (feet)	16	34-38	43	48	14-16	25-30	42-45	18-20	36-40	40-42	42-43	12-15
Coll. No.	CBM-74-002	CBM-74-003	CBM-74-004	CBM-74-001	CBM-74-007	CBM-74-006	CBM-74-005	RPS-74-005	RPS-74-004	RPS-74-003	RPS-74-002	RPS-74-008
Date	8 January	8 January	8 January	8 January	8 January	8 January	8 January	22 January	22 January	22 January	22 January	22 January
Hour	1405-1420	1120-1135	1040-1055	0950-1005	1310-1325	1240-1255	1200-1215	1145-1200	1102-1117	1020-1035	0950-1005	1225-1240
Tide	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 2
Boat Heading (degrees)	210	210	210	045	050	210	045	045	050	045	045	215
Air Temp. (C)	2.0	1.0	2.0	3.0	2.0	1.5	0.0	11.0	9.0	9.0	9.0	11.0
Temp. (C), surface	4.0	4.0	4.0	5.0	5.0	5.0	4.0	5.0	4.5	4.5	5.0	5.0
bottom	5.0	4.0	5.0	4.5	5.0	5.0	5.5	5.0	5.0	5.0	5.0	5.5
Sal. (ppt), surface	27.5	28.0	28.0	29.0	29.5	29.5	29.0	28.0	27.5	29.5	29.0	29.5
bottom	29.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	10.5	10.5	10.5	10.0	10.6	10.4	10.8	10.6	10.9	10.8	10.5	10.7
bottom	9.8	10.3	10.5	10.4	10.6	10.0	9.8	10.4	10.5	10.5	10.5	10.3
Secchi (feet)	3.0	7.5	8.5	14.0	7.0	8.5	14.0	4.5	8.0	7.5	14.0	3.5
Alosa aestivalis	-	-	-	1	2	-	-	-	-	-	-	-
Alosa pseudoharengus	2	-	1	-	-	18	2	-	1	-	1	-
Alosa sapidissima	1	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	2	-	-	-	-	1	-	-	-	-	-	-
Clupea harengus	-	-	-	-	-	-	1	-	-	-	-	-
Anchoa mitchilli	11	-	-	-	-	-	-	1	-	-	-	11
Merluccius bilinearis	1	-	27	27	2	11	5	2	10	23	6	2
Urophycis chuss	188	18	115	3	-	69	12	217	43	57	50	5
U. regius	8	-	-	-	-	-	-	-	1	-	1	6
U. tenuis	-	-	2	-	-	2	-	-	-	-	-	-
Menidia menidia	2	-	-	2	-	-	-	-	-	-	-	2
Apeltes quadracus	1	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	1	-	1	-	-
Morone americana	-	-	-	-	-	-	-	-	-	-	-	2
Leiostomus xanthurus	8	-	-	-	-	-	-	-	-	-	-	-
Micropogon undulatus	3	-	-	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	2	-	-	-	-	-	-
Peprilus triacanthus	-	-	-	1	-	-	1	-	-	-	-	-
Myoxocephalus aenaeus	-	-	-	-	-	-	-	-	-	-	-	2
M. octodecemspinuosus	-	1	-	-	-	1	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	-	-	-	5
Scophthalmus aquosus	1	-	1	-	-	1	-	-	5	2	-	38
Pseudopleuronectes americanus	-	1	1	-	-	1	-	-	-	-	-	3
Total species	12	3	6	5	2	9	5	4	5	5	4	10
Total specimens	228	20	147	34	4	106	21	221	60	84	58	76

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Appendix Table 17. (cont.)

Location	Off Brigantine	Off Brigantine	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site	Site	Seaward of Ridge
Zone	5280	5380	5150	5250	5350	5450	5020	5120	5220	5150	5250	5350
Depth (feet)	30	40	18-24	38-40	40-45	40-45	15	27-30	42-45	15-18	35-36	35-37
Coll. No.	RPS-74-007	RPS-74-006	CBM-74-017	CBM-74-018	CBM-74-019	CBM-74-020	CBM-74-023	CBM-74-022	CBM-74-021	CBM-74-024	CBM-74-025	CBM-74-026
Date	22 January	22 January	11 February	11 February	11 February	11 February	11 February	11 February	11 February	21 February	21 February	21 February
Hour	1257-1312	1340-1355	1305-1320	1340-1355	1420-1435	0940-0955	1210-1225	1125-1140	1040-1055	1245-1300	1210-1225	1130-1145
Tide	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Flood 2	High	Flood 2	Flood 2	Ebb 2	Ebb 2	Ebb 1
Boat Heading (degrees)	060	225	040	040	225	040	000	040	040	220	045	220
Air Temp. (C)	11.5	11.5	2.0	2.0	1.0	1.0	2.0	2.0	2.0	7.0	6.5	6.5
Temp. (C), surface	5.0	5.0	2.0	2.0	2.0	2.1	2.1	2.5	2.7	3.5	3.7	3.2
bottom	5.0	5.0	2.1	2.0	2.0	3.0	2.7	2.5	3.1	3.4	3.8	3.2
Sal. (ppt), surface	29.5	29.0	28.5	28.5	28.5	28.5	30.0	29.0	28.5	28.5	29.0	29.5
bottom	30.0	30.0	28.5	30.0	28.5	30.5	30.5	30.0	30.0	29.0	30.0	30.0
Oxygen (ppm), surface	10.6	10.8	11.9	-	-	11.4	12.0	12.0	11.7	11.2	11.4	11.4
bottom	10.4	10.7	12.2	-	-	11.9	12.0	11.9	11.8	11.1	10.4	10.7
Secchi (feet)	5.5	6.5	4.0	5.0	6.0	5.0	3.0	4.0	6.0	5.0	8.0	10.0
Raja erinacea	-	-	-	-	-	-	-	1	-	1	-	1
Conger oceanicus	-	-	-	-	-	-	-	-	-	1	-	-
Alosa aestivalis	-	-	2	-	-	1	-	-	3	-	-	2
A. pseudoharengus	-	4	1	2	-	2	-	-	2	-	-	5
A. sapidissima	-	3	-	-	1	1	-	-	2	1	-	-
Brevoortia tyrannus	-	-	-	1	-	-	-	-	-	-	-	-
Clupea harengus	-	-	-	-	-	1	-	-	-	-	-	-
Anchoa mitchilli	3	-	-	-	-	-	-	-	-	-	-	-
Merluccius bilinearis	12	4	-	-	9	1	-	-	-	-	3	3
Urophycis chuss	179	56	3	38	270	2	1	10	16	316	56	140
U. regius	2	-	1	-	1	-	-	-	-	-	-	-
Macrozoarces americanus	-	-	-	-	-	-	-	-	1	-	1	1
Menidia menidia	-	-	-	4	2	4	3	6	18	1	-	5
Apeltes quadracus	-	1	-	-	-	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	-	-	-	2	-	-	-	-	-
Syngnathus fuscus	1	-	-	-	-	-	1	-	-	2	2	-
Morone americana	-	-	14	-	-	-	-	-	-	-	-	-
M. saxatilis	-	-	5	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	1	-	-	-	-	-
Pholis gunnellus	-	-	-	-	-	-	1	-	-	-	-	-
Ammodytes sp.	-	-	-	3	-	1	3	1	-	-	-	4
Myoxocephalus aenaeus	-	-	-	-	-	-	1	-	-	-	2	-
M. octodecemspinosus	-	-	-	-	-	-	-	-	-	-	2	1
Liparis inquilinus	-	-	-	-	1	-	1	-	-	-	2	-
Etropus microstomus	1	-	-	-	2	1	-	-	1	-	2	-
Scophthalmus aquosus	6	7	8	7	9	1	7	1	2	4	4	2
Limanda ferruginea	-	-	-	-	1	-	1	-	-	-	-	-
Pseudopleuronectes americanus	1	-	-	1	2	-	4	-	-	-	5	3
Total species	8	6	7	7	10	10	12	5	8	7	10	10
Total specimens	205	75	34	56	298	15	26	19	45	326	79	167

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Appendix Table 17. (cont.)

Location	Seaward of Ridge	Nearshore	Off Brigantine	Off Brigantine	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site
Zone	5450	5080	5280	5380	5110	5250	5350	5450	5020	5120	5220	5150
Depth (feet)	37-42	8-12	30-34	40-45	15-20	33	38-43	44-45	15	25	46-48	18-22
Coll. No.	CBM-74-027	CBM-74-030	CBM-74-029	CBM-74-028	CBM-74-035	CBM-74-036	CBM-74-037	CBM-74-038	CBM-74-041	CBM-74-040	CBM-74-039	CBM-74-048
Date	21 February	21 February	21 February	21 February	6 March	6 March	6 March	6 March	6 March	6 March	6 March	19 March
Hour	1045-1100	1330-1345	1405-1420	1000-1015	1255-1310	1220-1235	1150-1205	1125-1140	0910-0925	0950-1005	1025-1040	0905-0920
Tide	Ebb 1	Ebb 2	Ebb 2	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2
Boat Heading (degrees)	300	220	220	045	225	225	045	225	220	225	225	045
Air Temp. (C)	4.0	5.5	6.0	4.0	12.0	12.0	12.0	10.0	8.5	10.0	10.5	5.0
Temp. (C), surface	3.2	3.9	3.3	3.1	7.0	6.5	6.0	5.5	5.5	5.5	6.0	5.0
bottom	3.2	3.8	3.0	3.3	6.0	5.0	5.0	5.0	5.0	5.5	5.5	5.0
Sal. (ppt), surface	29.5	28.5	29.0	30.0	28.0	28.5	30.0	31.0	30.0	30.0	30.0	29.5
bottom	30.0	28.5	30.0	30.0	29.0	29.0	30.0	31.0	30.0	30.0	30.0	29.5
Oxygen (ppm), surface	11.9	11.0	11.4	11.2	10.2	10.4	10.0	10.6	10.0	11.0	10.0	10.4
bottom	10.4	10.9	10.7	10.6	10.0	10.0	10.2	10.6	10.0	11.0	10.2	10.5
Secchi (feet)	17.0	3.5	11.0	13.0	3.5	4.5	8.0	10.0	4.0	6.0	9.0	7.0
Raja erinacea	-	-	-	1	1	1	1	-	2	-	-	1
Conger oceanicus	-	-	-	-	-	-	-	-	1	-	-	-
Alosa aestivalis	1	2	2	10	17	5	-	-	33	10	-	15
A. pseudoharengus	8	-	2	5	15	1	4	3	3	19	11	3
A. sapidissima	-	-	-	-	-	-	-	-	-	-	-	1
Clupea harengus	1	-	-	1	-	1	-	8	-	-	10	-
Anchoa mitchilli	-	-	-	-	2	-	-	-	3	-	-	6
Gadus morhua	-	-	-	-	-	1	-	-	-	-	-	-
Merluccius bilinearis	2	-	-	2	-	14	2	13	-	2	-	-
Pollachius virens	-	-	-	-	-	-	-	-	-	-	-	1
Urophycis chuss	3	7	57	47	-	645	117	57	162	310	154	69
U. regius	-	-	-	-	7	3	1	-	12	4	-	18
Rissola marginata	-	-	-	-	-	-	-	-	-	1	-	-
Macrozoarces americanus	-	-	-	1	-	-	1	-	-	-	-	-
Menidia menidia	8	2	-	2	-	-	2	-	2	5	3	7
Apeltes quadracus	-	-	-	-	1	-	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	1	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	3
Syngnathus fuscus	-	5	-	2	14	1	-	-	31	16	-	6
Micropogon undulatus	-	1	-	-	-	-	-	-	-	-	-	-
Pholis gunnellus	-	-	-	1	-	-	-	-	-	-	-	-
Ammodytes sp.	79	-	1	1	-	-	-	-	-	-	-	-
Myoxocephalus octodecemspinosus	-	-	-	-	-	1	-	-	-	1	-	-
Etropus microstomus	2	-	1	-	3	1	1	2	1	-	1	3
Scophthalmus aquosus	2	9	6	9	4	11	2	2	31	12	1	9
Limanda ferruginea	-	-	-	1	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	2	-	2	-	-	3	1	-	-	4	-
Total species	9	7	7	14	9	12	10	7	11	10	7	13
Total sepcimens	106	28	70	85	64	685	134	86	281	380	184	142

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Appendix Table 17. (cont.)

Location	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine	Off Brigantine	Off Brigantine	Landward of Site		Site		Seaward of Ridge	
Zone	5250	5350	5450	5180	5280	5380	5150		5250		5350	
Depth (feet).	35-40	40-43	40-45	18	37-40	30-40	17-20		35-36		37	
Coll. No.	CBM-74-049	CBM-74-050	CBM-74-051	CBM-74-054	CBM-74-053	CBM-74-052	CBM-74-059[R]	FJM-74-076[R]	CBM-74-060[R]	FJM-74-077[Ra]	CBM-74-061[R]	FJM-74-078[R]
Date	19 March	19 March	19 March	19 March	19 March	19 March	2 April		2 April		2 April	
Hour	0940-0955	1020-1035	1100-1115	1320-1335	1155-1210	1235-1250	0905-0920		0945-1000		1030-1045	
Tide	Ebb 2	Ebb 2	Ebb 2	Flood 1	Low	Flood 1	Ebb 2		Ebb 2		Ebb 2	
Boat Heading (degrees)	045	045	045	045	045	045	045		045		045	
Air Temp. (C)	5.0	6.0	6.0	9.0	8.5	9.0	8.0		8.0		8.0	
Temp (C), surface	5.0	5.0	5.0	6.0	6.0	5.5	6.0		6.0		6.0	
bottom	5.0	5.0	5.0	6.5	5.5	6.0	6.0		6.5		5.5	
Sal. (ppt) surface	29.5	29.5	30.0	28.5	30.0	30.0	28.0		29.0		29.5	
bottom	30.0	31.0	30.0	30.5	30.0	30.5	29.0		30.0		30.0	
Oxygen (ppm), surface	9.6	-	-	10.0	10.4	10.7	10.6		10.2		11.0	
bottom	10.6	10.6	11.1	10.1	10.4	10.2	10.0		10.4		10.6	
Secchi (feet)	7.0	7.0	8.0	5.0	8.0	9.0	3.5		6.5		9.0	
Raja erinacea	1	-	-	-	-	-	-	-	4	-	6	1
Alosa aestivalis	2	-	-	4	2	2	-	-	-	-	-	-
A. pseudoharengus	7	1	3	2	7	2	1	1	-	-	1	1
A. sapidissima	-	1	-	-	-	-	-	-	1	-	-	-
Clupea harengus	1	2	1	2	2	-	-	-	1	-	3	1
Anchoa mitchilli	8	8	2	26	2	8	-	5	-	3	13	7
Gadus morhua	-	-	1	-	1	-	-	-	-	-	-	-
Merluccius bilinearis	8	2	5	-	1	2	-	-	20	11	19	29
Pollachius virens	-	-	-	1	-	-	-	1	-	-	-	-
Urophycis chuss	80	9	33	61	5	42	146	108	210	76	211	211
U. regius	9	-	11	13	4	13	64	45	47	5	53	11
Rissola marginata	-	-	-	-	-	-	8	5	2	-	-	-
Macrozoarces americanus	-	-	-	-	-	2	-	-	-	-	-	-
Menidia menidia	10	6	15	1	9	15	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	15	-	1	12	7	1	-	-	-
Hippocampus erectus	-	-	-	9	5	1	2	1	1	-	1	1
Centropristis striata	-	-	-	1	-	-	2	-	-	-	-	-
Prionotus carolinus	-	-	-	-	-	-	4	5	1	1	7	1
Ammodytes americanus	-	-	-	-	4	-	-	-	-	-	-	-
Etropus microstomus	1	-	4	4	2	8	5	1	-	1	4	1
Scophthalmus aquosus	2	-	3	2	2	6	5	5	-	-	4	2
Limanda ferruginea	-	1	-	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	15	3	2	-	1	4	-	-	3	2	2	3
Total species	12	9	11	13	14	13	10	11	11	-	12	12
Total specimens	144	33	80	141	47	106	249	184	291	-	324	269

R = replicate collection.
a = aborted haul.

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Appendix Table 17. (cont.)

Location	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Brigantine	Off Brigantine
Zone	5450	5020	5120	5220	5150	5250	5350	5450	5080	5280	5380
Depth (feet)	37-45	15	28-32	42	18-23	30-35	37-38	45	11-12	32-35	36-45
Coll. No.	CBM-74-062[R] FJM-74-079[R]	CBM-74-065	CBM-74-064	CBM-74-063	CBM-74-066	CBM-74-067	CBM-74-068	CBM-74-069	CBM-74-072	CBM-74-071	CBM-74-070
Date	2 April	2 April	2 April	2 April	15 April	15 April	15 April	15 April	15 April	15 April	15 April
Hour	1115-1130	1345-1400	1250-1305	1205-1220	0930-0945	1015-1030	1105-1120	1135-1150	1425-1440	1320-1335	1225-1240
Tide	Low	Flood 1	Flood 1	Flood 1	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	045	225	045	045	050	050	050	220	050	050	220
Air Temp. (C)	8.5	9.0	8.5	8.5	13.5	13.5	14.0	13.5	14.0	14.0	13.5
Temp. (C), surface	6.0	6.0	6.0	6.0	9.0	9.0	9.0	9.0	10.0	9.5	9.0
bottom	5.5	6.5	6.0	6.0	8.0	8.0	8.0	7.5	10.0	8.5	8.0
Sal. (ppt), surface	30.0	30.0	30.5	30.0	29.0	30.0	30.0	30.0	31.0	30.5	30.5
bottom	30.5	30.0	30.5	30.5	30.5	31.0	31.0	31.0	31.0	31.0	31.0
Oxygen (ppm), surface	10.2	10.0	10.0	10.2	9.4	9.0	9.0	8.6	8.2	8.8	9.0
bottom	10.0	9.5	9.5	10.0	8.6	9.2	9.0	9.4	9.0	9.2	9.4
Secchi (feet)	12.0	5.5	6.5	11.0	2.5	4.0	5.0	7.0	2.5	6.5	8.0
Raja erinacea	1	-	-	2	6	1	-	-	-	2	1
Alosa aestivalis	-	-	-	1	-	-	-	-	-	-	-
A. pseudoharengus	-	-	-	-	1	-	-	-	-	-	1
Brevoortia tyrannus	-	-	-	-	-	2	-	-	-	-	-
Clupea harengus	1	2	-	-	1	-	2	-	-	2	-
Anchoa mitchilli	2	-	3	14	-	96	1	2	-	20	2
Merluccius bilinearis	46	33	-	10	44	-	12	67	10	3	12	38
Pollachius virens	-	-	-	-	1	6	-	2	1	-	-	2
Urophycis chuss	83	36	84	243	190	138	50	202	34	125	116	73
U. regius	15	8	86	55	38	19	5	12	6	39	2	4
U. tenuis	2	-	-	-	-	2	-	3	-	1	-	-
Rissola marginata	-	-	-	-	-	5	-	-	-	3	-	-
Apeltes quadracus	-	-	1	-	-	-	-	-	-	-	-	-
Hippocampus erectus	1	-	1	-	1	-	-	-	-	1	-	1
Syngnathus fuscus	-	-	166	5	-	6	-	-	1	14	1	-
Morone americana	-	-	-	-	-	-	-	-	1	-	-	-
Centropristis striata	-	-	1	-	-	3	1	-	-	1	-	-
Prionotus carolinus	-	-	3	6	6	1	-	1	-	2	-	1
Etropus microstomus	6	3	18	4	8	-	-	6	-	4	1	2
Pseudopleuronectes americanus	1	2	-	5	3	-	2	3	1	-	1	-
Scophthalmus aquosus	9	5	17	4	3	-	7	3	3	4	5	10
Total species	11	7	10	11	12	11	8	10	8	13	9	10
Total specimens	167	89	380	349	302	279	80	301	57	219	142	133

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Appendix Table 17. (cont.)

Location	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore
Zone	5150	5250	5350	5450	5020	5120	5220	5150	5250	5350	5450	5080
Depth (feet)	16-17	34-35	37-40	38-40	14-15	24-27	37-38	16-18	30	35-40	40-45	16
Coll. No.	CBM-74-086	CBM-74-087	CBM-74-088	CBM-74-089	CBM-74-092	CBM-74-091	CBM-74-090	CBM-74-102	CBM-74-104	CBM-74-103	CBM-74-105	CBM-74-108
Date	2 May	2 May	2 May	2 May	2 May	2 May	2 May	29 May	29 May	29 May	29 May	29 May
Hour	0903-0918	0945-1000	1036-1051	1121-1136	1409-1424	1334-1349	1257-1312	0900-0915	0945-1000	1035-1050	1125-1140	1350-1405
Tide	Ebb 2	Ebb 2	Ebb 2	Low	Flood 1	Flood 1	Flood 1	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 2
Boat Heading (degrees)	225	045	045	045	225	045	045	045	225	225	225	225
Air Temp. (C)	10.0	10.0	10.0	10.0	11.0	10.5	10.5	16.0	16.0	16.0	16.5	16.5
Temp. (C), surface	9.5	9.0	9.5	11.0	9.5	10.0	10.5	15.0	15.0	14.5	14.5	15.0
bottom	9.5	9.0	9.5	10.0	10.0	9.5	10.0	15.0	14.5	14.0	14.0	15.0
Sal. (ppt), surface	30.0	30.5	31.0	30.5	31.5	31.0	30.5	27.5	27.5	28.0	28.0	28.0
bottom	30.5	31.0	31.0	31.0	31.5	31.5	31.0	28.5	28.0	30.0	30.5	28.0
Oxygen (ppm), surface	9.6	9.7	9.8	10.2	9.6	10.5	10.2	10.1	8.6	9.9	9.6	9.4
bottom	9.4	9.6	9.8	9.5	9.7	9.5	9.7	9.2	9.1	8.5	8.6	9.2
Secchi (feet)	8.0	13.0	17.0	17.0	7.5	14.0	14.0	4.0	5.0	5.0	7.0	3.0
Mustelus canis	-	-	-	-	-	-	-	5	7	2	-	4
Raja erinacea	-	-	-	-	1	3	1	-	-	1	1	-
Conger oceanicus	-	-	-	-	-	-	-	-	-	-	-	13[b]
Alosa aestivalis	-	-	-	-	6	-	-	-	-	-	-	-
A. pseudoharengus	1	-	-	-	-	-	-	-	-	-	-	-
A. sapidissima	3	-	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	1447	2	-	-	849	-	-	5	2	-	-	26
Lophius americanus	-	-	-	-	-	-	-	-	1	-	-	-
Merluccius bilinearis	2	15	18	66	-	16	42	4	14	207	40	-
Urophycis chuss	2	208	121	-	46	47	1	-	56	83	-	-
U. regius	-	4	4	5	28	28	5	81	187	101	5	54
U. tenuis	-	1	-	-	23	2	-	-	50	29	-	-
Rissola marginata	-	-	-	-	1	-	-	4	2	-	-	1
Hippocampus erectus	-	-	-	-	1	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	4	-	-	-	-	-	-	1
Centropristis striata	-	-	-	-	1	-	-	-	-	-	-	-
Trachurus lathami	-	-	-	-	-	-	-	-	-	-	1	-
Stenotomus chrysops	1	-	2	16	-	1	3	-	-	-	2	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	1
Scomber scombrus	1	-	-	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	1	-	-	-	-	-	1	-	-	3	-
Prionotus carolinus	-	-	-	-	-	1	-	-	3	-	5	-
Prionotus evolans	1	-	1	-	-	1	2	4	2	-	-	-
Etropus microstomus	-	-	-	2	-	-	-	-	3	-	-	-
Paralichthys dentatus	-	-	-	-	-	-	1	1	-	3	-	-
Scophthalmus aquosus	3	-	1	16	16	20	15	13	31	17	8	6
Pseudopleuronectes americanus	2	2	7	-	3	16	-	-	-	4	-	-
Spheroides maculatus	-	-	-	-	1	-	-	-	-	-	-	-
Total species	10	7	7	5	13	10	8	9	12	9	8	8
Total specimens	1463	233	154	105	980	135	70	118	358	447	65	106

b = leptocephali

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Appendix Table 17. (cont.)

Location	Off Brigantine	Off Brigantine	Site	Site	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge
Zone	5280	5380	5250	5250	5350	5350	5450	5450	5150	5250	5350	5450
Depth (feet)	30-34	35	32-35	34-38	40-43	40-45	45-48	44-52	18-20	34-35	30-47	40-42
Coll. No.	CBM-74-107	CBM-74-106	CBM-74-111^{D}	CBM-74-114^{N}	CBM-74-110^{D}	CBM-74-113^{N}	CBM-74-109^{D}	CBM-74-112^{N}	CBM-74-115	CBM-74-116	CBM-74-117	CBM-74-118
Date	29 May	29 May	11 June	11 June	11 June	11 June	11 June	11 June	14 June	14 June	14 June	14 June
Hour	1305-1320	1220-1235	1910-1925	2312-2327	1830-1845	2210-2225	1750-1805	2120-2135	0920-0935	1050-1105	1115-1130	1155-1210
Tide	Flood 2	Flood 2	Low	Flood 2	Ebb 2	Flood 1	Ebb 2	Flood 1	Low	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	225	225	045	045	045	045	045	045	225	225	225	225
Air Temp. (C)	16.0	16.5	22.0	20.0	24.0	20.5	24.0	20.5	21.0	20.0	20.0	20.5
Temp. (C), surface	15.0	14.5	19.0	18.5	19.0	18.5	19.5	19.0	20.0	20.0	19.5	20.2
bottom	14.0	14.0	16.0	16.0	16.5	16.0	16.0	16.0	19.0	18.0	17.0	17.1
Sal. (ppt), surface	27.5	28.0	29.0	30.0	29.0	29.5	29.0	29.0	28.5	29.5	29.5	29.0
bottom	30.0	30.0	29.5	30.5	30.0	30.0	30.0	30.0	29.5	30.0	29.5	30.0
Oxygen (ppm), surface	9.6	9.5	9.5	9.2	9.5	10.2	9.7	10.0	6.8	7.2	9.0	8.8
bottom	9.0	8.6	8.2	10.4	8.2	9.2	8.8	9.0	8.6	7.2	5.1	7.2
Secchi (feet)	4.0	8.0	10.0	-	11.0	-	11.0	-	10.0	10.0	12.0	15.0
Mustelus canis	-	-	-	1	-	-	-	-	27	-	-	-
Raja erinacea	-	1	-	1	-	2	-	-	-	-	-	-
Conger oceanicus	-	1	-	1	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	1	-	-	-	-	-	-	-	-
Clupea harengus	-	-	1	-	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	-	1	-	-	-	-	-	-	-	-	-
A. mitchilli	-	-	191	-	-	-	-	-	810+	19	-	-
Enchelyopus cimbrius	-	-	-	-	-	1	-	-	-	-	-	-
Merluccius bilinearis	-	657	34	13	17	2	12	1	-	28	3	37
Urophycis chuss	-	3	5	18	-	3	-	-	-	3	-	-
U. regius	41	89	76	113	6	154	-	51	25	13	1	3
U. tenuis	1	-	24	102	-	1	-	-	2	6	-	-
Rissola marginata	-	-	-	4	-	6	-	2	-	-	-	-
Pomatomus saltatrix	-	-	-	1	-	1	-	-	-	-	-	-
Trachurus lathami	-	-	-	-	-	-	-	-	-	-	-	-
Stenotomus chrysops	-	-	-	-	-	-	-	1	-	-	1	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	-	-
Cynoscion regalis	-	-	1	-	-	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	-	-	1	40	-
Peprilus triacanthus	2	-	2	-	-	-	-	-	-	3	13	-
Prionotus carolinus	2	8	1	1	1	12	-	26	-	-	-	-
P. evolans	-	-	-	-	-	-	-	1	-	-	-	-
Etropus microstomus	2	-	-	1	-	10	1	2	-	-	-	-
Paralichthys dentatus	-	2	-	2	-	-	-	-	-	-	-	-
Scophthalmus aquosus	16	48	15	24	-	10	-	4	7	19	-	1
Pseudopleuronectes americanus	-	4	3	-	-	2	1	-	-	2	-	-
Total species	6	9	12	14	3	12	3	8	5	9	5	3
Total specimens	64	813	354	283	24	204	14	88	871	94	58	41

D = Day collection.
N = Night collection.

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Appendix Table 17. (cont.)

Location	Nearshore	Off Holgate Tower	Landward of Site		Site		Seaward of Ridge	Seaward of Ridge		Off Brigantine	Off Brigantine	Off Brigantine
Zone	5020	5220	5150		5250		5350	5450		5180	5280	5380
Depth (feet)	11-15	47-48	18-22		35-38		38-40	40-42		10	26-30	30-40
Coll. No.	CBM-74-120	CBM-74-119	RPS-74-071[R]	CBM-74-125[R]	RPS-74-072[R]	CBM-74-126[R]	RPS-74-073	RPS-74-074[R]	CBM-74-128[R]	CBM-74-131	CBM-74-130	CBM-74-129
Date	14 June	14 June	1 July		1 July		1 July	1 July		1 July	1 July	1 July
Hour	1435-1450	1250-1305	0925-0940		1015-1030		1117-1132	1203-1218		1430-1445	1345-1400	1300-1315
Tide	Flood 2	Flood 2	Ebb 2		Ebb 2		Ebb 2	Ebb 2		Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	225	225	040		030		040	045		045	045	045
Air Temp. (C)	21.0	20.5	21.5		22.5		21.0	22.0		22.5	22.0	22.0
Temp. (C), surface	20.1	20.0	20.5		20.5		20.8	20.2		22.0	21.0	20.0
bottom	20.0	17.0	19.8		19.0		19.5	19.5		21.0	19.0	19.0
Sal. (ppt), surface	29.5	29.5	29.0		29.0		29.0	29.5		28.0	28.0	30.0
bottom	29.5	30.0	29.0		29.5		30.0	30.0		28.5	30.0	30.0
Oxygen (ppm), surface	9.2	8.8	7.6		7.8		8.2	8.0		7.9	7.5	8.0
bottom	9.4	6.5	7.1		7.4		7.4	7.4		7.9	7.6	8.2
Secchi (feet)	9.5	13.0	4.0		7.0		7.0	9.0		4.5	6.0	9.5
Carcharhinus milberti	-	-	-	-	1	-	-	-	-	-	-	-
Mustelus canis	-	1	2	3	3	7	-	1	-	4	-	-
Raja eglanteria	-	-	-	-	1	-	-	-	-	2	-	-
Clupea harengus	-	-	-	-	1	-	-	-	-	-	-	-
Etrumeus teres	-	-	1	-	-	-	-	-	-	-	-	1
Anchoa hepsetus	-	-	-	-	-	-	-	2	3	-	-	-
A. mitchilli	55	-	135	163	25	25	-	-	508+	22	813	15
Engraulis eurystole	-	-	6	7	-	1	-	-	21	-	34	4
Enchelyopus cimbrius	-	-	-	-	1	-	-	-	-	-	-	-
Merluccius bilinearis	-	28	-	1	11	13	-	5	-	1	4	10
Urophycis chuss	-	1	-	-	-	-	-	-	-	-	-	1
U. regius	1	1	308	381	366	313	1	2	4	112	11	90
U. tenuis	-	1	10	11	258	133	-	-	1	6	-	1
Rissola marginata	-	-	4	39	1	1	-	-	23	2	-	1
Syngnathus fuscus	-	-	1	7	2	-	-	-	3	-	-	1
Centropristis striata	-	-	-	-	-	-	-	2	-	-	-	-
Pomatomus saltatrix	-	-	1	-	-	-	-	-	1	-	2	-
Stenotomus chrysops	-	-	-	-	-	-	1	7	-	-	-	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	1	-	-	-
Cynoscion regalis	-	-	-	-	1	-	-	-	-	-	-	1
Leiostomus xanthurus	-	-	10	12	-	1	-	-	-	1	-	-
Pholis gunnellus	1	-	1	-	-	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	1	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	2	6	7	1	3	-	-	1	-	-	-
Prionotus carolinus	-	-	-	1	-	-	-	18	-	-	8	8
Prionotus evolans	-	-	1	1	7	-	-	-	-	1	-	-
Etropus microstomus	-	-	-	-	1	2	-	8	-	-	4	5
Paralichthys dentatus	-	-	-	-	-	1	-	-	-	2	-	-
Scophthalmus aquosus	-	-	2	15	17	10	1	5	2	11	14	3
Monacanthus hispidus	-	-	-	-	3	2	-	1	1	-	-	-
Total species	3	6	14	14	15	14	3	10	12	11	8	13
Total specimens	57	34	488	649	699	513	3	51	569+	164	890	141

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Appendix Table 17. (cont.)

Location	Site	Site	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Landward of Site		Site		Seaward of Ridge	
Zone	5250	5250	5350	5350	5450	5450	5150		5250		5350	
Depth (feet)	33-38	33-39	30-33	35-38	43-45	43-44	20		35-40		35-38	
Coll. No.	CBM-74-134[D]	CBM-74-137[N]	CBM-74-133[D]	CBM-74-136[N]	CBM-74-132[D]	CBM-74-135[N]	CBM-74-147[R]	RPS-74-093[R]	CBM-74-148[R]	RPS-74-094[R]	CBM-74-149[R]	RPS-74-095[R]
Date	8 July	8 July	8 July	8 July	8 July	8 July	5 August		5 August		5 August	
Hour	1935-1950	2238-2253	1900-1915	2152-2207	1823-1838	2115-2130	0940-0955		1025-1040		1118-1133	
Tide	Flood 1	Flood 2	Flood 1	Flood 2	Flood 1	Flood 2	Flood 2		Ebb 1		Ebb 1	
Boat Heading (degrees)	045	045	045	045	045	045	045		045		045	
Air Temp. (C)	27.0	25.0	27.0	25.0	28.0	24.2	23.0		25.0		25.0	
Temp. (C), surface	23.3	22.0	23.7	22.0	24.0	23.0	19.2		19.0		20.8	
bottom	17.5	17.0	18.0	17.3	17.3	18.0	16.0		15.8		16.0	
Sal. (ppt), surface	30.0	30.0	30.0	30.0	29.5	30.0	30.0		30.5		30.0	
bottom	30.5	30.0	31.0	30.0	30.5	30.5	30.5		31.0		31.0	
Oxygen (ppm), surface	7.2	7.5	6.7	7.5	6.8	6.8	6.8		7.5		7.2	
bottom	4.4	4.8	7.3	4.6	5.1	4.7	5.9		5.9		6.5	
Secchi (feet)	13.0	-	11.0	-	11.0	-	5.0		8.5		7.0	
Mustelus canis	10	3	-	-	-	-	-	-	12	18	13	5
Conger oceanicus	-	-	-	-	-	-	-	-	2	-	-	-
Brevoortia tyrannus	-	-	1	-	-	-	-	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	104	53	7	9	-	-
Engraulis eurystole	1	-	-	-	-	-	-	-	-	-	-	-
Enchelyopus cimbrius	-	-	-	-	-	-	-	-	-	-	1	-
Merluccius bilinearis	-	-	15	3	-	2	-	-	7	5	2	1
Urophycis regius	28	350	1	50	-	44	-	1	14	16	14	8
U. tenuis	1	43	-	-	-	-	1	1	33	33	-	-
Rissola marginata	-	9	-	7	-	11	-	-	1	2	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	1	6	1	1	-
Pristigenys alta	-	-	-	1	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1	-	-	-
Decapterus punctatus	-	-	-	-	3	-	-	-	-	-	-	-
Trachurus lathami	-	-	-	-	2	-	-	-	-	-	-	-
Stenotomus chrysops	-	1	-	1	-	1	-	-	-	-	-	4
Cynoscion regalis	-	-	-	-	-	-	29	149	9	15	-	-
Leiostomus xanthurus	-	-	-	-	-	-	-	9	12	10	-	-
Pseudupeneus maculatus	-	-	-	1	-	-	-	-	-	-	-	-
Peprilus triacanthus	3	-	1	-	-	-	9	17	12	11	19	15
Prionotus carolinus	-	14	1	14	-	17	-	-	18	17	23	9
Prionotus evolans	-	1	-	-	-	-	-	-	7	2	-	-
Etropus microstomus	7	3	-	15	-	1	-	-	3	-	15	1
Scophthalmus aquosus	1	17	3	11	-	1	-	-	15	5	1	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	2	-	-
P. oblongus	-	-	-	-	-	-	-	-	1	-	1	-
Pseudopleuronectes americanus	-	-	-	1	-	-	-	-	-	-	-	-
Monacanthus hispidus	-	-	-	-	-	-	-	-	-	1	1	-
Total species	7	9	6	10	2	7	4	7	17	15	11	7
Total specimens	51	441	22	104	5	77	143	231	160	147	91	43

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Appendix Table 17. (cont.)

Location		Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine	Off Brigantine	Off Brigantine
Zone		5450	5020	5120	5220	5150	5250	5350	5450	5180	5280	5380
Depth (feet)		40	12-14	22-23	32-37	16-17	36-37	33-37	42-45	10	30-33	40-41
Coll. No.	CBM-74-150[R]	RPS-74-096[R]	CBM-74-153	CBM-74-152	CBM-74-151	CBM-74-158	CBM-74-159	CBM-74-160	CBM-74-161	CBM-74-164	CBM-74-163	CBM-74-162
Date		5 August	5 August	5 August	5 August	19 August	19 August	19 August	19 August	19 August	19 August	19 August
Hour		1158-1213	1405-1420	1325-1340	1245-1300	0910-0925	0950-1005	1035-1050	1125-1140	1345-1400	1300-1315	1215-1230
Tide		Ebb 1	Ebb 2	Ebb 2	Ebb 1	Flood 2	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 1
Boat Heading (degrees)		045	045	045	045	045	045	045	045	045	045	225
Air Temp. (C)		25.0	23.0	25.0	25.0	25.0	25.0	24.0	24.0	26.0	26.0	26.5
Temp. (C), surface		20.5	16.5	17.5	19.0	22.7	22.0	22.7	22.6	24.5	24.1	23.1
bottom		15.3	15.3	15.5	15.3	22.1	21.5	21.0	21.0	24.1	22.3	21.0
Sal. (ppt), surface		30.5	30.5	30.5	31.0	30.0	30.0	30.0	30.0	29.5	30.0	30.0
bottom		30.5	30.5	30.5	31.0	30.5	30.5	30.5	30.5	30.0	30.0	31.0
Oxygen (ppm), surface		7.7	7.6	8.1	7.5	9.5	11.4	11.0	11.4	10.3	12.0	11.8
bottom		6.7	5.9	6.2	6.0	8.3	9.3	10.7	10.3	9.6	10.4	9.6
Secchi (feet)		8.5	4.0	4.5	5.5	9.5	11.5	16.0	36.0	4.5	11.5	15.0
Mustelus canis	2	5	4	-	2	-	-	1	-	-	-	-
Myliobatis freminvillei	-	-	-	-	-	1	-	-	-	-	-	-
Anchoa hepsetus	-	-	1	-	-	1	-	-	-	2	-	-
A. mitchilli	-	-	325	490	-	1425+	75	28	-	388	24	-
Urophycis chuss	-	-	-	-	-	-	3	-	-	-	-	-
U. regius	1	-	-	-	6	-	-	-	-	-	2	-
U. tenuis	-	-	-	-	2	-	1	-	-	-	-	-
Rissola marginata	-	-	125	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	2	-	-	-	2	-	1	2	-	-
Centropristis striata	-	-	-	-	1	-	-	-	-	-	-	-
Pristigenys alta	-	-	-	-	1	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	2	-	-	1	-	-	-	-	-	-
Vomer setapinnis	-	-	-	-	-	1	1	-	-	-	-	-
Stenotomus chrysops	1	1	-	-	15	-	-	-	-	-	-	-
Cynoscion regalis	-	-	3384	1	-	409	127	57	-	21	5	-
Larimus fasciatus	-	-	1	-	-	-	-	-	-	-	-	-
Leiostomus xanthurus	-	-	9	1	2	7	-	1	-	-	2	-
Menticirrhus saxatilis	-	-	2	-	-	2	-	-	-	1	-	-
Peprilus triacanthus	10	91	-	2	4	-	1	1	-	-	2	6
Prionotus carolinus	9	2	-	1	12	-	-	3	-	1	4	-
Prionotus evolans	2	-	12	-	-	2	1	4	-	-	-	-
Etropus microstomus	8	1	-	-	2	-	-	-	-	-	-	-
Paralichthys oblongus	-	-	1	-	-	-	-	1	-	-	-	-
Scophthalmus aquosus	-	-	13	1	1	2	1	2	-	-	5	1
Pseudopleuronectes americanus	1	-	-	-	-	-	-	-	-	-	-	-
Monacanthus hispidus	-	-	1	-	1	-	-	-	-	-	1	-
Spheroides maculatus	-	-	-	-	-	-	-	-	-	-	3	-
Total species	8	5	14	6	12	10	9	9	1	6	9	1
Total specimens	34	100	3882	496	49	1851+	212	98	1	415	48	6

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Appendix Table 17. (cont.)

Location	Landward of Site		Site		Seaward of Ridge		Seaward of Ridge		Nearshore	Off Holgate Tower	Off Holgate Tower	Site
Zone	5150		5250		5350		5450		5020	5120	5220	5250
Depth (feet)	18-20		35-40		38-40		43-45		14-15	28	40-42	33-35
Coll. No.	RPS-74-106[R]	RCB-74-115[R]	RPS-74-107[R]	RCB-74-116[Ra]	RPS-74-108[R]	RCB-74-117[R]	RPS-74-109[R]	RCB-74-118[R]	RPS-74-112	RPS-74-111	RPS-74-110	CBM-74-169[D]
Date	4 September		4 September		4 September		4 September		4 September	4 September	4 September	9 September
Hour	0930-0945		1015-1030		1050-1105		1135-1150		1410-1425	1330-1345	1253-1308	1730-1745
Tide	Flood 2		Ebb 1		Ebb 1		Ebb 1		Ebb 2	Ebb 2	Ebb 1	Ebb 1
Boat Heading (degrees)	190		045		225		035		220	045	220	300
Air Temp. (C)	17.5		17.5		17.5		17.5		18.0	17.5	17.5	22.5
Temp. (C), surface	22.0		22.0		22.0		22.0		22.0	22.0	22.0	21.5
bottom	20.0		17.0		18.0		18.0		21.0	19.0	18.0	22.0
Sal. (ppt), surface	30.0		30.0		30.5		30.0		30.0	30.0	30.0	30.0
bottom	30.0		30.5		30.5		31.0		30.0	30.0	30.5	30.0
Oxygen (ppm), surface	5.8		7.5		7.5		7.3		7.6	7.4	7.8	7.1
bottom	5.2		4.4		3.8		6.1		7.4	5.5	4.5	6.2
Secchi (feet)	12.0		33.0		36.0		39.0		7.0	19.0	24.0	13.0
Mustelus canis	1	1	2	-	-	1	-	-	4	-	-	-
Raja eglanteria	-	-	-	-	-	-	-	-	-	-	-	2
Conger oceanicus	-	-	1	-	-	-	-	-	-	-	-	-
Etrumeus teres	-	-	-	-	-	7	-	-	-	-	3	-
Anchoa mitchilli	4318+	6213+	119	-	1256+	884+	5334+	2241+	845+	54	20	162
Engraulis eurystole	33	40	-	-	7	5	34	14	5	-	-	-
Synodus foetens	-	-	-	-	1	-	-	-	-	-	-	-
Merluccius bilinearis	-	-	-	-	-	-	1	-	-	-	-	-
Urophycis chuss	-	-	10	-	-	1	-	-	-	-	-	32
U. regius	-	-	6	-	-	1	-	-	-	-	-	-
Rissola marginata	8	16	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	2	3	1	-	3	1	1	-	3	-	4	6
Centropristis striata	-	-	1	-	2	-	-	-	-	-	-	-
Decapterus punctatus	-	-	-	-	-	1	1	-	-	-	-	-
Stenotomus chrysops	-	-	-	-	-	-	2	-	-	-	-	-
Cynoscion regalis	448+	674	183	-	407+	5	-	-	1335+	129	1	166
Larimus fasciatus	-	1	-	-	-	-	-	-	-	-	-	-
Leiostomus xanthurus	3	6	41	-	40	23	-	-	1	3	-	5
Menticirrhus saxatilis	1	-	-	-	-	-	-	-	11	-	-	8
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	-	2
Pseudupeneus maculatus	-	-	-	-	-	-	1	-	-	-	-	-
Gobiosoma ginsburgi	-	1	-	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	2	-	15	-	71	131	101	230	1	-	33	44
Prionotus carolinus	-	-	8	-	5	1	5	-	1	7	-	2
P. evolans	9	12	16	-	1	-	-	-	23	8	-	31
Etropus microstomus	-	-	4	-	2	-	3	-	-	4	1	2
Paralichthys dentatus	-	-	1	-	-	-	-	-	8	4	-	2
P. oblongus	-	-	4	1	-	-	-	-	-	-	1	8
Scophthalmus aquosus	-	-	7	-	-	-	1	-	7	3	-	5
Monacanthus hispidus	8	3	1	-	-	1	1	-	-	2	-	1
Spheroides maculatus	46	51	5	-	-	-	2	-	7	4	-	1
Total species	12	12	18	-	11	13	13	13	12	10	7	17
Total specimens	4879+	7021+	425	-	1795+	1062+	5487+	2485+	2251+	218	63	479

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Appendix Table 17. (cont.)

Location	Site	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine	Off Brigantine	Off Brigantine
Zone	5250	5350	5350	5450	5450	5150	5250	5350	5450	5180	5280	5380
Depth (feet)	32-37	37-40	40-42	42-45	41-45	18-24	36-38	40	36-42	9	32	40
Coll. No.	CBM-74-172^{N}	CBM-74-173^{D}	CBM-74-171^{N}	CBM-74-168^{D}	CBM-74-170^{N}	DAH-74-053	DAH-74-054	DAH-74-055	DAH-74-056	DAH-74-059	DAH-74-058	DAH-74-057
Date	9 September	9 September	9 September	9 September	9 September	16 September	16 September	16 September	16 September	16 September	16 September	16 September
Hour	2120-2135	1800-1815	2045-2100	1835-1850	2000-2015	0913-0928	0943-0958	1025-1040	1105-1120	1323-1338	1240-1255	1200-1215
Tide	Ebb 2	Ebb 1	Ebb 2	Ebb 1	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	045	045	045	045	045	045	045	045	045	045	045	045
Air Temp. (C)	21.0	22.5	21.5	21.5	21.5	19.0	19.0	20.0	22.0	23.0	25.0	22.0
Temp. (C), surface	22.0	22.0	22.5	22.0	22.0	20.0	25.0	20.7	21.0	21.0	22.0	21.8
bottom	22.0	21.5	22.5	22.0	22.0	21.0	21.0	21.0	21.0	21.5	21.3	21.5
Sal. (ppt), surface	29.0	29.5	29.5	29.5	29.5	29.0	29.5	30.0	30.0	28.0	30.0	30.0
bottom	29.5	30.0	30.0	30.5	30.5	30.0	30.0	30.0	30.0	28.5	30.0	30.0
Oxygen (ppm), surface	9.0	6.8	8.4	7.6	8.2	6.7	7.2	6.3	6.5	6.2	6.2	6.8
bottom	8.2	6.2	7.8	6.2	7.2	8.2	7.8	6.6	7.2	6.2	6.3	7.5
Secchi (feet)	-	15.0	-	-	-	5.0	9.0	10.0	10.5	2.5	9.5	28.0
Mustelus canis	-	1	-	-	-	-	1	-	-	-	-	-
Dasyatis centroura	-	-	-	-	-	1	-	-	-	-	-	-
Conger oceanicus	-	-	-	-	-	-	1	-	-	-	-	-
Anchoa hepsetus	-	-	-	-	-	10	16	-	-	-	-	-
A. mitchilli	91	371	19	-	-	2000+	5	-	-	2400+	-	-
Engraulis eurystole	-	-	-	-	-	-	-	3	-	-	2	1
Synodus foetens	-	-	-	1	-	-	-	-	-	-	-	-
Trachinocephalus myops	-	-	-	-	-	-	-	-	2	-	-	-
Urophycis chuss	65	7	13	-	1	-	1	1	-	-	-	-
U. regius	4	5	-	-	-	1	2	1	-	-	-	-
Rissola marginata	45	2	80	-	12	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	2	-	-
Syngnathus fuscus	13	7	3	-	-	-	-	1	-	7	-	-
Centropristis striata	4	3	4	-	6	-	1	1	1	1	-	-
Myctoperca microlepis	-	1	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	1	-	-
Decapterus punctatus	-	-	-	-	-	-	-	-	-	-	-	1
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	5	-	-
Cynoscion regalis	161	86	85	-	-	125	2	-	-	84	-	-
Leiostomus xanthurus	-	3	4	-	1	9	-	-	-	3	-	-
Menticirrhus saxatilis	22	1	4	-	-	-	3	3	-	1	1	1
Micropogon undulatus	2	1	1	-	-	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	1	-	-	-	-	-	-	-
Gobiosoma ginsburgi	5	-	1	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	10	-	1	-	-	-	-	-	3	4	2

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Appendix Table 17. (cont.)

Coll. No.	CBM-74-172	CBM-74-173	CBM-74-171	CBM-74-168	CBM-74-170	DAH-74-053	DAH-74-054	DAH-74-055	DAH-74-056	DAH-74-059	DAH-74-058	DAH-74-057
Prionotus carolinus	23	4	54	6	21	-	1	-	-	-	-	1
P. evolans	115	12	16	1	5	2	4	2	-	8	-	-
Etropus microstomus	27	3	99	-	4	-	3	1	-	-	-	2
Paralichthys dentatus	3	-	4	-	-	1	4	1	-	-	-	-
P. oblongus	25	2	1	-	-	-	1	-	-	-	-	-
Scophthalmus aquosus	4	9	12	-	2	1	-	-	-	4	1	-
Pseudopleuronectes americanus	-	-	-	-	-	-	1	-	-	-	-	-
Monacanthus hispidus	1	-	3	-	-	-	-	-	-	-	-	-
Spheroides maculatus	6	2	10	-	-	-	-	-	-	-	-	-
Total species	18	19	18	4	9	9	15	9	2	12	4	6
Total specimens	616	530	413	9	53	2150+	46	14	3	2519+	8	8

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Appendix Table 17. (cont.)

Location	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Site	Site	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge
Zone	5150	5250	5350	5450	5020	5120	5220	5250	5250	5350	5350	5450
Depth (feet)	18-20	36-39	37	40-41	12	23-34	35-38	33-35	32-35	43	38-40	45-50
Coll. No.	CBM-74-176	CBM-74-177	CBM-74-178	CBM-74-179	CBM-74-182	CBM-74-181	CBM-74-180	CBM-74-185[D]	CBM-74-188[N]	CBM-74-184[D]	CBM-74-187[N]	CBM-74-183[D]
Date	1 October	1 October	1 October	1 October	1 October	1 October	1 October	7 October	7 October	7 October	7 October	7 October
Hour	0935-0950	0950-1005	1028-1043	1115-1130	1340-1355	1255-1310	1215-1230	1820-1835	2105-2120	1745-1800	2005-2020	1650-1705
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Flood 1	Ebb 2	Flood 1	Ebb 2
Boat Heading (degrees)	045	045	045	045	225	045	045	045	225	045	220	045
Air Temp. (C)	15.0	15.0	15.0	17.0	17.0	17.0	17.0	17.5	16.0	19.5	16.0	20.5
Temp. (C), surface	19.0	19.0	18.8	19.0	18.4	18.5	19.2	16.0	16.0	16.5	16.0	18.5
bottom	18.5	19.0	19.0	19.2	17.9	18.2	19.0	16.0	16.0	16.0	16.0	17.0
Sal. (ppt), surface	30.0	30.5	31.0	31.0	30.5	30.0	30.0	30.0	30.0	30.0	30.2	31.0
bottom	30.5	30.5	31.0	31.0	30.5	30.5	30.0	30.0	30.0	30.5	30.5	30.5
Oxygen (ppm), surface	7.4	7.4	7.8	7.6	7.9	7.2	7.5	7.8	7.2	8.8	7.2	7.2
bottom	7.0	6.8	7.4	6.8	6.8	6.6	7.0	7.4	6.4	6.2	7.8	7.8
Secchi (feet)	6.0	8.0	14.0	16.0	4.5	8.0	8.0	-	-	6.5	-	10.0
Mustelus canis	-	1	3	-	-	1	-	1	-	-	-	-
Anchoa mitchilli	3942+	2220+	168	348	4678+	1526+	2250+	1	1197	141	2234	13
Anchoa hepsetus	9	-	41	15	-	-	8	-	-	-	-	-
Engraulis eurystole	8	6	-	1	10	4	6	-	-	-	2	-
Synodus foetens	-	-	-	-	-	-	-	-	-	1	1	-
Merluccius bilinearis	-	1	1	-	-	-	-	-	1	-	-	-
Urophycis chuss	-	-	-	1	-	-	-	-	39	-	37	-
Urophycis regius	-	-	-	-	-	1	1	-	5	-	6	1
Rissola marginata	-	-	-	-	-	-	-	-	8	-	4	-
Centropristis striata	-	1	-	1	-	-	1	1	1	-	1	2
Myctoperca microlepis	-	1	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	9	-	-	-	2	2	1	1	-	2	-	-
Vomer setapinnis	-	-	2	-	-	3	-	-	-	-	-	-
Stenotomus chrysops	-	1	-	-	-	-	-	-	-	-	-	-
Bairdiella chrysura	-	-	-	-	3	-	-	-	-	-	-	-
Cynoscion regalis	-	18	37	12	303	474	569	36	22	71	20	20
Leiostomus xanthurus	-	6	-	-	1	3	-	-	-	1	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	3	-	2	-
Micropogon undulatus	-	1	-	-	-	-	-	-	-	-	-	-
Sphyraena borealis	-	-	-	-	-	1	-	-	-	-	-	-
Gobiidae	-	-	1	4	-	-	-	-	-	-	1	-
Peprilus triacanthus	5	12	7	7	3	18	4	-	-	-	-	-
Prionotus carolinus	-	-	-	-	-	-	2	-	40	-	125	12
Prionotus evolans	-	-	-	-	2	-	3	-	10	-	6	-

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Appendix Table 17. (cont.)

Coll. No.	CBM-74-176	CBM-74-177	CBM-74-178	CBM-74-179	CBM-74-182	CBM-74-181	CBM-74-180	CBM-74-185^{D}	CBM-74-188^{N}	CBM-74-184^{D}	CBM-74-187^{N}	CBM-74-183^{D}
Etropus microstomus	-	2	1	1	-	-	2	-	26	1	30	6
Citharichthys spilopterus	-	-	-	-	-	-	-	-	-	-	1	-
Paralichthys dentatus	-	2	2	-	-	-	1	-	1	-	-	-
Paralichthys oblongus	-	-	-	-	-	-	-	-	1	-	-	1
Scophthalmus aquosus	-	4	5	6	3	3	2	1	7	-	5	-
Monacanthus hispidus	-	-	-	-	-	-	-	-	-	1	-	1
Spheroides maculatus	-	1	-	1	-	-	-	-	1	1	-	-
Total species	5	15	11	11	9	11	13	6	15	8	15	8
Total specimens	3973+	2277+	268	397	5005+	2036+	2850+	41	1362	219	2475	56

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Appendix Table 17. (cont.)

Location	Seaward of Ridge	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine	Off Brigantine	Off Brigantine
Zone	5450	5150	5250	5350	5450	5180	5280	5380
Depth (feet)	43-45	21-22	35-40	40-42	45-46	15	20-35	38-44
Coll. No.	CBM-74-186[N]	CBM-74-189[R] RPS-74-129[R]	CBM-74-190[R] RPS-74-130[R]	CBM-74-191[R] RPS-74-131[R]	CBM-74-192[R] RPS-74-132[R]	RPS-74-135	RPS-74-134	RPS-74-133
Date	7 October	15 October	15 October	15 October	15 October	15 October	15 October	15 October
Hour	1915-1930	0915-0930	1000-1015	1035-1050	1115-1130	1330-1345	1250-1310	1215-1230
Tide	Low	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	225	045	045	045	045	045	045	045
Air Temp. (C)	17.0	18.0	18.0	18.0	19.0	19.0	19.0	19.0
Temp. (C), surface	17.0	16.0	16.0	16.3	16.0	16.8	16.8	17.0
bottom	17.0	16.0	16.0	16.5	16.0	16.8	16.8	17.0
Sal. (ppt), surface	30.5	30.0	30.5	30.5	30.5	29.5	30.5	30.5
bottom	31.0	30.0	30.5	30.5	30.5	30.0	30.5	30.5
Oxygen (ppm), surface	7.2	9.0	9.0	8.9	9.3	8.5	9.7	8.4
bottom	7.2	8.1	8.6	8.6	8.9	7.8	7.8	8.0
Secchi (feet)	-	8.0	13.0	20.0	30.0	5.0	11.0	34.0
Mustelus canis	- -	-	-	-	-	-	2	-
Raja erinacea	- -	1	-	-	-	-	2	1
Anchoa hepsetus	- -	-	1	-	-	1	-	-
Anchoa mitchilli	107	815+ 7786+	7 2	-	-	13455+	-	-
Engraulis eurystole	2	16 160	- -	-	-	275	-	-
Synodus foetens	- -	-	- 1	-	-	-	1	-
Merluccius bilinearis	- -	-	- -	-	3	-	-	-
Urophycis chuss	- -	3	6 13	-	-	1	-	-
Urophycis regius	6	1 1	1 3	-	-	1	4	-
Hippocampus erectus	- -	-	- -	-	1	-	-	-
Syngnathus fuscus	1	- -	1 1	2	-	3	-	-
Centropristis striata	1	- -	2 -	-	1	1	-	-
Pomatomus saltatrix	- -	2	- -	-	-	-	-	-
Vomer setapinnis	- -	1	- -	-	-	3	-	-
Bairdiella chrysura	- 51	88	- -	-	-	4	-	-
Cynoscion regalis	7 122	60	- -	-	-	29	-	-
Larimus fasciatus	- -	-	- -	-	-	1	-	-
Leiostomus xanthurus	- 1	4	- -	-	-	4	-	-
Menticirrhus saxatilis	- -	1	1 7	-	-	2	-	-
Micropogon undulatus	- -	2	- 1	-	-	-	-	-
Peprilus triacanthus	2	-	4 -	-	4	-	-	-
Prionotus carolinus	17	- -	1 4	-	3	-	-	-
Prionotus evolans	- 4	9	- 6	-	-	-	-	-
Citharichthys spilopterus	- -	-	- 1	-	-	-	-	-

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Appendix Table 17. (cont.)

Coll. No.	CBM-74-186[N]	CBM-74-189[R]	RPS-74-129[R]	CBM-74-190[R]	RPS-74-130[R]	CBM-74-191[R]	RPS-74-131[R]	CBM-74-192[R]	RPS-74-132[R]	RPS-74-135	RPS-74-134	RPS-74-133
Etropus microstomus	5	-	-	5	4	1	10	1	-	-	-	1
Paralichthys dentatus	-	-	-	1	2	1	-	-	-	-	-	-
Paralichthys oblongus	1	-	-	1	1	-	1	-	-	-	-	-
Scopthalmus aquosus	10	-	-	1	7	-	1	-	-	1	2	1
Monacanthus hispidus	-	-	-	-	1	-	-	-	-	-	-	-
Spheroides maculatus	-	-	1	-	-	-	-	-	-	-	-	-
Chilomycterus schoepfi	-	-	1	-	1	-	-	-	-	-	1	-
Total species	11	7	15	12	17	3	8	1	0	14	6	3
Total specimens	159	1010+	8120+	31	56	4	24	1	0	13781+	12	3

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Appendix Table 17. (cont.)

Location	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Landward of Site
Zone	5150	5250	5350	5450	5020	5120	5220	5150
Depth (feet)	18 - 20	36 - 40	36 - 40	40 - 50	12-14	22-25	36-37	20-22
Coll. No.	CBM-74-197[R] RPS-74-138[R]	CBM-74-198[R] RPS-74-139[R]	CBM-74-199[R] RPS-74-140[R]	CBM-74-200[R] RPS-74-141[R]	CBM-74-203	CBM-74-202	CBM-74-201	DAH-74-100
Date	4 November	4 November	4 November	4 November	4 November	4 November	4 November	11 November
Hour	0915 - 0930	0950 - 1005	1030 - 1045	1115 - 1130	1330-1345	1250-1305	1215-1230	0900-0915
Tide	Flood 2	Flood 2	High	Ebb 1	Ebb 2	Ebb 1	Ebb 1	Ebb 2
Boat Heading (degrees	045	045	045	045	045	045	045	220
Air Temp. (C)	17.0	17.0	18.0	19.0	21.0	21.0	20.0	12.0
Temp. (C), surface	13.5	13.0	13.0	13.0	13.7	13.5	13.5	12.0
bottom	13.0	12.7	12.5	12.8	13.5	13.5	13.0	11.5
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.5	30.5	30.5	29.5
bottom	30.5	30.5	30.5	30.0	31.0	30.5	30.5	30.0
Oxygen (ppm), surface	9.2	8.8	8.8	10.4	8.0	8.3	8.4	8.6
bottom	8.5	8.1	8.0	7.5	8.1	8.2	7.8	9.3
Secchi (feet)	8.0	8.5	9.0	9.0	6.5	10.5	13.5	5.5
Mustelus canis	-	-	-	-	-	1	-	-
Squalus acanthias	-	-	-	-	-	-	-	-
Raja erinacea	-	1	1	-	2	-	-	1
Anchoa mitchilli	8950+	12302+	4795+	1711	23579+	13659+	147	12	13598+	13460+	18570+	9
Engraulis eurystole	26	18	14	5	68	77	-	1	39	38	91	1
Lophius americanus	-	-	-	-	-	-	-	-	-	-	1	-
Merluccius bilinearis	-	-	-	1	2	-	16	1	-	1	5	3
Urophycis chuss	-	-	1	-	3	-	-	-	-	-	1	2
Urophycis regius	1	-	6	1	4	-	-	-	-	4	3	6
Rissola marginata	-	-	1	1	-	-	-	-	-	-	-	1
Hippocampus erectus	-	-	1	1	-	-	-	-	1	-	-	1
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	1	3	9
Centropristis striata	-	-	-	-	-	-	-	-	-	-	-	1
Pomatomus saltatrix	1	-	-	-	-	-	-	-	2	1	-	-
Decapterus punstatus	-	-	-	-	-	-	-	2	-	-	-	-
Vomer setapinnis	-	-	-	-	-	-	-	-	1	-	-	-
Bairdiella chrysura	-	1	-	-	-	-	-	-	-	-	-	17
Cynoscion regalis	22	4	29	20	27	6	-	-	12	33	7	4
Leiostomus xanthurus	-	-	-	-	-	-	-	-	-	-	-	13
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	-	1	-	1
Ammodytes sp.	-	-	-	-	-	-	-	-	-	-	-	1
Peprilus triacanthus	-	1	-	-	3	1	184	80	1	-	6	-
Prionotus carolinus	-	-	-	-	1	-	12	1	-	-	-	-
Prionotus evolans	-	-	1	-	-	-	1	-	-	1	2	5
Etropus microstomus	1	-	1	3	4	-	1	-	1	1	1	2
Paralichthys dentatus	-	-	-	1	-	5	-	-	9	9	1	-
Scophthalmus aquosus	25	2	23	8	1	-	1	-	-	-	8	5
Pseudopleuronectes americanus	-	-	1	-	-	-	1	-	-	-	-	-
Spheroides maculatus	1	-	1	2	-	-	-	-	-	-	2	1
Total species	8	7	13	11	11	6	8	6	9	13	14	19
Total specimens	9027+	12329+	4875+	1754	23694+	13749+	363	97	13664+	13553+	18701+	83

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Appendix Table 17. (cont.)

Location	Site	Seaward of Ridge	Seaward of Ridge	Off Brigantine	Off Brigantine	Off Brigantine	Site	Site	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge
Zone	5250	5350	5450	5180	5280	5380	5250	5250	5350	5350	5450	5450
Depth (feet)	37	36-37	36	10-11	30	37	28-30	30-35	38-39	38	43-45	44-45
Coll. No.	DAH-74-101	DAH-74-102	DAH-74-103	DAH-74-106	DAH-74-105	DAH-74-104	CBM-74-204^{D}	CBM-74-209^{N}	CBM-74-205^{D}	CBM-74-208^{N}	CBM-74-206^{D}	CBM-74-207^{N}
Date	11 November	11 November	11 November	11 November	11 November	11 November	11 November	18 November	18 November	18 November	18 November	18 November
Hour	1010-1025	1143-1158	1216-1231	1410-1425	1330-1345	1255-1310	1445-1500	1845-1900	1520-1535	1815-1830	1600-1615	1730-1745
Tide	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Ebb 2	Flood 1	Ebb 2	Flood 1	Ebb 2	Flood 1
Boat Heading (degrees)	060	220	220	220	220	220	045	045	045	045	045	045
Air Temp. (C)	12.0	14.5	15.0	15.0	15.0	15.0	11.5	10.0	11.0	10.0	10.0	10.5
Temp. (C), surface	11.5	12.0	12.0	10.5	11.8	12.1	9.5	9.0	9.5	9.0	10.0	9.5
bottom	12.0	12.0	12.0	10.5	12.0	12.0	10.0	9.5	10.0	9.5	10.0	9.0
Sal. (ppt), surface	29.5	30.0	29.5	28.5	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
bottom	30.0	30.0	30.0	29.0	30.0	30.0	30.5	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	7.8	8.8	7.9	8.2	8.2	8.1	9.3	9.4	9.5	9.3	9.4	9.2
bottom	8.4	8.5	8.0	9.5	8.1	8.6	9.4	9.5	9.2	9.6	9.2	9.2
Secchi (feet)	4.0	6.5	8.5	6.0	6.0	7.5	8.5	-	9.5	-	11.0	-
Squalus acanthias	-	1	-	-	-	-	-	-	-	-	-	-
Raja erinacea	3	-	1	-	1	3	-	2	1	2	1	-
Conger oceanicus	1	-	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	1	-	-	1	24	-	-	212	-	44	-	-
Engraulis eurystole	1	-	-	-	-	-	-	6	-	3	-	-
Lophius americanus	-	1	-	-	-	-	-	-	-	-	-	-
Merluccius bilinearis	199	78	36	-	12	26	8	14	23	40	17	24
Urophycis chuss	15	2	-	-	5	15	-	115	-	17	1	9
Urophycis regius	17	5	9	1	22	9	10	139	9	124	6	123
Rissola marginata	8	3	1	-	-	8	-	11	-	7	-	4
Hippocampus erectus	-	-	-	-	-	-	-	2	-	-	-	-
Syngnathus fuscus	6	-	-	2	1	3	2	-	-	1	-	1
Centropristis striata	-	-	-	-	-	1	-	-	-	-	-	-
Decapterus punctatus	-	-	-	-	-	-	-	-	1	-	-	-
Bairdiella chrysura	-	-	-	1	-	-	-	-	-	-	-	-
Cynoscion regalis	3	1	-	-	7	-	-	-	-	-	-	-
Leiostomus xanthurus	-	-	-	-	2	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	-	-	1	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	116	-	-	-	-	-
Peprilus triacanthus	-	-	-	-	-	-	90	-	127	-	15	-
Prionotus carolinus	5	-	-	-	-	1	3	8	-	1	3	3
Prionotus evolans	2	-	-	-	-	3	-	-	1	-	-	-
Etropus microstomus	34	8	5	-	4	11	3	45	6	12	2	5
Paralichthys dentatus	-	-	-	-	-	-	-	1	-	-	1	-
Scophthalmus aquosus	7	2	3	1	20	11	1	3	-	2	1	2
Pseudopleuronectes americanus	1	-	-	-	-	-	-	-	-	-	-	-
Sphoeroides maculatus	-	1	-	-	5	1	2	5	-	2	-	-
Total species	15	10	6	5	11	13	9	13	7	12	9	8
Total specimens	303	102	55	6	103	93	235	563	168	255	47	171

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Appendix Table 17. (cont.)

Location	Landward of Site	Site	Seaward of Ridge	Seaward of Ridge	Nearshore	Off Holgate Tower	Off Holgate Tower	Off Brigantine	Off Brigantine	Off Brigantine
Zone	5150	5250	5350	5450	5020	5120	5220	5180	5280	5380
Depth (feet)	18-20	35-40	33-38	49-52	12-18	25-30	43-48	14-15	30-33	33-45
Coll. No.	CBM-74-214	CBM-74-215	CBM-74-216	CBM-74-217	CBM-74-220	CBM-74-219	CBM-74-218	CBM-74-223	CBM-74-222	CBM-74-221
Date	5 December	5 December	5 December	5 December	5 December	5 December	5 December	5 December	5 December	5 December
Hour	1300-1305	0855-0910	1000-1015	1045-1100	0710-0725	0740-0755	0810-0825	1235-1250	1200-1215	1130-1145
Tide	Ebb 1	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Ebb 1	Ebb 1	High
Boat Heading (degrees)	045	225	045	225	045	045	045	045	045	225
Air Temp. (C)	6.0	2.0	2.0	2.0	-2.0	-2.0	-1.0	6.0	6.0	2.0
Temp. (C), surface	7.0	6.8	7.0	7.0	5.0	5.2	6.0	5.2	7.0	7.0
bottom	7.0	6.0	7.5	7.0	5.5	5.4	6.0	6.2	6.8	6.8
Sal. (ppt), surface	30.0	30.0	30.0	30.5	30.0	30.0	30.0	30.0	30.5	30.0
bottom	30.0	30.5	30.0	30.5	30.0	30.0	30.0	30.5	30.5	30.0
Oxygen (ppm), surface	9.6	9.2	9.2	9.4	9.4	9.4	9.4	9.6	9.6	9.4
bottom	9.2	9.2	9.4	9.4	9.2	9.6	9.4	9.4	9.2	9.4
Secchi (feet)	6.0	4.5	5.5	6.0	2.0	4.0	4.5	3.0	5.0	5.5
Raja erinacea	1	-	-	1	1	-	-	-	1	1
Anguilla rostrata	-	-	-	-	-	-	-	1	-	-
Conger oceanicus	-	2	-	1	-	1	-	-	-	-
Anchoa mitchilli	109	-	1	-	2	-	-	-	4	3
Engraulis eurystole	-	-	-	-	-	-	-	-	1	-
Merluccius bilinearis	72	44	52	173	51	76	83	2	77	41
Urophycis chuss	2	74	4	37	1	39	25	-	6	1
Urophycis regius	1	2	4	4	8	12	24	-	6	7
Menidia menidia	1	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	1	1	-	-	1	1	-	1	6	-
Morone americana	-	-	-	-	-	-	-	3	-	-
Cynoscion regalis	-	1	1	8	-	1	2	-	1	1
Micropogon undulatus	-	-	-	-	-	-	-	1	-	-
Tautoga onitis	-	-	-	-	-	1	-	-	-	-
Tautogolabrus adspersus	-	-	-	1	-	-	-	-	-	-
Pholis gunnellus	-	-	-	-	1	-	-	-	-	-
Ammodytes sp.	-	-	-	1	-	-	-	-	-	3
Prionotus evolans	-	1	1	3	-	-	4	-	-	-
Myoxocephalus aenaeus	-	-	-	-	1	-	-	-	-	-
Myoxocephalus octodecemspinosus	-	-	1	-	-	-	-	-	-	-
Etropus microstomus	-	-	1	10	-	1	5	-	-	1
Scophthalmus aquosus	6	-	1	4	4	1	1	-	2	7
Pseudopleuronectes americanus	1	-	-	-	1	-	-	-	-	-
Total species	9	7	9	11	10	9	7	5	9	9
Total specimens	194	125	66	243	71	133	144	8	104	65

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Appendix Table 18. Fishes taken in 15-minute bottom hauls of a 25-ft semiballoon trawl in the Great Bay-Mullica River estuary in 1974.

Zone	1510	1075	1045	1015	1510	1075	1045	1015	1510	1045	1075	1015
Depth (feet)	18-30	7-8	5-10	15-35	12-27	4-6	3-6	13-18	12-35	4-9	8	14-20
Coll. No.	FJM-74-054	FJM-74-055	FJM-74-056	FJM-74-057	HKH-74-027	HKH-74-026	HKH-74-025	HKH-74-024	FJM-74-083	FJM-74-081	FJM-74-082	FJM-74-080
Date	21 February	21 February	21 February	21 February	19 March	19 March	19 March	19 March	2 April	2 April	2 April	2 April
Hour	1000-1015	1055-1110	1135-1150	1225-1240	1555-1610	1508-1523	1314-1329	1155-1210	1420-1435	1305-1320	1345-1400	1220-1235
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	180	040	070	170	330	020	280	000	350	280	025	000
Air Temp. (C)	3.0	4.0	6.0	6.0	11.0	11.0	9.0	9.0	13.0	13.0	13.0	13.0
Temp. (C), surface	3.3	3.3	3.5	4.0	7.0	7.0	6.0	6.0	9.0	9.0	9.0	8.5
bottom	3.3	3.5	3.8	4.0	7.0	7.5	6.0	6.0	8.5	9.0	8.5	8.0
Sal. (ppt), surface	26.0	26.5	22.0	26.5	19.0	20.5	21.0	26.5	10.0	18.0	15.5	24.0
bottom	26.5	24.0	23.0	26.5	27.0	20.0	21.0	29.0	13.0	20.5	17.5	27.5
Oxygen (ppm), surface	11.4	12.0	12.0	11.4	11.5	11.1	11.8	11.2	10.6	10.3	10.2	10.0
bottom	11.3	10.8	12.0	11.6	11.3	10.7	10.8	11.2	10.3	10.3	10.1	9.8
Secchi (feet)	2.5	2.0	2.5	3.5	2.0	1.5	1.5	2.5	2.0	2.5	2.0	3.5
Raja erinacea	-	-	-	-	-	-	-	1	-	-	-	-
Anguilla rostrata	-	-	-	-	-	-	-	-	2	-	-	-
Alosa aestivalis	-	-	-	-	-	6	-	-	-	-	17	-
A. pseudoharengus	-	-	-	-	-	-	-	-	1	-	10	-
Clupea harengus	-	-	1	-	-	-	-	-	-	-	1	-
Anchoa mitchilli	-	-	-	-	-	2	-	-	-	-	14	-
Opsanus tau	-	-	-	-	5	-	-	-	2	-	-	-
Pollachius virens	-	-	-	-	-	-	-	-	-	-	2	-
Urophycis chuss	1	-	-	3	261	2	6	2	127	-	-	3
U. regius	-	-	-	-	24	7	3	52	110	-	2	16
U. tenuis	-	-	-	-	-	-	-	-	1	-	-	-
Menidia menidia	-	1	3	1	-	3	-	-	-	-	-	-
Apeltes quadracus	-	-	-	1	-	3	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	1	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	3	1	4	-	2
Syngnathus fuscus	-	-	-	1	51	21	1	10	20	1	5	-
Morone americana	6	9	-	-	30	66	-	-	50	-	12	-
M. saxatilis	-	-	1	1	-	-	-	-	2	-	-	-
Centropristis striata	-	-	-	-	1	-	-	-	-	1	-	-
Tautoga onitis	-	-	-	-	4	-	1	-	1	-	-	-
Ammodytes sp.	-	-	-	1	-	-	-	4	-	-	-	-
Prionotus carolinus	-	-	-	-	-	-	-	-	-	-	-	1
Myoxocephalus aenaeus	-	-	-	-	-	-	4	-	-	-	-	-
Myoxocephalus octodecemspinosus	-	-	-	-	-	-	-	-	-	1	-	-
Etropus microstomus	-	-	-	-	-	1	-	5	-	1	-	-
Scophthalmus aquosus	-	-	-	-	3	3	19	30	-	1	1	19
Pseudopleuronectes americanus	1	-	2	-	-	4	13	2	-	7	1	-
Total species	3	2	4	7	8	11	7	9	11	7	10	6
Total specimens	8	10	7	9	379	118	47	109	317	16	65	41

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Appendix Table 18. (cont.)

Zone	1510	1075	1045	1015	1510	1075	1045	1015	1510	1080	1065	1010
Depth (feet)	15-30	5-10	8-10	15-35	12-14	7	5	12-14	6-25	7	8	10-15
Coll. No.	RCB-74-071	RCB-74-070	RCB-74-073	RCB-74-072	CBM-74-124	CBM-74-123	CBM-74-122	CBM-74-121	RPS-74-077	RPS-74-078	RPS-74-076	RPS-74-075
Date	20 May	20 May	20 May	20 May	25 June	25 June	25 June	25 June	1 July	1 July	1 July	1 July
Hour	0926-0941	0835-0850	1225-1240	1120-1135	1150-1205	1105-1120	1015-1030	0850-0905	1500-1515	1540-1555	1420-1435	1315-1330
Tide	Flood 2	Flood 2	Ebb 2	Ebb 2	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 1	Ebb 2
Boat Heading (degrees)	125	070	-	135	000	045	270	000	020	220	040	180
Air Temp. (C)	10.0	10.0	15.0	14.4	17.0	17.0	17.0	17.0	26.5	27.0	26.0	25.0
Temp. (C), surface	18.5	16.0	18.2	14.0	21.0	20.0	19.8	18.5	23.2	24.0	23.2	22.0
bottom	17.5	17.5	18.5	15.0	21.0	20.0	19.5	18.2	22.5	23.5	23.0	21.5
Sal. (ppt), surface	21.0	23.5	25.0	30.0	21.0	25.5	26.0	29.5	17.0	22.0	23.0	27.0
bottom	24.0	23.5	24.5	30.0	22.5	25.0	26.0	29.5	19.0	22.0	24.0	28.0
Oxygen (ppm), surface	9.0	8.1	8.4	8.6	7.7	8.3	8.5	8.4	7.2	8.0	8.0	7.3
bottom	8.9	7.3	8.4	8.6	7.5	7.9	8.4	8.3	6.8	8.0	7.7	7.3
Secchi (feet)	2.5	1.0	-	2.5	2.5	3.0	4.0	4.5	4.0	3.5	4.0	6.0
Mustelus canis	-	-	-	3	-	16	2	5	-	3	5	2
Dasyatis sayi	-	-	-	-	-	-	-	-	-	-	-	1
Myliobatis freminvillei	-	-	-	-	-	-	-	-	-	-	-	1
Anguilla rostrata	4	5	-	-	-	-	-	-	-	-	-	-
Alosa aestivalis	-	-	-	1	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	1	-	-	5	4	5	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	1
A. mitchilli	4	200+	3	65	-	1003+	320	24	307	900+	850+	57
Opsanus tau	31	9	60+	-	3	1	-	-	7	-	-	-
Urophycis chuss	5	-	-	-	-	-	-	-	-	-	-	-
U. regius	27	18	22	-	-	1	-	-	-	3	-	-
U. tenuis	2	10	2	-	2	-	-	-	-	-	-	-
Rissola marginata	1	13	32	-	-	-	-	-	2	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	1	50+	30	3	-	-	-	1	-	3	4	-
Morone americana	2	-	-	-	4	-	-	-	3	-	-	-
Centropristis striata	-	1	55	-	2	-	2	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	1	1	-	-
Selene vomer	-	-	-	-	-	-	-	-	-	2	-	-
Cynoscion regalis	-	-	-	-	16	-	-	-	-	-	1	-
Tautoga onitis	1	-	9	-	-	-	-	-	-	-	-	-
Tautogolabrus adspersus	-	-	4	-	-	-	-	-	-	-	-	-
Sphyraena borealis	-	-	-	-	-	1	-	-	-	-	-	-
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	1	-
Prionotus carolinus	-	-	61	-	-	2	-	-	-	-	-	-
P. evolans	-	-	-	-	1	-	-	-	-	1	-	-
Etropus microstomus	-	-	41	-	-	-	2	-	-	-	-	-
Paralichthys dentatus	1	1	2	-	-	4	-	-	-	4	-	-
Scophthalmus aquosus	1	4	4	1	2	1	2	5	-	2	-	-
Pseudopleuronectes americanus	-	-	16	-	-	5	-	-	-	-	-	-
Trinectes maculatus	67	32	7	-	34	3	-	-	13	5	-	-
Sphoeroides maculatus	-	-	1	-	-	-	-	-	-	-	-	-
Total species	13	10	16	5	8	11	5	4	7	11	6	5
Total specimens	147	342+	349+	73	64	1038+	328	35	338	928	866+	62

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Appendix Table 18. (cont.)

Zone	1510	1080	1045	1010	1510	1075	1045	1015	1510	1075	1045	1015
Depth (feet)	18-20	7	8-12	15	12-22	6-8	6	15	8-14	6	6	11
Coll. No.	RPS-74-099	RPS-74-100	RPS-74-098	RPS-74-097	RCB-74-121	RCB-74-122	RCB-74-120	RCB-74-119	CBM-74-196	CBM-74-195	CBM-74-194	CBM-74-193
Date	5 August	5 August	5 August	5 August	4 September	4 September	4 September	4 September	15 October	15 October	15 October	15 October
Hour	1537-1552	1607-1622	1411-1426	1302-1317	1430-1445	1505-1520	1335-1350	1235-1250	1445-1500	1400-1415	1320-1335	1230-1245
Tide	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	107	200	070	120	150	180	180	0	340	100	250	0
Air Temp. (C)	28.0	28.0	28.0	25.0	20.0	20.0	19.0	19.0	22.5	22.5	22.0	20.0
Temp. (C), surface	26.5	26.9	26.0	19.0	23.0	22.5	21.8	20.0	16.0	16.0	17.0	17.0
bottom	26.5	26.9	26.0	19.5	23.0	23.0	22.0	21.0	17.0	16.5	18.0	16.5
Sal. (ppt), surface	20.5	24.0	26.5	30.0	20.0	22.0	27.0	30.0	21.0	23.5	27.5	30.0
bottom	21.0	24.0	27.0	30.5	20.0	22.0	26.0	30.0	20.5	23.5	25.0	29.5
Oxygen (ppm), surface	5.7	6.3	7.2	6.0	7.8	7.3	7.3	6.8	8.0	8.4	8.2	10.2
bottom	5.7	6.1	6.9	6.5	8.0	8.0	8.6	7.0	7.8	8.4	8.0	9.8
Secchi (feet)	3.0	3.0	2.5	2.5	1.5	-	1.0	3.0	3.0	2.0	3.0	3.5
Mustelus canis	-	-	-	2	-	-	-	1	-	-	-	-
Myliobatis freminvillei	-	-	-	-	-	-	-	4	-	-	-	-
Anguilla rostrata	-	-	-	-	2	-	-	-	-	-	-	-
Conger oceanicus	-	-	-	-	1	-	-	-	-	-	-	-
Anchoa mitchilli	731+	1200+	18	24	2	289	13	-	7	1500+	15	-
Synodus foetens	-	-	-	-	1	1	-	-	-	-	-	-
Opsanus tau	1	-	-	-	12	2	2	-	11	-	-	-
Urophycis chuss	-	-	-	-	-	-	-	-	-	-	-	3
Urophycis regius	-	-	-	-	-	-	-	-	-	-	-	1
Rissola marginata	-	-	-	-	-	-	-	-	-	-	-	-
Fistularia tabacaria	-	-	-	-	1	-	-	-	-	-	-	-
Syngnathus fuscus	-	1	1	2	-	4	-	4	-	-	1	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	-	1
Morone americana	1	-	-	-	1	-	-	-	6	-	-	-
Centropristis striata	-	-	-	-	22	1	14	-	2	-	1	-
Myctoperca microlepis	-	-	-	-	-	-	1	-	-	-	-	-
Pomatomus saltatrix	-	2	-	-	-	1	-	-	-	-	-	-
Caranx hippos	-	-	-	-	-	1	-	-	-	-	-	-
Stenotomus chrysops	-	-	3	-	-	-	3	-	-	-	-	-
Bairdiella chrysura	-	6	6	-	3	-	-	-	2	13	6	-
Cynoscion regalis	31	158	-	15	18	41	4	7	25	18	8	19
Leiostomus xanthurus	-	6	1	-	3	1	2	1	3	13	-	-
Menticirrhus saxatilis	-	-	-	-	-	-	-	4	-	-	-	-
Micropogon undulatus	-	1	-	-	-	-	-	-	-	-	-	1
Chaetodon ocellatus	-	-	-	-	-	-	6	-	4	-	3	-
Tautoga onitis	-	-	-	-	1	-	16	-	4	-	2	-

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Appendix Table 18. (cont.)

Coll. No.	RPS-74-099	RPS-74-100	RPS-74-098	RPS-74-097	RCB-74-121	RCB-74-122	RCB-74-120	RCB-74-119	CBM-74-196	CBM-74-195	CBM-74-194	CBM-74-193
Tautogolabrus adspersus	-	-	1	-	1	-	1	-	-	-	-	-
Hypsoblennius hentzi	-	-	-	-	-	-	-	-	-	-	1	-
Astroscopus guttatus	-	-	-	-	-	-	-	-	-	-	-	1
Gobiosoma bosci	-	-	-	-	-	-	1	-	-	-	-	-
Peprilus triacanthus	-	5	-	-	-	-	-	-	-	-	-	-
Scorpaena plumieri	-	-	-	-	-	-	-	-	-	-	1	-
Prionotus carolinus	-	-	-	-	-	-	-	2	-	-	-	2
Prionotus evolans	-	-	-	-	13	3	1	2	-	-	1	-
Etropus microstomus	-	-	-	-	-	-	-	1	-	-	-	-
Paralichthys dentatus	-	2	-	1	1	1	-	3	2	3	-	-
Pseudopleuronectes americanus	1	1	-	-	-	1	4	-	-	-	-	-
Trinectes americanus	2	-	-	-	21	6	-	-	3	-	-	-
Monacanthus hispidus	-	-	-	-	1	1	30	3	-	-	-	-
Lactophyrs quadricornis	-	-	-	-	-	-	-	-	-	-	-	1
Sphoeroides maculatus	-	-	-	-	1	1	1	1	-	-	-	-
Chilomycterus schoepfi	-	1	2	-	-	-	1	-	-	-	-	-
Total species	6	11	7	5	18	15	17	12	11	5	10	8
Total specimens	767+	1388+	32	44	105	354	102	33	69	1547+	39	29

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Appendix Table 18. (cont.)

Zone	1510	1075	1045	1015	1510	1075	1045	1015
Depth (feet)	8-20	8	8	18-22	18-25	9	8-12	18-25
Coll. No.	RPS-74-145	RPS-74-144	RPS-74-143	RPS-74-142	CBM-74-213	CBM-74-212	CBM-74-211	CBM-74-210
Date	4 November	4 November	4 November	4 November	3 December	3 December	3 December	3 December
Hour	1424-1439	1341-1356	1309-1324	1214-1229	1210-1225	1050-1105	1020-1035	0930-0945
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	160	040	240	340	170	030	275	290
Air Temp. (C)	23.0	23.0	21.5	19.8	6.5	6.5	6.0	6.0
Temp. (C), surface	16.0	16.8	17.0	15.0	4.0	4.0	4.0	6.0
bottom	16.5	16.0	16.0	15.0	4.0	4.0	4.0	6.0
Sal. (ppt), surface	24.0	26.0	27.0	30.0	24.5	28.0	28.0	31.0
bottom	24.5	27.5	-	30.0	26.5	28.0	28.0	31.5
Oxygen (ppm), surface	7.1	9.1	9.2	9.6	10.0	10.0	9.0	8.8
bottom	8.8	9.1	9.2	9.4	11.0	10.5	9.6	9.8
Secchi (feet)	4.0	6.0	7.0	6.0	1.0	1.0	1.5	1.0
Anchoa mitchilli	191	960+	272	4	-	-	11	4
Opsanus tau	-	-	-	-	8	-	-	-
Merluccius bilinearis	-	-	-	-	3	1	1	2
Urophycis regius	-	-	3	-	1	-	-	6
Menidia menidia	-	-	102	-	-	-	-	-
Morone americana	7	-	-	-	5	2	-	-
Centropristis striata	1	-	-	-	-	-	-	-
Bairdiella chrysura	-	1	-	-	-	-	-	-
Cynoscion regalis	8	-	-	-	-	-	-	-
Micropogon undulatus	-	-	-	-	-	-	1	-
Tautoga onitis	1	-	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	2
Gobiosoma bosci	-	-	-	-	2	-	-	-
Myoxocephalus aenaeus	-	-	-	-	-	-	1	1
Etropus microstomus	-	-	-	1	-	-	-	-
Paralichthys dentatus	-	-	-	1	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	2
Pseudopleuronectes americanus	1	-	-	-	1	-	-	1
Trinectes americanus	-	-	-	-	2	1	-	-
Total species	6	2	3	3	7	3	4	7
Total specimens	209	961+	377	6	22	4	14	18

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Appendix Table 19. Number of fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in five zones in Great Bay, New Jersey during 1974.

Zone	1045	1200	1045	1200	1045	1200	1045	1200	1010	1045	1200	1080
Depth (feet), sampled	5-10	8-12	5-8	5-10	7	7	5-8	5-7	20-25	3-5	7	5-7
Coll. No.	FJM-74-017	FJM-74-018	FJM-74-045	FJM-74-046 [a]	RCB-74-025	RCB-74-025	RCB-74-052	RCB-74-055	HKH-74-067	HKH-74-068	HKH-74-069	HKH-74-072
Date	15 January	15 January	14 February	14 February	15 March	15 March	16 April	16 April	13 May	13 May	13 May	13 May
Hour	1240-1250	1310-1320	1115-1125	1200-1210	1213-1223	1240-1250	1205-1215	1415-1425	0911-0921	0957-1007	1046-1056	1319-1329
Tide	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 1	Flood 2	Flood 1	Flood 1	Flood 1	Flood 2
Boat Heading (degrees)	260	270	280	280	260	260	-	280	290	270	270	320
Air Temp. (C)	6.0	6.0	6.0	6.0	8.0	9.0	13.0	14.0	17.0	17.0	17.0	15.0
Temp. (C), surface	0.0	0.0	2.5	2.5	4.5	4.0	12.0	13.0	14.9	15.1	15.0	15.2
bottom	1.0	0.5	2.5	2.8	4.5	4.0	12.0	13.0	14.0	15.0	15.0	15.0
Sal. (ppt), surface	19.5	22.0	23.0	24.0	24.0	23.5	21.0	25.0	25.5	24.5	27.0	24.0
bottom	20.0	22.5	25.0	24.5	25.0	23.5	20.0	25.0	30.0	25.0	27.5	24.5
Oxygen (ppm), surface	11.6	11.8	-	-	11.3	11.0	8.8	9.0	7.6	7.4	7.9	8.2
bottom	11.1	11.4	-	-	11.2	11.4	8.9	9.4	7.4	7.5	7.9	8.0
Secchi (feet)	2.5	2.5	2.5	3.0	1.5	1.5	1.0	-	2.0	-	1.5	1.0
Mustelus canis	-	-	-	-	-	-	-	-	3	1	4	-
Raja erinacea	-	-	-	-	-	-	1	-	-	-	-	-
Anguilla rostrata	-	-	-	-	-	-	1	-	-	-	-	-
Alosa aestivalis	-	-	-	-	-	1	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	1	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	1	-	-	14	21	1
Opsanus tau	-	-	-	-	-	-	-	-	-	-	-	3
Pollachius virens	-	-	-	-	-	-	-	-	-	-	1	-
Urophycis chuss	-	-	-	-	-	-	2	5	-	-	-	1
Urophycis regius	-	-	-	-	-	-	16	4	4	3	-	15
Urophycis tenuis	-	-	-	-	-	-	-	-	-	-	-	6
Gasterosteus aculeatus	-	-	1	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	2	3	-	1	7	-
Syngnathus fuscus	-	-	-	-	-	-	2	3	-	-	1	3
Centropristis striata	-	-	-	-	-	-	-	-	-	3	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	-	1
Tautoga onitis	-	-	-	-	-	-	-	1	-	3	-	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	-	1	-	-
Prionotus carolinus	-	-	-	-	-	-	-	-	-	1	-	-
Prionotus evolans	-	-	-	-	-	-	-	-	1	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	2	2	-	2	-	3
Pseudopleuronectes americanus	-	-	-	-	-	-	1	-	-	1	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	-	-	1	15
Total species	0	0	1	-	0	2	9	6	3	10	6	9
Total specimens	0	0	1	-	0	2	28	18	8	30	35	48

[a] aborted haul.

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Appendix Table 19. (cont.)

Zone	1065	1010	1200	1045	1080	1065	1065	1010	1045	1200	1080	1010
Depth (feet) sampled	7-8	10-45	8-9	5-8	5	5	6-8	25-40	7-10	5-10	5-7	9-40
Coll. No.	HKH-74-073	RPS-74-055	DAH-74-011	DAH-74-012	DAH-74-013	RPS-74-064	CBM-74-140	CBM-74-141	CBM-74-142	CBM-74-143	CBM-74-146	DAH-74-037
Date	13 May	20 June	20 June	20 June	20 June	20 June	22 July	22 July	22 July	22 July	22 July	20 August
Hour	1400-1410	0913-0923	1010-1020	1050-1100	1206-1216	1405-1415	1025-1035	1108-1118	1135-1145	1210-1220	1410-1420	0915-0925
Tide	Flood 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Flood 2
Boat Heading (degrees)	000	270	270	260	005	220	050	300	260	270	315	290
Air Temp. (C)	15.0	22.0	25.0	29.0	27.0	28.0	26.0	26.0	26.0	27.0	26.0	26.0
Temp. (C), surface	15.1	20.0	24.0	23.0	23.5	24.0	23.0	21.2	23.0	22.0	24.0	22.2
bottom	15.1	18.0	22.0	23.2	23.5	24.0	23.0	21.0	23.0	22.0	24.0	22.8
Sal. (ppt), surface	22.0	30.0	28.5	27.5	21.5	23.5	28.0	30.0	29.0	29.6	24.2	30.0
bottom	22.0	30.0	28.5	27.5	22.0	24.0	28.0	30.0	29.0	30.0	24.7	30.0
Oxygen (ppm), surface	8.5	7.4	7.3	7.2	8.2	6.8	6.6	7.0	6.5	6.8	7.0	6.8
bottom	8.1	6.8	7.3	7.1	7.2	6.2	6.3	6.3	6.4	6.0	6.9	6.5
Secchi (feet)	1.0	3.0	2.5	3.0	2.0	3.5	6.0	7.0	5.5	5.0	4.0	4.0
Mustelus canis	-	3	-	-	-	-	-	-	-	-	-	-
Myliobatus freminvillei	-	-	-	-	-	-	-	-	-	1	-	-
Anguilla rostrata	3	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	11	1	-	-	-	-	-	-
Anchoa mitchilli	6	-	-	-	107	39	1	-	4	2	467	-
Opsanus tau	4	-	-	-	-	-	-	-	-	-	1	-
Urophycis regius	8	-	-	-	-	-	-	-	-	-	-	-
Urophycis tenuis	4	-	-	-	-	-	-	-	-	-	-	-
Rissola marginata	3	-	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	5	-	-
Syngnathus fuscus	5	-	-	-	-	1	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	1	-
Selene vomer	-	-	-	-	-	-	-	-	-	-	3	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	84	-
Sphraena borealis	-	-	-	1	-	-	-	-	-	-	-	-
Prionotus carolinus	-	-	-	-	-	-	-	-	-	1	-	-
Scophthalmus aquosus	2	-	-	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	1	-	-	-	-	-	-	-	-
Trinectes maculatus	4	-	-	-	-	-	-	-	-	1	-	-
Monacanthus hispidus	-	-	-	-	-	-	-	-	-	1	-	-
Chilomycterus shoepfi	-	-	-	-	-	-	-	-	1	-	-	-
Total species	9	1	0	2	2	3	1	0	2	6	5	0
Total specimens	39	3	0	2	118	41	1	0	5	11	556	0

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Appendix Table 19. (cont.)

Zone	1080	1045	1200	1065	1065	1010	1045	1200	1080	1010	1045	1200
Depth (feet) sampled	4-8	7-11	5-10	8-10	6	15-38	7-10	2-10	7	19-24	6-7	8
Coll. No.	EAI-74-019	EAI-74-020	EAI-74-021	EAI-74-024	RPS-74-122	RPS-74-123	RPS-74-124	RPS-74-125	RPS-74-126	DAH-74-080	DAH-74-081	DAH-74-082
Date	20 August	20 August	20 August	20 August	24 September	24 September	24 September	24 September	24 September	22 October	22 October	22 October
Hour	0915-0925	0945-0955	1015-1025	1245-1255	1030-1040	1115-1125	1145-1155	1223-1233	1347-1357	0935-0945	1007-1017	1035-1045
Tide	Flood 2	Flood 2	Flood 2	Ebb 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 1	Flood 1	Flood 2
Boat Heading (degrees)	120	090	300	130	085	320	270	270	300	340	-	275
Air Temp. (C)	25.0	24.0	27.0	30.0	15.5	14.0	13.5	14.0	15.0	6.0	8.5	10.0
Temp. (C), surface	25.0	24.6	24.9	26.0	16.0	16.5	16.0	16.5	16.5	7.0	6.5	6.0
bottom	25.0	25.0	24.9	25.5	16.0	16.5	16.0	15.5	16.5	7.2	6.5	6.2
Sal. (ppt), surface	26.0	26.5	28.0	28.0	22.5	29.0	28.0	28.0	24.5	26.5	23.5	25.5
bottom	26.5	26.5	28.0	28.0	22.5	29.5	28.0	27.0	25.0	27.5	23.5	25.5
Oxygen (ppm), surface	7.9	8.0	7.5	8.6	7.0	7.5	7.3	7.0	6.8	9.2	9.5	9.5
bottom	7.8	7.6	7.5	8.9	7.0	7.0	7.1	7.0	6.8	9.3	9.2	9.8
Secchi (feet)	4.0	3.0	3.5	4.0	3.0	4.0	3.0	2.5	2.0	6.0	5.0	4.0
Mustelus canis	-	-	-	-	-	1	-	-	-	-	-	-
Anchoa hepsetus	-	2	6	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	9	1	550+	20	26	67	39	16	-	1
Synodus foetens	-	-	-	-	-	-	-	1	-	-	-	-
Opsanus tau	-	-	-	1	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	1	-	-	-	-
Syngnathus fuscus	1	-	-	-	-	-	-	1	-	-	-	-
Centropristis striata	-	-	-	-	1	1	-	-	-	-	-	-
Bairdiella chrysura	1	-	-	-	7	-	-	4	2	1	-	-
Cynoscion regalis	-	-	1	-	5	-	-	-	2	-	-	-
Leiostomus xanthurus	-	-	1	-	6	-	-	-	2	-	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	1	-
Prionotus carolinus	-	-	-	-	-	1	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	-	1	1	-
Paralichthys dentatus	-	-	-	-	-	-	1	-	-	-	-	-
Trinectes maculatus	-	-	-	1	-	-	-	-	-	-	-	-
Chilomycterus shoepfi	-	-	1	-	-	-	1	1	-	-	-	-
Total species	2	1	5	3	5	4	3	6	4	3	2	1
Total specimens	2	2	18	3	569+	23	28	75	45	18	2	1

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Appendix Table 19. (cont.)

Zone	1080	1065	1065	1010	1045	1200	1080
Depth (feet), sampled	5	6	5-7	15-33	5-7	4-7	5
Coll. No.	DAH-74-083	DAH-74-084	RPS-74-155	RPS-74-156	RPS-74-157	RPS-74-158	RPS-74-161
Date	22 October	22 October	25 November	25 November	25 November	25 November	25 November
Hour	1110-1120	1135-1145	1101-1111	1140-1150	1216-1226	1258-1308	1428-1438
Tide	Flood 2	Flood 2	Ebb 2	Ebb 2	Low	Flood 1	Flood 1
Boat Heading (degrees)	035	045	050	300	270	300	320
Air Temp. (C)	11.0	12.0	13.5	14.0	14.0	14.0	12.0
Temp. (C), surface	8.0	7.5	6.0	6.3	6.5	6.6	6.5
bottom	8.0	8.0	6.0	6.0	6.5	-	6.2
Sal. (ppt), surface	20.0	22.0	24.5	26.5	26.5	27.5	27.0
bottom	20.5	25.0	24.5	27.0	26.5	-	27.0
Oxygen (ppm), surface	9.1	9.2	11.4	10.4	11.4	12.0	-
bottom	9.0	9.2	11.8	11.4	12.2	-	-
Secchi (feet)	6.0	6.0	4.0	5.0	5.0	4.0	5.0
Alosa pseudoharengus	-	-	7	-	-	-	-
Anchoa mitchilli	42	28	-	-	-	-	-
Urophycis regius	-	-	-	1	-	-	-
Menidia menidia	10	-	11	-	3	-	-
Morone americana	-	21	-	-	-	-	-
Ammodytes sp.	-	-	-	2	-	-	-
Paralichthys dentatus	-	-	-	1	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	1
Total species	2	2	2	3	1	0	1
Total specimens	52	49	18	4	3	0	1

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Appendix Table 20. Number of fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in three zones in Little Egg Harbor, New Jersey during 1974.

Zone	2010	2070	2090	2010	2070	2090	2010	2070	2090	2010	2070	2090
Depth (feet), sampled	20-25	12-25	6-8	7-15	7-15	3-5	18-23	13-17	4-7	15-25	15-25	5-7
Coll. No.	FJM-74-006	FJM-74-007	FJM-74-008	DJD-74-033	DJD-74-034	DJD-74-035	FJM-74-064	FJM-74-065	FJM-74-066	HKH-74-045	HKH-74-051	HKH-74-052
Date	14 January	14 January	14 January	14 February	14 February	14 February	15 March	15 March	15 March	25 April	25 April	25 April
Hour	1200-1210	1230-1240	1250-1300	1115-1125	1150-1200	1220-1230	1205-1215	1235-1245	1255-1305	0949-0959	1318-1328	1345-1355
Tide	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 2	Ebb 2
Boat Heading (degrees)	040	300	300	040	320	320	-	-	-	-	-	-
Air Temp. (C)	1.0	1.0	2.0	7.5	7.5	7.0	8.0	5.0	5.0	10.0	10.0	10.0
Temp. (C), surface	1.0	0.0	-1.2	2.8	2.0	2.2	5.0	4.5	5.0	9.0	10.5	12.0
bottom	1.0	0.5	-1.0	3.0	2.5	2.5	5.0	5.0	5.5	9.0	10.0	12.0
Sal. (ppt), surface	26.5	25.5	24.5	26.0	24.0	24.0	28.0	26.5	26.0	30.0	29.5	27.5
bottom	27.5	26.0	25.0	26.0	24.0	24.0	28.5	27.0	26.0	30.0	30.0	27.5
Oxygen (ppm), surface	11.2	11.4	12.5	11.1	11.8	11.8	-	-	-	9.0	9.6	9.8
bottom	11.1	11.3	13.0	11.0	11.7	11.8	-	-	-	8.6	9.4	9.5
Secchi (feet)	3.0	2.5	3.0	3.5	2.0	1.0	3.5	2.0	2.0	1.0	1.5	1.5
Raja erinacea	-	-	-	-	-	-	-	-	-	1	-	-
Anguilla rostrata	-	-	-	-	-	-	-	-	-	-	-	1
Alosa aestivalis	-	-	-	-	-	-	-	44	-	-	-	133
Alosa pseudoharengus	-	-	-	-	-	-	-	1	-	-	-	2
Alosa sapidissima	-	-	-	-	-	-	-	1	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	2	26	94
Urophycis chuss	-	-	-	-	-	-	-	-	-	13	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	44	-	2
Menidia menidia	-	3	-	9	-	2	-	-	-	-	-	-
Apeltes quadracus	-	-	-	-	-	2	-	-	-	-	-	-
Gasterosteus aculeatus	-	-	-	1	-	-	1	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	1	-	-
Centropristis striata	-	-	-	-	-	-	-	-	-	1	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	1	-	-
Ammodytes sp.	3	-	-	3	-	-	-	-	-	-	-	-
Prionotus carolinus	-	-	-	-	-	-	-	-	-	2	-	-
Prionotus evolans	-	-	-	-	-	-	-	-	-	-	-	1
Myoxocephalus aenaeus	-	-	-	-	-	-	-	-	-	2	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	2	-	1
Pseudopleuronectes americanus	-	-	-	-	1	-	-	1	2	1	-	3
Total species	1	1	0	3	1	2	1	4	1	11	1	8
Total specimens	3	3	0	13	1	4	1	47	2	70	26	237

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Appendix Table 20. (cont.)

Zone Station	2010	2070	2090	2010	2070	2090	2010	2070	2090	2010	2070	2090
Depth (feet) sampled	5-25	5-20	4-6	13-25	11-18	3-10	8-24	8-16	4-9	25	25	5
Coll. No.	CBM-74-096	CBM-74-097	CBM-74-098	RPS-74-061	RPS-74-062	RPS-74-063	DAH-74-022	DAH-74-023	DAH-74-024	DAH-74-043	DAH-74-044	DAH-74-045
Date	13 May	13 May	13 May	20 June	20 June	20 June	23 July	23 July	23 July	20 August	20 August	20 August
Hour	1120-1130	1210-1220	1245-1255	1137-1147	1208-1218	1307-1317	0945-0955	1014-1024	1044-1054	1140-1150	1215-1225	1240-1250
Tide	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1
Boat Heading (degrees)	000	270	300	235	150	140	050	340	320	030	170	310
Air Temp. (C)	15.5	15.0	15.0	23.0	23.0	27.0	23.0	25.0	24.5	31.0	32.8	32.0
Temp. (C), surface	14.0	15.0	16.0	19.0	21.5	23.5	21.8	22.8	23.3	21.0	23.0	25.0
bottom	14.0	14.5	15.5	18.5	20.5	23.0	22.0	23.2	-	22.5	22.5	25.5
Sal. (ppt), surface	30.0	28.0	28.0	30.0	28.5	28.0	29.5	29.0	28.8	30.2	30.0	29.0
bottom	30.0	28.0	28.0	29.5	28.5	28.5	29.5	29.2	-	30.2	30.0	29.5
Oxygen (ppm), surface	7.9	8.4	8.0	6.3	6.4	6.2	6.4	6.2	7.0	8.3	8.2	7.7
bottom	7.6	8.3	8.2	6.4	6.2	6.0	6.3	6.2	-	8.2	8.6	6.9
Secchi (feet)	3.0	2.0	2.0	5.0	4.5	4.5	5.0	5.0	5.0	7.0	7.5	6.0
Alosa aestivalis	3	-	-	-	-	-	-	-	-	-	-	-
Clupea harengus	-	1	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	5	33	107	-	2	92	-	19	1	-	-	-
Urophycis regius	-	-	-	-	-	1	-	-	-	-	-	-
Menidia menidia	-	-	-	-	-	1	-	-	-	-	-	-
Hippocampus erectus	-	1	1	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	1	-	1	-	-	-	-	1	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	3	-	-	-	-	-
Peprilus triacanthus	-	-	1	-	-	-	-	-	-	-	-	-
Prionotus evolans	-	-	1	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	1	-	-	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	1	2	-	-	-	-	-	-	-	1	-
Pseudopleuronectes americanus	-	1	1	-	-	-	-	-	-	-	-	-
Total species	3	6	7	0	1	3	1	2	1	0	1	0
Total specimens	9	38	114	0	2	94	3	20	1	0	1	0

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Appendix Table 20. (cont.)

Zone	2010	2070	2090	2010	2070	2090	2090	2070	2010
Depth (feet), sampled	5-28	8-16	3-8	6-25	10-25	4-5	4	15-20	5-30
Coll. No.	DAH-74-062	DAH-74-063	DAH-74-064	HKH-74-092	HKH-74-093	HKH-74-094	DAH-74-107	DAH-74-108	DAH-74-109
Date	23 September	23 September	23 September	24 October	24 October	24 October	25 November	25 November	25 November
Hour	1032-1042	1105-1115	1135-1145	0930-0940	1028-1038	1057-1107	0932-0942	0953-1003	1027-1037
Tide	Flood 1	Flood 1	Flood 2	Flood 1	Flood 1	Flood 1	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	020	330	230	020	320	340	170	190	240
Air Temp. (C)	12.0	15.0	15.0	11.0	11.5	12.5	12.5	12.5	13.0
Temp. (C), surface	19.0	18.5	19.0	10.5	10.0	10.0	3.5	4.0	4.0
bottom	19.0	18.0	-	11.0	9.0	10.0	-	3.5	4.0
Sal. (ppt), surface	28.5	27.0	26.5	29.5	27.5	27.0	28.5	28.5	29.0
bottom	28.5	27.0	-	30.0	27.5	28.0	-	28.5	28.5
Oxygen (ppm), surface	-	-	-	8.0	10.0	10.0	11.8	11.2	11.3
bottom	-	-	-	7.8	10.4	10.0	-	11.4	11.2
Secchi (feet)	0.8	1.0	1.0	13.0	8.0	5.0	4.0+	4.4	3.5
Anchoa hepsetus	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	11	80+	140+	-	7	-	-	-	1
Synodus foetens	-	1	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	3	-	-	3
Centropristis striata	1	1	-	-	-	-	-	-	-
Bairdiella chrysura	-	1	1	-	-	-	-	-	-
Cynoscion regalis	-	1	-	-	-	-	-	-	-
Paralichthys dentatus	-	1	-	-	-	-	-	-	-
Chilomycterus schoepfi	1	1	-	-	-	-	-	-	-
Total species	4	7	2	0	1	1	0	0	2
Total specimens	14	86+	141+	0	7	3	0	0	4

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Appendix Table 21. Number of fishes in 10-minute bottom hauls of a 16-ft semiballoon trawl in two zones in the intracoastal waterway between Great Bay and Black Point, New Jersey during 1974.

Zone Station	2540	2530	2540	2530	2530	2540	2530	2540	2530	2540	2530	2540
Depth (feet) sampled	-	5-10	15-25	7-10	6-10	7-15	6-15	5-6	5-8	5-18	7-11	9-30
Coll. No.	FJM-74-009	FJM-74-010	FJM-74-047	FJM-74-048	RCB-74-026	RCB-74-027	RCB-74-053	RCB-74-054	HKH-74-070	HKH-74-071	DAH-74-009	DAH-74-010
Date	14 January	14 January	14 February	14 February	15 March	15 March	16 April	16 April	13 May	13 May	20 June	20 June
Hour	1340-1350	1405-1415	1225-1235	1245-1255	1319-1329	1344-1354	1245-1255	1315-1325	1204-1214	1250-1300	0911-0921	0940-0950
Tide	Ebb 1	Ebb 1	Flood 2	Flood 2	Ebb 1	Ebb 1	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	-	180	240	000	340	040	225	330	340	047	340	045
Air Temp. (C)	2.0	2.0	7.0	7.0	8.5	8.5	14.5	14.5	15.0	15.0	24.0	24.0
Temp. (C), surface	-1.2	-1.0	2.8	4.1	5.0	5.5	12.5	12.5	15.0	15.0	22.0	21.0
bottom	-1.0	-1.0	3.8	4.1	5.0	5.0	12.0	13.0	15.0	15.0	22.0	21.0
Sal. (ppt), surface	21.0	26.0	24.0	26.5	26.5	24.5	24.0	29.5	30.0	26.0	29.0	28.0
bottom	24.0	26.5	28.0	26.5	26.5	25.5	28.0	28.0	29.0	26.5	29.0	29.0
Oxygen (ppm), surface	11.9	11.8	-	9.8	11.3	10.8	9.2	9.8	8.0	8.0	7.4	7.6
bottom	12.2	11.5	-	9.5	11.4	10.8	8.9	10.2	8.2	8.1	7.3	7.3
Secchi (feet)1	3.0	2.5	2.5	2.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.0
Mustelus canis	-	-	-	-	-	-	-	-	19	1	-	--
Conger oceanicus	-	-	-	-	-	-	-	-	-	2	-	-
Alosa aestivalis	-	-	1	-	15	1	-	-	-	-	-	-
Alosa pseudoharengus	-	-	-	-	2	1	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	1	1
Anchoa mitchilli	-	-	-	-	1	-	-	11	34	46	110	16
Pollachius virens	-	-	-	-	-	1	-	-	-	-	-	-
Urophycis chuss	-	-	-	-	-	-	1	1	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	39	8	9	-	-
Urophycis tenuis	-	-	-	-	-	-	-	2	-	1	-	-
Menidia menidia	-	-	3	9	28	2	-	-	-	-	-	-
Apeltes quadracus	-	-	-	1	-	1	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	1	-	2	6	-	-	-	-
Centropristis striata	-	-	-	-	-	-	-	-	1	-	-	-
Bairdiella chrysura	-	-	-	-	-	-	-	-	-	-	1	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	1	-	1
Prionotus carolinus	-	-	-	-	-	-	-	3	3	1	-	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	-	1	-
Scophthalmus aquosus	-	-	-	-	-	-	-	2	1	-	-	-
Pseudopleuronectes americanus	-	-	-	-	1	-	-	3	-	-	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	1	1	-	1
Total species	0	0	2	2	6	5	2	8	8	8	4	4
Total specimens	0	0	4	10	47	6	3	67	68	62	113	19

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Appendix Table 21. (cont.)

Zone	2530	2540	2530	2540	2530	2540	2530	2540	2530	2540
Depth (feet), sampled	8-10	5-10	8	8-10	5-6	5-25	6-7	8-25	6-8	2-10
Coll. No.	CBM-74-144	CBM-74-145	EAI-74-022	EAI-74-023	DAH-74-060	DAH-74-061	HKH-74-090	HKH-74-091	RPS-74-159	RPS-74-160
Date	22 July	22 July	20 August	20 August	23 September	23 September	21 October	21 October	25 November	25 November
Hour	1300-1310	1335-1345	1100-1110	1145-1155	0910-0920	0945-0955	0925-0935	0955-1005	1336-1346	1358-1408
Tide	Ebb 1	Flood 1	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees	000	000	350	030	000	020	340	000	000	045
Air Temp. (C)	27.0	26.0	25.0	26.0	12.0	12.0	8.0	8.0	13.5	12.0
Temp. (C), surface	23.0	24.0	25.1	26.0	16.2	18.0	5.0	6.0	8.0	6.8
bottom	23.5	25.0	24.9	26.0	16.2	18.0	5.0	6.0	7.5	6.5
Sal. (ppt), surface	30.0	27.0	29.0	25.5	26.0	24.0	26.5	26.0	28.5	29.0
bottom	30.0	27.0	29.5	25.5	26.0	25.0	26.5	26.0	29.0	29.0
Oxygen (ppm), surface	6.6	7.3	7.6	7.8	-	-	9.4	7.7	-	-
bottom	7.2	7.5	7.4	7.6	-	-	12.8	10.2	12.6	-
Secchi (feet)	5.0	3.5	3.0	3.0	0.8	0.8	2.5	1.5	4.5	2.5
Anguilla rostrata	-	-	-	-	1	-	-	-	-	-
Brevoortia tyrannus	3	1	-	-	-	-	11	-	-	-
Anchoa mitchilli	227	34	2	7	84	42	37	12	4	-
Menidia menidia	-	-	-	-	-	-	29	1	3	13
Syngnathus fuscus	-	-	1	-	-	-	1	-	-	-
Morone americana	-	-	-	-	-	-	-	2	-	-
Centropristis striata	-	-	2	-	1	1	-	-	-	-
Pomatomus saltatrix	1	-	-	-	-	-	-	-	-	-
Bairdiella chrysura	-	1	1	-	15	10	-	-	-	-
Cynoscion regalis	1	2	1	1	6	13	1	-	-	-
Leiostomus xanthurus	1	-	2	4	18	28	-	-	-	-
Tautoga onitis	-	-	-	-	-	1	-	-	-	-
Mugil cephalus	-	-	-	-	-	-	-	1	-	-
Prionotus evolans	-	-	1	-	-	1	-	-	-	-
Paralichthys dentatus	1	1	-	1	2	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	1
Pseudopleuronectes americanus	-	1	-	-	-	-	-	-	-	-
Trinectes maculatus	-	-	-	-	-	13	-	-	-	-
Sphoeroides maculatus	-	2	-	-	-	1	-	-	-	-
Total species	6	7	7	4	7	9	5	4	2	2
Total specimens	234	42	10	13	127	110	79	16	7	14

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Appendix Table 22. Number of fishes taken in 10-minute bottom hauls of a 16-ft semiballoon trawl in two zones in the Mullica River, New Jersey during 1974.

Zone	1540	1540	1540	1540	1510	1540	1540	1510	1510
Depth (feet), sampled	20-35	17-34	18-35	20	18-25	24	20-22	8-32	11-30
Coll. No.	FJM-74-011	FJM-74-049	RCB-74-028	HKH-74-053	HKH-74-074	HKH-74-075	DAH-74-014	DAH-74-015	CBM-74-138
Date	14 January	14 February	15 March	25 April	13 May	13 May	20 June	20 June	22 July
Hour	1445-1455	1330-1340	1430-1440	1445-1455	1437-1447	1524-1534	1314-1324	1354-1404	0908-0918
Tide	Ebb 1	Flood 2	Flood 2	Ebb 2	Flood 2	Flood 2	Ebb 2	Ebb 2	Flood 1
Boat Heading (degrees)	045	230	200	-	340	240	010	150	340
Air Temp. (C)	2.0	8.0	9.0	10.0	15.0	15.0	27.0	30.5	25.0
Temp. (C), surface	0.0	2.2	6.0	13.3	15.2	15.5	23.8	23.5	25.0
bottom	0.0	1.8	5.5	13.3	15.0	15.2	24.0	24.0	24.0
Sal. (ppt), surface	8.5	7.5	11.5	15.0	19.5	10.0	14.2	18.5	22.0
bottom	12.5	10.0	13.5	15.5	19.5	13.0	15.1	19.0	22.0
Oxygen (ppm), surface	12.3	10.2	10.2	9.6	8.1	8.2	7.1	7.2	5.4
bottom	12.2	10.8	10.5	8.7	8.2	7.9	6.8	7.0	5.5
Secchi (feet)	2.5	2.0	2.0	1.0	-	3.0	2.5	2.0	4.5
Anguilla rostrata	-	-	-	-	5	2	-	-	-
Alosa pseudoharengus	-	-	1	-	-	-	-	-	-
Anchoa mitchilli	1	-	-	1	1	19	-	-	11
Opsanus tau	-	-	-	-	2	2	3	-	-
Urophycis chuss	-	-	-	-	7	-	-	-	-
Urophycis regius	-	-	-	2	27	10	-	-	-
Urophycis tenuis	-	-	-	-	4	-	-	-	-
Rissola marginata	-	-	-	-	-	1	1	-	-
Fundulus majalis	1	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	1	-	1	-	-	-	-
Morone americana	3	-	125	3	-	10	-	-	-
Morone saxatilis	-	-	1	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	1	-	-	-	-
Scophthalmus aquosus	-	-	-	-	4	-	-	-	-
Trinectes maculatus	-	-	1	4	20	49	63	1	-
Chilomycterus schoepfi	-	-	-	-	-	-	-	-	1
Total species	3	0	5	4	10	7	3	1	2
Total specimens	5	0	129	10	72	93	67	1	12

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Appendix Table 22. (cont.)

Zone	1540	1510	1540	1540	1510	1510	1540	1540	1510
Depth (feet), sampled	17-32	20-30	22-28	15-25	10-30	11-21	22	20-30	13-30
Coll. No.	CBM-74-139	EAI-74-025	EAI-74-026	RPS-74-120	RPS-74-121	DAH-74-085	DAH-74-086	RPS-74-153	RPS-74-154
Date	22 July	20 August	20 August	24 September	24 September	22 October	22 October	25 November	25 November
Hour	0943-0953	1315-1325	1400-1410	0920-0930	0955-1005	1205-1215	1240-1250	0957-1007	1031-1041
Tide	Flood 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Flood 2	Flood 2	Ebb 2	Ebb 2
Boat Heading (degrees)	185	330	020	015	145	340	-	010	120
Air Temp. (C)	26.0	29.0	28.0	11.5	11.5	13.0	13.5	13.0	13.5
Temp. (C), surface	24.0	25.1	26.3	16.0	18.0	9.0	9.5	6.0	5.0
bottom	24.0	25.0	25.8	17.5	18.0	8.0	10.0	5.0	5.5
Sal. (ppt), surface	17.5	23.0	18.0	12.0	18.0	20.5	14.0	14.5	20.0
bottom	18.6	25.0	20.0	14.0	18.5	24.0	15.0	15.0	21.0
Oxygen (ppm), surface	6.5	7.2	7.3	9.0	8.2	8.6	9.1	11.6	11.6
bottom	5.8	8.2	8.5	8.2	8.0	9.2	8.8	12.0	12.4
Secchi (feet)	2.5	4.0	4.0	4.0	3.5	4.0	4.3	3.0	3.5
Alosa pseudoharengus	-	-	-	-	-	-	-	1	12
Dorosoma cepedianum	-	-	-	-	1	-	-	-	-
Anchoa mitchilli	1	242	27	4	6	10	-	-	-
Opsanus tau	-	3	1	3	3	-	1	-	-
Menidie menidia	-	-	-	-	-	-	-	-	2
Morone americana	1	-	2	14	5	-	6	39	40
Centropristis striata	2	1	-	-	-	-	1	-	-
Selene vomer	-	-	1	-	-	-	-	-	-
Bairdiella chrysura	-	-	-	1	2	-	2	-	-
Cynoscion regalis	-	-	-	1	3	1	2	-	-
Leiostomus xanthurus	-	-	-	1	16	-	-	-	-
Micropogon undulatus	-	-	-	-	-	-	-	1	-
Tautoga onitis	-	-	-	-	-	-	1	-	-
Gobiosoma bosci	-	-	-	-	-	-	-	1	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	1
Trinectes maculatus	1	-	-	6	5	-	5	2	-
Total species	4	3	4	7	8	2	7	5	4
Total specimens	5	246	31	30	41	11	18	44	55

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Appendix Table 23. Number of fishes taken in 5-minute bottom hauls of a 16-ft semiballoon trawl in five zones in Big and Little Sheepshead creeks, Little Egg Harbor Twp., New Jersey during 1974.

Zone Station	2200	2210	2220	2320	2305	2200	2210	2220	2320	2305	2200	2210
Depth (feet) sampled	010	022	14	3-5	5-12	5-17	4-30	7-17	3-15	8-12	4-15	18-20
Coll. No.	DJD-74-007	DJD-74-008	DJD-74-009	FJM-74-019	DJD-74-036	DJD-74-037	DJD-74-038	DJD-74-039	DJD-74-040	FJM-74-067	FJM-74-068	FJM-74-069
Date	15 January	15 January	15 January	15 January	14 February	14 February	14 February	14 February	14 February	15 March	15 March	15 March
Hour	1307-1312	1320-1325	1332-1337	1340-1345	1300-1305	1322-1327	1339-1344	1350-1355	1417-1422	1335-1340	1355-1400	1410-1415
Tide	Flood 2	Flood 2	Flood 2	Flood 2	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	-	-	-	045	300	340	210	300	230	-	-	-
Air Temp. (C)	10.0	10.0	10.0	6.0	7.0	7.5	7.5	7.5	7.0	5.0	5.0	6.0
Temp. (C), surface	1.0	0.1	1.0	1.0	3.0	3.5	3.5	4.5	4.5	5.0	5.0	5.0
bottom	0.2	0.0	0.0	1.5	3.5	3.8	3.2	3.5	-	5.0	5.5	5.0
Sal. (ppt), surface	24.0	24.0	21.0	23.5	26.0	26.5	26.5	25.0	26.0	28.0	27.5	28.0
bottom	24.0	24.5	24.0	23.5	26.0	26.5	26.5	26.5	-	28.0	28.0	28.0
Oxygen (ppm), surface	11.6	12.0	12.6	10.9	11.5	11.7	11.5	11.1	11.4	-	-	-
bottom	12.2	12.2	12.5	11.4	11.2	11.5	11.5	11.3	-	-	-	-
Secchi (feet)	2.5	2.5	2.0	2.5	2.0	3.5	3.0	3.0	3.5	3.0	3.5	1.5
Alosa aestivalis	-	-	-	-	-	-	2	-	-	-	-	-
Urophycis chuss	-	-	1	-	-	-	-	-	-	-	-	-
Menidia menidia	-	-	-	-	-	-	15	-	-	-	-	-
Gasterosteus aculeatus	-	1	-	-	-	-	-	-	-	1	-	-
Total species	0	1	1	0	0	0	2	0	0	1	0	0
Total specimens	-	1	1	0	0	0	17	0	0	1	0	0

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Appendix Table 23. (cont.)

Zone	2220	2320	2200	2210	2220	2320	2305	2220	2210	2200	2305	2320
Depth (feet) sampled	14-15	4-5	10-25	9-19	11-25	6-7	4-8	4-6	10-25	5-10	4-15	3-5
Coll. No.	FJM-74-070	FJM-74-071	HKH-74-046	HKH-74-047	HKH-74-048	HKH-74-049	HKH-74-050	CBM-74-093	CBM-74-094	CBM-74-095	CBM-74-099	CBM-74-100
Date	15 March	15 March	25 April	25 April	25 April	25 April	25 April	13 May	13 May	13 May	13 May	13 May
Hour	1425-1430	1445-1450	1038-1043	1055-1100	1115-1120	1145-1150	1225-1230	1004-1009	1033-1038	1100-1105	1340-1345	1428-1433
Tide	Ebb 1	Ebb 1	Flood 2	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2
Boat Heading (degrees)	-	-	-	-	-	-	-	090	000	190	315	225
Air Temp. (C)	6.0	6.0	11.5	11.5	12.0	12.0	12.0	14.5	14.5	15.5	15.0	15.0
Temp. (C), surface	5.0	5.5	9.1	9.4	10.0	10.3	10.8	15.0	15.0	14.5	14.0	15.0
bottom	5.0	5.0	9.0	9.3	10.1	10.6	11.0	14.0	15.0	14.0	14.0	15.0
Sal. (ppt), surface	27.5	27.5	30.5	30.5	30.0	30.0	29.0	27.0	28.0	30.0	30.0	27.5
bottom	28.0	27.5	30.5	30.5	30.0	30.0	29.0	28.0	28.0	30.0	30.0	27.5
Oxygen (ppm), surface	-	-	9.9	9.3	9.6	9.4	9.4	7.9	7.6	8.0	8.0	8.0
bottom	-	-	9.5	9.0	8.8	9.3	9.4	8.2	7.8	7.8	8.0	8.0
Secchi (feet)	3.0	4.0	1.5	2.5	2.0	3.0	2.5	0.5	1.0	2.5	3.0	1.0
Mustelus canis	-	-	-	-	-	-	-	-	2	-	-	-
Anguilla rostrata	-	-	-	-	-	-	1	-	-	-	-	6
Alosa aestivalis	-	-	-	-	1	1	-	-	-	-	-	-
Clupea harengus	-	-	-	-	-	-	-	-	-	-	-	1
Anchoa mitchilli	-	-	4	1	142	129	10	40	4	3	45	300+
Pollachius virens	-	-	-	-	-	1	-	-	-	-	1	-
Urophycis chuss	-	-	-	-	-	-	-	-	1	-	-	-
Urophycis regius	-	-	-	-	-	-	1	10	4	2	2	3
Urophycis tenuis	-	-	-	-	-	1	-	-	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	1	-	-	-
Syngnathus fuscus	1	-	-	-	-	1	-	-	-	1	-	3
Morone americana	-	-	-	-	-	-	1	-	-	-	-	-
Centropristis striata	-	-	-	-	-	-	-	-	-	-	2	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	1	-
Tautogolabrus adspersus	1	-	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	1	-	-	1	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	1	-	-	1
Scophthalmus aquosus	-	-	1	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	2	-	-	-	-	2	1	-	1	-	2	1
Total species	3	0	2	1	2	6	5	3	7	3	7	7
Total specimens	4	0	5	1	143	135	14	51	14	6	54	315+

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Appendix Table 23. (cont.)

Zone	2320	2220	2210	2200	2305	2305	2200	2210	2220	2320	2320	2220
Depth (feet), sampled	3-8	6-30	6-30	3-15	7-15	6-10	4-15	16-22	8-20	4-9	3-4	6-12
Coll. No.	RPS-74-056	RPS-74-057	RPS-74-058	RPS-74-059	RPS-74-060	DAH-74-025	DAH-74-026	DAH-74-027	DAH-74-028	DAH-74-029	DAH-74-038	DAH-74-039
Date	20 June	20 June	20 June	20 June	20 June	23 July	23 July	23 July	23 July	23 July	20 August	20 August
Hour	0941-0946	1004-1009	1021-1026	1039-1044	1114-1119	1118-1123	1204-1209	1220-1225	1236-1241	1302-1307	0938-0943	1005-1010
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2
Boat Heading (degrees)	020	100	340	200	125	320	000	250	290	225	040	110
Air Temp. (C)	22.5	22.5	22.5	24.0	26.0	24.5	25.0	25.0	24.5	25.5	26.0	28.0
Temp. (C), surface	20.5	20.5	20.5	21.0	22.0	22.0	21.2	22.1	22.5	22.2	22.5	22.0
bottom	20.5	20.5	20.5	21.0	21.0	22.0	21.2	22.0	22.3	22.5	-	22.0
Sal. (ppt), surface	28.0	28.0	28.5	28.5	29.0	30.0	30.0	30.0	29.8	29.5	28.2	29.0
bottom	28.0	28.0	28.5	28.5	29.0	30.0	30.0	30.0	29.8	29.8	-	29.0
Oxygen (ppm), surface	7.4	7.0	6.7	6.6	6.2	6.2	6.2	6.7	6.9	6.4	7.9	7.6
bottom	7.0	6.7	6.5	6.1	5.8	6.2	6.0	6.6	6.5	6.2	-	7.2
Secchi (feet)	4.0	3.5	3.0	3.0	6.0	4.5	4.0	5.0	5.0	5.0	3.9	4.0
Mustelus canis	1	-	-	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	53	175	2	39	5	-	-	-	-	-	43	-
Urophycis regius	-	1	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	1	-	-	-	1	-	-	-	-	1	1	-
Bairdiella chrysura	-	-	-	1	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	1	-	-	-	-	-	-
Pseudopleuronectes americanus	1	-	-	1	-	-	1	-	1	-	1	-
Monacanthus hispidus	-	-	-	-	-	-	-	-	-	-	1	-
Total species	4	2	1	3	2	1	1	0	1	1	4	0
Total specimens	56	176	2	41	6	1	1	0	1	1	46	0

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Appendix Table 23. (cont.)

Zone	2210	2200	2305	2305	2200	2210	2220	2320	2305	2200	2210	2220
Depth (feet) sampled	20	8-22	5-11	8-14	7-14	5-18	12-20	5-6	6-16	4-23	4-20	9-20
Coll. No.	DAH-74-040	DAH-74-041	DAH-74-042	DAH-74-065	DAH-74-066	DAH-74-067	DAH-74-068	DAH-74-069	HKH-74-095	HKH-74-096	HKH-74-097	HKH-74-098
Date	20 August	20 August	20 August	23 September	23 September	23 September	23 September	23 September	24 October	24 October	24 October	24 October
Hour	1025-1030	1050-1055	1120-1125	1255-1300	1320-1325	1340-1345	1358-1403	1420-1425	1200-1205	1235-1240	1250-1255	1305-1310
Tide	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 1	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	000	015	320	320	000	260	290	025	320	000	250	290
Air Temp. (C)	28.0	28.0	28.0	14.0	14.0	15.0	15.0	15.0	13.5	13.5	16.5	16.0
Temp. (C), surface	22.8	23.0	23.2	19.0	19.5	19.2	19.5	19.5	11.2	11.9	12.0	12.0
bottom	23.0	22.8	23.2	20.0	19.5	19.2	20.0	-	11.1	11.6	11.5	10.9
Sal. (ppt), surface	29.8	30.0	30.0	29.0	29.5	28.5	28.0	28.0	30.0	29.5	29.0	27.0
bottom	29.8	30.0	30.2	29.0	29.5	28.5	28.5	-	29.0	29.5	29.5	27.5
Oxygen (ppm), surface	7.4	7.6	7.9	-	-	-	-	-	9.7	9.2	9.4	8.6
bottom	7.3	7.8	8.2	-	-	-	-	-	10.0	9.7	8.4	9.1
Secchi (feet)	4.0	4.0	5.8	2.0	2.8	2.8	2.5	1.8	8.0	10.5	9.0	5.5
Anchoa hepsetus	-	-	-	-	1	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	1	15	300+	-	1	50+	-	-	-	-
Opsanus tau	-	-	-	-	-	-	1	-	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	-	1	-
Menidia menidia	-	-	-	-	-	-	-	-	1	-	-	-
Syngnathus fuscus	-	-	-	1	-	-	-	-	-	-	-	-
Centropristis striata	-	-	-	1	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	5	-	-	-	-	-	-	-
Leiostomus xanthurus	-	-	-	6	-	17	1	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	-	1
Ammodytes sp.	-	-	-	-	-	-	-	-	3	-	-	-
Peprilus triacanthus	-	-	1	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	1	-	-	-	-	-
Paralichthys dentatus	-	-	1	-	-	1	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	2	1	-	-	-	-	-
Total species	0	0	3	4	3	3	5	1	2	0	1	1
Total specimens	0	0	3	23	306+	20	5	50+	4	0	1	1

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Appendix Table 23. (cont.)

Zone	2320	2305	2200	2210	2220	2320
Depth (feet), sampled	4-5	5-7	2.5-16	5-20	7-16	3-4
Coll. No.	HKH-74-099	DAH-74-110	DAH-74-111	DAH-74-112	DAH-74-113	DAH-74-114
Date	24 October	25 November	25 November	25 November	25 November	25 November
Hour	1320-1325	1055-1100	1117-1122	1143-1148	1155-1200	1215-1220
Tide	Flood 2	Low	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	040	300	310	200	290	020
Air Temp. (C)	16.0	13.0	13.5	13.5	14.0	14.0
Temp. (C), surface	11.2	3.8	4.8	5.0	6.0	6.0
bottom	10.8	3.8	4.8	5.0	5.1	-
Sal. (ppt), surface	28.0	29.0	28.5	28.0	27.5	29.0
bottom	28.0	29.0	28.5	28.0	27.5	-
Oxygen (ppm), surface	9.8	10.9	10.8	10.3	9.4	9.6
bottom	9.2	10.8	10.4	10.2	9.5	-
Secchi (feet)	5.0+	3.5	3.8	4.0	3.5	3.0+
Alosa aestivalis	-	-	-	-	1	-
Urophycis chuss	-	-	1	-	-	-
Urophycis regius	-	-	-	-	-	1
Menidia menidia	32	-	-	-	-	-
Etropus microstomus	1	-	-	-	-	-
Pseudopleuronectes americanus	2	-	-	-	-	1
Total species	3	0	1	0	1	2
Total specimens	35	0	1	0	1	2

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Appendix Table 24. Number of fishes taken in parallel 10-minute bottom hauls of two 16-ft semiballoon trawl in four zones in Great Bay and Mullica River, New Jersey during 1974.

Zone	1010	1010	1065	1065	1510	1510	1080	1080	1080	1080	1510	1510
Vessel	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird
Depth (feet), sampled	20-50	20-50	7-8	7-8	15-30	15-30	6-7	6-7	5-6	5	10-33	8-30
Coll. No.	DJD-74-005	FJM-74-016	DJD-74-020	FJM-74-020	DJD-74-011	FJM-74-021	DJD-74-012	FJM-74-022	DJD-74-029	FJM-74-041	DJD-74-030	FJM-74-042
Date	15 January		15 January		15 January		15 January		14 February		14 February	
Hour	1211-1221		1401-1411		1425-1435		1452-1502		0900-0910		0940-0950	
Tide	Flood 2		Flood 2		Flood 2		Flood 2		Ebb 2		Ebb 2	
Boat Heading (degrees)	285		270		330		-		000		180	
Air Temp. (C)	3.0		7.5		4.5		4.5		5.0		2.5	
Temp. (C), surface	0.0		1.0		1.0		1.0		2.0		1.2	
bottom	-0.2		0.5		1.0		0.5		2.0		1.2	
Sal (ppt), surface	20.0		16.0		14.0		15.0		20.0		16.0	
bottom	24.0		18.5		19.5		17.5		20.5		16.5	
Oxygen (ppm), surface	10.8		13.4		13.4		12.8		13.9		14.6	
bottom	11.8		13.4		13.4		12.5		14.5		14.2	
Secchi (feet)	3.0		2.3		3.0		2.3		2.0		2.0	
Anchoa mitchilli	-	-	-	-	-	-	-	1	-	-	-	-
Urophycis chuss	1	-	-	-	-	-	-	-	-	-	-	-
Menidia menidia	-	-	-	-	-	-	-	-	6	8	-	1
Gasterosteus aculeatus	-	-	-	-	-	4	-	-	-	-	-	-
Morone americana	-	-	-	-	-	-	-	-	-	-	1	-
Tautoga onitis	-	-	-	-	1	-	-	-	-	-	-	-
Total species	1	0	0	0	1	1	0	1	1	1	1	1
Total specimens	1	0	0	0	1	4	0	1	6	8	1	1

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Appendix Table 24. (cont.)

Zone	1065	1065	1010	1010	1080	1080	1510	1510	1065	1065	1010	1010
Vessel	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird
Depth (feet), sampled	6	6-7	5-25	8-30	6	5-6	10-21	10-21	5-6	5-6	15-35	15-35
Coll. No.	DJD-74-031	FJM-74-043	DJD-74-032	FJM-74-044	FJM-74-060	RCB-74-020	FJM-74-061	RCB-74-021	FJM-74-062	RCB-74-022	FJM-74-063	RCB-74-023
Date	14 February		14 February		15 March		15 March		15 March		15 March	
Hour	1004-1014		1051-1101		0900-0910		0937-0947		1014-1024		1102-1112	
Tide	Ebb 2		Flood 1		Flood 1		Flood 1		Flood 2		Flood 2	
Boat Heading (degrees)	090		280		000		-		070		270	
Air Temp. (C)	6.0		6.0		2.0		7.0		7.0		5.5	
Temp. (C), surface	2.0		2.0		4.5		4.8		4.2		4.8	
bottom	2.0		2.8		4.5		4.4		4.2		5.0	
Sal. (ppt), surface	22.0		24.0		19.0		25.5		26.5		25.0	
bottom	22.0		27.0		20.5		27.5		26.5		27.5	
Oxygen (ppm), surface	14.6		14.0		11.2		11.4		11.9		11.0	
bottom	14.6		13.0		11.0		11.4		11.9		10.4	
Secchi (feet)	2.5		2.5		1.5		1.5		1.5		2.5	
Alosa aestivalis	2	2	-	-	1	17	-	1	-	-	-	115
Alosa pseudoharengus	-	-	-	-	-	4	1	-	3	-	-	-
Clupea harengus	-	-	-	-	-	-	-	-	-	1	-	-
Urophysis chuss	-	-	-	-	-	-	10	21	-	-	-	-
U. regius	-	-	-	-	-	-	4	4	-	-	-	-
Menidia menidia	1	19	1	1	1	5	-	1	-	1	-	-
Apeltes quadracus	-	-	-	-	-	-	1	-	-	1	-	-
Gasterosteus aculeatus	-	-	-	-	-	2	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	1	-	1	7	-	-	-	-
Morone americana	-	4	-	-	1	1	142	44	2	-	-	-
M. saxatilis	-	-	-	-	-	-	1	1	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	1	1	-	-	-	-
Ammodytes sp.	-	-	-	1	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	-	-	-	-	-	1	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	2	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	8	1	1	-	-
Total species	2	3	1	2	3	5	8	11	3	4	0	1
Total specimens	3	25	1	2	3	29	161	91	6	4	0	115

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Appendix Table 25. Number of fishes taken in parallel 10-minute bottom hauls of a 16-ft and 25-ft semiballoon trawl in four zones in Great Bay and Mullica River, New Jersey during 1974.

Gear	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl
Zone	1080	1080	1065	1065	1510	1510	1010	1010	1080	1080	1510	1510
Vessel	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird
Depth (feet)	5-7	5-7	7-8	7-8	10-18	10-18	20-30	20-30	9-10	9-10	15-35	15-35
Coll. No.	DJD-74-001	FJM-74-012	DJD-74-002	FJM-74-013	DJD-74-003	FJM-74-014	DJD-74-004	FJM-74-015	FJM-74-027	DJD-74-026	FJM-74-028	DJD-74-027
Date	15 January		15 January		15 January		15 January		8 February		8 February	
Hour	0950-1000		1011-1021		1036-1046		1120-1130		0930-0940		0955-1005	
Tide	Flood 1		Flood 1		Flood 1		Flood 2		Flood 2		Flood 2	
Boat Heading (degrees)	045		315		330		285		030		320	
Air Temp. (C)	2.0		2.0		3.0		3.0		-2.5		-2.5	
Temp. (C), surface	0.2		0.3		1.0		0.0		0.2		0.0	
bottom	0.0		0.0		0.0		-0.2		0.2		0.3	
Sal. (ppt), surface	26.5		13.0		8.0		20.0		19.5		19.0	
bottom	26.5		22.0		11.0		24.0		22.0		21.5	
Oxygen (ppm), surface	12.2		12.2		11.4		10.8		12.6		13.2	
bottom	12.7		13.4		12.0		11.8		12.5		12.6	
Secchi (feet)	2.0		2.5		2.5		3.0		1.0		1.0	
Alosa aestivalis	-	-	-	-	-	-	-	-	1	1	-	-
Clupea harengus	-	-	-	-	-	-	-	1	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	1	-	-	-
Opsanus tau	-	-	-	-	-	-	-	-	-	-	-	2
Urophycis chuss	-	-	1	1	-	-	-	1	-	-	1	5
Fundulus majalis	-	-	-	-	-	-	-	-	-	1	-	-
Menidia menidia	-	-	-	1	-	-	1	-	1	2	2	5
Apeltes quadracus	-	-	-	-	-	-	-	-	1	2	-	1
Gasterosteus aculeatus	-	-	-	-	-	-	1	-	-	2	2	18
Morone americana	-	-	2	7	-	1	-	-	-	-	-	1
Micropogon undulatus	-	-	1	1	-	-	-	-	-	-	-	-
Hypsoblennius hentzi	-	-	-	-	-	-	-	1	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	1	-	-	-	-
Myoxocephalus aeneus	-	-	-	-	-	-	-	-	-	-	-	1
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	-	1
Total species	-	-	3	4	-	1	2	4	4	5	3	8
Total specimens	-	-	4	10	-	1	2	4	4	8	5	34

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Appendix Table 25. (cont.)

Gear	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl
Zone	1065	1065	1080	1080	1510	1510	1065	1065	1010	1010	1080	1080
Vessel	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Monark	Thunderbird	Melody II	Valiant II
Depth (feet) sampled	10-15	10-15	6-7	5-7	10-30	10-30	5	5	23-48	18-42	5-8	6-7
Coll. No.	FJM-74-029	DJD-74-028	RPS-74-019	FJM-74-072	RPS-74-020	FJM-74-073	RPS-74-021	FJM-74-074	RPS-74-022	FJM-74-075	RCB-74-048	CBM-74-073
Date	8 February		22 March		22 March		22 March		22 March		16 April	
Hour	1035-1045		1052-1102		1130-1140		1212-1222		1255-1305		0915-0925	
Tide	Ebb 1		Ebb 1		Ebb 1		Ebb 1		Ebb 2		Ebb 2	
Boat Heading (degrees)	120		020		060		050		090		040	
Air Temp. (C)	2.5		4.5		4.5		4.0		7.0		9.5	
Temp. (C), surface	0.5		6.0		6.0		6.0		6.5		11.5	
bottom	0.8		6.0		6.0		6.0		6.5		11.0	
Sal. (ppt), surface	24.5		20.0		16.0		22.0		22.0		16.5	
bottom	-		23.5		18.0		22.5		24.0		17.0	
Oxygen (ppm), surface	12.8		10.0		10.1		10.8		10.7		9.5	
bottom	12.3		9.8		9.8		10.5		10.6		9.8	
Secchi (feet)	2.5		1.5		1.0		1.5		1.5		0.5	
Raja erinacea	-	-	-	-	-	-	-	-	1	-	-	-
Anguilla rostrata	-	-	-	1	-	2	-	-	-	-	1	-
Alosa aestivalis	-	-	10	46	-	1	-	11	3	2	1	3
Alosa pseudoharengus	-	-	2	6	-	1	1	1	-	1	-	1
Alosa sapidissima	-	-	-	1	-	-	2	-	-	-	-	-
Anchoa mitchilli	-	-	1	3	-	-	-	-	-	-	18	55
Urophycis chuss	-	-	-	-	12	21	-	2	37	25	16	29
Urophycis regius	-	-	1	1	5	19	3	2	12	-	113	216
Urophycis tenius	-	-	-	-	-	-	-	-	-	-	-	1
Rissola marginata	-	-	-	-	1	-	-	-	-	-	-	-
Menidia menidia	3	7	1	2	-	-	-	3	-	-	-	-
Apeltes quadracus	-	-	-	-	-	1	-	-	-	-	-	-
Gasterosteus aculeatus	1	-	-	-	-	-	-	-	1	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	1	-
Syngnathus fuscus	-	-	1	2	12	30	1	1	1	-	17	32
Morone americana	-	-	35	83	18	127	11	34	-	-	-	2
Tautoga onitis	-	-	-	-	1	1	-	-	-	-	-	-
Ammodytes sp.	-	-	-	-	-	-	-	-	-	1	-	-
Prionotus carolinus	-	-	-	-	-	-	-	-	1	-	-	-
Myoxocephalus aeneus	-	-	-	-	-	-	-	-	1	-	-	-
Myoxocephalus octodecemspinosus	-	-	-	-	-	-	-	-	-	1	-	-
Etropus microstomus	-	-	-	-	-	-	-	-	-	-	-	1
Scophthalmus aquosus	-	-	-	-	-	1	-	-	-	2	2	7
Pseudopleuronectes americanus	-	-	-	1	-	-	-	5	-	-	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	-	-	1	2
Total species	2	1	7	10	6	10	5	8	8	6	9	11
Total specimens	4	7	51	146	49	204	18	59	57	32	170	349

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Appendix Table 25. (cont.)

Gear	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl	16-ft trawl	25-ft trawl
Zone	1510	1510	1065	1065	1010	1010
Vessel	Melody II	Valiant II	Melody II	Valiant II	Melody II	Valiant II
Depth (feet) sampled	15-35	15-22	5-7	7	20-35	25
Coll. No.	RCB -74-049	CBM-74-074	RCB-74-050	CBM-74-075	RCB-74-051	CBM-74-076
Date	16 April		16 April		16 April	
Hour	1000-1010		1027-1037		1135-1145	
Tide	Ebb 2		Ebb 2		Flood 1	
Boat Heading (degrees)	170		090		280	
Air Temp. (C)	11.0		11.0		13.0	
Temp. (C), surface	11.5		11.5		11.0	
bottom	11.5		11.0		11.0	
Sal. (ppt), surface	9.5		13.5		22.0	
bottom	10.5		14.0		27.5	
Oxygen (ppm), surface	9.7		9.7		9.2	
bottom	9.7		9.6		8.6	
Secchi (feet)	1.5		1.0		1.0	
Anguilla rostrata	2	2	-	-	-	-
Alosa aestivalis	-	-	-	1	-	-
Alosa pseudoharengus	-	-	2	-	-	-
Anchoa mitchilli	-	-	28	178	1	3
Opsanus tau	2	3	-	1	-	-
Enchelyopus cimbrius	-	-	-	-	-	1
Urophycis chuss	2	15	-	1	174	67
Urophycis regius	9	16	4	21	11	5
Apeltes quadracus	-	-	-	1	-	-
Hippocampus erectus	-	-	-	-	3	-
Syngnathus fuscus	9	-	5	9	-	1
Morone americana	5	-	19	18	-	-
Centropristis striata	-	1	-	-	-	-
Tautoga onitis	-	-	-	1	-	-
Prionotus carolinus	1	-	-	-	1	-
Etropus microstomus	-	-	-	-	1	-
Scophthalmus aquosus	-	-	-	1	-	2
Pseudopleuronectes americanus	-	-	-	-	1	-
Trinectes maculatus	1	6	-	-	-	-
Total species	8	6	5	10	7	6
Total specimens	31	43	58	232	192	79

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Appendix Table 26. Number of fishes taken with a 900- by 12-ft gill net at the Site off Little Egg Inlet, New Jersey in 1974.

Zone	5254	5254	5350	5250	5340	5340	5250	5257
Depth (feet), water	35	32	40	35	35	35	40	37
sampled	23-35	20-32	28-40	23-35	23-35	23-35	28-40	22-37
Coll. No.	FJM-74-037	DJD-74-041	DJD-74-050	DJD-74-055	DJD-74-066	DJD-74-087	CBM-74-155	DJD-74-118
Date	13 February	8 March	23 April	15 May	4 June	2 July	6 August	17 September
Hour	1113-1211	1105-1200	0955-1100	0825-0915	1100-1145	1057-1140	1138-1208	1040-1130
Tide	Flood 2	Ebb 1	Ebb 1	Ebb 2	Ebb 1	Flood 2	Ebb 1	Ebb 1
Air Temp. (C)	6.0	9.0	14.0	15.0	19.0	23.0	22.0	23.0
Temp. (C), surface	3.0	6.7	10.0	14.0	16.0	21.0	20.0	21.5
bottom	4.0	5.2	10.0	13.8	15.2	17.0	16.2	21.5
Sal. (ppt), surface	28.5	28.5	30.5	30.0	28.0	29.5	30.0	30.0
bottom	30.0	29.5	30.5	30.0	28.5	30.0	30.5	30.0
Oxygen (ppm), surface	11.4	11.2	10.0	9.6	8.2	8.3	7.1	7.6
bottom	11.0	11.4	10.0	9.2	7.8	6.8	4.8	7.1
Secchi (feet)	5.0	-	11.0	11.5	7.0	-	10.0	9.0

	No.[a]	Wt.[b]	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Carcharhinus milberti	-	-	-	-	-	-	-	-	-	-	1	9.8 (1)	-	-	1	5.3 (1)
Mustelus canis	-	-	-	-	1	3.0 (1)	28	68.7 (27)	13	26.3 (11)	13	54.3 (12)	35	9.8 (33)	17	18.8 (17)
Squalus acanthias	-	-	-	-	21	38.2 (15)	-	-	-	-	-	-	-	-	-	-
Raja erinacea	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Myliobatis freminvillei	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4.8 (1)
Acipenser oxyrhynchus	-	-	-	-	-	-	-	-	1	7.5 (1)	-	-	-	-	-	-
Alosa aestivalis	-	-	-	-	1	0.3 (1)	-	-	-	-	-	-	-	-	-	-
Alosa mediocris	-	-	-	-	-	-	-	-	-	-	-	-	2	1.0 (2)	-	-
Alosa pseudoharengus	-	-	-	-	3	0.8 (3)	-	-	-	-	-	-	-	-	-	-
Alosa sapidissima	-	-	-	-	2	3.0 (2)	4	5.0 (4)	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	3	0.6 (1)	-	-	4	1.0 (3)	4	2.0 (4)	-	-	-	-
Clupea harengus	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Gadus morhua	-	-	2	6.4 (2)	-	-	-	-	-	-	-	-	-	-	-	-
Morone saxatilis	-	-	-	-	1	1.4 (1)	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	1	-	-	-	10	7.3 (10)
Cynoscion regalis	-	-	-	-	4	3.4 (4)	1	2.0 (1)	3	5.3 (3)	-	-	-	-	14	14.5 (14)
Micropogon undulatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.5 (1)

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Appendix Table 26. (cont.)

Coll. No.	FJM-74-037		DJD-74-041		DJD-74-050		DJD-74-055		DJD-74-066		DJD-74-087		CBM-74-155		DJD-74-118	
	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Scomberomorus maculatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1.5 (1)
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	1	0.2 (1)	1	0.1 (1)	2	0.2 (2)
Prionotus carolinus	-	-	-	-	-	-	2	0.6 (2)	-	-	-	-	2	0.2 (2)	2	0.5 (2)
Prionotus evolans	-	-	-	-	4	2.7 (4)	3	1.6 (3)	-	-	-	-	5	0.7 (5)	1	0.6 (1)
Paralichthys dentatus	-	-	-	-	-	-	3	1.7 (3)	1	0.5 (1)	-	-	-	-	6	2.6 (6)
Scophthalmus aquosus	-	-	-	-	-	-	6	3.2 (6)	1	-	-	-	-	-	-	-
Total species		0		2		10		7		6		5		5		11
Total specimens		0		3		41		47		23		20		45		56
Total weight		0		6.4 (2)		53.4 (32)		82.8 (46)		40.6 (19)		66.3 (18)		11.8 (43)		56.6 (56)

a Total number including specimens which were observed in net but escaped.
b Weight to nearest 0.1 kg. Number in parenthesis actual number weighed.

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Appendix Table 26. (cont.)

Zone	5255		5257	
Depth (feet), water	37		30	
sampled	25-37		18-30	
Coll. No.	RPS-74-136		DJD-74-129	
Date	17 October		6 November	
Hour	0915-0945		0920-1010	
Tide	Flood 2		Flood 2	
Air Temp. (C)	13.0		13.5	
Temp. (C), surface	15.5		12.0	
bottom	15.8		12.5	
Sal. (ppt), surface	31.0		30.0	
bottom	31.0		30.0	
Oxygen (ppm), surface	7.0		7.9	
bottom	7.4		7.9	
Secchi (feet)	11.0		9.0	
	No.	Wt.	No.	Wt.
Mustelus canis	1	0.5 (1)	-	-
Squalus acanthias	-	-	52	101.2 (52)
Raja erinacea	2	1.0 (2)	-	-
Alosa mediocris	-	-	1	0.5 (1)
Brevoortia tyrannus	1	0.3 (1)	13	5.5 (13)
Lophius americanus	-	-	4	29.5 (4)
Pomatomus saltatrix	6	6.9 (6)	-	-
Cynoscion regalis	50	65.0 (49)	48	41.8 (47)
Peprilus triacanthus	1	<0.1 (1)	-	-
Prionotus evolans	12	5.2 (12)	-	-
Paralichthys dentatus	1	0.7 (1)	-	-
Scophthalmus aquosus	2	0.3 (2)	1	0.3 (1)
Total species	9		6	
Total specimens	76		119	
Total weight		79.9 (75)		178.8 (118)

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Appendix Table 27. Number of fishes taken with a 900- by 12-ft gill net in the nearshore area off Little Beach, New Jersey in 1974.

Zone	5070		5060		5070		5070		5070		5170		5070		5070	
Depth (feet), water	12		12		12		11		14		14		12		15	
sampled	0-12		0-12		0-12		0-11		2-14		2-14		0-12		3-15	
Coll. No.	FJM-74-038		DJD-74-042		CBM-74-077		DJD-74-061		DJD-74-083		DJD-74-090		CBM-74-156		DJD-74-113	
Date	13 February		8 March		18 April		23 May		18 June		3 July		13 August		3 September	
Hour	1243-1339		1225-1325		1145-1400		1055-1140		1305-1345		1020-1120		1005-1035		1018-1115	
Tide	Flood 2		Ebb 2		Flood 1		Ebb 1		Ebb 2		Ebb 1		Low		Ebb 1	
Air Temp. (C)	5.0		9.5		16.0		18.0		22.5		26.0		24.5		24.5	
Temp. (C), surface	2.8		7.0		11.0		15.5		22.0		19.2		21.5		22.5	
bottom	2.5		7.0		10.3		13.5		21.0		19.0		21.2		22.5	
Sal. (ppt), surface	28.5		28.0		28.0		30.5		27.5		30.0		28.5		30.0	
bottom	29.5		28.5		30.0		31.0		29.0		30.0		30.0		30.0	
Oxygen (ppm), surface	11.5		11.1		9.6		9.9		6.6		8.2		7.3		6.6	
bottom	11.7		11.2		9.4		8.6		6.0		7.6		7.4		6.9	
Secchi (feet)	3.0		-		-		4.5		4.5		7.0		5.0		6.0	
	No.[a]	Wt.[b]	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Carcharhinus milberti	-	-	-	-	-	-	-	-	-	-	2	17.3 (2)	5	10.7 (5)	-	-
Carcharhinus obscurus	-	-	-	-	-	-	-	-	5	10.7 (2)	-	-	-	-	1	4.0 (1)
Mustelus canis	-	-	-	-	-	-	109	266.7 (107)	2	5.2 (2)	2	8.8 (2)	2	11.5 (2)	6	4.3 (6)
Raja erinacea	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Dasyatis centroura	-	-	-	-	-	-	-	-	-	-	-	-	2	12.5 (2)	-	-
Myliobatis freminvillei	-	-	-	-	-	-	-	-	8	47.0 (8)	1	2.3 (1)	1	4.8 (1)	2	12.5 (2)
Rhinoptera bonasus	-	-	-	-	-	-	-	-	-	-	-	-	2	34.3 (2)	-	-
Alosa mediocris	-	-	-	-	18	-	-	-	1	0.3 (1)	-	-	-	-	-	-
Alosa pseudoharengus	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa sapidissima	-	-	-	-	85	88.5 (56)	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	-	-	55	-	-	-	3	1.3 (3)	24	6.5 (23)	1	0.2 (1)	16	5.3 (16)
Clupea harengus	1	0.3 (1)	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Morone americana	2	0.7 (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Morone saxatilis	2	3.1 (2)	9	-	2	2.4 (2)	-	-	-	-	-	-	-	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.6 (3)
Cynoscion regalis	-	-	-	-	-	-	7	11.6 (7)	3	2.1 (3)	1	0.8 (1)	-	-	12	8.0 (12)
Tautoga onitis	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	-	-	-	5	-	-	-	-	-	4	0.2 (3)	-	-	14	1.9 (13)
Prionotus evolans	-	-	-	-	3	-	1	0.7 (1)	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	1	-	2	-	2	0.4 (2)	1	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Total species	3		4		10		4		7		6		6		7	
Total specimens	5		18		170		119		23		34		13		54	
Total weight	4.1 (5)		-		90.9 (58)		279.4 (117)		66.6 (19)		35.9 (32)		74.0 (13)		36.6 (53)	

a Total number including specimens which were observed in net but escaped.
b Weight to nearest 0.1 kg. Number in parenthesis actual number weighed.

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Appendix Table 27. (cont.)

Zone	5160		5170	
Depth (feet), water	12		10	
sampled	0-12		0-10	
Coll. No.	RPS-74-128		DJD-74-130	
Date	2 October		6 November	
Hour	1042-1112		1240-1325	
Tide	Ebb 1		Ebb 1	
Air Temp. (C)	12.8		15.0	
Temp. (C), surface	17.0		13.0	
bottom	16.0		13.0	
Sal. (ppt), surface	29.0		29.5	
bottom	29.0		30.0	
Oxygen (ppm), surface	7.1		7.2	
bottom	7.3		8.2	
Secchi (feet)	3.0		4.5	
	No.	Wt.	No.	Wt.
Carcharhinus milberti	8	22.3 (8)	-	-
Mustelus canis	20	11.9 (20)	-	-
Squalus acanthias	-	-	7	11.1 (6)
Alosa mediocris	2	1.0 (2)	4	3.0 (4)
Brevoortia tyrannus	72	23.7 (72)	77	26.0 (73)
Pomatomus saltatrix	12	8.0 (12)	1	1.8 (1)
Cynoscion regalis	10	7.0 (10)	13	11.9 (13)
Peprilus triacanthus	5	0.9 (5)	-	-
Total species	7		5	
Total specimens	129		102	
Total weight		74.8 (129)		53.8 (97)

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Appendix Table 28. Number of fishes taken with a 900- by 12-ft gill net in the nearshore area off Holgate Peninsula, New Jersey in 1974.

Zone	5130		5020		5130		5030		5120		5020		5120	
Depth (feet), water	20		18		20		12		22		18		18	
sampled	8-20		6-18		8-20		0-12		10-22		6-18		6-18	
Coll. No.	DJD-74-051		DJD-74-082		DJD-74-099		CBM-74-157		DJD-74-119		RPS-74-137		HKH-74-100	
Date	23 April		18 June		16 July		13 August		18 September		17 October		7 November	
Hour	1155-1310		1030-1115		1042-1125		1235-1305		1015-1100		1115-1145		0917-0947	
Tide	Ebb 1		Ebb 2		Ebb 2		Flood 1		Ebb 1		Ebb 1		Flood 1	
Air Temp. (C)	14.0		25.0		25.0		25.0		23.0		13.0		12.0	
Temp. (C), surface	11.0		20.0		22.0		22.0		21.7		15.8		12.0	
bottom	9.0		17.5		21.5		21.2		21.9		15.8		12.0	
Sal. (ppt), surface	30.0		30.0		30.0		30.0		30.0		31.0		30.0	
bottom	30.5		30.0		30.0		30.0		30.0		31.0		30.0	
Oxygen (ppm), surface	10.6		7.2		7.0		8.0		7.1		7.4		8.1	
bottom	10.3		5.5		6.9		7.2		7.1		7.3		8.4	
Secchi (feet)	5.0		6.0		6.0		4.5		13.0		6.5		6.0	
	No.[a]	Wt.[b]	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Carcharhinus milberti	-	-	-	-	2	11.8 (2)	1	2.0 (1)	-	-	-	-	-	-
Carcharhinus obscurus	-	-	5	43.8 (5)	-	-	-	-	-	-	-	-	-	-
Mustelus canis	2	4.8 (2)	30	66.3 (26)	66	30.4 (65)	10	10.6 (10)	1	3.8 (1)	3	2.3 (3)	1	0.5 (1)
Squalus acanthias	5	21.1 (5)	-	-	-	-	-	-	-	-	-	-	30	57.6 (28)
Raja erinacea	-	-	-	-	-	-	-	-	-	-	2	1.0 (2)	-	-
Myliobatis freminvillei	-	-	-	-	1	4.5 (1)	3	18.8 (3)	-	-	-	-	-	-
Rhinoptera bonasus	-	-	-	-	-	-	-	-	1	18.0 (1)	-	-	-	-
Alosa mediocris	-	-	2	1.4 (2)	-	-	-	-	-	-	-	-	1	0.4 (1)
Alosa pseudoharengus	27	8.5 (27)	-	-	-	-	-	-	-	-	-	-	-	-
Alosa sapidissima	41	52.2 (35)	-	-	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	27	11.9 (26)	-	-	-	-	-	-	-	-	13	4.5 (13)	2	0.4 (2)
Clupea harengus	7	1.3 (6)	-	-	-	-	-	-	-	-	-	-	-	-
Lophius americanus	1	10.4 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Hippocampus erectus	1	<0.1 (1)	-	-	-	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	-	-	-	1	<0.1 (1)	-	-	-	-	-	-	-	-
Morone saxatilis	2	3.0 (2)	-	-	-	-	-	-	-	-	3	6.0 (3)	-	-
Pomatomus saltatrix	-	-	1	1.3 (1)	3	-	1	0.4 (1)	2	0.6 (2)	6	4.4 (6)	-	-
Cynoscion regalis	4	6.8 (4)	-	-	-	-	1	0.3 (1)	-	-	4	4.0 (4)	25	19.9 (25)
Peprilus triacanthus	-	-	-	-	9	-	-	-	4	0.2 (4)	-	-	7	1.2 (7)
Prionotus carolinus	-	-	-	-	5	-	-	-	-	-	-	-	-	-
Prionotus evolans	3	1.3 (3)	-	-	3	-	1	0.7 (1)	-	-	2	0.7 (2)	-	-
Paralichthys dentatus	1	-	-	-	-	-	-	-	-	-	1	0.3 (1)	-	-
Scophthalmus aquosus	-	-	1	0.5 (1)	1	-	-	-	-	-	1	0.2 (1)	3	0.3 (2)
Pseudopleuronectes americanus	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Total species	13		5		9		6		4		9		7	
Total specimens	122		39		91		17		8		35		69	
Total weight		121.3 (112)		113.3 (35)		46.7 (69)		32.8 (17)		22.6 (8)		23.4 (35)		80.3 (66)

a Total number including specimens which were observed in net but escaped.
b Weight to nearest 0.1 kg. Number in parenthesis actual number weighed.

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Appendix Table 29. Number of fishes taken with a 900- by 12-ft gill net in Great Bay, New Jersey in 1974.

Zone	1080		1065		1080		1065		1080		1065		1080		1080	
Depth (feet), water	9		5		9		8		7		8		7		9	
sampled	0-9		0-5		0-9		0-8		0-7		0-8		0-7		0-9	
Coll. No.	HKH-74-013		DJD-74-049		RPS-74-040		RPS-74-041		DJD-74-077		DJD-74-078		DJD-74-103		DJD-74-109	
Date	7 March		16 April		6 May		6 May		17 June		17 June		18 July		19 August	
Hour	0836-0906		1222-1351		0953-1023		1155-1229		1010-1050		1140-1220		1150-1235		0855-0945	
Tide	Flood 2		Flood 1		Ebb 1		Ebb 1		Ebb 2		Ebb 2		Ebb 2		Flood 2	
Air Temp. (C)	-		12.5		13.0		14.0		21.0		26.0		25.5		26.0	
Temp. (C), surface	9.0		12.0		13.5		14.0		22.9		23.0		24.0		25.0	
bottom	9.0		-		13.0		13.0		22.8		23.0		24.0		25.0	
Sal. (ppt), surface	21.0		18.0		24.0		25.0		22.0		21.0		26.0		25.5	
bottom	26.5		-		25.5		25.5		25.0		22.0		26.0		25.5	
Oxygen (ppm), surface	10.2		9.0		9.1		9.8		7.4		6.8		7.5		5.6	
bottom	10.1		-		9.0		9.4		6.5		6.4		7.5		5.5	
Secchi (feet)	3.0		1.5		3.0		2.5		2.5		2.5		4.0		5.5	
	No.[a]	Wt.[b]	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Carcharhinus milberti	-	-	-	-	-	-	-	-	-	-	-	-	1	2.9 (1)	-	-
Carcharhinus obscurus	-	-	-	-	-	-	-	-	2	4.5 (2)	14	27.4 (14)	-	-	-	-
Mustelus canis	-	-	-	-	1	2.2 (1)	-	-	-	-	-	-	-	-	-	-
Acipenser oxyrhynchus	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa mediocris	-	-	-	-	3	1.0 (3)	6	2.0 (6)	1	0.6 (1)	-	-	-	-	-	-
Alosa pseudoharengus	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-
Alosa sapidissima	-	-	30	-	10	12.3 (9)	-	-	-	-	-	-	-	-	-	-
Brevoortia tyrannus	-	-	103	-	183	49.1 (174)	24	6.1 (19)	49	19.1 (49)	79	20.9 (79)	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	<0.1 (1)
Morone americana	1	-	2	-	1	0.7 (1)	-	-	-	-	-	-	-	-	-	-
Morone saxatilis	11	-	3	-	4	6.4 (4)	-	-	-	-	-	-	1	-	-	-
Pomatomus saltatrix	-	-	-	-	-	-	1	0.3 (1)	5	1.2 (5)	1	0.2 (1)	1	-	-	-
Cynoscion regalis	-	-	1	-	10	13.2 (10)	4	8.9 (4)	1	0.3 (1)	1	0.7 (1)	-	-	-	-
Prionotus evolans	-	-	-	-	2	0.9 (2)	8	4.1 (7)	-	-	-	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	-	-	-	-	-	-	7	2.2 (7)	-	-	1	0.4 (1)
Scophthalmus aquosus	-	-	-	-	-	-	1	0.4 (1)	-	-	3	0.1 (3)	-	-	-	-
Pseudopleuronectes americanus	1	-	2	-	-	-	2	0.4 (2)	-	-	1	0.2 (1)	-	-	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Total species	4		8		8		7		5		8		3		2	
Total specimens	18		147		214		46		58		107		3		2	
Total weight	-		-		85.8 (204)		22.2 (40)		25.7 (58)		51.7 (106)		2.9 (1)		0.4 (2)	

a Total number including specimens which were observed in net but escaped.
b Weight to nearest 0.1 kg. Number in parenthesis actual number weighed.

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Appendix Table 29. (cont.)

Zone	1065		1080		1080		1080		1080	
Depth (feet), water	10		6		10		7		8	
sampled	0-10		0-6		0-10		0-7		0-8	
Coll. No.	DJD-74-110		DJD-74-112		DJD-74-120		DJD-74-128		HKH-74-101	
Date	19 August		22 August		18 September		21 October		7 November	
Hour	1100-1145		1010-1100		1155-1245		0845-0925		1150-1220	
Tide	Flood 2		Flood 2		Ebb 1		Flood 1		Flood 2	
Air Temp. (C)	27.0		26.0		25.0		3.5		11.0	
Temp. (C), surface	25.0		24.1		22.5		7.0		12.0	
bottom	24.9		24.0		21.5		7.0		12.0	
Sal. (ppt), surface	25.0		22.0		24.0		25.0		26.0	
bottom	25.0		22.0		27.0		25.0		26.0	
Oxygen (ppm), surface	6.4		6.4		6.8		9.2		7.8	
bottom	6.2		6.5		6.0		10.5		8.5	
Secchi (feet)	3.0		2.5		3.3		2.0		6.0	
	No.[a]	Wt.[b]	No.	Wt.	No.	Wt.	No.	Wt.	No.	Wt.
Brevoortia tyrannus	26	9.8 (21)	10	4.8 (10)	84	24.0 (82)	11	2.2 (9)	-	-
Opsanus tau	-	-	-	-	1	0.3 (1)	-	-	-	-
Morone americana	-	-	-	-	-	-	1	0.2 (1)	-	-
Pomatomus saltatrix	1	0.5 (1)	-	-	-	-	-	-	-	-
Cynoscion regalis	2	0.8 (2)	1	0.6 (1)	1	1.8 (1)	-	-	-	-
Leiostomus xanthurus	2	0.4 (2)	-	-	-	-	-	-	-	-
Peprilus triacanthus	-	-	-	-	2	0.3 (2)	-	-	-	-
Total species	4		2		4		2		0	
Total specimens	31		11		88		12		0	
Total weight		11.5 (26)		5.4 (11)		26.4 (86)		2.4 (10)		0

a Total number including specimens which were observed in net but escaped.
b Weight to nearest 0.1 kg. Number in parenthesis actual number weighed.

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Appendix Table 30. Macroinvertebrates and fishes taken in lobster pots at the Tower, approximately 0.5 nautical mile southwest of the Site off Little Egg Inlet, New Jersey in 1974.

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	35	33	33	35	35	32
Coll. No.	FJM-74-002		FJM-74-039		FJM-74-0[illegible]	
Date	7 January	13 February	13 February	8 March	8 March	18 April
Hour	1130	1000	1000	1020	1020	1010
Tide	Ebb 2	Flood 1	Flood 1	Ebb 1	Ebb 1	Ebb 2
Air Temp. (C)	4.0	6.0	6.0	9.0	9.0	14.0
Temp. (C), surface	4.9	3.0	3.0	6.8	6.8	9.7
bottom	5.0	3.5	3.5	5.8	5.8	8.5
Sal. (ppt), surface	28.0	28.5	28.5	28.5	28.5	30.0
bottom	29.5	30.0	30.0	30.0	30.0	30.5
Oxygen (ppm), surface	10.7	11.6	11.6	10.8	10.8	9.8
bottom	10.5	11.5	11.5	10.4	10.4	9.6
Secchi (feet)	13.0	3.5	3.5	-	-	-

Lobster Pot Number[a]	1	2	3[b]	Total		1[c]	2	3[b]	Total		1	2	3[b]	Total	
	No.[d]	No.	No.	No.	Wt.[e]	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Polinices heros	4	4	-	8	350	-	-	-	-	-	-	1	-	1	70
Cancer irroratus	5	7	-	12	2500	-	10	-	10	2100	6	10	-	16	2374
Asterias forbesii	-	-	-	-	-	-	present	-	present	-	-	4	-	4	26
Tautogolabrus adspersus	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
No. Invertebrates	9	11	-	20	2850	-	10	-	10	2100	6	15	-	21	2470
No. Fishes	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Taxa	2	3	-	3	-	-	2	-	2	-	1	3	-	3	-
Total Specimens	9	12	-	21	2851	-	10	-	10	2100	6	15	-	21	2470

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Appendix Table 30. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	32	32	32	32	32	33
Coll. No.	CBM-74-079		MMM-74-020		DJD-74-067	
Date	18 April	16 May	16 May	4 June	4 June	18 June
Hour	1010	1230	1230	0930	0930	0930
Tide	Ebb 2	Flood 1	Flood 1	Ebb 1	Ebb 1	Ebb 1
Air Temp. (C)	14.0	18.0	18.0	19.0	19.0	21.0
Temp. (C), surface	9.7	15.0	15.0	16.0	16.0	20.0
bottom	8.5	14.0	14.0	15.0	15.0	17.0
Sal. (ppt), surface	30.0	30.0	30.0	28.0	28.0	30.0
bottom	30.5	30.0	30.0	28.5	28.5	30.5
Oxygen (ppm), surface	9.8	9.1	9.1	8.5	8.5	8.2
bottom	9.6	8.6	8.6	8.2	8.2	6.6
Secchi (feet)	-	5.5	5.5	7.0	7.0	6.5

Lobster Pot Number	1	2	3	Total		1[c]	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Tubularia crocea	-	-	-	present	-	-	-	-	-	-	-	-	-	present	-
Hydractinia echinata	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Crepidula plana	-	-	-	present	-	-	-	-	-	-	-	-	-	present	-
Polinices sp. egg case	-	-	present	present	-	-	-	-	present	-	-	present	-	present	-
Nassarius trivittatus eggs	-	-	-	-	-	-	-	-	present	-	-	-	-	present	-
Acanthodoris pilosa	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Mytilus edulis	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Antinoella sarsi	-	-	-	-	-	-	-	-	2	+[f]	-	-	-	-	-
Lepidonotus sublevis	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-
Homarus americanus	-	1	-	1	190	-	-	-	-	-	-	-	-	-	-
Pagurus longicarpus	-	-	-	-	-	-	2	-	2	2	-	-	-	-	-
Pagurus pollicaris	-	7	-	7	205	-	2	-	2	45	-	-	-	-	-
Libinia emarginata	2	4	-	6	1500	-	-	-	-	-	-	-	-	-	-
Cancer irroratus	8	15	12	35	6714	-	13	10	23	2858	2	3	5	10	1581
Asterias forbesii	-	present	present	present	-	-	-	4	4	4	8	20	19	50	111
Centropristis striata	-	-	-	-	-	-	-	-	-	-	-	-	1	1	468
No. Invertebrates	10	27	12	51	8610	-	17	14	34	2910	10	23	24	60	1692
No. Fishes	-	-	-	-	-	-	-	-	-	-	-	-	1	1	468
Total Taxa	2	5	2	9	-	-	3	2	6	-	2	2	3	6	-
Total Specimens	10	27	12	51	8610	-	17	14	34	2910	10	23	25	61	2160

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Appendix Table 30. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	33	30	30	32	32	32
Coll. No.	DJD-74-080		DJD-74-085		DJD-74-101	
Date	18 June	2 July	2 July	18 July	18 July	6 August
Hour	0930	1000	1000	0945	0945	1030
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Air Temp. (C)	21.0	22.0	22.0	25.0	25.0	22.0
Temp. (C), surface	20.0	21.0	21.0	22.0	22.0	19.5
bottom	17.0	19.5	19.5	21.2	21.2	16.2
Sal. (ppt), surface	30.0	29.5	29.5	30.0	30.0	30.0
bottom	30.5	30.0	30.0	30.0	30.0	31.0
Oxygen (ppm), surface	8.2	9.2	9.2	8.0	8.0	6.9
bottom	6.6	8.6	8.6	7.8	7.8	5.2
Secchi (feet)	6.5	5.5	5.5	8.0	8.0	10.5

Lobster Pot Number	1	2	3	Total		1[c]	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Tubularia crocea	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Hydractinia echinata	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Polinices sp. egg case	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Nassarius trivittatus	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Nassarius trivittatus eggs	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Nudibranchia	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Lepidonotus sublevis	-	-	-	-	-	-	-	-	-	-	-	-	-	2	+
Hippolysmata wurdemanni	-	-	-	-	-	-	-	-	-	-	5	3	-	8	1
Pagurus longicarpus	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-
Pagurus pollicaris	-	2	-	2	24	-	-	-	-	-	3	5	-	8	86
Libinia emarginata	-	-	-	-	-	-	-	1	1	112	1	6	-	7	1644
Cancer irroratus	5	6	2	29	2236	-	3	4	7	732	20	12	7	39	3307
Callinectes sapidus	-	-	-	-	-	-	-	1	1	161	1	1	-	2	285
Asterias forbesii	13	9	-	23	67	-	1	6	8	32	38	11	4	57	123
Centropristis striata	1	1	-	2	381	-	-	1	1	109	1	-	-	1	29
Prionotus carolinus	-	-	-	-	-	-	-	-	-	-	1	-	-	1	80
No. Invertebrates	18	18	2	55	2328	-	4	12	17	1037	68	38	11	123	5446
No. Fishes	1	1	-	2	381	-	-	1	1	109	2	-	-	2	109
Total Taxa	3	5	1	5	-	-	2	5	5	-	8	6	2	13	-
Total Specimens	19	19	2	57	2709	-	4	13	18	1146	70	38	11	125	5555

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Appendix Table 30. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	32	32	32	32	31	31
Coll. No.	GJM-74-002		GJM-74-004		DJD-74-116	
Date	6 August	13 August	13 August	26 August	17 September	2 October
Hour	1030	0920	0920	1330	1015	0945
Tide	Ebb 1	Ebb 2	Ebb 2	Flood 2	Ebb 1	Ebb 1
Air Temp. (C)	22.0	23.0	23.0	25.0	23.0	12.0
Temp. (C), surface	19.5	21.0	21.0	24.3	21.8	18.2
bottom	16.2	20.8	20.8	22.8	21.9	18.1
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.0	30.0
bottom	31.0	30.5	30.5	30.5	30.0	30.0
Oxygen (ppm), surface	6.9	9.1	9.1	7.9	7.8	7.3
bottom	5.2	7.3	7.3	5.4	7.1	7.8
Secchi (feet)	10.5	7.0	7.0	13.0	13.0	11.0

Lobster Pot Number	1	2	3	Total		1[c]	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Tubularia crocea	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Actiniaria	-	-	-	present	-	-	-	-	present	-	-	-	-	-	-
Crepidula plana	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Nassarius trivittatus	-	-	-	-	-	-	-	-	present	-	-	-	-	-	-
Nassarius trivittatus eggs	-	-	-	present	-	-	-	-	present	-	-	-	-	-	-
Nudibranchia	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Mytilus edulis	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Lepidonotus sublevis	-	-	-	1	+	-	-	-	-	-	-	-	-	-	-
Hippolysmata wurdemanni	-	-	-	8	+	-	-	-	present	-	-	-	-	-	-
Pagurus pollicaris	1	-	-	1	61	-	4	-	4	48	7	4	1	12	144
Libinia emarginata	2	2	1	7	193	-	9	2	20	400	-	-	-	-	-
Cancer irroratus	5	2	1	23	468	-	6	8	15	775	1	2	-	3	10
Portunus spinimanus	-	-	-	-	-	-	-	-	-	-	-	-	1	1	21
Callinectes sapidus	-	-	-	-	-	-	1	-	1	158	1	2	-	3	350
Asterias forbesii	4	24	17	45	179	-	-	3	3	11	25	38	6	69	800
Conger oceanicus	-	-	-	-	-	-	1	1	2	444	-	-	-	-	-
Centropristis striata	-	1	2	3	545	-	1	1	2	146	1	2	2	5	1100
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	1	-	1	42
Tautogolabrus adspersus	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-
No. Invertebrates	12	28	19	85	846	-	20	13	43	1392	34	46	8	88	1325
No. Fishes	-	1	2	5	546	-	2	2	4	590	1	3	2	6	1142
Total Taxa	4	3	4	13	-	-	6	5	10	-	5	6	4	7	-
Total Specimens	12	29	21	90	1392	-	23	15	47	1982	35	49	10	94	2467

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Appendix Table 30. (cont.)

	SET	PICK-UP
Depth (feet)	31	31
Coll. No.	DJD-74-126	
Date	2 October	18 October
Hour	0945	1045
Tide	Ebb 1	Flood 2
Air Temp. (C)	12.0	-
Temp. (C), surface	18.2	14.8
bottom	18.1	15.0
Sal. (ppt), surface	30.0	31.0
bottom	30.0	31.0
Oxygen (ppm), surface	7.3	7.2
bottom	7.8	7.5
Secchi (feet)	11.0	7.5

Lobster Pot Number	1	2	3	Total	
	No.	No.	No.	No.	Wt.
Hydractinia echinata	-	-	-	present	-
Crepidula plana	-	-	-	present	-
Pagurus pollicaris	-	-	4	4	67
Libinia emarginata	-	-	-	1	4
Asterias forbesii	7	2	2	11	113
Centropristis striata	18	11	4	33	3874
No. Invertebrates	7	2	6	16	184
No. Fishes	18	11	4	33	3874
Total Taxa	2	2	3	6	-
Total Specimens	25	13	10	49	4058

a Major contents of individual pots were enumerated in the field.
b Pot missing, no sample taken.
c Pot line twisted, no sample taken.
d No = Number of specimens collected.
e Wt = Weight of specimens collected.
f + signifies the weight if less than 0.5g.

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Appendix Table 31. Macroinvertebrates and fishes taken in lobster pots seaward of the Ridge, approximately 2.9 nautical miles off Little Egg Inlet, New Jersey in 1974.

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	40	40	40	40	40	37
Coll. No.	FJM-74-001		FJM-74-040		FJM-74-059	
Date	7 January	13 February	13 February	8 March	8 March	18 April
Hour	1000	1030	1030	1045	1045	0930
Tide	Ebb 1	Flood 1	Flood 1	Ebb 1	Ebb 1	Ebb 2
Air Temp. (C)	4.0	6.0	6.0	9.0	9.0	14.0
Temp. (C), surface	4.8	3.0	3.0	6.7	6.7	9.3
bottom	6.0	4.0	4.0	5.2	5.2	8.5
Sal. (ppt), surface	28.0	28.0	28.0	28.5	28.5	30.0
bottom	30.0	30.0	30.0	29.5	29.5	30.5
Oxygen (ppm), surface	10.5	12.0	12.0	11.2	11.2	9.8
bottom	10.0	11.6	11.6	11.4	11.4	8.5
Secchi (feet)	13.0	5.0	5.0	-	-	-

Lobster Pot Number[a]	1	2	3	Total		1	2	3	Total		1	2	3	Total	
	No.[b]	No.	No.	No.	Wt.[c]	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Hydractinia echinata	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Crepidula plana	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Polinices heros	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Nassarius trivittatus	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4
Lepidonotus sublevis	-	-	-	-	-	-	-	-	-	-	-	-	-	1	+[d]
Pagurus longicarpus	-	-	-	-	-	-	-	-	-	-	-	9	3	11	3
Pagurus pollicaris	-	-	-	-	-	-	-	-	-	-	2	2	-	4	105
Cancer irroratus	8	25	10	43	9300	7	13	3	23	5000	6	12	4	22	3455
Asterias forbesii	-	2	3	5	-	present	present	present	present	-	14	12	49	75	520
Urophycis chuss	-	-	-	-	-	1	-	1	2	200	1	-	1	2	350
Macrozoarces americanus	-	-	-	-	-	-	-	1	1	600	-	-	2	2	2500
Centropristis striata	-	-	-	-	-	-	-	-	-	-	-	-	1	1	300
No. Invertebrates	9	27	13	49	9300	7	13	3	23	5000	22	35	56	117	4087
No. Fishes	-	-	-	-	-	1	-	2	3	800	1	-	4	5	3150
Total Taxa	2	2	2	3	-	3	2	4	4	-	4	4	6	11	-
Total Specimens	9	27	13	49	9300	8	13	5	26	5800	22	35	60	122	7237

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Appendix Table 31. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	37	40	40	35	35	37
Coll. No.	CBM-74-078		GJM-74-001		DJD-74-068	
Date	18 April	23 May	23 May	4 June	4 June	18 June
Hour	0930	1005	1005	1035	1035	0945
Tide	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Air Temp. (C)	14.0	18.0	18.0	19.0	19.0	23.0
Temp. (C), surface	9.3	14.0	14.0	16.0	16.0	21.0
bottom	8.5	11.5	11.5	15.2	15.2	17.0
Sal. (ppt), surface	30.0	30.0	30.0	28.0	28.0	29.5
bottom	30.5	31.0	31.0	28.5	28.5	30.0
Oxygen (ppm), surface	9.8	8.4	8.4	8.2	8.2	8.3
bottom	8.5	8.4	8.4	7.8	7.8	6.5
Secchi (feet)	-	5.0	5.0	7.0	7.0	8.8

Lobster Pot Number	1	2	3	Total		1	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Hydractinia echinata	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Crepidula plana	-	-	-	present	-	-	-	-	-	-	-	-	-	present	-
Polinices heros	2	-	-	2	92	-	-	-	-	-	-	-	1	1	19
Polinices sp. egg case	present	-	-	present	-	-	-	-	present	-	-	-	-	-	-
Nassarius trivittatus eggs	present	-	-	present	-	-	-	-	present	-	present	present	present	present	-
Acanthodoris pilosa	-	-	-	-	-	-	-	-	-	-	1	-	-	1	+
Lepidonotus sublevis	-	-	-	present	-	-	-	-	-	-	-	-	-	3	1
Dichelopandalus leptocerus	-	-	-	-	-	-	2	-	2	2	-	-	-	-	-
Pagurus longicarpus	-	-	-	-	-	-	1	-	1	+	-	-	-	-	-
Pagurus pollicaris	4	8	2	17	308	1	2	-	3	19	-	3	13	16	225
Libinia emarginata	-	-	1	1	100	-	-	-	-	-	-	2	1	3	400
Cancer irroratus	38	51	10	99	20986	8	10	5	23	4525	5	9	10	24	5000
Ovalipes ocellatus	-	-	-	-	-	-	-	-	-	-	-	1	1	2	120
Callinectes sapidus	-	-	-	-	-	-	-	-	-	-	-	-	1	1	84
Echinarachnius parma	-	-	-	-	-	-	-	-	-	-	3	-	-	3	12
Asterias forbesii	55	52	41	148	1500	10	63	76	149	1494	14	17	7	38	350
Conger oceanicus	-	-	1	1	2800	-	-	-	-	-	-	-	-	-	-
Urophycis chuss	-	-	-	-	-	-	-	-	-	-	1	-	-	1	900
Rissola marginata	-	-	-	-	-	1	-	-	1	95	-	-	-	-	-
No. Invertebrates	99	111	54	267	22986	19	78	81	178	6040	23	32	33	92	6211
No. Fishes	-	-	1	1	2800	1	-	-	1	95	1	-	-	1	900
Total Taxa	5	3	5	8	-	4	5	2	6	-	5	5	6	13	-
Total Specimens	99	111	55	268	25786	20	78	81	179	6135	24	32	33	93	7111

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Appendix Table 31. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	37	40	40	40	40	40
Coll. No.	DJD-74-081		DJD-74-086		DJD-74-102	
Date	18 June	2 July	2 July	18 July	18 July	6 August
Hour	0945	1035	1035	1015	1015	0945
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 2
Air Temp. (C)	23.0	22.0	22.0	25.0	25.0	22.0
Temp. (C), surface	21.0	20.5	20.5	21.8	21.8	19.8
Temp. bottom	17.0	19.7	19.7	19.9	19.9	16.0
Sal. (ppt), surface	29.5	29.5	29.5	30.0	30.0	30.0
bottom	30.0	30.0	30.0	30.0	30.0	30.5
Oxygen (ppm), surface	8.3	9.0	9.0	7.8	7.8	7.1
bottom	6.5	8.7	8.7	6.6	6.6	5.8
Secchi (feet)	8.8	9.0	9.0	6.0	6.0	12.0

Lobster Pot Number	1	2	3	Total		1	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Tubularia crocea	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Hydractinia echinata	-	-	-	present	-	-	-	-	present	-	-	-	-	-	-
Crepidula plana	-	-	-	present	--	-	-	-	present	-	-	-	-	-	-
Polinices heros	-	-	-	-	-	1	-	-	1	24	-	-	-	-	-
Polinices sp. egg case	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Urosalpinx cinereus	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Nassarius trivittatus	-	-	-	-	-	-	-	-	present	-	-	-	-	present	-
Nassarius trivittatus eggs	-	-	-	-	-	-	-	-	-	-	-	-	-	present	-
Lepidonotus sublevis	-	-	-	1	+	-	-	-	3	3	-	-	-	1	+
Dichelopandalus leptocerus	-	2	-	2	+	-	-	-	-	-	-	-	-	-	-
Pagurus longicarpus	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Pagurus pollicaris	1	4	-	5	33	-	9	-	9	130	2	1	3	6	44
Libinia emarginata	1	3	2	6	1000	3	2	-	5	465	2	3	3	8	410
Cancer irroratus	2	3	7	12	1752	5	8	6	24	3575	-	4	2	6	625
Cancer borealis	-	-	-	-	-	-	-	-	-	-	1	2	-	3	125
Callinectes sapidus	-	1	-	1	170	2	2	-	4	639	1	-	2	3	414
Asterias forbesii	23	8	4	35	400	96	4	7	112	765	10	9	5	25	103
Centropristis striata	1	-	-	1	164	1	1	-	2	478	7	7	4	18	1771
Epinephelus nigritus	-	-	-	-	-	-	-	-	-	-	1	-	-	1	+
No. Invertebrates	27	21	13	62	3355	107	25	13	159	5602	16	19	16	53	1722
No. Fishes	1	-	-	1	164	1	1	-	2	478	8	7	4	19	1771
Total Taxa	5	6	3	10	-	6	6	2	12	-	7	6	7	12	-
Total Specimens	28	21	13	63	3519	108	26	13	161	6080	24	26	20	72	3493

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Appendix Table 31. (cont.)

	SET	PICK-UP	SET	PICK-UP	SET	PICK-UP
Depth (feet)	40	40	40	36	33	36
Coll. No.	GJM-74-003		GJM-74-005		DJD-74-117	
Date	6 August	13 August	13 August	26 August	18 September	2 October
Hour	0945	0955	0955	1300	0940	1410
Tide	Flood 2	Ebb 2	Ebb 2	Flood 2	Flood 2	Ebb 2
Air Temp. (C)	22.0	23.0	23.0	25.0	23.0	13.2
Temp. (C), surface	19.8	21.0	21.0	24.5	21.3	17.0
bottom	16.0	21.0	21.0	23.0	21.3	17.0
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.0	30.0
bottom	30.5	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	7.1	7.2	7.2	7.4	7.5	7.4
bottom	5.8	6.9	6.9	5.2	7.4	7.8
Secchi (feet)	12.0	10.5	10.5	36.0	7.5	10.0

Lobster Pot Number	1	2	3	Total		1	2	3	Total		1	2	3	Total	
	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.	No.	No.	No.	No.	Wt.
Tubularia crocea	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Hydractinia echinata	-	-	-	-	-	-	-	-	present	-	-	-	-	-	-
Actiniaria	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Crepidula plana	-	-	-	-	-	-	-	-	present	-	-	-	-	-	-
Nassarius trivittatus	-	-	-	-	-	-	-	-	present	-	-	-	-	-	-
Nassarius trivittatus eggs	-	-	-	present	-	-	-	-	present	-	-	-	-	-	-
Nudibranchia	-	-	-	present	-	-	-	-	-	-	-	-	-	-	-
Antinoella sarsi	-	-	-	-	-	-	-	-	fragment	+	-	-	-	-	-
Lepidonotus sublevis	-	-	-	-	-	-	-	-	5	2	-	-	-	-	-
Hippolysmata wurdemanni	-	-	-	5	+	-	-	2	2	1	-	1	-	1	2
Pagurus longicarpus	-	-	-	1	+	-	-	-	-	-	-	-	-	-	-
Pagurus pollicaris	-	-	1	1	9	5	8	1	14	145	3	2	3	8	400
Libinia emarginata	7	5	10	22	1100	8	2	9	19	700	-	1	-	1	50
Cancer irroratus	3	3	3	9	1186	-	1	2	3	428	1	-	-	1	100
Callinectes sapidus	-	1	-	1	77	-	-	-	-	-	-	-	-	3	409
Callinectes similis	-	-	-	-	-	-	-	-	-	-	-	-	-	5	82
Asterias forbesii	6	-	3	11	81	-	-	1	1	1	6	-	8	14	150
Centropristis striata	3	3	1	7	344	6	3	-	9	801	-	4	7	11	1200
Mycteroperca microlepis	-	-	-	-	-	-	-	-	-	-	-	-	1	1	98
Tautogolabrus adspersus	-	-	-	1	+	-	-	-	-	-	-	-	-	-	-
No. Invertebrates	16	9	17	50	2453	13	11	15	44	1277	10	4	11	33	1193
No. Fishes	3	3	1	8	344	6	3	-	9	801	-	4	8	12	1298
Total Taxa	4	4	5	12	-	3	4	5	11	-	3	4	4	9	-
Total Specimens	19	12	18	58	2797	19	14	15	53	2078	10	8	19	45	2491

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Appendix Table 31. (cont.)

	SET	PICK-UP
Depth (feet)	36	36
Coll. No.	DJD-74-127	
Date	2 October	18 October
Hour	1410	1015
Tide	Ebb 2	Flood 2
Air Temp. (C)	13.2	-
Temp. (C), surface	17.0	14.2
bottom	17.0	14.5
Sal. (ppt), surface	30.0	31.0
bottom	30.0	31.0
Oxygen (ppm), surface	7.4	7.3
bottom	7.8	7.4
Secchi (feet)	10.0	-

Lobster Pot Number	1	2	3	Total	
	No.	No.	No.	No.	Wt.
Hydractinia echinata	-	-	-	present	-
Crepidula plana	-	-	-	present	-
Pagurus pollicaris	1	-	-	2	29
Libinia emarginata	2	1	-	3	514
Cancer irroratus	-	-	1	1	238
Portunus spinimanus	-	1	-	1	5
Callinectes sapidus	-	1	-	1	109
Asterias forbesii	4	23	2	29	233
Centropristis striata	13	18	9	40	4269
Stenotomus chrysops	-	-	1	1	419
Tautoga onitis	2	1	4	7	1930
No. Invertebrates	7	26	3	37	1128
No. Fishes	15	19	14	48	6618
Total Taxa	5	6	5	11	-
Total Specimens	22	45	17	85	7746

a Major contents of individul pots were enumerated in the field.

b No = Number of specimens collected.

c Wt = Weight of specimens collected.

d + signifies the weight is less than 0.5g.

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Appendix Table 32. Fish eggs, larvae, and juveniles collected in 5-minute surface tows of a 0.5-m plankton net and 10-minute oblique tows of a 0.03-m^2 Bongo sampler at station G.B.#1 in Great Bay (zone 1050) from January through November, 1974.

Location	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1
Zone	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
Depth (feet), water	30	14-21	15-22	22-26	20	15-20	17-19	14-36	14-36	15-35	15-22
Type of tow	surface*	surface*	surface*	surface*	oblique	oblique	oblique	star. oblique	port oblique	oblique	oblique*
Coll. No.	DPS-74-002	TRT-74-011	TRT-74-024	TRT-74-039	DPS-74-012	TRT-74-056	DPS-74-017	DPS-74-022	DPS-74-022	DPS-74-030	DPS-74-036
Date	4 January	1 February	12 March	26 March	8 April	26 April	8 May	22 May	22 May	5 June	21 June
Hour	1206-1211	1115-1120	1028-1033	1110-1115	1050-1101	1358-1406	1130-1137	1049-1059	1049-1059	1445-1455	1300-1305
Tide	Flood 1	Flood 1	Flood 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2
Boat Heading (degrees)	-	200	200	190	-	-	-	210	210	120	210
Air Temp. (C)	1.5	2.5	5.0	4.0	10.8	-	14.0	21.0	21.0	23.0	-
Temp. (C), surface	3.5	6.0	6.0	5.0	7.1	11.5	11.2	14.5	14.5	21.0	22.0
bottom	-	6.0	-	-	7.0	10.0	11.0	16.0	16.0	21.5	22.1
Sal. (ppt), surface	22.0	21.5	28.0	30.0	30.0	29.5	30.0	30.0	30.0	25.0	28.5
bottom	-	22.5	-	-	30.0	30.0	30.2	30.0	30.0	24.5	28.0
Oxygen (ppm), surface	10.5	10.2	10.2	11.6	-	9.6	9.0	8.2	8.2	7.2	7.4
bottom	-	10.1	-	-	-	10.2	9.0	8.4	8.4	6.8	6.9
Secchi (feet)	3.5	2.0	3.5	4.0	1.7	2.5	4.0	3.5	3.5	4.5	4.0
Volume Sampled (m^3)	103.5	101.1	73.1	68.7	11.6	20.8	17.2	34.7	29.0	30.7	54.6
Fish eggs											
Anchoa mitchilli	-	-	-	-	-	-	-	444	432	672	8640
Tautoga onitis	-	-	-	-	-	-	5	124	128	20	64
Tautogolabrus adspersus	-	-	-	-	-	-	2	28	16	8	64
Scomber scombrus	-	-	-	-	17	47	14	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	192
Scophthalmus aquosus	-	-	9	31	6	11	-	4	-	-	-
Unidentified eggs	-	-	-	-	-	-	19	48	8	-	-
Total eggs	0	0	9	31	23	58	40	648	584	700	8960
Larval and juvenile fishes											
Engraulidae larvae	-	-	-	-	-	-	-	23	25	-	1008
Atherinidae larvae	-	-	-	-	-	-	-	1	2	3	1
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	1
Syngnathus fuscus	-	-	-	-	-	-	-	12	10	-	64
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	1
Ammodytes sp.	59	7	70	203	5	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	-	12
Scomber scombrus	-	-	-	-	-	-	-	1	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	1	1	-	1
Pseudopleuronectes americanus	-	-	12	11	2	6	-	-	-	-	-
Total species	1	1	2	2	2	1		5	4	1	7
Total specimens	59	7	82	214	7	6	0	38	38	3	1088

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Appendix Table 32. (cont.)

Location	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1	G. B. #1
Zone	1050	1050	1050	1050	1050	1050	1050	1050	1050
Depth (feet). water	15-26	15-26	25	10-20	10-20	20-22	20-25	15-23	17-19
Type of tow	star. oblique	port oblique	oblique	oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	TRT-74-092	TRT-74-092	DPS-74-045	DPS-74-051	DPS-74-060	DPS-74-063	DPS-74-072	DPS-74-075	TRT-74-153
Date	8 July	8 July	22 July	2 August	30 August	10 September	25 September	9 October	5 November
Hour	1328-1340	1328-1340	1225-1235	1014-1024	1210-1220	1005-1015	1435-1445	1015-1027	0932-0942
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 1	Flood 2	Flood 1	Flood 2
Boat Heading (degrees)	160	160	210	190	-	190	200	-	210
Air Temp. (C)	-	-	-	29.0	33.0	24.0	20.9	14.0	-
Temp. (C), surface	21.0	21.0	22.3	24.0	27.0	21.0	19.0	13.2	15.8
bottom	22.0	22.0	22.3	23.5	27.0	21.0	18.5	13.1	15.8
Sal. (ppt). surface	30.0	30.0	30.0	29.0	26.0	23.0	30.0	28.0	28.0
bottom	30.0	30.0	29.5	28.0	26.0	23.5	30.0	28.0	28.0
Oxygen (ppm), surface	6.0	6.0	7.2	7.2	5.7	6.7	-	8.2	7.4
bottom	5.8	5.8	7.2	6.8	5.3	6.4	-	8.3	7.7
Secchi (feet)	7.5	7.5	7.5	7.0	3.5	3.0	4.5	4.5	3.3
Volume Sampled (m^3)	28.8	28.8	21.1	17.4	21.8	24.3	22.7	24.7	23.9
Fish eggs									
Anchoa hepsetus	-	16	-	-	-	-	-	-	-
Anchoa mitchilli	1368	1640	684	1	6	1	-	-	-
Tautoga onitis	256	304	108	2	-	-	-	-	-
Tautogolabrus adspersus	-	8	-	-	-	-	-	-	-
Prionotus sp.	-	24	4	-	-	-	1	-	-
Scophthalmus aquosus	-	-	-	-	-	-	3	1	-
Unidentified eggs	8	-	32	-	-	-	-	-	-
Total eggs	1632	1992	828	3	6	1	4	1	0
Larval and juvenile fishes									
Anchoa mitchilli	-	-	5	1	-	-	-	-	-
Engraulidae larvae	296	192	218	49	-	-	3	-	-
Ophidiidae larva	-	-	-	-	-	-	1	-	-
Hippocampus erectus	-	1	-	1	1	2	-	-	-
Syngnathus fuscus	49	45	1	15	3	-	1	2	-
Cynoscion regalis	19	12	2	-	-	-	-	-	-
Gobiidae larvae	5	4	5	4	2	1	-	-	-
Unidentified larvae	-	-	-	2	-	-	-	-	-
Total species	4	5	4	4	3	2	3	1	
Total specimens	369	254	231	72	6	3	5	2	0

* 0.5-m plankton net

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Appendix Table 33. Fish eggs, larvae, and juveniles collected in 5-minute surface tows of a 0.5-m plankton net and 10-minute oblique tows of a 0.03-m^2 Bongo sampler at station G.B.#2 in Great Bay (zone 1100) from January through November, 1974.

Location	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2
Zone	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth (feet), water	6	6-8	7	6-7	8-10	8-10	7-9	4-7	7	7	5-7	8-10
Type of tow	surface*	surface*	surface*	surface*	oblique	oblique	oblique	oblique	star. oblique	port oblique	oblique*	oblique
Coll. No.	DPS-74-003	TRT-74-012	TRT-74-025	TRT-74-038	DPS-74-013	TRT-74-055	DPS-74-018	DPS-74-023	DPS-74-029	DPS-74-029	DPS-74-035	TRT-74-091
Date	4 January	1 February	12 March	26 March	8 April	26 April	8 May	22 May	5 June	5 June	21 June	8 July
Hour	1230-1235	1134-1139	1046-1051	1048-1053	1125-1131	1329-1337	1200-1208	1120-1130	1350-1400	1350-1400	1325-1330	1235-1245
Tide	Flood 1	Flood 1	Flood 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 1
Boat Heading (degrees)	240	270	260	120	-	-	-	280	250	250	270	140
Air Temp. (C)	1.0	2.5	5.0	3.0	12.9	-	14.0	22.0	-	-	-	-
Temp. (C), surface	3.2	6.0	6.0	5.5	8.0	12.0	12.8	20.0	21.0	21.0	24.1	26.0
bottom	-	-	-	-	8.0	11.0	12.5	19.5	21.2	21.2	24.5	26.0
Sal. (ppt), surface	20.0	19.5	28.0	21.5	27.7	26.0	27.0	27.0	23.0	23.0	26.5	27.0
bottom	-	-	-	-	28.0	27.5	28.0	28.0	22.5	22.5	26.5	27.0
Oxygen (ppm), surface	11.0	10.2	10.1	11.6	-	10.2	9.0	8.4	4.8	4.8	8.9	6.6
bottom	-	-	-	-	-	10.0	8.4	8.4	7.4	7.4	8.4	6.2
Secchi (feet)	3.0	2.0	3.0	3.5	3.0	3.0	4.5	3.0	3.0	3.0	4.0	6.0
Volume Sampled (m^3)	93.7	92.7	76.4	78.5	9.8	20.5	18.3	23.7	25.7	25.0	42.8	20.7
Fish eggs												
Anchoa mitchilli	-	-	-	-	-	-	-	2080	840	576	2016	2192
Tautoga onitis	-	-	-	-	-	1	46	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	-	-	-	1	-	-	-	-	-
Scomber scombrus	-	-	-	-	-	-	3	-	-	-	-	-
Scophthalmus aquosus	-	-	3	84	15	-	-	-	-	-	-	-
Unidentified eggs	-	-	-	-	-	96	70	32	-	8	16	-
Total eggs	0	0	3	84	15	97	120	2112	840	584	2032	2192
Larval and juvenile fishes												
Brevoortia tyrannus	-	3	-	1	-	-	-	-	-	-	-	-
Engraulidae larvae	-	-	-	-	-	-	-	-	7	1	287	114
Atherinidae larvae	-	-	-	-	-	-	-	44	6	4	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	9	1	2	14	3
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	1	4
Leiostomus xanthurus	-	-	-	1	-	-	-	-	-	-	-	-
Ammodytes sp.	21	1	43	10	2	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	1	46	11
Myoxocephalus sp.	-	-	-	2	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	2	1	1	-	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	-	2	-	-	-	-
Total species	1	2	2	5	2			2	3	4	4	4
Total specimens	21	4	45	15	3	0	0	55	14	8	348	132

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Appendix Table 33. (cont.)

Location	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2	G. B. #2
Zone	1100	1100	1100	1100	1100	1100	1100
Depth (feet), water	7	10	7	6	5	4-7	5-7
Type of tow	oblique	oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	DPS-74-046	DPS-74-052	DPS-74-059	DPS-74-064	DPS-74-071	DPS-74-076	TRT-74-154
Date	22 July	2 August	30 August	10 September	25 September	9 October	5 November
Hour	1155-1205	1036-1046	1125-1135	1030-1040	1350-1400	1042-1052	0958-1008
Tide	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 2	Flood 1	Flood 2
Boat Heading (degrees)	110	270	-	270	280	-	260
Air Temp. (C)	26.0	29.0	33.0	25.1	18.5	17.9	-
Temp. (C), surface	24.0	26.0	27.2	21.6	17.0	13.0	16.0
bottom	24.2	25.5	27.2	21.0	17.0	13.0	16.0
Sal. (ppt), surface	28.0	27.5	24.0	20.0	24.0	26.0	27.5
bottom	28.0	28.0	24.0	22.0	24.5	26.0	27.5
Oxygen (ppm), surface	7.4	7.1	5.9	5.8	-	8.4	7.8
bottom	7.1	6.2	5.8	5.6	-	8.4	7.8
Secchi (feet)	7.0	4.5	3.0	3.0	4.0	3.5	5.0
Volume Sampled (m^3)	21.5	17.5	20.5	25.6	21.2	21.4	25.4
Fish eggs							
Anchoa mitchilli	6	-	-	2	-	-	-
Tautoga onitis	7	2	-	-	-	-	-
Prionotus sp.	3	2	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	1	-
Total eggs	16	4	0	2	0	1	0
Larval and juvenile fishes							
Anchoa mitchilli	3	2	-	-	-	-	-
Engraulidae larvae	75	12	-	-	-	-	-
Atherinidae larvae	1	1	-	-	-	-	-
Syngnathus fuscus	6	10	-	-	-	1	-
Pomatomus saltatrix	1	-	-	-	-	-	-
Tautoga onitis	1	-	-	-	-	-	-
Gobiidae larvae	2	38	-	-	-	-	-
Unidentified larvae	1	-	-	-	-	-	-
Total species	6	4				1	
Total specimens	90	63	0	0	0	1	0

* 0.5-m plankton net

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Appendix Table 34. Fish eggs, larvae, and juveniles collected in 5-minute surface tows of a 0.5-m plankton net and 10-minute oblique tows of a 0.3-m^2 Bongo sampler at station G.B.#5 in Great Bay (zone 1080) from March through November, 1974.

Location	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5
Zone	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080
Depth (feet), water	6-7	7-8	6-7	10	10	6	7	7	5-8	5-8	8-10	7
Type of tow	surface*	surface*	oblique	star. oblique	port oblique	oblique	oblique	oblique	oblique*	oblique*	oblique	oblique
Coll. No.	TRT-74-026	TRT-74-037	DPS-74-014	TRT-74-054	TRT-74-054	DPS-74-019	DPS-74-024	DPS-74-028	DPS-74-034	DPS-74-034	TRT-74-090	DPS-74-047
Date	12 March	26 March	8 April	26 April	26 April	8 May	22 May	5 June	21 June	21 June	8 July	22 July
Hour	1100-1105	1035-1040	1315-1321	1243-1255	1243-1255	1345-1353	1205-1215	1235-1245	1350-1355	1400-1405	1125-1135	1126-1136
Tide	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Ebb 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Flood 2	Ebb 1
Boat Heading (degrees)	330	150	-	-	-	-	340	320	340	340	135	140
Air Temp. (C)	-	5.5	12.0	-	-	14.0	24.0	-	-	-	-	-
Temp. (C), surface	6.2	5.6	10.0	13.0	13.0	14.0	20.0	20.8	24.5	24.5	26.0	25.1
bottom	-	-	9.0	12.0	12.0	14.0	19.0	20.2	24.2	24.2	26.0	24.5
Sal. (ppt), surface	24.5	15.0	18.0	23.0	23.0	22.0	22.0	20.0	24.0	24.0	25.0	24.0
bottom	-	-	20.0	25.0	25.0	22.0	26.0	23.0	24.5	24.5	25.0	25.5
Oxygen (ppm), surface	10.2	10.8	-	10.4	10.4	9.3	8.2	8.5	9.1	9.1	6.6	9.4
bottom	-	-	-	10.7	10.7	9.0	7.2	7.3	8.3	8.3	6.6	7.6
Secchi (feet)	1.5	2.5	1.5	3.0	3.0	3.5	2.5	3.2	3.5	3.5	-	4.0
Volume Sampled (m^3)	91.9	73.5	12.7	20.5	20.5	23.4	24.4	25.0	54.8	49.9	23.5	22.4
Fish eggs												
Anchoa mitchilli	-	-	-	-	-	-	1655	424	448	500	1696	-
Tautoga onitis	-	-	-	-	-	1	-	-	4	8	-	-
Unidentified eggs	-	-	-	8	12	-	1	4	-	-	-	-
Total eggs	0	0	0	8	12	1	1656	428	452	508	1696	0
Larval and juvenile fishes												
Brevoortia tyrannus	-	-	-	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	-	2
Engraulidae larvae	-	-	-	-	-	-	1	1	90	247	227	70
Atherinidae larvae	-	-	-	-	-	-	1	2	1	-	5	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	-	1	-
Syngnathus fuscus	-	-	-	-	-	-	7	-	-	4	-	-
Cynoscion regalis	-	-	-	-	-	-	-	-	-	1	-	-
Ammodytes sp.	4	-	-	-	-	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	5	16	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	3	-
Pseudopleuronectes americanus	1	-	1	-	-	-	-	-	-	-	-	-
Trinectes maculatus	-	-	-	-	-	-	-	-	-	2	-	-
Total species	2		1	1			3	1	3	5	4	2
Total specimens	5	0	1	1	0	0	9	3	96	270	236	72

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Appendix Table 34. (cont.)

Location	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5	G. B. #5
Zone	1080	1080	1080	1080	1080	1080	1080
Depth (feet), water	7	7	7	6	5-7	6	7
Type of tow	star. oblique	port oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	DPS-74-053	DPS-74-053	DPS-74-058	DPS-74-065	DPS-74-070	DPS-74-077	TRT-74-155
Date	2 August	2 August	30 August	10 September	25 September	9 October	5 November
Hour	1104-1114	1104-1114	1055-1105	1100-1110	1315-1322	1105-1115	1023-1033
Tide	Ebb 1	Ebb 1	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 2
Boat Heading (degrees)	350	350	-	340	340	-	330
Air Temp. (C)	29.5	29.5	31.0	28.0	19.0	17.3	-
Temp. (C), surface	26.1	26.1	27.6	22.0	19.0	14.2	14.8
bottom	26.0	26.0	27.3	21.1	18.0	14.0	14.8
Sal. (ppt), surface	24.5	24.5	20.0	16.5	21.0	22.0	22.0
bottom	24.5	24.5	20.0	19.0	22.0	24.0	22.0
Oxygen (ppm), surface	7.4	7.4	6.4	6.0	-	8.0	7.6
bottom	7.0	7.0	5.6	5.3	-	8.2	8.2
Secchi (feet)	4.0	4.0	3.5	3.0	4.0	4.0	6.0
Volume Sampled (m^3)	20.9	20.9	20.3	22.4	14.7	19.5	27.8
Fish eggs							
Anchoa mitchilli	-	-	38	-	-	-	-
Unidentified eggs	1	-	-	-	-	-	-
Total eggs	1	0	38	0	0	0	0
Larval and juvenile fishes							
Anchoa mitchilli	-	2	-	1	-	-	-
Engraulidae larvae	8	14	3	-	-	-	-
Syngnathus fuscus	1	-	-	-	-	-	-
Gobiidae larvae	-	-	2	-	-	-	-
Unidentified larvae	1	1	-	-	-	-	-
Total species	2	2	1	1			
Total specimens	10	17	5	1	0	0	0

* 0.5-m plankton net

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Appendix Table 35. Fish eggs, larvae, and juveniles collected in 5-minute surface and bottom tows of 0.5-m plankton nets and 10-minute oblique tows of a 0.03-m^2 Bongo sampler at station M.R. #1 in the Mullica River (zone 1520) from January through September, 1974.

Location	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1	M.R.#1
Zone	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
Depth (feet), water	33	33	25-30	25-30	15-35	15-35	25-30	25-30	15-30	18-35	18-35	25-27
Type of tow	surface*	bottom*	surface*	bottom*	surface*	bottom*	surface*	bottom*	oblique	star. oblique	port oblique	oblique
Coll. No.	DPS-74-004	DPS-74-004	TRT-74-013	TRT-74-013	TRT-74-027	TRT-74-027	TRT-74-036	TRT-74-036	DPS-74-015	TRT-74-053	TRT-74-053	DPS-74-020
Date	4 January	4 January	1 February	1 February	12 March	12 March	26 March	26 March	8 April	26 April	26 April	8 May
Hour	1301-1306	1301-1306	1209-1214	1209-1214	1119-1124	1119-1124	1000-1005	1000-1005	1405-1420	1206-1212	1206-1212	1500-1505
Tide	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 1	Flood 2	Flood 2	Ebb 2
Boat Heading (degrees)	150	150	165	165	260	260	110	110	-	-	-	-
Air Temp. (C)	1.0	-	3.5	-	5.0	-	4.0	-	13.1	-	-	14.0
Temp. (C), surface	3.7	-	7.0	-	7.0	-	6.2	-	10.0	13.5	13.5	13.5
bottom	-	3.2	-	-	-	7.0	-	6.2	9.0	12.7	12.7	14.5
Sal. (ppt), surface	14.0	-	10.0	-	16.5	-	15.0	-	12.0	16.5	16.5	15.8
bottom	-	16.0	-	-	-	20.0	-	19.5	12.0	22.0	22.0	16.5
Oxygen (ppm), surface	11.8	-	10.4	-	9.6	-	10.6	-	-	10.2	10.2	9.4
bottom	-	11.4	-	-	-	10.0	-	10.7	-	10.1	10.1	9.2
Secchi (feet)	3.5	-	2.5	-	1.5	-	1.5	-	1.5	2.5	2.5	1.5
Volume Sampled (m^3)	86.0	108.9	92.7	90.7	81.9	33.6	59.2	29.6	16.4	15.7	15.7	14.0
Fish eggs												
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	5	1
Unidentified eggs	-	-	-	-	-	-	1	1	-	2	7	-
Total eggs	0	0	0	0	0	0	1	1	0	2	12	1
Larval and juvenile fishes												
Brevoortia tyrannus	-	-	-	-	3	-	3	1	-	-	1	1
Anchoa mitchilli	1	1	-	-	-	-	-	-	-	-	-	-
Atherinidae larvae	-	-	-	-	-	-	-	-	-	-	-	1
Micropogon undulatus	-	3	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	4	-	-	-	5	-	1	-	1	-	-	-
Myoxocephalus sp.	-	-	-	-	-	-	1	-	-	-	-	-
Paralichthys dentatus	-	-	-	-	1	3	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	1	1	-
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	-	1	-
Total species	2	2			3	1	3	1	1	1	3	1
Total specimens	5	4	0	0	9	3	5	1	1	1	3	2

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Appendix Table 35. (cont.)

Location	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1	M. R. #1
Zone	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
Depth (feet), water	16-26	15-30	15-30	13	18	30	30	25	15-30	13-35	15-30
Type of tow	oblique	star. oblique	port oblique	oblique*	oblique	star. oblique	port oblique	oblique	oblique	oblique	oblique
Coll. No.	DPS-74-025	DPS-74-027	DPS-74-027	DPS-74-033	TRT-74-089	DPS-74-048	DPS-74-048	DPS-74-054	DPS-74-057	DPS-74-066	DPS-74-069
Date	22 May	5 June	5 June	21 June	8 July	22 July	22 July	2 August	30 August	10 September	25 September
Hour	1235-1245	1125-1135	1125-1135	1100-1106	1015-1028	1048-1058	1048-1058	1200-1210	1020-1030	1130-1140	1245-1255
Tide	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	High	High	Ebb 1	Ebb 1	Flood 1	Flood 1
Boat Heading (degrees)	280	300	300	100	-	180	180	280	-	270	280
Air Temp. (C)	28.5	28.0	28.0	-	-	26.0	26.0	29.8	31.0	27.5	19.5
Temp. (C), surface	20.0	20.3	20.3	24.8	26.0	25.0	25.0	26.0	27.1	21.8	19.0
bottom	20.0	18.7	18.7	24.0	27.0	25.0	25.0	26.0	27.0	20.9	19.0
Sal. (ppt), surface	16.0	16.0	16.0	20.5	18.0	21.0	21.0	20.5	17.0	10.5	17.0
bottom	19.0	20.0	20.0	23.5	8.0	21.5	21.5	21.5	18.0	15.5	18.0
Oxygen (ppm), surface	7.1	8.5	8.5	7.0	5.8	8.0	8.0	7.5	5.9	6.0	-
bottom	7.0	7.6	7.6	7.0	5.5	5.8	5.8	7.0	5.7	6.5	-
Secchi (feet)	2.5	3.0	3.0	3.5	4.0	5.0	5.0	5.5	3.5	5.5	3.5
Volume Sampled (m^3)	27.6	27.1	26.3	11.1	31.2	19.0	19.0	21.1	25.9	27.0	21.0
Fish eggs											
Anchoa mitchilli	776	640	512	3136	1056	1	-	-	11	-	-
Tautoga onitis	5	-	-	32	-	-	-	-	-	-	-
Tautogolabrus adspersus	3	-	-	32	-	-	-	-	-	-	-
Prionotus sp.	-	-	-	96	192	2	5	2	-	-	-
Unidentified eggs	1	20	8	64	48	-	-	-	-	-	-
Total eggs	785	660	520	3360	1296	3	5	2	11	0	0
Larval and juvenile fishes											
Anchoa mitchilli	-	-	-	-	11	20	14	2	1	-	-
Engraulidael larvae	1	-	2	182	1641	71	74	6	-	-	-
Menidia menidia	-	-	-	1	-	-	-	-	-	-	-
Atherinidae larvae	4	-	-	1	-	-	-	-	-	-	-
Syngnathus fuscus	6	-	2	12	6	4	1	1	-	-	-
Cynoscion regalis	-	-	-	-	1	-	-	-	-	-	-
Gobiidae larvae	-	-	-	1	21	1	3	-	1	-	-
Trinectes maculatus	-	-	-	-	2	-	-	-	-	-	-
Tetraodontiformes larvae	-	-	-	-	1	-	-	-	-	-	-
Unidentified larvae	-	-	-	1	-	-	-	-	-	-	-
Total species	3		2	4	6	3	3	2	2		
Total specimens	11	0	4	198	1683	96	92	9	2	0	0

* 0.5-m plankton net

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Appendix Table 36. Fish eggs, larvae, and juveniles collected in 10-minute oblique tows of a 0.03-m^2 Bongo sampler at station M.R. #3 in the Mullica River (zone 1550) from June through September, 1974.

Location	M. R #3	M. R #3	M. R #3	M. R #3	M. R #3	M. R #3	M. R #3	M. R #3	M. R #3
Zone	1550	1550	1550	1550	1550	1550	1550	1550	1550
Depth (feet), water	15-37	15-37	12-15	18	15-20	20-37	11-18	13-18	7-32
Type of tow	star. oblique	port oblique	oblique	oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	DPS-74-026	DPS-74-026	DPS-74-032	TRT-74-088	DPS-74-049	DPS-74-055	DPS-74-056	DPS-74-067	DPS-74-068
Date	5 June	5 June	21 June	8 July	22 July	2 August	30 August	10 September	25 September
Hour	1045-1055	1045-1055	1025-1030	0942-0956	1000-1005	1238-1248	0950-1000	1230-1240	1135-1145
Tide	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Flood 2	Flood 1
Boat Heading (degrees)	050	050	080	300	180	060	-	060	060
Air Temp. (C)	28.0	28.0	-	30.0	27.5	34.0	29.0	28.5	20.0
Temp. (C), surface	20.3	20.3	24.1	26.8	24.9	26.4	26.9	22.0	19.0
bottom	20.0	20.0	24.1	26.0	24.9	26.0	26.9	21.2	19.0
Sal. (ppt), surface	11.7	11.7	14.0	10.0	16.0	15.0	14.0	5.5	10.0
bottom	12.0	12.0	14.0	10.5	16.0	18.5	14.0	6.0	15.0
Oxygen (ppm), surface	7.4	7.4	7.2	5.6	7.9	8.2	7.2	5.6	-
bottom	7.2	7.2	7.1	5.5	6.1	7.2	5.8	6.5	-
Secchi (feet)	3.5	3.5	3.0	3.5	1.5	4.5	4.0	3.0	3.0
Volume Sampled (m^3)	26.8	26.1	33.4	26.8	6.0	17.9	17.3	30.7	22.5
Fish eggs									
Anchoa mitchilli	38	41	1664	607	1	-	-	-	-
Prionotus sp.	-	-	388	5	2	-	-	-	-
Unidentified eggs	18	24	224	-	-	-	-	-	-
Total eggs	56	65	2276	612	3	0	0	0	0
Larval and juvenile fishes									
Anchoa mitchilli	-	-	-	3	2	-	-	-	-
Engraulidae larvae	-	-	132	145	-	-	-	-	-
Syngnathus fuscus	4	3	3	-	-	-	-	-	-
Gobiidae larvae	-	-	16	-	-	-	-	-	-
Tetraodontiformes larva	-	-	1	-	-	-	-	-	-
Unidentified fish	-	-	-	1	-	-	-	-	-
Total species	1	1	4	1	1				
Total specimens	4	3	152	149	2	0	0	0	0

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Appendix Table 37. Fish eggs, larvae, and juveniles collected in 5-minute surface and bottom tows of 0.5-m plankton nets and 10-minute oblique tows of a 0.03-m^2 Bongo sampler in Little Egg Inlet (zone 1010) from January through November, 1974.

Location	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.
Zone	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
Depth (feet), water	17-20	17-20	15-25	15-25	22-30	22-30	17-18	22-35	22-35	18-24	18-24	15-20
Type of tow	surface*	bottom*	surface*	bottom*	surface*	bottom*	oblique	surface	bottom	oblique	oblique	star. oblique
Coll. No.	DPS-74-001	DPS-74-001	TRT-74-010	TRT-74-010	TRT-74-023	TRT-74-023	TRT-74-035	TRT-74-040	TRT-74-040	DPS-74-010	DPS-74-010	TRT-74-057
Date	4 January	4 January	1 February	1 February	12 March	12 March	25 March	26 March	26 March	8 April	8 April	26 April
Hour	1135-1140	1135-1140	1045-1050	1045-1050	1010-1015	1010-1015	1524-1530	1128-1133	1128-1133	0850-0853	0850-0853	1426-1434
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	-	Ebb 1	Ebb 1	Flood 2	Flood 2	Ebb 1
Boat Heading (degrees)	000	000	340	340	340	340	330	340	340	-	-	-
Air Temp. (C)	1.5	-	-	-	5.0	-	-0.5	5.0	-	9.2	9.2	-
Temp. (C), surface	4.0	-	6.0	-	5.7	-	5.5	5.0	-	6.7	6.7	10.5
bottom	-	4.2	-	6.0	-	5.5	5.0	-	5.0	-	-	10.0
Sal. (ppt), surface	26.0	-	22.0	-	30.0	-	26.0	30.0	-	30.0	30.0	30.0
bottom	-	28.0	-	-	-	30.0	28.0	-	30.0	30.3	30.3	30.0
Oxygen (ppm), surface	11.0	-	10.1	-	10.4	-	8.6	10.2	-	-	-	10.0
bottom	-	11.0	-	9.4	-	10.8	8.7	-	10.2	-	-	10.0
Secchi (feet)	4.0	-	1.5	-	8.0	-	-	5.0	-	1.5	1.5	2.5
Volume Sampled (m^3)	86.0	88.6	68.2	64.3	82.1	82.4	46.3	82.2	78.4	7.1	7.1	15.0
Fish eggs												
Unidentified eggs	0	0	0	0	3	4	56	21	0	11	8	24
Larval and juvenile fishes												
Ammodytes sp.	32	277	3	-	67	185	23	18	23	4	4	2
Myoxocephalus sp.	-	-	-	1	-	-	-	-	-	-	1	-
Paralichthys dentatus	-	-	-	-	-	1	-	-	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	6	10	3	1	1	1	-	5
Unidentified fish	-	-	-	-	1	-	-	-	-	-	-	-
Total species	1	1	1	1	2	3	2	2	2	2	2	2
Total specimens	32	277	3	1	74	196	26	19	24	5	5	7

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Appendix Table 37. (cont.)

Location	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.
Zone	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
Depth (feet), water	15-20	20	20	20-35	20-35	15-22	15-22	20-25	20-25	15-22	15-22
Type of tow	port oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique	oblique*	oblique*	star. oblique	port oblique
Coll. No.	TRT-74-057	DPS-74-016	DPS-74-016	DPS-74-021	DPS-74-021	DPS-74-031	DPS-74-031	DPS-74-037	DPS-74-037	TRT-74-093	TRT-74-093
Date	26 April	8 May	8 May	22 May	22 May	5 June	5 June	21 June	21 June	8 July	8 July
Hour	1426-1434	0925-0931	0925-0931	0955-1006	0955-1006	1615-1625	1615-1625	1200-1206	1209-1215	1423-1438	1423-1438
Tide	Ebb 1	Flood 2	Flood 2	Flood 2	Flood 2	High	High	Ebb 1	Ebb 1	Ebb 2	Ebb 2
Boat Heading (degrees)	-	-	-	000	000	350	350	340	340	340	340
Air Temp. (C)	-	13.0	13.0	20.0	20.0	-	-	-	-	30.0	30.0
Temp. (C), surface	10.5	10.8	10.8	15.0	15.0	20.8	20.8	19.0	19.0	21.0	21.0
bottom	10.0	11.0	11.0	15.5	15.5	19.8	19.8	19.0	19.0	21.0	21.0
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.0	25.0	25.0	30.0	30.0	30.0	30.0
bottom	30.0	30.0	30.0	30.0	30.0	27.5	27.5	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	10.0	8.8	8.8	9.0	9.0	7.8	7.8	7.6	7.6	6.2	6.2
bottom	10.0	8.4	8.4	8.4	8.4	7.2	7.2	7.3	7.3	6.2	6.2
Secchi (feet)	2.5	3.3	3.3	2.5	2.5	5.0	5.0	5.0	5.0	6.5	6.5
Volume Sampled (m^3)	15.0	16.4	16.4	26.9	28.8	24.7	24.0	44.6	50.3	28.8	27.2
Fish eggs											
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	8	8
Anchoa mitchilli	-	-	-	400	448	544	384	288	1280	1128	1144
Urophycis chuss	-	-	-	-	4	-	-	-	-	-	-
Tautoga onitis	-	10	10	4	4	144	-	64	176	152	288
Tautogolabrus adspersus	-	1	1	-	-	64	-	-	16	136	8
Scomber scombrus	-	30	40	-	-	-	-	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	-	16
Scophthalmus aquosus	-	-	-	-	-	8	-	-	-	-	-
Unidentified eggs	22	14	15	28	40	-	256	48	32	8	-
Total eggs	22	55	66	432	496	760	640	400	1504	1432	1464
Larval and juvenile fishes											
Engraulidae larvae	-	-	-	-	1	3	-	56	52	398	393
Atherinidae larvae	-	-	-	-	1	5	1	-	-	-	-
Hippocampus erectus	-	-	-	-	-	-	-	1	-	2	2
Syngnathus fuscus	-	-	-	6	13	2	12	42	68	16	18
Cynoscion regalis	-	-	-	-	-	-	-	2	-	28	32
Scomber scombrus	-	-	-	1	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	-	1	-	10	3	3	6
Pseudopleuronectes americanus	4	1	-	1	-	-	-	-	-	-	-
Tetraodontiformes larva	-	-	-	-	-	1	-	-	-	-	-
Total species	1	1		3	3	5	2	5	3	5	5
Total specimens	4	1	0	8	15	12	13	111	123	445	451

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Appendix Table 37. (cont.)

Location	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.	L. E. I.
Zone	1010	1010	1010	1010	1010	1010	1010	1010	1010
Depth (feet), water	13-17	13-17	17-28	17-28	15	15-25	25	15-18	23-27
Type of tow	star. oblique	port oblique	star. oblique	port oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	DPS-74-044	DPS-74-044	DPS-74-050	DPS-74-050	DPS-74-061	DPS-74-062	DPS-74-073	DPS-74-074	TRT-74-152
Date	22 July	22 July	2 August	2 August	30 August	10 September	25 September	9 October	5 November
Hour	1412-1422	1412-1422	0943-0953	0943-0953	1315-1327	0932-0943	1505-1515	0940-0950	0905-0915
Tide	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 2	Low	High	Flood 1	Flood 2
Boat Heading (degrees)	340	340	340	340	-	350	310	-	340
Air Temp. (C)	-	-	29.0	29.0	29.0	24.0	20.0	13.0	19.0
Temp. (C), surface	-	-	23.2	23.2	27.0	20.3	19.5	13.5	15.0
bottom	-	-	22.2	22.2	26.1	20.5	19.0	14.0	14.5
Sal. (ppt), surface	-	-	28.0	28.0	28.0	23.0	30.0	28.0	30.0
bottom	-	-	30.0	30.0	29.0	27.5	30.0	30.0	30.5
Oxygen (ppm), surface	-	-	6.8	6.8	6.2	6.9	-	8.6	7.4
bottom	-	-	6.2	6.2	5.4	6.6	-	8.2	7.6
Secchi (feet)	7.5	7.5	5.0	5.0	3.0	3.5	6.0	5.0	3.0
Volume Sampled (m^3)	20.8	20.8	24.5	24.5	24.9	27.7	17.5	22.8	21.5
Fish eggs									
Brevoortia tyrannus	-	-	-	-	-	-	-	-	2
Anchoa hepsetus	1	1	-	-	-	-	-	-	-
Anchoa mitchilli	90	67	129	137	7	-	1	-	-
Tautoga onitis	55	52	1	-	-	-	-	-	-
Tautogolabrus adspersus	8	3	-	-	-	-	-	-	-
Prionotus sp.	7	7	-	-	-	-	2	-	-
Scophthalmus aquosus	-	-	-	-	-	-	2	-	-
Unidentified eggs	5	5	1	5	-	-	-	2	-
Total eggs	166	135	131	142	7	0	5	2	2
Larval and juvenile fishes									
Anchoa mitchilli	-	1	3	2	-	-	-	-	-
Engraulidae larvae	48	74	106	189	-	-	3	-	-
Ophidiidae larvae	-	-	-	-	-	-	1	-	-
Hippocampus erectus	-	-	-	1	-	-	-	-	-
Syngnathus fuscus	4	7	2	4	2	-	1	-	-
Micropogon undulatus	-	-	-	-	-	-	-	1	-
Gobiidae larvae	4	4	7	5	10	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	4	-	-
Total species	3	3	3	4	2		4	1	
Total specimens	56	86	118	200	12	0	9	1	0

* 0.5-m plankton net

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Appendix Table 38. Fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets at station G.B.#1 (zone 1050) in Great Bay from July through December, 1973.

Location	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1
Zone	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
Depth (feet), water	18-25	18-25	15-17	15-17	14-15	14-15	18-22	18-22	20-22	20-22	19-23	19-23
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-204	TRT-73-204	TRT-73-217	TRT-73-217	TRT-73-230	TRT-73-230	TRT-73-249	TRT-73-249	TRT-73-270	TRT-73-270	DPS-73-012	DPS-73-012
Date	11 July	11 July	23 July	23 July	10 August	10 August	21 August	21 August	6 September	6 September	19 September	19 September
Hour	1100-1105	1100-1105	1120-1125	1120-1125	1055-1100	1055-1100	1042-1047	1042-1047	1046-1051	1046-1051	0952-0957	0952-0957
Tide	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 2	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	190	190	210	210	200	200	220	220	-	-	190	190
Air Temp. (C)	25.0	-	26.0	-	27.5	-	23.0	-	27.5	-	16.0	-
Temp. (C), surface	25.0	-	22.0	-	26.0	-	23.0	-	27.1	-	18.5	-
bottom	-	25.0	-	22.0	-	26.0	-	22.0	-	27.0	-	18.5
Sal. (ppt), surface	23.5	-	26.5	-	27.0	-	29.0	-	28.0	-	27.0	-
bottom	-	23.5	-	26.5	-	27.5	-	29.0	-	27.0	-	27.0
Oxygen (ppm), surface	-	-	10.8	-	6.8	-	7.2	-	6.1	-	6.8	-
bottom	-	-	-	6.0	-	6.7	-	6.5	-	5.7	-	6.8
Secchi (feet)	4.5	-	7.5	-	4.0	-	3.0	-	1.5	-	2.0	-
Volume Sampled (m^3)	33.4	48.8	85.6	32.1	57.8	30.0	53.0	26.8	93.8	82.2	85.9	57.4
Fish												
Anchoa mitchilli	7264	5696	16	39	87	40	20	11	2	1	1	-
Tautoga onitis	2560	-	4	17	-	3	-	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	1	-	-	-	-	-	-	-	-
Prionotus sp.	32	32	2	4	-	-	-	-	-	-	-	-
Unidentified eggs	1440	-	17	54	3	-	3	3	-	-	-	-
Total eggs	11296	5728	39	115	90	43	23	14	2	1	1	0
Larval & Juvenile Fishes												
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	1	-
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	1
A. mitchilli	-	-	-	-	-	-	-	-	40	13	10	23
Anchoa spp.	-	-	6	51	-	-	30	2	302	43	3	22
Menidia sp.	-	-	-	9	-	-	-	-	-	-	-	-
Hippocampus erectus	2	1	1	1	-	-	1	1	-	-	-	-
Syngnathus fuscus	7	5	4	11	2	-	9	12	-	5	1	2
Menticirrhus saxatilis	-	-	-	1	-	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	1	1	1	-	-	-	3	1	-
Peprilus triacanthus	-	-	-	-	3	-	-	-	-	-	-	-
Total species	2	2	3	6	3	1	3	3	2	4	5	4
Total specimens	9	6	11	74	6	1	40	15	342	64	16	48

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Appendix Table 38, (cont.)

Location	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1	GB PL-1
Zone	1050	1050	1050	1050	1050	1050
Depth (feet), water	17-20	17-20	16-22	16-22	20-25	20-25
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-285	TRT-73-285	TRT-73-304	TRT-73-304	TRT-73-328	TRT-73-328
Date	4 October	4 October	5 November	5 November	3 December	3 December
Hour	1030-1035	1030-1035	1051-1056	1051-1056	1156-1201	1156-1201
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2
Boat Heading (degrees)	210	210	210	210	200	200
Air Temp. (C)	-	-	4.0	-	10.0	-
Temp. (C), surface	21.3	-	9.2	-	7.5	-
bottom	-	21.0	-	9.5	-	7.7
Sal. (ppt), surface	26.5	-	26.0	-	28.0	-
bottom	-	26.5	-	26.0	-	29.5
Oxygen (ppm), surface	8.0	-	9.2	-	9.6	-
bottom	-	7.9	-	9.2	-	9.9
Secchi (feet)	3.5	-	3.5	-	3.0	-
Volume Sampled (m^3)	71.2	67.5	100.2	107.6	51.2	60.2
Fish eggs						
Unidentified eggs	5	5	-	-	-	-
Total eggs	5	5	0	0	0	0
Larval & Juvenile Fishes						
Brevoortia tyrannus	-	-	-	-	1	-
Anchoa mitchilli	-	1	-	-	-	1
Hippocampus erectus	-	1	-	-	-	-
Syngnathus fuscus	8	6	1	-	-	-
Ammodytes sp.	-	-	-	-	7	-
Total species	1	3	1	-	2	1
Total specimens	8	8	1	0	8	1

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Appendix Table 39. Fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets at station G.B.#2 (zone 1100) in Great Bay from July through December, 1973.

Location	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2
Zone	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth (feet), water	-	-	6-7	6-7	5-7	5-7	7-8	7-8	5-7	5-7	7	7
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-205	TRT-73-205	TRT-73-218	TRT-73-218	TRT-73-231	TRT-73-231	TRT-73-250	TRT-73-250	TRT-73-271	TRT-73-271	DPS-73-013	DPS-73-013
Date	11 July	11 July	23 July	23 July	10 August	10 August	21 August	21 August	6 September	6 September	19 September	19 September
Hour	1133-1138	1133-1138	1142-1147	1142-1147	1119-1124	1119-1124	1116-1121	1116-1121	1110-1115	1110-1115	1011-1016	1011-1016
Tide	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 2	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2
Boat Heading (degrees)	220	220	290	290	260	260	-	-	-	-	275	275
Air Temp. (C)	26.0	-	23.0	-	27.0	-	23.0	-	29.0	-	16.0	-
Temp. (C), surface	26.0	-	24.5	-	27.0	-	23.0	-	27.7	-	18.5	-
bottom	-	26.0	-	24.5	-	27.0	-	23.0	-	27.7	-	18.2
Sal. (ppt), surface	22.5	-	22.5	-	25.0	-	28.0	-	25.0	-	24.0	-
bottom	-	22.5	-	22.0	-	25.0	-	28.0	-	26.0	-	24.0
Oxygen (ppm), surface	-	-	11.4	-	6.7	-	7.8	-	6.1	-	6.9	-
bottom	-	-	-	-	-	6.7	-	6.2	-	6.0	-	6.9
Secchi (feet)	4.0	-	6.0	-	3.5	-	3.0	-	2.0	-	1.5	-
Volume Sampled (m^3)	64.0	73.8	89.2	67.4	109.6	42.3	54.4	43.2	88.2	92.3	80.8	81.3
Fish eggs												
Anchoa mitchilli	3088	2304	46	56	19	7	2	1	256	218	-	-
Tautoga onitis	-	-	1	-	-	-	-	-	-	-	-	-
Prionotus sp.	-	-	-	8	-	-	-	-	-	-	-	-
Unidentified eggs	-	-	13	640	-	-	2	1	-	-	-	-
Total eggs	3088	2304	60	704	19	7	4	2	256	218	0	0
Larval & Juvenile Fishes												
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	-	2
A. mitchilli	-	-	-	-	-	1	-	-	78	4	3	143
Anchoa spp.	8	19	2	49	-	1	4	8	71	209	49	15
Menidia menidia	-	-	1	-	-	-	-	-	-	-	-	-
Menidia sp.	-	-	14	-	-	-	-	-	-	-	-	-
Hippocampus erectus	-	-	-	1	-	-	-	-	-	-	-	-
Syngnathus fuscus	4	11	1	4	-	-	-	3	1	-	1	-
Gobiidae larvae	1	-	2	15	-	-	1	1	-	1	-	4
Unidentified larvae	-	-	1	-	-	-	-	-	-	-	-	-
Total species	3	2	5	4	-	2	2	3	3	3	3	4
Total specimens	13	30	21	69	0	2	5	12	150	214	53	164

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Appendix Table 39. (cont.)

Location	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2	GB PL-2
Zone	1100	1100	1100	1100	1100	1100
Depth (feet), water	7-10	7-10	4-6	4-6	5-8	5-8
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-286	TRT-73-286	TRT-73-305	TRT-73-305	TRT-73-329	TRT-73-329
Date	4 October	4 October	5 November	5 November	3 December	3 December
Hour	1133- 138	1133-1138	1110-1105	1110-1105	1120-1125	1120-1125
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2
Boat Heading (degrees)	275	275	260	260	270	270
Air Temp. (C)	-	-	3.5	-	10.5	-
Temp. (C), surface	21.5	-	9.2	-	7.0	-
bottom	-	21.5	-	9.2	-	7.0
Sal. (ppt), surface	24.5	-	23.0	-	28.0	-
bottom	-	24.5	-	24.0	-	28.0
Oxygen (ppm), surface	8.0	-	9.2	-	10.0	-
bottom	-	8.0	-	9.2	-	10.5
Secchi (feet)	3.5	-	3.5	-	3.0	-
Volume sampled (m^3)	81.4	91.2	102.6	103.1	65.8	77.4
Fish eggs						
Unidentified eggs	7	4	-	-	-	-
Total eggs	7	4	0	0	0	0
Larval & Juvenile Fishes						
Anchoa mitchilli	-	-	-	1	-	-
Hippocampus erectus	-	1	-	-	-	-
Syngnathus fuscus	1	3	1	-	-	-
Total species	1	2	1	1	-	-
Total specimens	1	4	1	1	0	0

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Appendix Table 40. Fish eggs, larvae, and juveniles collected in surface tows of a 0.5-m plankton net at station G.B.#4 (zone 1080) in Great Bay from July through December, 1973.

Location	GB PL-4	GB PL-4	GB PL-4	GB PL-4	GB PL-4	GB PL-4	GB PL-4	GB PL-4	GB PL-4
Zone	1080	1080	1080	1080	1080	1080	1080	1080	1080
Depth (feet), water	-	-	-	-	-	-	-	4-8	4-7
sampled	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface	Surface
Coll. No.	TRT-73-206	TRT-73-219	TRT-73-232	TRT-73-251	TRT-73-272	DPS-73-014	TRT-73-287	TRT-73-306	TRT-73-330
Date	11 July	23 July	10 August	21 August	6 September	19 September	4 October	5 November	3 December
Hour	1155-1200	1207-1212	1146-1151	1141-1146	1126-1131	1029-1034	1150-1155	1127-1132	1238-1243
Tide	Ebb 2	Flood 2	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2
Boat Heading (degrees)	-	300	320	310	320	120	320	320	310
Air Temp. (C)	26.0	23.0	29.0	24.0	29.5	17.0	-	3.5	10.5
Temp. (C), surface	27.0	25.0	28.0	24.0	28.0	18.8	20.0	9.0	7.0
bottom	-	-	-	-	-	-	-	-	-
Sal. (ppt), surface	20.0	22.0	23.5	25.0	24.0	24.0	24.0	22.0	25.0
bottom	-	-	-	-	-	-	-	-	-
Oxygen (ppm), surface	-	-	6.5	6.9	6.0	6.8	8.4	9.8	11.8
bottom	-	-	-	-	-	-	-	-	-
Secchi (feet)	2.0	-	4.0	2.0	2.0	1.5	2.5	3.5	2.5
Volume sampled (m^3)	84.6	100.2	78.0	11.6	120.5	125.6	109.5	100.0	78.9*
Fish eggs									
Anchoa mitchilli	2864	16	-	6	15104	15	-	-	-
Unidentified eggs	16	5	-	3	-	-	-	-	-
Total eggs	2880	21	0	9	15104	15	0	0	0
Larval & Juvenile Fishes									
Anchoa hepsetus	-	-	-	-	1	-	-	-	-
A. mitchilli	-	6	1	-	2	-	-	-	-
Anchoa spp.	7	227	-	22	139	23	-	-	-
Menidia menidia	-	-	-	2	-	1	-	-	-
Menidia sp.	-	3	-	2	1	-	-	-	-
Syngnathus fuscus	3	1	-	1	1	2	-	-	-
Gobiidae larvae	-	1	-	1	3	1	-	-	-
Trinectes maculatus	1	-	-	-	-	-	-	-	-
Total species	3	5	1	5	6	4	-	-	-
Total specimens	11	238	1	28	147	27	0	0	0

* estimated volume.

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Appendix Table 41. Fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets at station M.R. #1 (zone 1520) in the Mullica River from July through December, 1973.

Location	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1
Zone	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
Depth (feet), water sampled	- Surface	- Bottom	12-16 Surface	12-16 Bottom	18-21 Surface	18-21 Bottom	17-42 Surface	17-42 Bottom	24-36 Surface	24-36 Bottom	- Surface	- Bottom
Coll. No.	TRT-73-209	TRT-73-209	TRT-73-223	TRT-73-223	TRT-73-236	TRT-73-236	TRT-73-255	TRT-73-255	TRT-73-275	TRT-73-275	DPS-73-017	DPS-73-017
Date	11 July	11 July	23 July	23 July	10 August	10 August	21 August	21 August	6 September	6 September	19 September	19 September
Hour	1530-1535	1530-1535	1522-1527	1522-1527	1405-1410	1405-1410	1409-1414	1409-1414	1309-1314	1309-1314	1257-1302	1257-1302
Tide	Flood 1	Flood 1	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	260	260	270	270	280	280	240	240	270	270	-	-
Air Temp. (C)	25.0	-	27.0	-	31.5	-	24.0	-	30.0	-	22.0	-
Temp. (C), surface	27.0	-	25.0	-	28.0	-	24.0	-	28.5	-	20.0	-
bottom	-	26.0	-	25.0	-	27.5	-	24.0	-	28.0	-	19.8
Sal. (ppt), surface	15.5	-	19.5	-	18.0	-	23.0	-	15.0	-	20.0	-
bottom	-	16.5	-	20.5	-	20.0	-	23.0	-	22.0	-	20.0
Oxygen (ppm), surface	6.5	-	-	-	6.8	-	7.1	-	5.8	-	6.2	-
bottom	-	6.4	-	-	-	6.0	-	7.0	-	5.6	-	6.2
Secchi (feet)	3.5	-	4.0	-	4.0	-	3.0	-	3.0	-	2.0	-
Volume sampled (m^3)	51.1	33.3	88.1	41.3	93.1	54.3	72.9	16.0	79.9	65.7	88.6	71.5
Fish eggs												
Anchoa mitchilli	2448	1760	92	5	211	26	61	2	20	5	-	-
Prionotus sp.	32	48	-	-	-	-	-	-	-	-	-	-
Unidentified eggs	-	16	-	-	-	-	-	-	-	-	1	-
Total eggs	2480	1824	92	5	211	26	61	2	20	5	1	0
Larval & Juvenile Fishes												
Anchoa mitchilli	-	7	1	-	-	-	-	-	-	-	-	6
Anchoa spp.	443	466	12	39	-	1	10	2	-	3	2	13
Menidia sp.	-	4	2	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	4	9	-	-	-	1	2	1	-	2	2	3
Cynoscion regalis	-	6	-	-	-	-	-	-	-	-	-	-
Gobiidae larvae	-	136	-	43	-	-	-	1	1	-	-	-
Trinectes maculatus	3	2	-	-	-	-	-	-	-	-	-	-
Total species	3	7	3	2	-	2	2	3	1	2	2	3
Total specimens	450	630	15	82	0	2	12	4	1	5	4	22

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Appendix Table 41. (cont.)

Location	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1	MR PL-1
Zone	1520	1520	1520	1520	1520	1520
Depth (feet), water	14-30	14-30	14-40	14-40	15-30	15-30
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-290	TRT-73-290	TRT-73-310	TRT-73-310	TRT-73-332	TRT-73-332
Date	4 October	4 October	5 November	5 November	4 December	4 December
Hour	1326-1331	1326-1331	1404-1409	1404-1409	0935-0940	0935-0940
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Ebb 2	Ebb 2
Boat Heading (degrees)	270	270	270	270	260	260
Air Temp. (C)	-	-	4.0	-	11.0	-
Temp. (C), surface	22.0	-	9.7	-	8.0	-
bottom	-	20.8	-	10.0	-	7.0
Sal. (ppt), surface	21.0	-	18.0	-	19.5	-
bottom	-	24.0	-	20.0	-	21.0
Oxygen (ppm), surface	8.0	-	10.1	-	9.9	-
bottom	-	8.0	-	9.8	-	11.1
Secchi (feet)	3.0	-	3.0	-	3.0	-
Volume sampled (m^3)	89.9	76.2	81.1	67.3	76.3	45.0
Larval & Juvenile Fishes						
Brevoortia tyrannus	-	-	2	-	-	-
Anchoa mitchilli	-	5	-	-	-	1
Syngnathus fuscus	2	3	-	-	-	-
Micropogon undulatus	-	-	-	-	-	3
Total species	1	2	1	-	-	2
Total specimens	2	8	2	0	0	4

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Appendix Table 42. Fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets at station M.R.#3 (zone 1550) in the Mullica River from July through December, 1973.

Location	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3
Zone	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550
Depth (feet), water	-	-	14-21	14-21	7-15	7-15	15	15	17-26	17-26	16-25	16-25
sampled	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-210	TRT-73-210	TRT-73-224	TRT-73-224	TRT-73-237	TRT-73-237	TRT-73-256	TRT-73-256	TRT-73-276	TRT-73-276	DPS-73-018	DPS-73-018
Date	11 July	11 July	23 July	23 July	10 August	10 August	21 August	21 August	6 September	6 September	19 September	19 September
Hour	1555-1600	1555-1600	1544-1549	1544-1549	1432-1437	1432-1437	1435-1440	1435-1440	1332-1337	1332-1337	1215-1220	1215-1220
Tide	Flood 1	Flood 1	Flood 2	Flood 2	Flood 1	Flood 1	Flood 2	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1
Boat Heading (degrees)	270	270	330	330	320	320	330	330	310	310	100	100
Air Temp. (C)	25.0	-	28.0	-	27.5	-	24.0	-	30.0	-	19.0	-
Temp. (C), surface	27.0	-	27.0	-	28.0	-	25.0	-	28.3	-	20.5	-
bottom	-	26.5	-	26.0	-	28.0	-	24.5	-	28.0	-	20.5
Sal. (ppt), surface	5.5	-	10.0	-	6.5	-	18.0	-	12.0	-	12.0	-
bottom	-	6.5	-	12.0	-	10.5	-	18.0	-	20.0	-	12.0
Oxygen (ppm), surface	5.0	-	-	-	6.0	-	6.4	-	6.5	-	6.2	-
bottom	-	5.0	-	-	-	5.5	-	5.8	-	5.6	-	6.2
Secchi (feet)	2.0	-	3.3	-	3.0	-	3.5	-	2.8	-	2.0	-
Volume sampled (m^3)	47.0	49.6	84.3	19.4	107.6	76.1	34.2	25.5	42.5	16.8	46.6	44.0
Fish eggs												
Anchoa mitchilli	43	-	65	124	1	15	165	138	-	-	-	-
Tautoga onitis	27	-	-	-	-	-	-	-	-	-	-	-
Unidentified eggs	5	114	-	1	2	-	-	-	-	-	-	-
Total eggs	75	114	65	125	3	15	165	138	0	0	0	0
Larval & Juvenile Fishes												
Brevoortia tyrannus	-	-	1	-	-	-	-	-	-	-	-	-
Anchoa mitchilli	5	3	29	-	1	-	-	-	-	1	2	1
Anchoa spp.	98	74	-	19	-	16	-	-	-	1	1	1
Menidia menidia	-	-	-	-	1	-	-	-	-	-	-	-
Menidia sp.	-	-	39	-	-	-	-	-	1	-	-	-
Syngnathus fuscus	3	-	-	2	-	-	1	-	-	1	-	-
Gobiidae larvae	3	5	-	2	-	-	-	-	-	-	-	-
Trinectes maculatus	1	-	-	-	-	-	-	-	-	-	-	-
Total species	5	3	3	3	2	1	1	-	1	3	2	2
Total speciemns	110	82	69	23	2	16	1	0	1	3	3	2

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Appendix Table 42. (cont.)

Location	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3	MR PL-3
Zone	1550	1550	1550	1550	1550	1550
Depth (feet), water sampled	9-20 Surface	9-20 Bottom	12-20 Surface	12-20 Bottom	6-25 Surface	6-25 Bottom
Coll. No.	TRT-73-291	TRT-73-291	TRT-73-309	TRT-73-309	TRT-73-333	TRT-73-333
Date	4 October	4 October	5 November	5 November	4 December	4 December
Hour	1352-1357	1352-1357	1340-1345	1340-1345	1000-1005	1000-1005
Tide	Flood 2	Flood 2	Flood 1	Flood 1	Ebb 2	Ebb 2
Boat Heading (degrees)	290	290	290	290	290	290
Air Temp. (C)	-	-	4.0	-	10.2	-
Temp. (C), surface	22.3	-	9.7	-	7.5	-
bottom	-	22.0	-	10.0	-	7.0
Sal. (ppt), surface	14.0	-	8.0	-	8.5	-
bottom	-	15.0	-	9.5	-	10.0
Oxygen (ppm), surface	7.8	-	10.2	-	10.6	-
bottom	-	7.6	-	10.4	-	10.9
Secchi (feet)	4.5	-	2.0	-	3.5	-
Volume sampled (m^3)	82.9	64.1	41.0	39.2	95.7	96.5
Larval & Juvenile Fishes						
Anguilla rostrata	-	-	-	-	-	1
Anchoa sp.	-	1	-	-	-	-
Total species	-	1	-	-	-	1
Total specimens	0	1	0	0	0	1

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Appendix Table 43. Fish eggs, larvae, and juveniles collected in surface tows of a 0.5-m plankton net at station M.R. #4 (zone 1560) in the Mullica River from July through August, 1973.

Location	MR PL-4	MR PL-4	MR PL-4
Zone	1560	1560	1560
Depth (feet), water	5-7	6-8	7-12
sampled	Surface	Surface	Surface
Coll. No.	TRT-73-225	TRT-73-238	TRT-73-257
Date	23 July	10 August	21 August
Hour	1605-1610	1501-1506	1502-1507
Tide	Flood 2	Flood 1	Flood 2
Boat Heading (degrees)	130	180	130
Air Temp. (C)	27.0	27.5	24.0
Temp. (C), surface	26.5	27.0	24.0
bottom	-	-	-
Sal. (ppt), surface	10.5	0.0	6.0
bottom	-	-	-
Oxygen (ppm), surface	-	5.4	7.0
bottom	-	-	-
Secchi (feet)	3.5	1.5	3.5
Volume sampled (m^3)	114.5	124.7	74.5
Larval & Juvenile Fishes			
Anchoa mitchilli	26	7	-
Anchoa spp.	127	-	-
Menidia sp.	1	-	-
Syngnathus fuscus	-	1	-
Trinectes maculatus	1	-	-
Total species	4	2	-
Total specimens	155	8	0

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Appendix Table 44. Fish eggs, larvae, and juveniles collected in surface and bottom tows of 0.5-m plankton nets at station L.E.I. (zone 1010) in Little Egg Inlet from July through December, 1973.

Location	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL
Zone	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
Depth (feet), water sampled	12-20	12-20	12-25	12-25	14-15	14-15	30-35	30-35	12-15	12-15	13-30	13-30
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
Coll. No.	TRT-73-203	TRT-73-203	TRT-73-216	TRT-73-216	TRT-73-229	TRT-73-229	TRT-73-248	TRT-73-248	TRT-73-269	TRT-73-269	DPS-73-011	DPS-73-011
Date	11 July	11 July	23 July	23 July	10 August	10 August	21 August	21 August	6 September	6 September	19 September	19 September
Hour	1033-1038	1033-1038	1056-1101	1056-1101	1025-1030	1025-1030	1019-1024	1019-1024	1015-1020	1015-1020	0931-0936	0931-0936
Tide	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 2	Ebb 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	330	330	350	350	000	000	000	000	350	350	000	000
Air Temp. (C)	26.0	-	23.0	-	23.3	-	23.0	-	27.0	-	15.5	-
Temp. (C), surface	25.0	-	21.5	-	23.3	-	23.0	-	26.7	-	18.5	-
bottom	-	21.0	-	20.7	-	21.0	-	23.0	-	26.5	-	18.5
Sal. (ppt), surface	26.5	-	27.0	-	29.0	-	29.0	-	28.0	-	27.0	-
bottom	-	27.5	-	28.5	-	29.7	-	28.0	-	28.0	-	30.0
Oxygen (ppm), surface	-	-	7.4	-	6.6	-	4.2	-	6.1	-	7.2	-
bottom	-	-	-	8.5	-	6.6	-	3.4	-	6.2	-	7.0
Secchi (feet)	6.5	-	6.5	-	5.0	-	3.5	-	2.5	-	2.5	-
Volume sampled (m^3)	63.0	40.9	56.2	32.8	118.0	79.5	83.2	85.8	89.4	64.3	104.2	92.1
Fish eggs												
Anchoa mitchilli	6272	1096	11	6	68	408	10	7	2	2	2	1
Tautoga onitis	-	24	30	15	-	-	22	-	-	-	-	-
Tautogolabrus adspersus	-	-	5	1	-	-	-	-	-	-	-	-
Prionotus sp.	-	64	3	5	1	-	8	1	-	-	-	-
Unidentified eggs	320	120	17	87	9	48	14	6	-	-	4	1
Total eggs	6592	1304	66	114	78	456	54	14	2	2	6	2
Larval & Juvenile Fishes												
Anchoa mitchilli	-	-	-	-	-	-	-	1	1	19	-	15
Anchoa spp.	2	1	-	2	11	107	82	1	179	273	-	14
Hippocampus erectus	3	-	-	-	1	3	-	2	-	4	2	4
Syngnathus fuscus	2	3	-	1	2	28	2	13	5	30	-	19
Cynoscion regalis	-	1	-	-	2	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	-	1	-	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	-	1	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	2	1	3	-	-	-	-	-
Total species	3	3	-	3	3	4	2	4	3	4	1	4
Total specimens	7	5	0	4	16	140	87	17	185	326	2	52

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Appendix Table 44. (cont.)

Location	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL	LEI PL
Zone	1010	1010	1010	1010	1010	1010
Depth (feet), water sampled	28-33 Surface	28-33 Bottom	20-24 Surface	20-24 Bottom	15-25 Surface	15-25 Bottom
Coll. No.	TRT-73-284	TRT-73-284	TRT-73-303	TRT-73-303	TRT-73-327	TRT-73-327
Date	4 October	4 October	5 November	5 November	3 December	3 December
Hour	1000-1005	1000-1005	1030-1035	1030-1035	1135-1140	1135-1140
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1	Flood 1
Boat Heading (degrees)	350	350	340	340	000	000
Air Temp. (C)	-	-	3.0	-	9.5	-
Temp. (C), surface	21.3	-	9.5	-	9.0	-
bottom	-	20.8	-	10.2	-	8.7
Sal. (ppt), surface	26.5	-	26.5	-	30.0	-
bottom	-	28.0	-	28.5	-	30.0
Oxygen (ppm), surface	8.0	-	9.2	-	9.2	-
bottom	-	8.0	-	9.3	-	9.4
Secchi (feet)	4.5	-	4.5	-	3.5	-
Volume sampled (m^3)	95.6	78.4	102.0	93.1	65.4	60.9
Fish eggs						
Anchoa mitchilli	-	-	-	-	1	-
Unidentified eggs	71	28	-	-	-	-
Total eggs	71	28	0	0	1	0
Larval & Juvenile Fishes						
Anchoa mitchilli	-	-	-	-	-	1
Hippocampus erectus	3	-	-	-	-	-
Syngnathus fuscus	-	8	-	-	-	-
Micropogon undulatus	-	-	-	1	-	1
Ammodytes sp.	-	-	-	-	1	1
Scophthalmus aquosus	-	1	1	-	-	-
Total species	1	2	1	1	1	3
Total specimens	3	9	1	1	1	3

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Appendix Table 45. Fish eggs, larvae, and juveniles collected in surface, bottom, and oblique tows of various gear in L.E.H. (zone 2040) and Absecon Inlet (zone 2580) in March and April, 1974.

Location	L. E. H.	L. E. H.	L. E. H.	L. E. H.	L. E. H.	L. E. H.	A. I.	A. I.	A. I.
Zone	2040	2040	2040	2040	2040	2040	2580	2580	2580
Depth (feet), water	7-8	7-8	7-15	7-15	8-10	8-10	33	33	33
Type of tow	surface*	bottom*	surface*	bottom*	oblique***	oblique***	surface*	bottom*	surface**
Coll. No.	TRT-74-022	TRT-74-022	TRT-74-041	TRT-74-041	DPS-74-011	DPS-74-011	TRT-74-028	TRT-74-028	TRT-74-029
Date	12 March	12 March	26 March	26 March	8 April	8 April	15 March	15 March	20 March
Hour	0931-0936	0931-0936	1200-1205	1200-1205	0940-0943	0940-0943	0725-0755	0725-0755	2300-2330
Tide	Flood 1	Flood 1	Ebb 1	Ebb 1	High	High	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	120	120	-	-	-	-	-	-	-
Air Temp. (C)	5.0	-	4.0	-	10.0	-	-1.0	-	4.3
Temp. (C), surface	6.0	-	5.0	-	8.5	-	2.0	-	5.2
bottom	-	6.0	-	5.0	-	7.0	-	3.0	-
Sal. (ppt), surface	27.0	-	30.0	-	27.5	-	28.5	-	28.5
bottom	-	26.5	-	30.0	-	28.0	-	28.5	-
Oxygen (ppm), surface	10.4	-	10.4	-	-	-	10.2	-	-
bottom	-	10.2	-	10.2	-	-	-	10.2	-
Secchi (feet)	3.5	-	2.5	-	1.5	-	-	-	-
Volume Sampled (m^3)	62.5	57.5	70.3	65.6	4.9	4.9	-	-	-
Fish eggs									
Scophthalmus aquosus	-	3	-	-	-	-	NOT	SORTED	FOR
Unidentified eggs	1	12	23	17	23	28		EGGS	
Total eggs	1	15	23	17	23	28			
Larval and juvenile fishes									
Anguilla rostrata	-	-	-	2	-	-	-	-	2
Brevoortia tyrannus	-	-	-	1	-	-	-	-	-
Ammodytes sp.	88	21	11	4	4	13	3	1	23
Myoxocephalus sp.	-	-	-	-	-	-	-	-	1
Pseudopleuronectes americanus	7	2	-	-	2	2	1	-	2
Total species	2	2	1	3	2	2	2	1	4
Total specimens	95	23	11	7	6	15	4	1	28

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Appendix Table 45. (cont.)

Location	A. I.	A. I.	A. I.	A. I.	A. I.	A. I.	A. I.
Zone	2580	2580	2580	2580	2580	2580	2580
Depth (feet), water	33	33	33	33	33	33	33
Type of tow	surface**	surface**	surface**	surface**	surface**	surface**	surface**
Coll. No.	TRT-74-030	TRT-74-042	TRT-74-043	TRT-74-044	TRT-74-045	TRT-74-051	TRT-74-052
Date	21 March	28 March	29 March	3 April	4 April	10 April	11 April
Hour	0602-0632	2230-2300	0550-0620	2245-2315	0545-0615	2215-2245	0440-0510
Tide	Flood 2	Flood 2	Ebb 2	Ebb 2	Flood 2	Flood 2	Ebb 2
Air Temp. (C)	7.0	5.0	3.0	10.5	10.5	6.0	2.0
Temp. (C), surface	7.0	5.7	6.7	10.0	7.0	6.8	5.0
Sal. (ppt), surface	29.0	29.0	29.5	27.5	29.5	30.0	28.0
Oxygen (ppm), surface	10.1	-	10.1	9.4	10.8	9.5	11.4
Fish eggs							
	NOT		SORTED		FOR		EGGS
Larval and juvenile fishes							
Anguilla rostrata	1	-	2	-	5	5	-
Brevoortia tyrannus	1	-	-	-	-	-	1
Pholis gunnellus	-	1	-	-	-	-	-
Ammodytes sp.	48	880	608	77	360	48	18
Myoxocephalus aeneus	-	-	-	1	1	1	-
Myoxocephalus sp.	-	-	3	-	-	2	-
Paralichthys dentatus	1	-	3	-	-	-	-
Pseudopleuronectes americanus	-	5	12	8	36	30	18
Total species	4	3	5	3	4	4	3
Total specimens	51	886	628	86	402	88	37

* 0.5-m plankton net
** 1.0-m plankton net
*** 0.03-m^2 Bongo sampler

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Appendix Table 46. Fish eggs, larvae, and juveniles collected in surface, midwater, and bottom tows of 0.5- and 1-m plankton nets at the Site (zones 5254-5256) from January through November, 1974.

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255
Depth (feet), water	35-37	35-37	35-37	36-40	36-40	36-40	36-40	36-40	36-40	37-40	37-40	37-40
Type of tow	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom
Coll. No.	TRT-74-003	TRT-74-003	TRT-74-003	TRT-74-005	TRT-74-005	TRT-74-005	TRT-74-006	TRT-74-006	TRT-74-006	TRT-74-016	TRT-74-016	TRT-74-016
Date	12 January	12 January	12 January	24 January	24 January	24 January	24 January	24 January	24 January	12 February	12 February	12 February
Hour	1345-1400	1345-1400	1345-1400	1045-1100	1045-1100	1045-1100	1110-1125	1110-1125	1110-1125	1410-1425	1410-1425	1410-1425
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	High	High	High
Boat Heading (degrees)	45	45	45	50	50	50	50	50	50	45	45	45
Air Temp. (C)	0.0	0.0	0.0	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0
Temp. (C), surface	5.0	-	-	4.5	-	-	4.5	-	-	3.0	-	-
midwater	-	5.0	-	-	5.0	-	-	5.0	-	-	3.8	-
bottom	-	-	5.0	-	-	5.0	-	-	5.0	-		4.0
Sal. (ppt), surface	28.3	-	-	30.0	-	-	30.0	-	-	27.5	-	-
midwater	-	28.3	-	-	30.0	-	-	30.0	-	-	29.5	-
bottom	-	-	28.3	-	-	30.0	-	-	30.0	-	-	29.5
Oxygen (ppm), surface	10.3	-	-	10.1	-	-	10.1	-	-	12.0	-	-
midwater	-	10.4	-	-	11.0	-	-	10.8	-	-	11.6	-
bottom	-	-	10.4	-	-	10.7	-	-	10.7	-	-	11.2
Secchi (feet)	12.0	-	-	10.0	-	-	10.0	-	-	6.0	-	-
Volume Sampled (m^3)	743.9	158.8	165.4	735.2	136.7	114.3	685.7	131.4	109.8	570.6	81.2	108.3
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net
Fish eggs												
Enchelyopus cimbrius	-	-	2	1	-	-	-	-	-	-	-	-
Gadus morhua	158	20	29	6	1	-	2	-	-	1	-	-
Unidentified eggs	6	2	-	-	-	-	-	-	-	1	-	-
Total eggs	164	22	31	7	1	0	2	0	0	2	0	0
Larval and juvenile fishes												
Brevoortia tyrannus	1	-	-	4	-	-	-	-	-	-	-	-
Gadus morhua	-	1	2	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	-	1	-	-	-	-	-	-	-	-	-	-
Pholis gunnellus	-	-	-	-	-	-	-	-	-	-	1	-
Ammodytes sp.	15616	4928	355	407	240	25	303	185	49	219	39	3
Pseudopleuronectes americanus	-	-	-	-	-	-	-	-	-	2	2	-
Total species	2	3	2	2	1	1	1	1	1	2	3	1
Total specimens	15617	4930	357	411	240	25	303	185	49	221	42	3

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Appendix Table 46. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255
Depth (feet), water	38-40	38-40	38-40	38-40	38-40	38-40	35-37	35-37	35-37	-	-
Type of tow	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom	surface	bottom
Coll. No.	DPS-74-005	DPS-74-005	DPS-74-005	DPS-74-006	DPS-74-006	DPS-74-006	TRT-74-020	TRT-74-020	TRT-74-020	TRT-74-048	TRT-74-048
Date	27 February	27 February	27 February	27 February	27 February	27 February	11 March	11 March	11 March	8 April	8 April
Hour	1125-1140	1125-1140	1125-1140	1154-1209	1154-1209	1154-1209	1318-1333	1318-1333	1318-1333	1215-1230	1215-1230
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Boat Heading (degrees)	45	45	45	45	45	45	45	45	45	235	235
Air Temp. (C)	1.0	-	-	1.0	-	-	6.0	-	-	11.0	-
Temp. (C), surface	3.5	-	-	3.5	-	-	7.2	-	-	8.0	-
midwater	-	3.9	-	-	3.9	-	-	7.3	-	-	-
bottom	-	-	4.0	-	-	4.0	-	-	7.2	-	7.5
Sal. (ppt), surface	27.8	-	-	27.8	-	-	30.0	-	-	30.0	-
midwater	-	28.5	-	-	28.5	-	-	30.0	-	-	-
bottom	-	-	29.5	-	-	29.5	-	-	30.0	-	30.0
Oxygen (ppm), surface	9.8	-	-	9.8	-	-	9.3	-	-	10.2	-
midwater	-	9.6	-	-	9.6	-	-	9.2	-	-	-
bottom	-	-	9.6	-	-	9.6	-	-	9.2	-	10.0
Secchi (feet)	7.0	-	-	7.0	-	-	23.0	-	-	8.0	-
Volume Sampled (m^3)	800.8	157.4	157.4	782.4	152.3	152.4	754.0	139.2	90.6	234.9	232.8
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	0.5m net	0.5m net
Fish eggs											
Enchelyopus cimbrius	-	-	-	-	-	-	6	1	3	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	199	99
Unidentified eggs	2	-	-	-	-	-	84	4	8	-	-
Total eggs	2	0	0	0	0	0	90	5	11	199	99
Larval and juvenile fishes											
Gadus morhua	-	1	-	-	-	-	-	-	-	-	-
Pholis gunnellus	-	-	-	-	1	-	-	-	3	-	1
Ammodytes sp.	1481	680	125	2012	75	436	77	238	131	-	156
Myoxocephalus sp.	-	-	-	-	-	-	-	-	-	-	1
Pseudopleuronectes americanus	11	16	-	10	2	12	-	6	33	-	8
Total species	2	3	1	2	3	2	1	2	3		4
Total specimens	1492	697	125	2022	78	448	77	244	167	0	166

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Appendix Table 46. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5255	5255	5255	5255	5255	5255	5240	5240	5258	5258	5258	5258
Depth (feet), water	35	35	-	-	32-36	32-56	-	-	41-42	41-42	40	40
Type of tow	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom
Coll. No.	TRT-74-063	TRT-74-063	TRT-74-069	TRT-74-069	TRT-74-077	TRT-74-077	TRT-74-080	TRT-74-080	TRT-74-084	TRT-74-084	TRT-74-085	TRT-74-085
Date	8 May	8 May	21 May	21 May	5 June	5 June	20 June	20 June	20 June	20 June	20 June	20 June
Hour	0915-0930	0915-0930	1100-1110	1100-1110	1525-1540	1525-1540	1620-1635	1620-1635	2030-2045	2030-2045	2210-2225	2210-2225
Tide	Flood 2	Flood 2	Flood 2	Flood 2	Flood 1	Flood 1	Flood 1	Flood 1	Flood 2	Flood 2	Ebb 1	Ebb 1
Boat Heading (degrees)	45	45	215	215	45	45	45	45	45	45	45	45
Air Temp. (C)	9.5	-	17.0	-	19.0	-	24.5	-	24.0	-	21.3	-
Temp. (C), surface	11.3	-	15.0	-	17.0	-	21.5	-	20.2	-	19.2	-
bottom	-	11.0	-	13.0	-	17.0	-	15.5	-	17.0	-	16.0
Sal. (ppt), surface	30.0	-	30.0	-	29.0	-	29.0	-	30.0	-	30.0	-
bottom	-	30.0	-	30.5	-	29.0	-	30.3	-	30.3	-	30.0
Oxygen (ppm), surface	9.3	-	8.4	-	8.1	-	7.0	-	7.2	-	7.8	-
bottom	-	8.8	-	7.5	-	7.3	-	6.2	-	7.8	-	-
Secchi (feet)	10.5	-	5.5	-	9.0	-	7.0	-	-	-	-	-
Volume Sampled (m^3)	130.6	132.7	129.7	151.1	136.6	154.4	193.1	187.8	180.0	204.0	163.6	204.1
Gear	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net
Fish eggs												
Anchoa hepsetus	-	-	-	-	-	13	-	-	1	8	1	-
Anchoa mitchilli	-	-	6576	87	3424	1065	1392	120	872	80	5232	196
Tautoga onitis	-	4	416	4	2672	97	816	4	192	8	32	-
Tautogolabrus adspersus	-	-	130	1	-	1	176	-	32	-	-	-
Scomber scombrus	1600	240	-	-	-	-	-	-	-	-	-	-
Prionotus sp.	-	-	-	-	-	53	32	32	312	32	1024	32
Scophthalmus aquosus	288	48	-	97	16	132	-	-	-	-	-	-
Unidentified eggs	144	12	130	60	48	50	16	28	72	144	224	260
Total eggs	2032	304	7252	249	6160	1411	2432	184	1481	272	6513	488
Larval and juvenile fishes												
Engraulidae larvae	-	-	-	-	3	4	2	1	1	3	-	-
Lophius americanus	-	-	-	-	-	2	-	-	-	-	-	4
Enchelyopus cimbrius	1	1	-	-	-	-	-	-	-	-	-	-
Atherinidae larvae	-	-	3	-	-	-	-	-	2	-	-	1
Hippocampus erectus	-	-	-	-	-	-	2	-	1	-	2	-
Syngnathus fuscus	-	-	-	1	-	24	-	40	1	47	24	6
Cynoscion regalis	-	-	-	-	-	-	-	-	-	-	-	1
Tautoga onitis	-	-	-	-	1	3	-	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	-	4	5	1	-	-	-	-	-
Mugil curema	-	-	-	-	-	-	-	-	-	-	1	-
Gobiidae larvae	-	-	-	-	-	-	-	1	-	-	-	-
Scomber scombrus	-	2	6	2	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	3	-	13	-	1	-	-	1	1
Limanda ferruginea	-	3	-	-	-	-	-	-	-	-	-	-
Pseudopleuronectes americanus	-	1	-	-	-	-	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	-	-	-	-	-	1
Total species	1	4	2	3	3	6	3	4	4	2	4	5
Total specimens	1	7	9	6	8	51	5	43	5	50	28	14

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Appendix Table 46. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5258	5258	5255	5255	5250	5250	5254	5254	5254	5254	5254	5254
Depth (feet), water	39	39	-	-	33-38	33-39	35-40	35-40	38-40	38-40	38-40	38-40
Type of tow	surface	bottom	surface	bottom	surface	surface	surface	bottom	surface	bottom	surface	bottom
Coll. No.	TRT-74-087	TRT-74-087	DPS-74-043	DPS-74-043	TRT-74-094	TRT-74-095	TRT-74-104	TRT-74-104	TRT-74-108	TRT-74-108	TRT-74-109	TRT-74-109
Date	20 June	20 June	8 July	8 July	8 July	8 July	22 July	22 July	22 July	22 July	22 July	22 July
Hour	2355-0010	2355-0010	1605-1620	1605-1620	2015-1230	2245-2300	1410-1425	1410-1425	1735-1815	1735-1815	2025-2032	2025-2032
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Flood 1	Flood 2	Ebb 2	Ebb 2	Flood 1	Flood 1	Flood 2	Flood 2
Boat Heading (degrees)	45	45	45	45	235	45	235	235	235	235	235	235
Air Temp. (C)	22.0	-	27.0	-	27.0	25.0	24.0	-	23.0	-	21.0	-
Temp. (C), surface	19.8	-	22.0	-	23.3	22.0	21.5	-	22.0	-	21.5	-
bottom	-	16.0	-	19.5	17.5	17.0	-	18.7	-	19.5	-	19.0
Sal. (ppt), surface	30.0	-	30.0	-	30.0	30.0	30.0	-	30.3	-	30.0	-
bottom	-	30.3	-	30.0	30.5	30.0	-	30.3	-	30.0	-	30.0
Oxygen (ppm), surface	8.0	-	7.4	-	7.2	7.5	7.6	-	7.9	-	7.2	-
bottom	-	5.2	-	6.4	4.4	4.8	-	6.2	-	6.2	-	6.5
Secchi (feet)	-	-	14.0	-	13.0	-	14.5	-	9.0	-	-	-
Volume Sampled (m^3)	154.8	192.1	112.4	63.0	135.2	21.5	57.0	92.8	113.2	48.8	91.5	42.3
Gear	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net
Fish eggs												
Anchoa hepsetus	-	-	28	19	-	384	-	-	-	-	-	-
Anchoa mitchilli	20672	392	2192	1440	5472	3008	5936	283	1232	128	7568	140
Tautoga onitis	-	-	1168	-	320	-	-	-	32	-	-	-
Tautogolabrus adspersus	-	-	64	-	64	-	-	-	-	-	-	-
Prionotus sp.	192	8	160	24	640	1152	160	2	88	6	144	10
Unidentified eggs	192	128	144	8	128	352	368	20	768	8	416	3
Total eggs	21056	528	3756	1491	6624	4896	6464	305	2120	142	8128	153
Larval and juvenile fishes												
Engraulidae larvae	7	1	6	125	NOT PROCESSED FOR LARVAE	NOT PROCESSED FOR LARVAE	3	94	6	128	3	1
Atherinidae larvae	-	-	-	-			-	-	1	-	-	-
Hippocampus erectus	-	-	-	-			-	-	1	-	-	-
Syngnathus fuscus	23	-	-	13			-	67	-	3	-	18
Pomatomus saltatrix	-	-	-	-			8	-	20	-	2	-
Cynoscion regalis	1	1	-	100			-	2	-	2	-	-
Menticirrhus saxatilis	-	-	-	-			1	-	-	-	-	-
Gobiidae larvae	1	-	-	-			-	6	-	1	-	-
Peprilus triacanthus	-	-	-	-			1	-	-	-	-	-
Scophthalmus aquosus	-	1	-	2			-	-	-	-	-	-
Unidentified larvae	-	-	-	-			-	-	-	1	1	-
Total species	4	3	1	4			4	4	3	4	2	2
Total specimens	32	3	6	240			13	169	28	135	6	19

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Appendix Table 46. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5254	5254	5254	5254	5255	5255	5255	5255	5255	5255	5255	5255
Depth (feet), water	38-43	38-43	38-40	38-40	35-40	35-40	35	35	45	45	45	45
Type of tow	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom
Coll. No.	TRT-74-111	TRT-74-111	TRT-74-113	TRT-74-113	TRT-74-119	TRT-74-119	TRT-74-122	TRT-74-122	TRT-74-125	TRT-74-125	TRT-74-130	TRT-74-130
Date	22 July	22 July	23 July	23 July	2 August	2 August	30 August	30 August	9 September	9 September	9 September	9 September
Hour	2234-2242	2234-2242	0015-0023	0015-0023	1320-1328	1320-1328	1445-1455	1445-1455	1238-1248	1238-1248	1935-1945	1935-1945
Tide	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Flood 1	Flood 1	Flood 2	Flood 2	Ebb 2	Ebb 2
Boat Heading (degrees)	235	235	235	235	235	235	45	45	45	45	45	45
Air Temp. (C)	-	-	21.5	-	26.0	-	25.0	-	25.5	-	22.0	-
Temp. (C), surface	21.2	-	21.4	-	24.2	-	24.0	-	22.5	-	21.0	-
bottom	-	18.8	-	18.8	-	19.5	-	19.0	-	20.5	-	21.0
Sal. (ppt), surface	30.0	-	30.0	-	30.0	-	30.5	-	30.0	-	29.0	-
bottom	-	30.0	-	30.0	-	30.0	-	31.0	-	30.0	-	30.0
Oxygen (ppm), surface	7.8	-	7.4	-	8.8	-	8.6	-	7.0	-	7.8	-
bottom	-	6.3	-	6.0	-	3.5	-	7.2	-	6.4	-	6.4
Secchi (feet)	-	-	-	-	12.0	-	-	-	16.0	-	-	-
Volume Sampled (m^3)	41.2	42.9	37.7	32.0	65.8	50.0	124.7	149.2	120.1	144.1	62.5	50.5
Gear	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net
Fish eggs												
Anchoa hepsetus	-	-	-	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	11456	324	10432	194	382	16	16	6	6	-	-	-
Prionotus sp.	544	19	1344	14	1	-	-	10	-	15	1	26
Unidentified eggs	768	283	1344	93	185	27	4	123	-	-	-	-
Total eggs	12768	626	13120	302	568	43	20	139	6	15	1	26
Larval and juvenile fishes												
Brevoortia tyrannus	-	-	-	-	-	-	-	-	1	-	-	-
Anchoa mitchilli	-	-	-	1	-	-	-	-	6	-	-	-
Engraulidae larvae	14	10	11	39	17	25	-	-	4	1	5	-
Ophidiidae larvae	-	-	-	-	-	-	-	-	-	-	3	1
Hippocampus erectus	1	-	1	-	3	-	-	-	-	-	1	-
Syngnathus fuscus	2	5	1	-	2	1	-	1	-	-	4	-
Pomatomus saltatrix	2	-	2	-	-	-	-	-	-	-	-	-
Cynoscion regalis	-	-	-	1	-	1	-	-	-	-	-	-
Menticirrhus saxatilis	-	-	1	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	1	1	-	-	-	-	-	-	-	-	-
Blenniidae larvae	-	-	-	-	-	-	-	-	1	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	14	-	-	7	2
Prionotus sp.	-	-	-	-	-	-	-	2	-	-	16	3
Etropus microstomus	-	-	-	-	1	-	-	-	3	-	-	4
Total species	4	3	6	3	4	3		3	5	1	6	4
Total specimens	19	16	17	41	23	27	0	17	15	1	36	10

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Appendix Table 46. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255
Depth (feet), water	35-37	35-37	35-37	35-37	-	-	35-43	35-43	38-43	38-43	38-42	38-42
Type of tow	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom	surface	bottom
Coll. No.	TRT-74-131	TRT-74-131	TRT-74-133	TRT-74-133	TRT-74-136	TRT-74-136	TRT-74-139	TRT-74-139	TRT-74-145	TRT-74-145	TRT-74-151	TRT-74-151
Date	9 September	9 September	9 September	9 September	30 September	30 September	7 October	7 October	21 October	21 October	4 November	4 November
Hour	2112-2122	2112-2122	2330-2340	2330-2340	1025-1035	1025-1035	1207-1217	1207-1217	1215-1225	1215-1225	1502-1517	1502-1517
Tide	Flood 1	Flood 1	Flood 1	Flood 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Ebb 2	Ebb 2
Boat Heading (degrees)	45	45	45	45	45	45	45	45	45	45	45	45
Air Temp. (C)	22.0	-	22.0	-	17.0	-	18.0	-	7.0	-	17.0	-
Temp. (C), surface	20.5	-	20.5	-	18.5	-	17.0	-	13.0	-	15.0	-
bottom	-	20.5	-	20.7	-	18.9	-	16.5	-	13.2	-	14.0
Sal. (ppt), surface	29.0	-	28.5	-	30.0	-	29.9	-	30.0	-	30.5	-
bottom	-	30.0	-	29.5	-	30.0	-	30.0	-	30.0	-	30.0
Oxygen (ppm), surface	7.6	-	7.9	-	7.9	-	8.2	-	9.1	-	8.2	-
bottom	-	7.2	-	8.4	-	7.6	-	7.8	-	9.0	-	7.9
Secchi (feet)	-	-	-	-	4.0	-	8.5	-	17.5	-	10.0	-
Volume Sampled (m^3)	120.1	145.8	177.1	74.5	121.0	46.0	134.2	145.6	99.3	91.3	199.5	194.4
Gear	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net	0.5m net
Fish eggs												
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	5	10
Anchoa mitchilli	-	1	14	1	-	-	-	-	-	-	-	-
Urophycis regius	-	-	-	-	-	-	-	-	-	2	-	-
Prionotus sp.	-	82	3	133	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	34	3	159	141	-	-
Unidentified eggs	1	3	-	6	6	1	-	-	-	-	2	1
Total eggs	1	86	17	140	6	1	34	3	159	143	7	11
Larval and juvenile fishes												
Anchoa hepsetus	-	1	-	-	-	-	-	-	-	-	-	-
Engraulidae larvae	-	-	10	1	-	-	-	-	-	-	-	-
Urophycis sp.	-	-	-	-	-	5	-	-	-	-	-	-
Ophidiidae larvae	-	1	7	4	2	-	-	-	-	-	-	-
Hippocampus erectus	1	-	3	-	-	-	-	-	-	-	-	-
Syngnathus fuscus	3	-	1	2	-	2	1	-	-	-	-	-
Micropogon undulatus	-	-	-	-	-	5	-	1	-	-	-	-
Gobiidae larvae	-	-	-	4	-	-	-	10	-	-	-	-
Prionotus sp.	6	3	14	2	-	2	-	-	-	-	-	-
Etropus microstomus	-	1	-	5	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	1	-
Unidentified larvae	-	-	1	-	-	-	-	-	-	-	-	-
Total species	3	4	5	6	1	4	1	2			1	
Total specimens	10	6	36	18	2	14	1	11	0	0	1	0

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Appendix Table 46. (cont.)

Location	Site	Site
Zone	5255	5255
Depth (feet), water	40-43	40-43
Type of tow	surface	bottom
Coll. No.	TRT-74-158	TRT-74-158
Date	18 November	18 November
Hour	1015-1030	1015-1030
Tide	High	High
Boat Heading (degrees)	45	45
Air Temp. (C)	10.0	-
Temp. (C), surface	10.7	-
bottom	-	11.3
Sal. (ppt), surface	30.0	-
bottom	-	30.5
Oxygen (ppm), surface	9.7	-
bottom	-	9.6
Secchi (feet)	10.0	-
Volume Sampled (m^3)	166.7	92.1
Gear	0.5m net	0.5m net
Fish eggs		
Brevoortia tyrannus	36	119
Ammodytes sp.	-	1
Scophthalmus aquosus	1	-
Unidentified eggs	1	2
Total eggs	38	122
Larval and juvenile fishes		
Scophthalmus aquosus	2	-
Unidentified larvae	-	1
Total species	1	
Total specimens	2	1

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Appendix Table 47. Fish eggs, larvae, and juveniles collected in surface, midwater, bottom, and oblique tows of various gear Landward of Site (zone 5150) from January through November, 1974.

Location	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site
Zone	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150
Depth (feet), water	16-20	16-20	16-20	16-18	16-18	16-18	17-18	17-18	17-18	15-17	15-17	15-17
Type of tow	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom
Coll. No.	TRT-74-004	TRT-74-004	TRT-74-004	TRT-74-008	TRT-74-008	TRT-74-008	TRT-74-017	TRT-74-017	TRT-74-017	DPS-74-008	DPS-74-008	DPS-74-008
Date	12 January	12 January	12 January	24 January	24 January	24 January	12 February	12 February	12 February	27 February	27 February	27 February
Hour	1432-1447	1432-1447	1432-1447	1329-1344	1329-1344	1329-1344	1446-1501	1446-1501	1446-1501	1416-1431	1416-1431	1416-1431
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Boat Heading (degrees)	45	45	45	50	50	50	45	45	45	45	45	45
Air Temp. (C)	1.0	-	-	4.0	-	-	4.0	-	-	0.0	-	-
Temp. (C), surface	5.0	-	-	5.0	-	-	2.8	-	-	3.5	-	-
midwater	-	4.5	-	-	5.0	-	-	3.0	-	-	3.5	-
bottom	-	-	4.5	-	-	5.0	-	-	3.5	-	-	3.8
Sal. (ppt), surface	28.0	-	-	29.5	-	-	28.0	-	-	28.0	-	-
midwater	-	28.0	-	-	29.5	-	-	29.5	-	-	28.5	-
bottom	-	-	28.1	-	-	29.0	-	-	29.5	-	-	29.0
Oxygen (ppm), surface	9.0	-	-	10.6	-	-	12.0	-	-	11.2	-	-
midwater	-	10.5	-	-	10.6	-	-	11.5	-	-	11.2	-
bottom	-	-	10.4	-	-	10.6	-	-	11.2	-	-	11.2
Secchi (feet)	6.0	-	-	6.8	-	-	6.5	-	-	7.0	-	-
Volume Sampled (m^3)	399.6	89.0	106.2	681.6	120.0	110.8	584.9	80.2	103.5	656.5	136.1	199.8
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net
Fish eggs												
Enchelyopus cimbrius	-	-	-	-	-	-	1	-	1	-	-	-
Gadus morhua	25	7	10	3	-	-	1	-	-	-	-	-
Unidentified eggs	1	-	1	-	1	-	-	-	-	2	-	-
Total eggs	26	7	11	3	1	0	2	0	1	2	0	0
Larval and juvenile fishes												
Gadus morhua	2	-	-	-	-	-	-	-	-	-	-	-
Ammodytes sp.	10272	1600	840	1696	413	35	160	60	8	584	228	102
Myoxocephalus octodecemspinosus	-	-	-	-	-	-	-	-	-	-	-	2
Pseudopleuronectes americanus	-	-	-	-	-	-	5	-	3	8	2	18
Total species	2	1	1	1	1	1	2	1	2	2	2	3
Total specimens	10274	1600	840	1696	413	35	165	60	11	592	230	122

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Appendix Table 47. (cont.)

Location	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site
Zone	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150	5150
Depth (feet), water	18-20	18-20	18-20	-	-	21-23	21-23	18-20	18-20	22	22
Type of tow	surface	midwater	bottom	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique
Coll. No.	TRT-74-021	TRT-74-021	TRT-74-021	TRT-74-049	TRT-74-049	TRT-74-061	TRT-74-061	TRT-74-067	TRT-74-067	TRT-74-081	TRT-74-081
Date	11 March	11 March	11 March	8 April	8 April	29 April	29 April	21 May	21 May	20 June	20 June
Hour	1358-1413	1358-1413	1358-1413	1245-1300	1245-1300	1725-1740	1725-1740	0850-0900	0850-0900	1725-1740	1725-1740
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 1	Flood 1
Boat Heading (degrees)	45	45	45	235	235	235	235	45	45	45	45
Air Temp. (C)	6.0	-	-	11.0	11.0	16.2	16.2	15.0	15.0	24.5	24.5
Temp. (C), surface	5.5	-	-	8.0	8.0	12.7	12.7	15.5	15.5	21.0	21.0
midwater	-	5.5	-	-	-	-	-	-	-	-	-
bottom	-	-	6.0	8.0	8.0	10.5	10.5	14.0	14.0	17.0	17.0
Sal. (ppt), surface	30.0	-	-	30.0	30.0	30.0	30.0	30.0	30.0	29.5	29.5
midwater	-	30.0	-	-	-	-	-	-	-	-	-
bottom	-	-	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	10.0	-	-	9.8	9.8	10.3	10.3	9.0	9.0	6.6	6.6
midwater	-	10.0	-	-	-	-	-	-	-	-	-
bottom	-	-	9.6	9.9	9.9	9.4	9.4	7.8	7.8	6.6	6.6
Secchi (feet)	6.5	-	-	-	-	5.0	5.0	5.0	5.0	8.0	8.0
Volume Sampled (m^3)	711.1	136.8	110.2	164.7*	164.7	126.2*	126.2	90.5	91.9	139.7	138.1
Gear	1.0m net	0.5m net	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs											
Brevoortia tyrannus	-	-	-	-	-	-	-	1	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	736	808	2272	1808
Tautoga onitis	-	-	-	-	-	-	-	28	-	16	48
Scomber scombrus	-	-	-	-	-	276	300	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	16	32
Scophthalmus aquosus	-	-	-	95	83	53	67	40	36	-	-
Unidentified eggs	3	4	-	-	-	3	-	40	92	32	16
Total eggs	3	4	0	95	83	332	367	845	936	2336	1904
Larval and juvenile fishes											
Brevoortia tyrannus	-	-	-	-	1	-	-	1	-	-	-
Engraulidae larvae	-	-	-	-	-	-	-	-	-	928	1024
Atherinidae larvae	-	-	-	-	-	-	-	-	-	3	-
Hippocampus erectus	-	-	-	-	-	-	-	-	-	1	-
Syngnathus fuscus	-	-	-	-	-	-	-	6	4	21	13
Cynoscion regalis	-	-	-	-	-	-	-	-	-	8	14
Pholis gunnellus	-	-	2	5	7	-	-	-	-	-	-
Ammodytes sp.	1888	370	336	200	192	5	3	-	-	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	29	51
Myoxocephalus sp.	1	-	-	-	1	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	2	-	-
Limanda ferruginea	-	-	-	-	-	1	1	-	-	-	-
Pseudopleuronectes americanus	36	11	23	43	46	38	30	-	-	-	-
Tetraodontiformes larvae	-	-	-	-	-	-	-	-	-	1	2
Unidentified larvae	-	-	-	-	-	-	-	-	-	-	2
Total species	3	2	3	3	5	3	3	2	2	7	5
Total specimens	1925	381	361	248	247	44	34	7	6	991	1106

* Estimated volume

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Appendix Table 47. (cont.)

Location	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site	Landward of Site
Zone	5150	5150	5150	5150	5150	5150	5150
Depth (feet), water	20-22	20-22	16-18	16-18	23	15-17	18-20
Type of tow	star. oblique	port oblique	star. oblique	port oblique	oblique	oblique	oblique
Coll. No.	TRT-74-106	TRT-74-106	TRT-74-120	TRT-74-120	TRT-74-134	TRT-74-143	TRT-74-156
Date	22 July	22 July	30 August	30 August	30 September	21 October	18 November
Hour	1620-1635	1620-1635	1334-1348	1334-1348	0930-0940	1100-1115	0905-0920
Tide	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 1	Flood 2	Flood 2
Boat Heading (degrees)	235	235	45	45	45	45	45
Air Temp. (C)	23.0	23.0	26.0	26.0	17.0	9.0	10.0
Temp. (C), surface	23.0	23.0	25.0	25.0	17.5	13.0	10.0
bottom	22.3	22.3	22.0	22.0	18.2	12.4	11.0
Sal. (ppt), surface	30.0	30.0	29.5	29.5	30.0	30.0	30.0
bottom	30.0	30.0	31.0	31.0	30.0	30.0	30.0
Oxygen (ppm), surface	6.4	6.4	6.4	6.4	7.8	8.0	9.7
bottom	5.9	5.9	6.8	6.8	7.8	8.2	9.5
Secchi (feet)	6.0	6.0	-	-	2.5	15.0	10.0
Volume Sampled (m^3)	120.4	120.4*	114.3	114.3*	72.4	117.0	141.9
Gear	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo
Fish eggs														
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	10	
Anchoa mitchilli	1728	1704	12	-	-	-	-	-	-	-	-	-	-	
Urophycis regius	-	-	-	-	-	-	-	-	-	2	-		-	
Tautoga onitis	280	360	-	-	-	-	-	-	-	-	-		-	
Tautogolabrus adspersus	8	-	-	-	-	-	-	-	-	-	-		-	
Prionotus sp.	-	8	1	-	-	-	-	-	-	-	-		-	
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	64	-		-	
Unidentified eggs	8	56	1	-	-	-	-	-	-	-	-		-	
Total eggs	2024	2128	14	0	0	66	10							
Larval and juvenile fishes														
Anchoa mitchilli	-	-	11	13	-	-	-							
Engraulidae larvae	625	565	25	11	-	-	-							
Ophidiidae larvae	-	-	-	-	1	-	-							
Hippocampus erectus	1	1	-	1	-	-	-							
Syngnathus fuscus	-	2	16	11	1	-	-							
Pomatomus saltatrix	1	-	-	-	-	-	-							
Cynoscion regalis	-	1	-	-	-	-	-							
Micropogon undulatus	-	-	-	-	1	-	-							
Blenniidae larvae	-	-	-	1	-	-	-							
Gobiidae larvae	7	4	560	455	1	-	-							
Prionotus sp.	-	-	-	-	1	-	-							
Scophthalmus aquosus	-	-	-	-	-	-	1							
Unidentified larvae	-	-	-	21	-	-	-							
Total species	4	5	4	6	5		1							
Total specimens	634	573	612	513	5	0	1							

* Estimated volume.

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Appendix Table 48. Fish eggs, larvae, and juveniles collected in oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo at the Site (zones 5254-5256) in March and from May through November, 1974.

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5255	5255	5255	5255	5260	5260	5255	5255	5255	5255	5255	5255
Depth (feet), water	-	-	-	-	35-40	35-40	-	-	34-37	34-37	32-36	32-36
Type of tow	oblique	oblique	star oblique	port oblique	star oblique	port oblique	star oblique	port oblique	star oblique	port oblique	star oblique	port oblique
Coll. No.	TRT-74-034	TRT-74-034	TRT-74-047	TRT-74-047	TRT-74-058	TRT-74-058	TRT-74-062	TRT-74-062	TRT-74-068	TRT-74-068	TRT-74-076	TRT-74-076
Date	25 March	25 March	8 April	8 April	29 April	29 April	8 May	8 May	21 May	21 May	5 June	5 June
Hour	1345-1400	1405-1420	1155-1210	1155-1210	1325-1340	1325-1340	0840-0855	0840-0855	1035-1045	1035-1045	1500-1515	1500-1515
Tide	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Flood 2	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Boat Heading (degrees)	45	45	235	235	235	235	45	45	45	45	45	45
Air Temp. (C)	0.0	0.0	11.0	11.0	-	-	9.5	9.5	17.0	17.0	19.0	19.0
Temp. (C), surface	5.5	5.5	8.0	8.0	13.0	13.0	11.3	11.3	15.0	15.0	17.0	17.0
bottom	5.0	5.0	7.5	7.5	11.0	11.0	11.0	11.0	13.0	13.0	17.0	17.0
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	29.0	29.0
bottom	30.0	30.0	30.0	30.0	30.5	30.5	30.0	30.0	30.5	30.5	29.0	29.0
Oxygen (ppm), surface	8.5	8.5	10.2	10.2	9.0	9.0	9.3	9.3	8.4	8.4	8.1	8.1
bottom	8.4	8.4	10.0	10.0	9.0	9.0	8.8	8.8	7.5	7.5	7.3	7.3
Secchi (feet)	12.5	12.5	8.0	8.0	12.0	12.0	10.5	10.5	5.5	5.5	9.0	9.0
Volume Sampled (m^3)	143.0	130.9	138.4*	138.4	133.0*	133.0	104.2	109.7	73.6	74.1	125.4	130.0
Gear	0.5m plankton net	0.5m plankton net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs												
Anchoa hepsetus	-	-	-	-	-	-	-	-	-	-	2	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	334	272	5200	4208
Tautoga onitis	-	-	-	-	-	-	-	-	-	20	192	48
Tautogolabrus adspersus	-	-	-	-	-	-	8	-	4	-	-	-
Scomber scombrus	-	-	-	-	79	83	396	444	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	8	-	-	-	16	16
Scophthalmus aquosus	-	-	131	109	221	191	52	132	20	52	48	-
Unidentified eggs	5	1	-	-	-	10	24	16	40	4	96	176
Total eggs	5	1	131	109	300	284	488	592	398	348	5554	4448
Larval and juvenile fishes												
Engraulidae larvae	-	-	-	-	-	-	-	-	-	-	11	11
Lophius americanus	-	-	-	-	-	-	-	-	-	-	4	1
Enchelyopus cimbrius	-	-	-	1	1	-	3	2	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	-	2	1	-	-
Tautoga onitis	-	-	-	-	-	-	-	-	-	-	2	-
Tautogolabrus adsperus	-	-	-	-	-	-	-	-	-	-	9	22
Ammodytes sp.	631	605	86	68	3	2	2	1	1	1	-	-
Scomber scombrus	-	-	-	-	-	-	1	1	12	13	1	1
Peprilus triacanthus	-	-	-	-	-	-	-	-	-	-	-	1
Scophthalmus aquosus	-	-	-	-	-	1	-	-	3	1	5	3
Limanda ferruginea	-	-	-	-	-	-	4	-	-	-	-	-
Pseudopleuronectes americanus	27	18	11	8	2	-	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	-	-	-	-	-	1
Total species	2	2	2	3	3	2	4	3	4	4	6	7
Total specimens	658	623	97	77	6	3	10	4	18	16	32	40

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Appendix Table 48. (cont.)

Location	Site		Site		Site		Site		Site		Site		Site		Site		Site	
Zone	5258		5258		5258		5258		5258		5258		5255		5255		5254	
Depth (feet), water	37		37		41-42		41-42		39		39		-		-		38-40	
Type of tow	star oblique		port oblique		star oblique		port oblique		star oblique		port oblique		star oblique		port oblique		star oblique	
Coll. No.	TRT-74-079		TRT-74-079		TRT-74-083		TRT-74-083		TRT-74-086		TRT-74-086		DPS-74-042		DPS-74-042		TRT-74-107	
Date	20 June		20 June		20 June		20 June		20 June		20 June		8 July		8 July		22 July	
Hour	1600-1615		1600-1615		2005-2020		2005-2020		2340-2355		2340-2355		1630-1645		1630-1645		1708-1723	
Tide	Flood 1		Flood 1		Flood 2		Flood 2		Ebb 2		Ebb 2		Ebb 2		Ebb 2		Flood 1	
Boat Heading (degrees)	45		45		45		45		45		45		45		45		235	
Air Temp. (C)	24.5		24.5		24.0		24.0		22.0		22.0		27.0		27.0		23.0	
Temp. (C), surface	21.5		21.5		20.2		20.2		19.8		19.8		22.0		22.0		22.0	
bottom	15.5		15.5		17.0		17.0		16.0		16.0		19.5		19.5		19.5	
Sal. (ppt), surface	29.0		29.0		30.0		30.0		30.0		30.0		30.0		30.0		30.3	
bottom	30.3		30.3		30.3		30.3		30.3		30.3		30.0		30.0		30.0	
Oxygen (ppm) surface	7.0		7.0		7.2		7.2		8.0		8.0		7.4		7.4		7.9	
bottom	6.2		6.2		7.8		7.8		5.2		5.2		6.4		6.4		6.2	
Secchi (feet)	7.0		7.0		-		-		-		-		14.0		14.0		9.0	
Volume Samples (m^3)	129.7		126.8		127.6		125.5		138.4		136.2		122.4		128.8		132.3	
Gear	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo
Fish eggs																		
Anchoa hepsetus	-	-	-	1	-	-	-	-	-	-	-	6	6	-	-	-	-	-
Anchoa mitchilli	2880	3824	1520	1040	4448	4000	3664	2592	2912	2624	7040	5920						
Tautoga onitis	-	48	32	8	16	32	48	32	-	-	-	-						
Tautogolabrus adspersus	32	-	-	-	-	-	-	-	-	-	-	-						
Prionotus sp.	-	16	128	32	96	32	128	96	32	32	576	288						
Unidentified eggs	64	-	112	56	32	32	16	64	384	384	896	352						
Total eggs	2976	3888	1793	1136	4592	4096	3862	2790	3328	3040	8512	6560						
Larval and juvenile fishes																		
Anchoa mitchilli	-	-	-	-	-	-	-	-	-	-	3	1						
Engraulidae larvae	240	400	39	39	9	3	173	331	75	50	57	58						
Atherinidae larvae	1	-	-	-	1	-	-	-	-	-	-	-						
Hippocampus erectus	-	1	1	1	1	1	3	3	1	4	-	1						
Syngnathus fuscus	7	13	4	3	14	21	8	8	2	5	13	12						
Centropristis striata	-	-	-	-	-	-	1	-	-	-	-	-						
Pomatomus saltatrix	-	-	-	-	-	-	-	-	10	3	-	4						
Cynoscion regalis	6	7	9	15	2	1	32	31	-	-	-	2						
Menticirrhus saxatilis	-	-	-	-	-	-	-	-	1	-	1	-						
Gobiidae larvae	8	9	-	-	-	2	-	2	-	1	-	2						
Scophthalmus aquosus	-	-	3	3	-	-	-	-	-	-	-	-						
Unidentified larvae	-	-	2	1	-	-	-	1	-	1	-	-						
Total species	5	5	5	5	5	5	5	5	5	5	4	7						
Total specimens	262	430	58	62	27	28	217	376	89	64	74	80						

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Appendix Table 48. (cont.)

Location	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site	Site
Zone	5254	5254	5255	5255	5255	5255	5255	5255	5255	5255	5255	5255
Depth (feet), water	38-40	38-40	35-40	35-40	35	35	35-40	35-37	37-40	35-43	38-43	38-42
Type of tow	star oblique	port oblique	star oblique	port oblique	oblique	oblique	oblique	oblique	oblique	oblique	oblique	oblique
Coll. No.	TRT-74-112	TRT-74-112	TRT-74-118	TRT-74-118	TRT-74-121	TRT-74-124	TRT-74-129	TRT-74-132	TRT-74-135	TRT-74-138	TRT-74-144	TRT-74-150
Date	22 July	22 July	2 August	2 August	30 August	9 September	9 September	9 September	30 September	7 October	21 October	4 November
Hour	2350-0005	2350-0005	1300-1313	1300-1313	1405-1417	1212-1227	1912-1926	2300-2316	1000-1011	1137-1147	1200-1210	1438-1453
Tide	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Flood 1	Flood 2	Ebb 2	Flood 1	Ebb 1	Ebb 1	Flood 2	Ebb 2
Boat Heading (degrees)	235	235	235	235	45	45	45	45	45	45	45	45
Air Temp. (C)	21.5	21.5	26.0	26.0	25.0	25.5	22.0	22.0	17.0	18.0	7.0	17.0
Temp. (C), surface	21.4	21.4	24.2	24.2	24.0	22.5	21.0	20.5	18.5	17.0	13.0	15.0
bottom	18.8	18.8	19.5	19.5	19.0	20.5	21.0	20.5	18.9	16.5	13.2	14.0
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.5	30.0	29.0	28.5	30.0	29.9	30.0	30.5
bottom	30.0	30.0	30.0	30.0	31.0	30.0	30.0	29.5	30.0	30.0	30.0	30.0
Oxygen (ppm) surface	7.4	7.4	8.8	8.8	8.6	7.0	7.8	7.9	7.9	8.9	9.1	8.2
bottom	6.0	6.0	3.5	3.5	7.2	6.4	6.4	8.4	7.6	7.8	9.0	7.9
Secchi (feet)	-	-	12.0	12.0	-	16.0	-	-	4.0	8.5	17.5	10.0
Volume Sampled (m^3)	119.8	119.8*	100.6	100.6*	116.7	129.7	134.0	148.4	88.4	88.3	69.5	108.9
Gear	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo	0.1m^2	Bongo
Fish eggs														
Brevoortia tyrannus	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Anchoa mitchilli	13376	11968	272	259	17	-	-	7	-	-	-	-	-	-
Prionotus sp.	1088	960	-	6	3	70	6	13	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	-	13	61	-	-
Unidentified eggs	1600	1344	328	320	30	-	1	-	1	-	-	-	1	-
Total eggs	16064	14272	600	585	50	70	7	20	1	13	61	6		
Larval and juvenile fishes														
Brevoortia tyrannus	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	-	1	-	-	-	-	-
Engraulidae larvae	36	29	45	64	-	31	7	12	-	-	-	-	-	-
Ophidiidae larvae	-	1	-	-	-	19	1	9	-	-	-	-	-	-
Hippocampus erectus	1	2	4	-	-	2	-	2	-	-	-	-	-	-
Syngnathus fuscus	6	3	7	7	5	2	5	11	3	-	-	-	-	-
Pomatomus saltatrix	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Cynoscion regalis	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Menticirrhus saxatilis	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Gobiidae larvae	-	-	-	-	18	-	3	4	2	-	-	-	-	-
Peprilus triacanthus	-	-	1	-	-	6	-	-	-	-	-	-	-	-
Prionotus sp.	-	-	-	-	-	26	39	22	1	-	-	-	-	-
Citharichthys sp.	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Etropus microstomus	-	-	1	3	1	11	-	4	-	-	-	-	-	-
Unidentified larvae	1	-	1	-	-	5	2	1	-	-	-	-	-	-
Total species	4	6	5	4	3	8	5	7	4					
Total specimens	46	37	59	76	24	103	57	65	7	0	0	0		

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Appendix Table 48. (cont.)

Location	Site
Zone	5255
Depth (feet), water	40-43
Type of tow	oblique
Coll. No.	TRT-74-157
Date	18 November
Hour	0951-1010
Tide	Flood 2
Boat Heading (degrees)	45
Air Temp. (C)	10.0
Temp. (C), surface	10.7
bottom	11.3
Sal. (ppt), surface	30.0
bottom	30.5
Oxygen (ppm), surface	9.7
bottom	9.6
Secchi (feet)	10.0
Volume Sampled (m^3)	165.2
Gear	0.1m^2 Bongo
Fish eggs	
Brevoortia tyrannus	145
Total eggs	145
Larval and juvenile fishes	
Engraulidae larvae	1
Scophthalmus aquosus	2
Total species	2
Total specimens	3

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Appendix Table 49. Fish eggs, larvae, and juveniles collected in surface, midwater, bottom, and oblique tows of various gear Seaward of the Ridge (zones 5450, 5550) from January through November, 1974.

Location	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge
Zone	5450	5450	5450	5450	5450	5450	5450	5450	5450	5550	5550	5550
Depth (feet), water	45	45	45	40-42	40-42	40-42	42	42	42	36-40	36-40	36-40
Type of tow	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom
Coll. No.	TRT-74-002	TRT-74-002	TRT-74-002	TRT-74-007	TRT-74-007	TRT-74-007	TRT-74-014	TRT-74-014	TRT-74-014	DPS-74-007	DPS-74-007	DPS-74-007
Date	12 January	12 January	12 January	24 January	24 January	24 January	12 February	12 February	12 February	27 February	27 February	27 February
Hour	1140-1155	1140-1155	1140-1155	1147-1202	1147-1202	1147-1202	1017-1032	1017-1032	1017-1032	1232-1247	1232-1247	1232-1247
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2	Flood 2
Boat Heading (degrees)	45	45	45	50	50	50	45	45	45	45	45	45
Air Temp. (C)	-1.0	-	-	4.5	-	-	1.0	-	-	1.5	-	-
Temp. (C), surface	5.0	-	-	4.8	-	-	2.0	-	-	3.5	-	-
midwater	-	5.0	-	-	5.0	-	-	2.0	-	-	3.5	-
bottom	-	-	5.0	-	-	5.0	-	-	2.1	-	-	4.0
Sal. (ppt), surface	28.5	-	-	28.5	-	-	28.5	-	-	29.7	-	-
midwater	-	28.5	-	-	29.0	-	-	29.0	-	-	29.9	-
bottom	-	-	28.5	-	-	30.0	-	-	29.5	-	-	29.9
Oxygen (ppm). surface	10.3	-	-	11.4	-	-	11.0	-	-	9.8	-	-
midwater	-	10.4	-	-	11.4	-	-	11.0	-	-	10.6	-
bottom	-	-	10.4	-	-	10.8	-	-	10.8	-	-	9.8
Secchi (feet)	15.5	-	-	14.5	-	-	8.0	-	-	12.5	-	-
Volume Sampled (m^3)	722.6	150.3	159.2	615.9	109.6	109.2	601.7	86.5	108.5	762.9	128.3	139.6
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net
Fish eggs												
Enchelyopus cimbrius	-	-	-	3	-	-	-	-	-	-	-	-
Gadus morhua	41	17	21	8	2	-	1	1	-	-	-	-
Unidentified eggs	2	-	1	-	-	-	1	-	-	1	-	-
Total eggs	43	17	22	11	2	0	2	1	0	1	0	0
Larval and juvenile fishes												
Brevoortia tyrannus	13	-	-	1	-	-	-	-	-	-	-	-
Gadus morhua	7	-	3	8	-	-	-	-	-	-	-	-
Pholis gunnellus	-	-	-	-	-	-	-	-	-	-	-	1
Ammodytes sp.	5632	287	113	808	194	39	282	29	10	1008	704	69
Pseudopleuronectes americanus	-	-	-	-	-	-	3	2	-	1	1	-
Total species	3	1	2	3	1	1	2	2	1	2	2	2
Total specimens	5652	287	116	817	194	39	285	31	10	1009	705	70

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Appendix Table 49. (cont.)

Location	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge
Zone	5450	5450	5450	5450	5450	5450	5450	5450	5450	5450	5450
Depth (feet), water	43	43	43	48	48	50-54	50-54	40-45	40-45	45	45
Type of tow	surface	midwater	bottom	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique
Coll. No.	TRT-74-019	TRT-74-019	TRT-74-019	TRT-74-046	TRT-74-046	TRT-74-059	TRT-74-059	TRT-74-070	TRT-74-070	TRT-74-078	TRT-74-078
Date	11 March	11 March	11 March	8 April	8 April	29 April	29 April	21 May	21 May	20 June	20 June
Hour	1110-1125	1110-1125	1110-1125	0910-0926	0910-0926	1545-1600	1545-1600	1205-1215	1205-1215	1448-1505	1448-1505
Tide	Ebb 1	Ebb 1	Ebb 1	High	High	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 1	Flood 1
Boat Heading (degrees)	45	45	45	235	235	235	235	235	235	variable	variable
Air Temp. (C)	3.5	-	-	9.0	9.0	16.0	16.0	17.0	17.0	23.7	23.7
Temp. (C), surface	5.0	-	-	7.0	7.0	12.0	12.0	15.7	15.7	19.2	19.2
midwater	-	5.0	-	-	-	-	-	-	-	-	-
bottom	-	-	5.0	7.2	7.2	10.0	10.0	11.8	11.8	16.9	16.9
Sal. (ppt), surface	30.1	-	-	30.0	30.0	30.0	30.0	30.0	30.0	30.3	30.3
midwater	-	30.1	-	-	-	-	-	-	-	-	-
bottom	-	-	30.1	30.0	30.0	30.5	30.5	30.5	30.5	30.3	30.3
Oxygen (ppm), surface	10.4	-	-	10.0	10.0	9.6	9.6	8.6	8.6	7.2	7.2
midwater	-	10.0	-	-	-	-	-	-	-	-	-
bottom	-	-	9.8	10.4	10.4	9.0	9.0	7.2	7.2	7.0	7.0
Secchi (feet)	20.0	-	-	8.0	8.0	-	-	7.5	7.5	10.0	10.0
Volume Sampled (m^3)	650.0	115.0	74.3	159.8*	159.8	126.4*	126.4	81.1	79.0	137.3	130.2
Gear	1.0m net	0.5m net	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs											
Brevoortia tyrannus	-	-	-	-	-	-	-	1	8	-	-
Anchoa hepsetus	-	-	-	-	-	-	-	4	8	-	-
Anchoa mitchilli	-	-	-	-	-	-	-	396	192	3792	3808
Enchelyopus cimbrius	23	-	-	-	-	-	-	-	-	-	-
Tautoga onitis	-	-	-	-	-	-	-	16	-	-	32
Tautogolabrus adspersus	-	-	-	-	-	-	-	4	-	-	32
Scomber scombrus	-	-	-	-	-	431	479	-	-	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	-	208	224
Scophthalmus aquosus	-	-	-	162	158	90	89	84	80	-	32
Unidentified eggs	69	1	-	2	-	-	-	37	64	208	384
Total eggs	92	1	0	164	158	521	568	542	352	4208	4512
Larval and juvenile fishes											
Anguilla rostrata	-	-	-	1	-	-	-	-	-	-	-
Engraulidae larvae	-	-	-	-	-	-	-	-	-	10	12
Enchelyopus cimbrius	-	-	-	-	-	5	6	-	-	-	-
Syngnathus fuscus	-	-	-	-	-	-	-	2	1	1	3
Cynoscion regalis	-	-	-	-	-	-	-	-	-	7	6
Tautoga onitis	-	-	-	-	-	-	-	1	-	-	-
Pholis gunnellus	-	-	1	-	-	-	-	-	-	-	-
Ammodytes sp.	148	221	19	52	53	2	3	-	-	-	-
Scomber scombrus	-	-	-	-	-	-	-	6	5	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	6	2	4	3
Limanda ferruginea	-	-	-	-	-	1	-	-	-	-	-
Pseudopleuronectes americanus	-	1	-	11	2	1	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	1	-	-	-	-
Total species	1	2	2	3	2	4	2	4	3	4	4
Total specimens	148	222	20	64	55	9	10	15	8	22	24

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Appendix Table 49. (cont.)

Location	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge	Seaward of Ridge
Zone	5450	5450	5450	5450	5450	5450	5450
Depth (feet), water	43-48	43-48	49	49	47-52	47	50-55
Type of tow	star. oblique	port oblique	star. oblique	port oblique	oblique	oblique	oblique
Coll. No.	TRT-74-105	TRT-74-105	TRT-74-123	TRT-74-123	TRT-74-137	TRT-74-146	TRT-74-159
Date	22 July	22 July	30 August	30 August	30 September	21 October	18 November
Hour	1520-1535	1520-1535	1607-1622	1607-1622	1140-1151	1335-1346	1151-1206
Tide	Ebb 2	Ebb 2	Flood 1	Flood 1	Ebb 2	Ebb 1	Ebb 1
Boat Heading (degrees)	235	235	45	45	45	45	45
Air Temp. (C)	23.5	23.5	24.0	24.0	19.0	7.0	11.0
Temp. (C), surface	22.0	22.0	24.0	24.0	18.0	14.0	12.0
bottom	19.2	19.2	19.0	19.0	18.2	12.5	12.0
Sal. (ppt), surface	30.0	30.0	29.5	29.5	30.0	30.0	31.0
bottom	30.0	30.0	30.5	30.5	30.0	30.0	31.0
Oxygen (ppm), surface	7.7	7.7	9.2	9.2	7.8	8.0	9.6
bottom	6.4	6.4	8.2	8.2	7.8	8.2	9.4
Secchi (feet)	38.0	38.0	-	-	6.5	31.0	25.0
Volume Sampled (m^3)	104.6	104.6*	113.4	113.4*	92.4	59.1	130.7
Gear	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs							
Brevoortia tyrannus	-	-	-	-	-	-	75
Anchoa hepsetus	-	4	-	-	-	-	-
Anchoa mitchilli	16	52	5	5	-	-	-
Urophycis regius	-	-	-	-	-	29	-
Tautoga onitis	-	8	-	-	-	-	-
Prionotus sp.	416	400	28	75	-	-	-
Scophthalmus aquosus	-	-	-	-	-	89	-
Unidentified eggs	1312	1180	8	95	3	-	-
Total eggs	1744	1644	41	175	3	118	75
Larval and juvenile fishes							
Anchoa mitchilli	2	-	-	-	1	-	-
Engraulidae larvae	27	40	2	3	-	-	-
Ophidiidae larvae	-	-	15	19	-	-	-
Hippocampus erectus	-	4	-	-	2	-	-
Syngnathus fuscus	-	2	1	-	2	-	-
Centropristis striata	-	-	1	-	-	-	-
Pomatomus saltatrix	-	2	-	-	-	-	-
Menticirrhus saxatilis	1	1	-	-	-	-	-
Blenniidae larvae	-	-	2	2	1	-	-
Gobiidae larvae	-	-	1	2	2	-	-
Prionotus sp.	-	2	4	6	-	-	-
Etropus microstomus	-	-	1	6	-	-	-
Scophthalmus aquosus	-	-	-	-	-	2	2
Unidentified larvae	-	1	-	-	-	-	-
Total species	3	6	8	6	4	1	1
Total specimens	30	52	27	38	8	2	2

* Estimated volume.

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Appendix Table 50. Fish eggs, larvae, and juveniles collected in surface, midwater, bottom, and oblique tows of various gear off Holgate (zone 5220, 5230) from January through May, 1974.

Location	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate	Off Holgate
Zone	5220	5220	5220	5220	5220	5220	5220	5220	5220	5230	5230
Depth (feet), water	48-50	48-50	48-50	40-42	40-42	40-42	45-50	45-50	45-50	36-40	36-40
Type of tow	surface	midwater	bottom	surface	midwater	bottom	surface	midwater	bottom	star. oblique	port oblique
Coll. No.	TRT-74-001	TRT-74-001	TRT-74-001	TRT-74-015	TRT-74-015	TRT-74-015	TRT-74-018	TRT-74-018	TRT-74-018	TRT-74-050	TRT-74-050
Date	12 January	12 January	12 January	12 February	12 February	12 February	11 March	11 March	11 March	8 April	8 April
Hour	1026-1041	1026-1041	1026-1041	1138-1153	1138-1153	1138-1153	0945-1000	0945-1000	0945-1000	1430-1443	1430-1443
Tide	Flood 2	Flood 2	Flood 2	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2	Flood 2	Ebb 2	Ebb 2
Boat Heading (degrees)	45	45	45	45	45	45	45	45	45	235	235
Air Temp. (C)	-3.5	-	-	2.0	-	-	5.0	-	-	9.2	9.2
Temp. (C), surface	5.0	-	-	2.9	-	-	4.7	-	-	8.2	8.2
midwater	-	4.5	-	-	3.0	-	-	5.0	-	-	-
bottom	-	-	4.0	-	-	3.2	-	-	5.0	7.5	7.5
Sal. (ppt), surface	28.3	-	-	29.5	-	-	30.0	-	-	30.0	30.0
midwater	-	28.3	-	-	29.5	-	-	30.0	-	-	-
bottom	-	-	28.1	-	-	30.0	-	-	30.1	30.0	30.0
Oxygen (ppm), surface	11.4	-	-	11.4	-	-	10.2	-	-	9.8	9.8
midwater	-	11.4	-	-	11.4	-	-	10.4	-	-	-
bottom	-	-	9.8	-	-	10.9	-	-	10.2	9.8	9.8
Secchi (feet)	13.0	-	-	16.0	-	-	27.5	-	-	6.5	6.5
Volume Sampled (m^3)	793.7	150.7	133.2	631.0	104.9	143.5	585.5	120.3	76.4	139.0*	139.0
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs											
Enchelyopus cimbrius	4	-	-	-	-	-	-	2	-	-	-
Gadus morhua	195	31	4	8	2	-	-	-	-	-	-
Scophthalmus aquosus	-	-	-	-	-	-	-	-	-	77	69
Unidentified eggs	2	4	-	7	-	-	1	6	-	-	-
Total eggs	201	35	4	15	2	0	1	8	0	77	69
Larval and juvenile fishes											
Clupea harengus	10	-	-	-	-	-	-	-	-	-	-
Gadus morhua	5	5	-	-	-	2	1	-	-	-	-
Pholis gunnellus	-	-	-	-	-	-	-	-	1	-	1
Ammodytes sp.	17088	1956	440	33	71	4	132	70	2	80	57
Myoxocephalus sp.	-	-	-	-	-	-	1	-	-	-	-
Pseudopleuronectes americanus	-	-	-	-	-	-	1	-	-	16	6
Total species	3	2	1	1	1	2	4	1	2	2	3
Total specimens	17103	1961	440	33	71	6	135	70	3	96	64

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Appendix Table 50. (cont.)

Location	Off Holgate	Off Holgate	300 yds. Off Holgate	300 yds. Off Holgate
Zone	5220	5220	5020	5020
Depth (feet), water	45-48	45-48	-	-
Type of tow	star. oblique	port oblique	star. surface	port surface
Coll. No.	TRT-74-071	TRT-74-071	TRT-74-072	TRT-74-072
Date	21 May	21 May	21 May	21 May
Hour	1300-1310	1300-1310	1342-1352	1342-1352
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	45	45	45	45
Air Temp. (C)	17.5	17.5	18.0	18.0
Temp. (C), surface	15.0	15.0	14.5	14.5
bottom	11.8	11.8	15.0	15.0
Sal. (ppt), surface	30.0	30.0	31.0	31.0
bottom	31.0	31.0	31.0	31.0
Oxygen (ppm), surface	8.6	8.6	8.1	8.1
bottom	6.8	6.8	8.3	8.3
Secchi (feet)	10.0	10.0	5.0	5.0
Volume Sampled (m^3)	89.8	90.7	67.8	69.1
Gear	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs				
Brevoortia tyrannus	-	-	1	-
Anchoa mitchilli	188	212	900	792
Lophius americanus	-	-	7	2
Tautoga onitis	28	20	188	204
Tautogolabrus adspersus	-	-	24	8
Prionotus sp.	-	-	20	-
Scophthalmus aquosus	100	80	36	32
Unidentified eggs	-	8	88	88
Total eggs	316	320	1264	1126
Larval and juvenile fishes				
Atherinidae larvae	-	-	21	19
Syngnathus fuscus	-	-	2	-
Scomber scombrus	26	18	1	-
Scophthalmus aquosus	5	10	-	1
Total species	2	2	3	2
Total specimens	31	28	24	20

* Estimated volume.

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Appendix Table 51. Fish eggs, larvae, and juveniles collected in surface, midwater, bottom, and oblique tows of various gear Landward of Brigantine Ridge (zone 5280, 5282) in January, February, April, and June, 1974.

Location	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge	Landward of Brigantine Ridge
Zone	5280	5280	5280	5280	5280	5280	5282	5282	5280	5280
Depth (feet), water	30-33	30-33	30-33	32-35	32-35	32-35	29-30	29-30	36-43	36-43
Type of tow	surface	midwater	bottom	surface	midwater	bottom	star. oblique	port oblique	star. oblique	port oblique
Coll. No.	TRT-74-009	TRT-74-009	TRT-74-009	DPS-74-009	DPS-74-009	DPS-74-009	TRT-74-060	TRT-74-060	TRT-74-082	TRT-74-082
Date	24 January	24 January	24 January	27 February	27 February	27 February	29 April	29 April	20 June	20 June
Hour	1424-1439	1424-1439	1424-1439	1517-1532	1517-1532	1517-1532	1640-1655	1640-1655	1835-1850	1835-1850
Tide	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Flood 2	Flood 2
Boat Heading (degrees)	50	50	50	45	45	45	235	235	45	45
Air Temp. (C)	5.0	-	-	0.5	-	-	16.0	16.0	27.5	27.5
Temp. (C), surface	5.0	-	-	3.0	-	-	12.2	12.2	21.0	21.0
midwater	-	5.0	-	-	3.5	-	-	-	-	-
bottom	-	-	5.0	-	-	3.5	12.0	12.0	18.9	18.9
Sal. (ppt), surface	28.5	-	-	28.0	-	-	30.0	30.0	30.0	30.0
midwater	-	30.0	-	-	29.0	-	-	-	-	-
bottom	-	-	30.0	-	-	29.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	10.6	-	-	10.6	-	-	9.4	9.4	7.8	7.8
midwater	-	10.4	-	-	9.8	-	-	-	-	-
bottom	-	-	10.2	-	-	9.8	9.0	9.0	7.0	7.0
Secchi (feet)	-	-	-	5.5	-	-	17.0	17.0	-	-
Volume Sampled (m^3)	754.1	144.6	124.3	711.8	79.2	192.3	112.8*	112.8	141.6	140.2
Gear	1.0m net	0.5m net	0.5m net	1.0m net	0.5m net	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs										
Anchoa mitchilli	-	-	-	-	-	-	-	-	8640	6208
Gadus morhua	-	-	1	-	-	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	-	-	-	-	-	128	-
Scomber scombrus	-	-	-	-	-	-	29	30	-	-
Prionotus sp.	-	-	-	-	-	-	-	-	64	-
Scophthalmus aquosus	-	-	-	-	-	-	46	76	-	-
Unidentified eggs	-	-	-	-	-	-	2	1	64	-
Total eggs	0	0	1	0	0	0	77	107	8896	6208
Larval and juvenile fishes										
Brevoortia tyrannus	-	-	1	1	-	-	-	-	-	-
Engraulidae larvae	-	-	-	-	-	-	-	-	75	109
Enchelyopus cimbrius	-	-	-	-	-	-	-	3	-	-
Gadus morhua	-	-	-	1	-	-	-	-	-	-
Atherinidae larvae	-	-	-	-	-	-	-	-	2	1
Hippocampus erectus	-	-	-	-	-	-	-	-	1	1
Syngnathus fuscus	-	-	-	-	-	-	-	-	-	3
Blenniidae larvae	-	-	-	-	-	-	-	-	-	1
Pholis gunnellus	-	-	-	-	-	4	-	-	-	-
Ammodytes sp.	1520	240	63	2672	215	64	-	1	-	-
Gobiidae larvae	-	-	-	-	-	-	-	-	-	1
Myoxocephalus sp.	-	-	-	-	-	1	-	-	-	-
Paralichthys dentatus	-	-	-	-	-	2	-	-	-	-
Pseudopleuronectes americanus	-	-	-	176	-	1	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	1	-	-	-
Total species	1	1	2	4	1	5	1	2	3	6
Total specimens	1520	240	64	2850	215	72	1	4	78	116

* Estimated volume.

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Appendix Table 52. Fish eggs, larvae, and juveniles collected in surface and oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo 2.5 nautical miles off Brant Beach (zone 4340) in March and from May through November, 1974.

Location	2.5 miles off Brant Beach	2.5 miles off Brant Beach	2.5 miles off Brant Beach	2.8 miles off Brant Beach	2.8 miles off Brant Beach	300 yds. off Brant Beach	2.5 miles off Brant Beach	2.5 miles off Brant Beach	50 yds. off Brant Beach
Zone	4340	4340	4340	4340	4340	4040	4340	4340	4040
Depth (feet), water	50	40-45	40-45	55	55	-	-	-	9-15
Type of tow	3 step oblique	star. oblique	port oblique	star oblique	port oblique	surface	star. oblique	port oblique	surface
Coll. No.	TRT-74-031	TRT-74-066	TRT-74-066	TRT-74-073	TRT-74-073	DPS-74-038	DPS-74-039	DPS-74-039	TRT-74-114
Date	25 March	8 May	8 May	5 June	5 June	8 July	8 July	8 July	2 August
Hour	0920-0935	1429-1440	1429-1440	1020-1036	1020-1036	1010-1025	1106-1116	1106-1116	0809-0823
Tide	High	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Flood 2	High	High	Ebb 1
Boat Heading (degrees)	45	235	235	45	45	45	45	45	45
Air Temp. (C)	-0.5	14.0	14.0	18.0	18.0	29.0	27.0	27.0	25.0
Temp. (C), surface	5.0	11.0	11.0	7.0	7.0	19.5	22.5	22.5	21.7
bottom	4.0	10.5	10.5	15.5	15.5	17.5	16.5	16.5	21.0
Sal. (ppt), surface	30.0	29.5	29.5	28.0	28.0	30.0	30.0	30.0	30.0
bottom	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Oxygen (ppm), surface	12.0	10.4	10.4	11.1	11.1	5.8	5.5	5.5	7.3
bottom	11.2	8.8	8.8	9.4	9.4	5.2	5.0	5.0	7.0
Secchi (feet)	17.0	13.0	13.0	11.0	11.0	9.0	27.0	27.0	6.0
Volume Sampled (m^3)	164.2	69.8	73.9	128.3	132.1	208.4	57.7	61.8	214.9
Gear	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.5m net
Fish eggs									
Anchoa hepsetus	-	-	-	32	16	-	-	7	-
Anchoa mitchilli	-	-	-	136	216	438	56	94	11
Enchelyopus cimbrius	-	8	-	-	-	-	-	-	-
Urophycis chuss	-	-	-	-	16	1	-	-	-
Tautoga onitis	-	-	-	8	-	-	-	-	-
Tautogolabrus adspersus	-	-	-	16	8	-	-	-	-
Scomber scombrus	-	528	520	-	-	-	-	-	-
Prionotus sp.	-	-	-	48	96	14	172	237	2
Scophthalmus aquosus	-	88	56	56	48	-	-	-	-
Unidentified eggs	4	20	8	136	184	3	264	267	17
Total eggs	4	644	584	432	584	456	492	605	30
Larval and juvenile fishes									
Engraulidae larvae	-	-	-	-	-	85	159	402	-
Lophius americanus	-	-	-	5	4	-	-	-	-
Enchelyopus cimbrius	-	-	1	1	-	-	-	-	-
Gadus morhua	1	-	-	-	-	-	-	-	-
Atherinidae larvae	-	-	-	-	-	5	-	-	-
Hippocampus erectus	-	-	-	-	-	-	1	-	-
Syngnathus fuscus	-	-	-	2	-	-	-	-	1
Cynoscion regalis	-	-	-	-	-	1	11	26	-
Tautoga onitis	-	-	-	2	2	-	-	1	-
Tautogolabrus adspersus	-	-	-	200	264	-	-	-	-
Blenniidae larvae	2	-	-	-	-	-	-	-	-
Ammodytes sp.	170	1	-	-	-	-	-	-	-
Scomber scombrus	-	2	3	36	24	-	-	-	-
Paralichthys dentatus	1	-	-	-	-	-	-	-	-
Scophthalmus aquosus	-	-	1	3	1	-	-	-	-
Pseudopleuronectes americanus	5	-	-	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	1	-	-	-
Total species	5	2	3	7	5	3	3	3	1
Total specimens	179	3	5	249	295	92	171	429	1

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Appendix Table 52. (cont.)

Location	2.5 miles off Brant Beach	2.5 miles off Brant Beach	2.5 miles off Brant Beach	2.5 miles off Brant Beach	2.5 miles off Brant Beach
Zone	4340	4340	4340	4340	4340
Depth (feet), water	53-55	53-55	54-58	56-60	55
Type of tow	star. oblique	port oblique	oblique	oblique	oblique
Coll. No.	TRT-74-115	TRT-74-115	TRT-74-128	TRT-74-142	TRT-74-147
Date	2 August	2 August	9 September	7 October	4 November
Hour	0900-0913	0900-0913	1708-1721	1620-1630	1000-1015
Tide	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Flood 2
Boat Heading (degrees)	45	45	45	45	45
Air Temp. (C)	26.0	26.0	22.0	19.0	16.3
Temp. (C), surface	23.0	23.0	21.3	16.5	15.0
bottom	18.0	18.0	20.5	16.5	15.0
Sal. (ppt), surface	30.0	30.0	30.0	30.0	30.0
bottom	30.1	30.1	29.5	31.0	30.5
Oxygen (ppm), surface	8.0	8.0	7.0	9.5	6.4
bottom	4.8	4.8	6.4	10.0	6.2
Secchi (feet)	40.0	40.0	40.0+	12.0	26.0
Volume Sampled (m^3)	82.7	82.7*	118.8	87.7	104.0
Gear	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs					
Anchoa mitchilli	4	8	-	22	-
Urophycis regius	-	-	-	3	7
Prionotus sp.	492	416	273	-	-
Scophthalmus aquosus	-	-	-	156	10
Unidentified eggs	340	232	27	-	-
Total eggs	836	656	300	181	17
Larval and juvenile fishes					
Engraulidae larvae	32	18	22	6	-
Urophycis regius	-	-	-	1	-
Ophidiidae larvae	13	9	9	-	-
Menticirrhus saxatilis	1	-	-	-	-
Astroscopus sp.	-	1	-	-	-
Auxis sp.	1	1	-	-	-
Peprilus triacanthus	-	-	4	-	-
Prionotus sp.	32	19	23	-	-
Etropus microstomus	7	4	26	-	-
Paralichthys dentatus	-	-	-	2	-
Paralichthys oblongus	4	1	-	-	-
Scophthalmus aquosus	-	-	-	7	-
Unidentified larvae	-	1	1	9	-
Total species	7	7	5	4	
Total specimens	90	53	85	25	0

* Estimated volume.

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Appendix Table 53. Fish eggs, larvae, and juveniles collected in oblique tows of 0.5-m plankton net and a 0.1-m^2 Bongo 8 nautical miles off Little Egg Inlet (zone 5850) in March and from May through November, 1974.

	8 miles off Little Egg Inlet	8 mi Little Egg Inlet	9 miles off Little Egg Inlet	9 miles off Little Egg Inlet	9 miles off Little Egg Inlet	9 miles off Little Egg Inlet	9 miles off Little Egg Inlet	9 miles off Little Egg Inlet
Location								
Zone	5850	5850	5850	5850	5850	5850	5850	5850
Depth (feet), water	-	-	55	55	58-60	58-60	-	-
Type of tow	3 step oblique	3 step oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique
Coll. No.	TRT-74-033	TRT-74-033	TRT-74-064	TRT-74-064	TRT-74-075	TRT-74-075	DPS-74-041	DPS-74-041
Date	25 March	25 March	8 May	8 May	5 June	5 June	8 July	8 July
Hour	1155-1210	1215-1230	1125-1140	1125-1140	1317-1332	1317-1332	1538-1553	1538-1553
Tide	Ebb 1	Ebb 1	Ebb 1	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2
Boat Heading (degrees)	45	45	45	45	45	45	45	45
Air Temp. (C)	-1.0	-1.0	12.0	12.0	19.5	19.5	27.0	27.0
Temp. (C), surface	5.0	5.0	12.0	12.0	17.3	17.3	18.7	18.7
bottom	4.5	4.5	10.3	10.3	16.0	16.0	17.5	17.5
Sal. (ppt), surface	30.0	30.0	31.0	31.0	30.0	30.0	30.0	30.0
bottom	30.0	30.0	31.0	31.0	30.0	30.0	30.5	30.5
Oxygen (ppm), surface	9.0	9.0	9.8	9.8	10.2	10.2	8.2	8.2
bottom	9.0	9.0	9.2	9.2	9.2	9.2	5.8	5.8
Secchi (feet)	16.0	16.0	23.0	23.0	20.0	20.0	33.0	33.0
Volume Sampled (m^3)	163.4	167.9	76.1	80.3	136.6	141.3	64.4	73.3
Gear	0.5m net	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs								
Anchoa hepsetus	-	-	-	-	-	-	-	4
Tautoga onitis	-	-	-	-	3	10	-	-
Tautogolabrus adspersus	-	-	-	-	1	2	-	-
Scomber scombrus	-	-	3104	2624	-	-	-	-
Prionotus sp.	-	-	-	-	16	22	280	236
Scophthalmus aquosus	-	-	128	128	16	-	-	-
Unidentified eggs	1	5	-	-	27	56	448	396
Total eggs	1	5	3232	2752	63	90	728	636
Larval and juvenile fishes								
Brevoortia tyrannus	-	-	-	-	-	-	1	-
Engraulidae larvae	-	-	-	-	-	-	98	72
Lophius americanus	-	-	-	-	6	4	-	-
Enchelyopus cimbrius	-	-	1	-	5	2	-	-
Gadus morhua	-	1	-	-	-	-	-	-
Ophidiidae larvae	-	-	-	-	-	-	3	1
Cynoscion regalis	-	-	-	-	-	-	22	72
Menticirrhus saxatilis	-	-	-	-	-	-	1	-
Ammodytes sp.	187	173	-	-	-	-	-	-
Scomber scombrus	-	-	5	1	6	10	-	1
Prionotus sp.	-	-	-	-	-	-	4	3
Paralichthys oblongus	-	-	-	-	1	-	1	1
Scophthalmus aquosus	-	-	1	-	1	-	-	-
Limanda ferruginea	-	-	14	11	1	2	-	-
Pseudopleuronectes americanus	6	7	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	-	1	2
Total species	2	3	4	2	6	4	7	6
Total specimens	193	181	21	12	20	18	131	152

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Appendix Table 53. (cont.)

Location	8 miles off Little Egg Inlet	8 miles off Little Egg Inlet	8 miles off Little Egg Inlet	8 miles off Little Egg Inlet	8 miles off Little Egg Inlet
Zone	5850	5850	5850	5850	5850
Depth (feet), water	60-62	60-62	58-64	61	60-62
Type of tow	star. oblique	port oblique	oblique	oblique	oblique
Coll. No.	TRT-74-117	TRT-74-117	TRT-74-126	TRT-74-140	TRT-74-149
Date	2 August	2 August	9 September	7 October	4 November
Hour	1146-1200	1146-1200	1437-1451	1338-1350	1307-1322
Tide	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1
Boat Heading (degrees)	235	235	45	45	45
Air Temp. (C)	25.0	25.0	24.0	20.0	18.0
Temp. (C), surface	23.5	23.5	22.2	18.0	15.0
bottom	17.3	17.3	21.8	17.0	15.0
Sal. (ppt), surface	30.0	30.0	30.5	30.0	30.0
bottom	30.1	30.1	31.0	31.0	30.5
Oxygen (ppm), surface	8.0	8.0	6.7	8.0	7.9
bottom	6.0	6.0	6.0	9.2	7.0
Secchi (feet)	40.0+	40.0+	40.0+	36.0	14.0
Volume Sampled (m^3)	101.1	101.1*	126.7	67.8	81.9
Gear	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs					
Brevoortia tyrannus	-	-	-	-	55
Anchoa hepsetus	-	4	-	-	-
Anchoa mitchilli	488	-	-	-	1
Urophycis regius	-	-	-	14	12
Prionotus sp.	220	284	536	6	-
Paralichthys dentatus	-	-	-	30	3
Scophthalmus aquosus	-	-	-	67	260
Unidentified eggs	148	202	64	-	2
Total eggs	856	490	600	117	333
Larval and juvenile fishes					
Anchoa hepsetus	-	-	-	2	-
Engraulidae larvae	165	169	6	5	1
Urophycis sp.	-	-	3	-	5
Urophycis chuss	-	-	-	1	-
Urophycis regius	-	-	-	1	-
Ophidiidae larvae	46	65	3	102	-
Syngnathus fuscus	-	-	-	1	-
Centropristis striata	-	-	5	-	-
Menticirrhus saxatilis	2	-	-	-	-
Micropogon undulatus	-	-	-	3	-
Tautoga onitis	1	1	-	-	-
Auxis sp.	5	-	-	-	-
Peprilus triacanthus	2	2	-	-	-
Prionotus sp.	50	56	75	85	-
Citharichthys sp.	-	-	-	3	-
Etropus microstomus	19	27	191	42	-
Paralichthys oblongus	-	4	-	-	-
Scophthalmus aquosus	-	-	-	8	16
Unidentified larvae	3	3	-	2	-
Total species	8	7	6	10	3
Total specimens	293	327	283	255	22

* Estimated volume.

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Appendix Table 54. Fish eggs, larvae, and juveniles collected in oblique tows of a 0.5-m plankton net and a 0.1-m^2 Bongo 8 nautical miles off Brant Beach (zone 4940) in March and from May through November, 1974.

Location	8 miles off Beach Haven Crest	Brant Beach	Brant Beach	Brant Beach	Brant Beach	Brant Beach	Brant Beach	Brant Beach	Brant Beach
Zone	4940	4940	4940	4940	4940	4940	4940	4940	4940
Depth (feet), water	55	50-53	50-53	57	57	-	-	76	76
Type of Tow	3 step oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique	star. oblique	port oblique
Coll. No.	TRT-74-032	TRT-74-065	TRT-74-065	TRT-74-074	TRT-74-074	DPS-74-040	DPS-74-040	TRT-74-116	TRT-74-116
Date	25 March	8 May	8 May	5 June	5 June	8 July	8 July	2 August	2 August
Hour	1024-1039	1250-1301	1250-1301	1140-1155	1140-1155	1250-1305	1250-1305	1010-1022	1010-1022
Tide	Ebb 1	Ebb 2	Ebb 2	Ebb 2	Ebb 2	Ebb 1	Ebb 1	Ebb 1	Ebb 1
Boat Heading (degrees)	45	235	235	225	225	45	45	235	235
Air Temp. (C)	-1.0	14.5	14.5	19.0	19.0	29.0	29.0	27.2	27.2
Temp. (C), surface	4.5	11.0	11.0	16.5	16.5	23.0	23.0	23.5	23.5
bottom	5.0	10.2	10.2	14.2	14.2	16.1	16.1	17.5	17.5
Sal. (ppt), surface	30.0	31.0	31.0	29.0	29.0	30.0	30.0	30.0	30.0
bottom	30.0	31.0	31.0	29.0	29.0	30.0	30.0	30.1	30.1
Oxygen (ppm), surface	8.6	9.8	9.8	10.7	10.7	7.4	7.4	8.3	8.3
bottom	8.4	8.0	8.0	8.6	8.6	5.3	5.3	6.3	6.3
Secchi (feet)	21.0	34.0+	34.0+	16.0	16.0	40.0+	40.0+	73.0+	73.0+
Volume Sampled (m^3)	168.4	79.4	82.3	129.9	132.8	39.3	48.4	90.8	90.8*
Gear	0.5m net	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs									
Anchoa hepsetus	-	-	-	3	1	-	-	-	-
Anchoa mitchilli	-	-	-	-	1	-	-	-	-
Lophius americanus	-	-	-	-	-	1	-	-	-
Tautoga onitis	-	-	-	1	3	-	-	-	-
Scomber scombrus	-	2256	3096	-	-	-	-	-	-
Prionotus sp.	-	-	-	2	6	73	60	90	86
Scophthalmus aquosus	-	80	80	18	21	18	-	-	-
Unidentified eggs	-	-	16	17	50	175	139	53	81
Total eggs	0	2336	3192	41	82	267	199	143	167
Larval and juvenile fishes									
Ophichthyus ocellatus	-	-	-	-	-	-	-	1	-
Engraulidae larvae	-	-	-	-	-	74	53	1	2
Lophius americanus	-	-	-	2	1	-	-	-	1
Enchelyopus cimbrius	-	1	3	3	6	1	-	-	-
Urophycis chuss	-	-	-	-	-	-	-	-	1
Urophycis sp.	-	-	-	-	-	1	-	-	-
Ophidiidae larvae	-	-	-	-	-	4	6	59	79
Centropristis striata	-	-	-	-	-	-	-	2	2
Pomatomus saltatrix	-	-	-	-	-	18	8	2	4
Cynoscion regalis	-	-	-	-	-	19	8	-	-
Tautoga onitis	-	-	-	-	-	2	-	-	1
Tautogolabrus adspersus	-	-	-	2	-	2	-	7	-
Astroscopus sp.	-	-	-	-	-	-	-	-	1
Ammodytes sp.	36	-	-	-	-	-	-	-	-
Auxis sp.	-	-	-	-	-	-	-	35	43
Sarda sarda	-	-	-	-	-	2	1	3	3
Scomber scombrus	-	33	18	26	25	-	-	-	-
Peprilus triacanthus	-	-	-	-	-	-	-	37	40
Prionotus sp.	-	-	-	-	-	23	18	201	243
Bothus sp.	-	-	-	-	-	-	-	-	1
Citharichthys sp.	-	-	-	-	-	-	-	11	13
Etropus microstomus	-	-	-	-	-	5	4	183	165
Paralichthys oblongus	-	-	-	-	-	5	9	9	17
Scophthalmus aquosus	-	2	2	1	-	-	-	1	-
Limanda ferruginea	-	10	22	7	13	-	-	-	-
Pseudopleuronectes americanus	-	1	1	-	-	-	-	-	-
Unidentified larvae	-	-	-	-	-	9	13	5	9
Total species	1	5	5	6	4	12	8	14	16
Total specimens	36	47	46	41	45	165	120	557	625

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Appendix Table 54. (cont.)

Location	8 miles off Brant Beach	8 miles off Brant Beach	8 miles off Brant Beach	8 miles off Brant Beach
Zone	4940	4940	4940	4940
Depth (feet), water	76-77	76-77	76	73
Type of tow	star. oblique	port oblique	oblique	oblique
Coll. No.	TRT-74-127	TRT-74-127	TRT-74-141	TRT-74-148
Date	9 September	9 September	7 October	4 November
Hour	1550-1605	1550-1605	1510-1520	1119-1134
Tide	Ebb 1	Ebb 1	Ebb 2	Ebb 1
Boat Heading (degrees)	45	45	45	45
Air Temp. (C)	24.0	24.0	19.5	18.0
Temp. (C), surface	22.0	22.0	17.0	15.0
bottom	22.0	22.0	16.8	15.0
Sal. (ppt), surface	30.0	30.0	30.0	30.5
bottom	30.5	30.5	32.0	30.5
Oxygen (ppm), surface	6.6	6.6	8.4	7.0
bottom	6.0	6.0	8.8	6.8
Secchi (feet)	40.0+	40.0+	36.0+	32.0+
Volume Sampled (m^3)	97.2	97.2*	65.2	73.4
Gear	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo	0.1m^2 Bongo
Fish eggs				
Urophycis regius	-	-	11	3
Prionotus sp.	556	449	6	-
Paralichthys dentatus	-	-	4	-
Scophthalmus aquosus	-	-	118	78
Unidentified eggs	113	107	3	-
Total eggs	669	606	142	81
Larval and juvenile fishes				
Engraulidae larvae	22	7	11	-
Urophycis regius	-	-	1	9
Urophycis sp.	8	16	-	-
Ophidiidae larvae	9	14	25	1
Centropristis striata	2	-	-	-
Gobiidae larvae	-	2	-	-
Auxis sp.	1	-	-	-
Peprilus triacanthus	2	1	-	-
Prionotus sp.	30	52	51	-
Citharichthys sp.	-	1	-	-
Etropus microstomus	196	232	27	5
Paralichthys dentatus	-	-	2	3
Scophthalmus aquosus	-	-	12	25
Unidentified larvae	4	6	11	-
Total species	8	8	7	5
Total specimens	274	331	140	43

* Estimated volume.

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