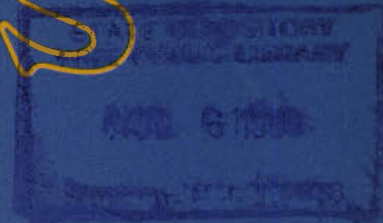


NJPB

# New Jersey Outdoors

July/August 1988  
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# New Jersey Outdoors

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Racing sloop in Red Grant Regatta on Raritan Bay. Photograph by Anthony Policastro.

## INSIDE BACK COVER

Piping Plover. Painting by Carol Decker.

## BACK COVER

Tranquility among the sand dunes on Long Beach Island. Photograph by Cornelius Hogenbirk.

(Note: Costs of publishing the magazine not covered by subscriptions are met from general revenues available to the Department of Environmental Protection.)

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## NEW JERSEY OUTDOORS CREDO

This publication is dedicated to the wise management and conservation of our natural resources and to the fostering of greater appreciation of the outdoors. The purpose of this publication is to promote proper use and appreciation of our natural, cultural, and recreational resources, and to provide information that will help protect and improve the environment of New Jersey.



# From the Editor

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## "Life is a Beach"


For many Garden Staters and tens of thousands of out-of-state vacationers who summer at the Shore, our beaches represent the epitome of summer vacation. For them, the beach does have a "life" of its own—meeting and making new friends, frolicking in the surf as waves peak and break, sunbathing, strolling in wet sand to collect shells or Cape May diamonds, or simply reading a good book as the rhythmic beating surf lulls us and provides a therapeutic connection to the natural world.

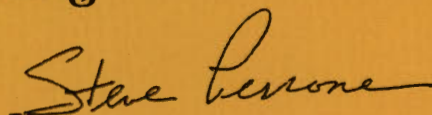
For many, the interface where ocean meets land represents the last pristine unpolluted environment. When the summer surf of '87 deposited man-made and unnatural debris on our beaches, we were both alarmed and insulted; because our right of access to and enjoyment of this uplifting natural resource were denied, we felt deprived.

Our precious resource, the Jersey Shore, gained an ally this year—the New Jersey Shore Foundation. Spearheaded by two New Jersey corporations, this non-profit foundation will raise over \$2 million from the private sector. The Foundation will award grants to organizations and communities for beach cleanup, beach preservation and public education. For more information, contact the New Jersey Shore Foundation, 1441 Irving Street, Rahway, NJ 07065 or call 201/382-1066. We gratefully thank the Foundation for this year's New Jersey Shore poster in this issue.

Yet government and the private sector can only do so much to clean up, protect and preserve the coast, the beach or even the

beachnesters we feature in this issue. Perfect Together is more than a slogan. YOU are the third component of the trinity, without which it will not work. On the beach, it is the YOUs and WEs—angler, sunworshipper, beachcomber—who must cease being the source of litter, who must heed the signs and fencing erected to protect the few remaining areas where the piping plovers nest and feed if they are to survive. Offshore, the pleasure crafter and deep sea fisherman must stop throwing overboard their plastic gear, styrofoam containers or other plastic floatable trash. And when we go home, we must spread the word and educate friends and neighbors. In the coastal plain and elsewhere, streets littered with paper, plastic, oil and discards from a disposable lifestyle, when washed with rain, flush these pollutants into sewers, streams, rivers and finally our bays and ocean.

We are fouling our own nest. If we are the source of much of the pollution, we too can be the solution. For the piping plover, its life really is a beach. If we can help the plover to survive, there is hope for our survival as well. Through cooperation, education and respect for all species in this most densely populated state, we can see that little beachnesters enjoy their stay at the Jersey Shore and survive. It's good for the environment; it's good for business as the Foundation has shown; but most importantly, it's good for YOU. 



## In this Issue


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Our traditional Jersey Shore issue takes us from Sandy Hook to Cape May Point with first time contributor Robert Santelli. As the author himself states, summer at the Shore offers more to do than any one article could present. The right of public access to the beach, sailing then and now on Barnegat Bay, and the problems of balloons and plastic pollution along our coast are featured.

As part of our blanketing the Jersey Shore, this issue focuses on the piping plover, an endangered shore bird who nests and rears young on our beaches from May to August. Several beachfront locations have been closed to all activity by state and federal agencies to study the plight and survival chances of this beach nesting bird. In addition to Carol Decker's back cover artwork and the Wildlife in New Jersey column, the center spread of the magazine features a poster of the plover by Doreen Curtin. Cooperation and understanding by all beach users are imperative if they are to survive in

this most densely populated state.

Move over Maine lobster, the story is out. Two articles feature this New Jersey seafood delicacy and the fishermen who catch butter's mate in the traditional way. Although licensed lobster pot fishermen now number fewer than 40, last year's dockside value of their catch was nearly \$4.3 million.

Another more mysterious, feared dweller of the deep is also going from dockside to dinner. Brion Babbit discusses how to catch shark and tag and release the pelagic predator as part of ongoing research by the National Marine Fisheries Service. The photograph of Skillful Angler Winner Taylor Mills with his 434 pound mako is an outstanding example of the type of big game fish catch recognized by the State. For information on the annual program, write: New Jersey Skillful Angler Awards Program, c/o New Jersey Fisherman, 1622 Beaver Dam Road, Point Pleasant, NJ 08742. 



# From Hook to Point:

## Summertime at the Jersey Shore



DICK MESEROLL

*Sailboats at sunset.*

*Island Beach anglers; Barnegat Light in background.*

*Goldenrods and Monarchs.*

*Island Beach.*

*Catamaran in surf.*

*Surf's up.*

*Amusement pier ride.*

*Cape May*

*Sandy Hook*

BY ROBERT SANTELLI

Imagine trying to describe the Jersey Shore to someone who's never been there during the summer. A difficult task? Yes, indeed. The Shore doesn't lend itself to vague descriptive phrases or overly used generalizations. It's not enough to call it a great place to spend a vacation or to explore many of New Jersey's best natural areas. You can't simply say the Shore has more and leave it at that.

There's a big difference, for instance, between Cape May, the cozy, Victorian town on the southern edge of the Shore where meticulously restored 19th century mansions stand proud behind manicured lawns and white picket fences, and, say, Seaside Heights, where the neon lights of boardwalk amusement rides burn practically all night, and the smell of sausage and pizza never seem to leave the air.

How do you compare Atlantic City's hot casino action and world-class entertainment with the charm of Bay Head or Barnegat Light?

And is there any destination as unique as the Edwin B. Forsythe National Wildlife Refuge? Or as interesting as Sandy Hook? Or as strikingly beautiful as Island Beach State Park?

The Jersey Shore—all 127 miles of it—is a classic case of a region rich in diversity. Its beaches and boardwalks, parks and preserves, museums and music halls, lighthouses, historic sites and inviting seaside resorts add up to a wonderfully special place. No one can say that the Shore is a bore and mean it. Few areas in New Jersey or, for that matter, on the entire East Coast possess such an exciting menu of things to do and see.

Part of the Gateway National Recreation Area, the six mile sandspit peninsula that is Sandy Hook is one of the most popular destinations on the Jersey Shore. Swimmers, sunbathers, surfers, windsurfers, fishermen, beachwalkers, birdwatchers, history buffs, and naturalists flock to Sandy Hook during the summer.

Stop first at the Spmaceti Visitor Center where free maps and brochures are available and where nature exhibits depict the peninsula's delicate ecology. Walk the Old Dune Trail or tour the old coastal defense gun emplacements at Fort Hancock. Spend some time in the Sandy Hook Museum, and don't forget to view the Sandy Hook lighthouse, which, built in 1764, is one of the oldest lighthouses in America.

On the bay side of Sandy Hook, the steady wind and the shallow water make for ideal windsurfing conditions. Surf fishermen have special areas designated for them on the ocean





BILL VIBBERT



THOMAS R. DUNN



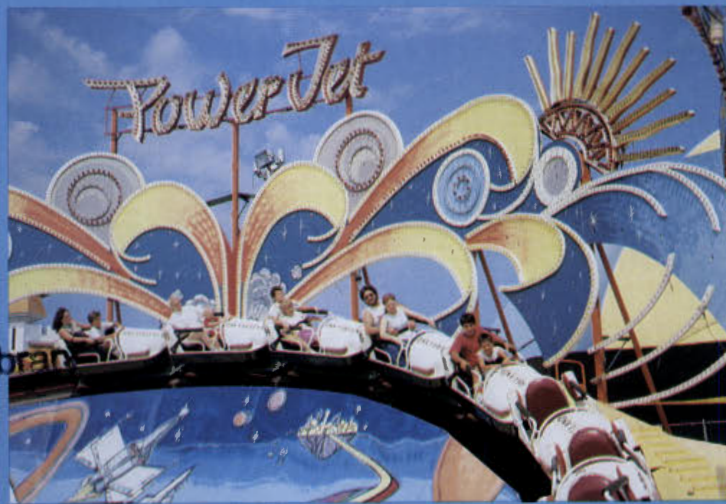
CORNELIUS HOGENBIRK



DICK MESEROLL



DICK MESEROLL



CORNELIUS HOGENBIRK





DICK MESEROLL

### Summer stroll.

side of the Hook. Beachcombers might find the shells of razor clams, Eastern oysters, Atlantic scallops or mussels. And when waves generated from low pressure weather systems build on offshore sandbars, there isn't a better spot for surfing on the north Jersey Shore than at Sandy Hook.

One of Sandy Hook's biggest summer attractions is the annual Clearwater Festival held in August. Sponsored by Monmouth County Friends of Clearwater, the two day fest, which this year is scheduled for August 20 and 21, features folksingers, ethnic singing groups and blues bands, as well as arts and crafts display, natural foods, ecology awareness discussions, and boat rides on Sandy Hook Bay.

At Seven Presidents Oceanfront Park in Long Branch, just a few miles south of Sandy Hook, surfing and windsurfing in addition to swimming and sunning are popular summer activities. At Allaire State Park in Farmingdale horseback riding, freshwater fishing, and canoeing are regularly enjoyed. Those Jersey Shore visitors who prefer to sleep under the stars than in a hotel or motel room should reserve a campsite at Allaire. No state park which offers camping is closer to shore beaches and resort areas extending from Long Branch to Island Beach State Park.

Throughout the summer Allaire sponsors craft shows, antique fairs, and flea markets just about every weekend. Contact the park (201-938-2371) for its schedule of events.

Bay Head and Mantoloking, two of the Shore's prettiest towns, are also located on Barnegat Bay. Along with their million dollar beach and bay front homes, the two towns have yacht clubs which frequently host regattas on Barnegat Bay and more than their share of top-notch sailors.

To walk along the beach at Island Beach State Park, just south of the bright lights and

boardwalk excitement of Seaside Heights, is to experience what the entire Jersey Shore looked like two hundred years ago before any thoughts of resort development were entertained. The park's precious sand dunes, plus its tall cord grass clusters, its bayberry and holly preserves, and its long stretch of isolated beach area make Island Beach a naturalist's delight.

Bicyclists and birdwatchers will also find Island Beach State Park to their liking. Running down the center of the park like a spinal cord is a flat, straight, two-lane road that is ideal for cycling. A round trip from one end of the park to the other adds up to some 16 miles. Along the way, cyclists can stop for an ocean swim or check out the wildlife displays at the Island Beach Aeolium.

The best time to view birds at Island Beach is at dawn or dusk. Shorebirds are plentiful, and during spring and fall migration periods the beach brush is alive with activity. Don't forget to bring your binoculars and insect repellent.

Long Beach Island is New Jersey's largest barrier island. It's eighteen miles long, from top to bottom, and it possesses a number of interesting natural and man-made attractions. For starters, visit Barnegat Lighthouse State Park, home of "Old Barney," the nation's most frequently photographed and painted lighthouse. From the top of it, the view of Island Beach State Park to the north and the rest of Long Beach Island to the south is exceptional.

At the Barnegat Light Museum in the town of Barnegat Light, you can see Old Barney's original lens, plus a number of displays that document the history of the lighthouse. In Beach Haven the Long Beach Island Historical Museum presents the history of the island in a series of interesting exhibits. It also has striking photos of the famous March 1962 storm which caused millions of dollars in property damage on the island.

Throughout the summer the Long Beach Island Historical Society sponsors a series of lectures on the folklore, history and ecology of the island. Also available are self-guided walking tours of Beach Haven's historic district. The pamphlets can be purchased at the museum's front desk for a small fee.

At the southernmost end of the island is the Holgate Unit of the Edwin B. Forsythe National Wildlife Refuge. Beachwalkers and birdwatchers used to spend many memorable hours on this two mile stretch of virgin beach. Holgate is home to some ten to fifteen percent of the state's endangered piping plover population. In order to boost survival rates of the plover, Holgate will be closed to pedestrians from

### State Camping Facilities

In addition to the campsites at Allaire, overnight camping facilities at Cheesequake State Park (Matawan) are close to the Sandy Hook-Longbranch beaches. Those at Bass River State Forest (New Gretna) are a short distance from beaches on Long Beach Island and those southward to Longport. For beaches from Ocean City to Cape May Point nearby camping is available at Belleplain State Forest (Woodbine). Brochures on these state camping facilities are available by writing: State Park Service Information, Division of Parks and Forestry, NJDEP, CN 404, Trenton, NJ 08625.



April 15 to August 15, the birds' nesting season, for the next three years.

Birdwatchers, however, can fill their binoculars with the sights of soaring hawks and feeding skimmers, shovelers, terns, gulls, geese, and so many more birds at the Brigantine Unit of the Forsythe Refuge. The thousands of acres of protected marshland and back bays are a main stop-off for migrating birds on their way north or south.

Before you set out on the eight mile Auto Tour Loop Road which is built atop dike impoundments, stop at the Visitor's Center for bird-related pamphlets and other literature on the refuge. Rangers there will be able to tell you what kinds of birds are currently feeding or resting in the refuge.

Those nature lovers who wish to have more "hands on" contact with the refuge might want to walk the Leeds Eco Trail or the People's Trail after completing the auto tour. It's not uncommon to spot white-tailed deer and cottontail rabbits in the brush. Red and gray fox, plus an assortment of other less visible animals, inhabit the Refuge and are occasionally seen by hikers.

Just south of the Edwin B. Forsythe National Wildlife Refuge is the Marine Mammal Stranding Center in Brigantine. Set against a backdrop of urban, glitzy Atlantic City, the Center is run by volunteers who work to rehabilitate distressed and injured sea mammals such as dolphins, whales and seals. The Center also has a small but interesting set of sea mammal fiber glass reproductions in a mini-museum that's open to the public. Visitors to the Stranding Center can also view mammals receiving treatment, providing they don't interfere with their rehabilitation.

At the Wetlands Institute in Stone Harbor both kids and parents can have fun in the museum there and then view the surrounding marshland from the Institute's observation deck atop its headquarters. Budding naturalists can also enroll in courses at the Institute and learn about marshland ecology and wildlife, nature photography and beach preservation.

There are precious few beaches on the Jersey Shore that are free during the summer. Wildwood is the exception rather than the rule. Its remarkably wide beach requires no beach badge or tag, and the sandbars offshore make for near-perfect ocean swimming conditions.

Afterwards, when you tire of sun, sand and surf, spend some time on Wildwood's boardwalk. You'll find more than enough amusement rides, arcades, eateries, and games of chance to keep you going well into the night.


At Leaming's Run Botanical Gardens in

Cape May County, a walk on any of the paths open to the public allows the visitor to experience a wonderful display of carefully manicured theme-gardens and hundreds of varieties of flowers and ferns. Unlike most botanical gardens which bloom in spring, Leaming's Run is a summer garden. If you visit Leaming's Run during July or August, you'll see and smell a dizzying display of horticultural delights.

No visit to the South Jersey Shore would be complete without spending time in Cape May, the nation's oldest seaside resort. The well-kept town's Victorian heritage is evident by the large number of restored Victorian mansions that grace its tree-lined streets and the special Victoriana festivals it hosts throughout the spring, summer, and fall.

Cape May's biggest event is Victorian Week. Held every October, the celebration includes house and walking tours, historical lectures, vaudeville and fashion shows, and seminars for those interested in the fine art of restoring a Victorian home.

While at Cape May visit Cape May Point State Park where tallies of hawk sightings each summer and fall are kept at the Hawkwatch Observation Deck opposite the park's lighthouse.

At the nearby Cape May Bird Sanctuary, birdwatchers might spot any number of winged beauties resting in the trees or feeding in the brush. At Higbee Beach Wildlife Management Area just a few miles from Cape May City, beachwalking, fall and spring birdwatching and fishing are popular activities. Portions of Higbee Beach have been closed, however, to all activities to protect piping plover nesting areas. The beaches at Cape May Point provide opportunities for recreation, relaxation, and a water's edge view as the summer sun sets on the Jersey Shore. 

**Robert Santelli**, a first time contributor, is a full-time freelance writer/photographer from Westfield. He is the author of five books, including "The Jersey Shore" (in its second printing) and soon to be published "Short Bike Rides in New Jersey." His articles have been published in *New Jersey Monthly*, *Rolling Stone*, *Surfing* and *Bicycle Rider*.

*Lifeguard drill.*



DICK MESEROLL



# Riparian Lands & Public Access to the Shore

BY DAVE CHARETTE

One inalienable right of property owners is to keep other people, including you, off their land. Signs tell you that you are "Trespassing on Private Property" and that you will be "prosecuted to the maximum extent of the law." The law usually agrees with property owners that they do have the right to keep you out.

But along the shore, there are lands which are available to all members of the public for general navigation, fishing and recreation. These areas are commonly known as "Riparian Lands" or "Tidelands."

Riparian lands are lands now or formerly flowed by the mean high water. Most of the riparian lands are underwater and are flowed by tidal waters. Riparian lands are found in bays, lagoons, rivers, wetlands and the ocean. A small strip of land below the mean high water, which is exposed during low tide, is also considered riparian lands.

On the beach, riparian lands are located on the lower portion of the beach area where the tide flows. This area is known as the "wet" portion of the beach. The "dry" portion of the beach, which extends above the mean high water line, is not riparian land and may be public or private depending on ownership. Beaches, therefore, are not always public land.

The concept of riparian lands has evolved from the "Public Trust Doctrine." The doctrine states, in general, that tidal waters and the lands which are flowed by the tides shall be preserved for the use of the public for navigation and commerce. The doctrine was established many centuries ago since tidal waterways and waterbodies were extremely important for navigation, transportation and as a food source. The original reason for the Public Trust Doctrine was to protect the public's right to tidally flowed lands. In recent times, the rights of the general public under the doctrine have been extended beyond navigation and fishing to include recreational uses such as bathing, swimming, and surfing.

As early as the 13th century, the Public Trust Doctrine was part of English Common Law. The sovereign was to hold title to tide-flowed lands in trust for the public and was obligated to protect the public's right to fish and navigate in the waters above those lands.

After the American Revolution, the English Crown's rights and obligations with respect to tidelands became vested in the states. The riparian lands were held under the guardianship of the Legislature. To regulate the use and conveyance of state riparian lands to private individuals, the *General Riparian Act* was passed in 1869. Today, the Tidelands Re-



PHOTOGRAPHS BY AUTHOR

source Council is empowered with the authority to oversee and make decisions regarding the state owned riparian lands.

When any person proposes to perform an activity in tidally flowed waters, such as the construction of a dock, a major concern is riparian rights to the land. That individual must apply to the Tidelands Resource Council for a lease, grant or other conveyance from the state to obtain the right to place that structure in riparian lands. In many circumstances, the state has granted the riparian rights to previous owners and no conveyance is needed. The riparian rights of the public, however, are still impressed on those lands even after they are granted or leased to an individual.

One interesting aspect of the riparian lands issue is that funds generated from the granting and leasing of state riparian lands are directed to the "Fund for the Support of Free Public Schools." The fund was established by the School Fund law, enacted in 1817. Since an 1894 amendment to the law, all monies received from the sales and rental of state owned riparian lands go into the school fund. Today, many aspects of the law are still in place and require that all funds generated from state riparian land transactions become part of the permanent school fund.

In New Jersey, the Public Trust Doctrine has been used to establish, maintain and protect the rights of the general public to use tidally influenced land and the water above those lands. Although the state has sold and leased



many bay and ocean tidelands to various interests, the doctrine and the public's rights are still impressed on these lands.

The main issue dealing with riparian lands is ACCESS to these areas by the public. Public access can be defined as the ability of the public to physically and visually reach and make use of the waterfront. Access is needed along the coast to reach riparian lands such as good fishing spots and public beach areas.

Access problems range from private landowners to restrictive municipal practices. Private ownership of areas adjacent to riparian lands make getting to and using the riparian lands difficult, especially when fences are erected. Limited parking facilities and municipal beach regulations often contribute to access problems for the general public.

Several beach access problems have been settled by the courts. In their decisions, the courts have relied heavily on the Public Trust Doctrine and the rights of the public related to riparian lands. One court decision noted:


**"recognizing the increasing demand for our State's beaches and the dynamic nature of the Public Trust Doctrine, we find that the**

**public must be given both access to and use of privately-owned dry sand areas as reasonably necessary. . . . The public must be afforded reasonable access to the foreshore as well as a suitable area for recreation on the dry sand.**

**The court, however, did balance the rights of private property owners by stating:**

**"this does not mean the public has an unrestricted right to cross at will over any and all property bordering on the common property. The Public Trust is satisfied so long as there is reasonable access to the sea."**

The practical implications of the Public Trust Doctrine and interpretation of the doctrine by the courts for a beachgoer or fisherman is that even where a dry sand beach area or waterfront is privately owned and the public excluded, the public cannot be excluded from the area below the mean high water line (riparian lands).

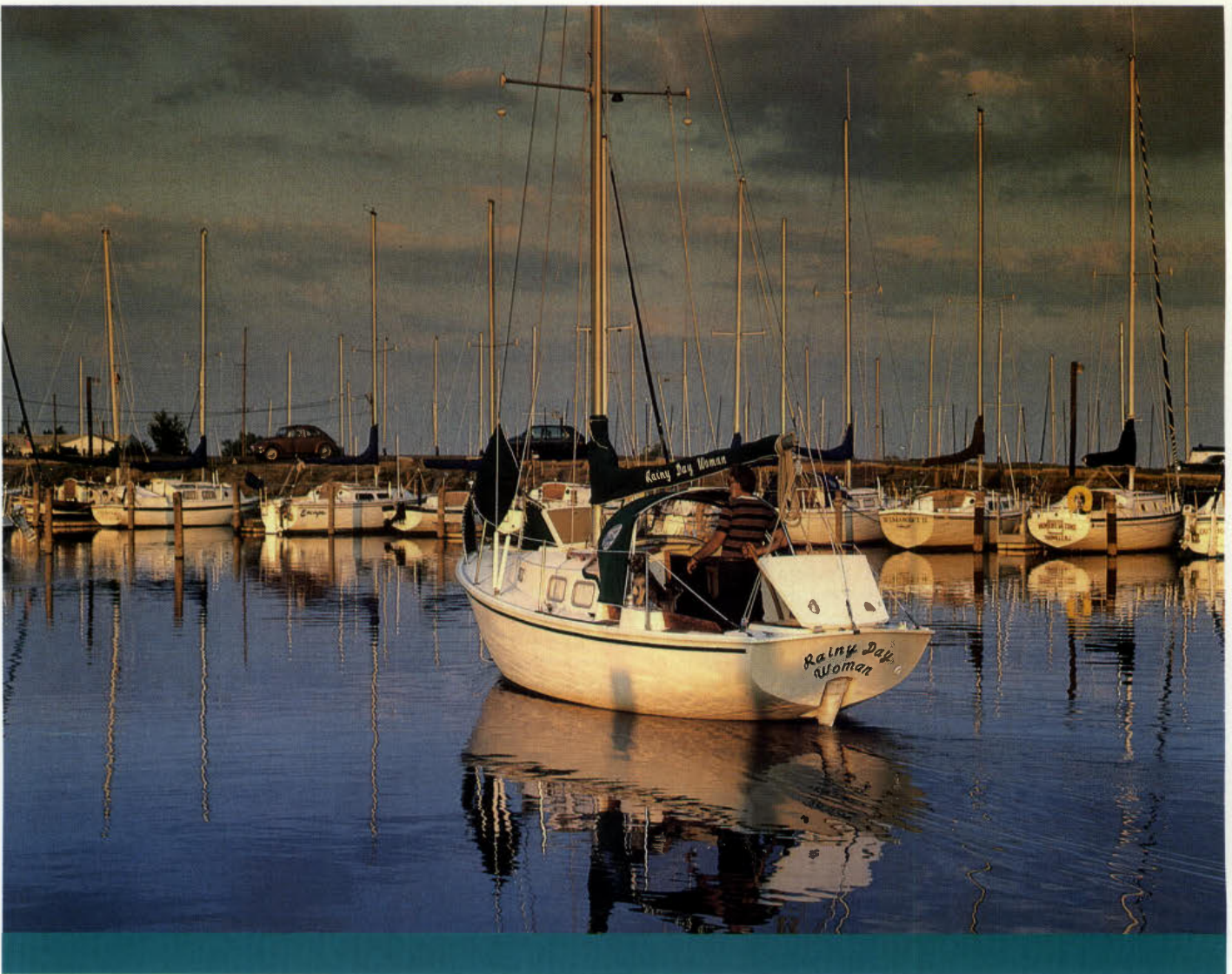
As you travel and play along the coast this summer, remember your rights to venture into riparian lands. You may need a beach badge to venture, but the recreational benefits of our riparian lands are enjoyable. 

Having written previously for NJO, **Dave Charette** may also be familiar as the editor of *The Jersey Coast*, a bulletin published by the Division of Coastal Resources. Dave also does duty as a project review officer and coastal zone specialist.

*Beach access path through dunes.*







*Returning to marina on  
Barnegat Bay.*

BY HERB SEGARS

The year was 1750, a raging sea pounded relentlessly against the peninsula shoreline, trying to reclaim a portion of its domain now belonging to the land dwellers. Ton after ton of boiling brine worked its magic on the sandy beach, inching closer to the opposite shoreline, barely a half mile away. Finally, the cool waters of the Atlantic mixed with the normally tranquil waters of Flat Bay Sound. The miracle of Nature had created a new passageway to the sea, a passageway called Cranberry Inlet. Lining both sides of the new inlet were the red-dish berries that lent the inlet an ideal appellation.

The peninsula had been breached, divided into two separate entities, the southernmost acquiring the name Island Beach while its northern counterpart was dubbed Squan Beach. To the inhabitants of the area the inlet was a blessing, reducing the travel distance to the next available outlet to the sea by twelve miles. More importantly, Cranberry Inlet enhanced the suitability of a local river town as a home port for many a sailing vessel whose owners and crew, in turn, added much needed revenue to the area.

For approximately sixty-two years, the inlet

provided a beneficial resource to the many ships that traversed its boundaries. Heavily laden square riggers began their long journeys to new markets; whaling ships with empty holds and sharpened harpoons slipped quietly out to sea; privateers whose antics often bordered on piracy used the quick access and egress to the shipping lanes in hopes of capturing a lucrative prize.

Much to the chagrin of everyone concerned, the unpredictable sea reared its mighty head in 1812, once again battering the shoreline. Wave after wave replaced the granules of beach front until the inlet was closed. The sea had contributed to the development of the area and had now foreclosed on a most important passageway. Cranberry Inlet was no more, but the benefits of more than sixty years of use would last a lifetime.

Flat Bay Sound still remains, as does the river port so dependent on its boating traffic. Names have changed but the importance of this area has been inherited by a different group of people. New names echo across the sound now: Kettle Creek, Silver Bay, Tices Shoal, Applegate Cove, Cedar Creek, Good Luck Point. Thousands of boaters traverse the reaches of Flat Bay Sound each summer, navigating past or spending time at many of these



# Anchors Away on Old Flat Bay



HERB SEGARS

*Toms River Cup.*

**Herb Segars**, long-time friend of NJO, often sees the Jersey Coast from a different point of view. A certified scuba diver and underwater photographer, Herb has colored our pages with prose and pictorials on the diverse and exotic marine life with whom we share the shore.

popular spots. If you have not guessed where we are, Flat Bay Sound was the name given to the upper reaches of Barnegat Bay, north of Barnegat Inlet. The river town is, of course, Toms River.

Barnegat Bay and Toms River were and still are spawning grounds for innumerable water sport activities. To appreciate the area's modern day legacies, a portion of its history must be explored. Traditions were born as early as the 1880s, as in the case of Henry J. West, who orchestrated a series of races on Barnegat Bay for "sneak boxes," a very popular sailing vessel during that era. Shifting ballast from side to side prior to tacking was just one of the tricky maneuvers used by "slick" sneak box sailors. Interestingly enough, a number of present day ocean racers have utilized this trick using human crew members who shift their positions, port to starboard, as a ballast adjustment.

Racing breeds both competition and rivalry. Sailors banded together, contriving strategies, in hopes of besting their competitors from "down the bay." Clubs in Bay Head, Mantoloking, Island Heights, Toms River, Seaside Park and Lavallette planted their roots as more and more sailors rose to the racing occasion.

Not to be outdone, other classes of competition emerged, Catboats, an odd looking vessel with an overly wide beam and a single mast located close to its bow, thrived in the shallower waters of the bay. Class A catboat competition began in 1871 with the initiation of the Toms River Cup, said to be the oldest purely American yachting trophy in the United States. Sporting a trophy designed by Tiffany, the rivalry for the Toms River Cup still continues, although no longer limited to Class A catboats. The most famous of the A cats are BAT, SPY and WASP. Aged by modern day standards, they are still capable of slipping gracefully across the bay. The current holders of the Toms River Cup, Robert Lostrom and Michael Frankovich raced their refurbished A cat, BAT, to claim this coveted prize for the ninth time since its first win on September 29, 1925. The cup is on display at the Toms River Yacht Club.

"E" sloops (scows), 26-foot long sailboats resembling surfboards, which carry an extraordinary amount of sail for their size, tested the stamina and sailing ability of its four crew members. International competition was initiated in 1926 between the Royal St. Lawrence Yacht Club and the best "E" scow sailors of Barnegat Bay, alternating courses each year between the course at Seaside Park and the Maple Leaf Course in Montreal, Canada. This rivalry continued until 1933. Nowadays, "E" scow sailors hone their skills and tune their vessels so that they may compete with the finest racers from the many clubs that make up the Barnegat Bay Racing Association. All with dreams of becoming the best of the best, spinnakers unfurled, screaming across the waves, the "E" scow offers an exhilaration known only to those choice few who have sampled this competition.

Early sailors spent numerous hours plying the reaches of the bay, from Bay Head south to Barnegat Inlet. The panoramas of this beautiful stretch of water make daydreams come easily. Had they been able to foresee the future, joyful songs would have rung from their souls. On almost every summer weekend, the bay is inundated with sailors of every age group and from most every walk of life, each vying for their small sliver of happiness.

At an early age, youngsters are tutored in the ways of the sea, especially with the advent of such vessels as the Sunfish and Sailfish. Each provides the education to accumulate the skills required to crew on larger and swifter sailboats. Parents of the pint-sized sailors find relaxation and enjoyment with the many yacht clubs that have thrived in the area. Weekend races are scheduled for all types and sizes of sailboats, right up to those exceeding forty feet in length. The exuberance of racing is only surpassed by the festive camaraderie that prevails during post race activities.

Although the older crafts still are found in the bay area, newer designs have poured forth





*Mr. and Mrs. C. Giles on their Atlantic City Kitty.*

to fulfill the needs of modern day sailors. Makes such as Morgan, Erickson, Pearson, Tartan, Columbia and Bristol utilize their handsome styling and luxurious accommodations to win the hearts of those who now roam the seas. The beauty of a sleek sloop cutting through the water with its colorful spinnaker billowing more than two stories in the air is an awe inspiring sight. Modern day examples of the Marshall Cat boat and the Atlantic City Kitty/Cat boat have preserved the history of a unique vessel that originated in only two places in the world, Barnegat Bay and Cape Cod.

Power boats are on the increase, offering an opportunity to those sea lovers who are not enthused by the intricacies of sailing a chance to enjoy the many pleasures of the bay. From only a few feet in length to well over fifty feet long, these havens of horsepower explore the reaches of Flat Bay Sound.


During the course of one summer, the author has encountered diesel engines, gasoline engines, electric powered engines, and even a wood-burning steam engine. As diverse as the means of their power are the types and configurations of the vessels that they occupy. Trawler type vessels with a fuel stingy diesel powered motor allow numerous miles of cruising at an economical cost, albeit, with sacrifice of maximum speed. Dual motors propel cruisers across the bay at higher speeds, only to be outdone by the sleek racing type vessels with high performance engines that are capable of speeds of more than sixty miles an hour. Despite this abundance of horsepower, most boaters are satisfied with maintaining a leisurely pace, soaking in the sun and relishing the tranquility of the moment. Protected anchorages are shared by both powerboats and sailboats alike, neither concerned with the different lifestyles of the respective owners.

Group parties, called raft-ups are quick to form in the many bays and leeward shores that are available. Tying together stern to stern or side to side, groups of vessels share common anchors, forming a chain with easy access from one boat to another. From their mini-fortresses, scouting parties branch out in rubber rafts, dinghies, or with snorkels, masks and fins to admire neighboring vessels.

A great number of boaters who use the bay and the river never leave its protected waters, finding sufficient enjoyment in its twenty-two mile length and its two mile width. Silver Bay in the northwest and Tices Shoal in the southeast are favorite anchorages for weekend fun. After a day of swimming, partying and treasured companionship, boaters hoist their anchors and lazily cruise back to their home bases or take advantage of the security of their locations to retire to a restful sleep, gently rocked by the lapping of the waves.

If your desire is to be waited on, there are a number of local restaurants that provide free docking to those interested in partaking of a sumptuous repast. A few restaurants such as the Captain's Inn in Forked River even provide

showers so that you can wash off the days salty residue prior to dining. For those who enjoy a cocktail before dinner, the tranquil setting on one's own craft provides all the necessary ambiance. Besides the Captain's Inn, other restaurants accessible by boat are Jack Baker's Lobster Shanty at the upper reaches of the Toms River; the Water's Edge, south of Good Luck Point on the east side of the bay; PJ's, south of Good Luck Point on the east side of the bay; and Pier One, at the northeast base of the seaside bridge. All of the aforementioned establishments have excellent reputations for their fine cuisine and a phone call ahead of time will supply you with particulars as to reservations, slip sizes and correct approaches from the bay.

The hardest group of individuals that utilize the resources of the bay have to be the fishermen and the crabbers. Their obsession for a fresh seafood dinner leads to excursions on those days when power boaters and sailors are enjoying the warmth and comfort of their dockside abodes. The bay has provided these stalworths with an ideal setting. The shallow waters are a nurturing ground for fluke/flounder, blue claw crabs and clams. Warming more rapidly than the ocean, the bay produces an abundance of food sources for these species to flourish, much to the delight of those who relish the excitement of the catch. The enjoyment of a freshly caught seafood dinner savored under the orange hue of the setting sun is the perfect end to another day ... on Barnegat Bay! 

#### BOAT-ACCESSIBLE RESTAURANTS ON BARNEGAT BAY

##### CAPTAIN'S INN

Lacey Road, Forked River (609) 693-3351 or (609) 693-2210

Docking, overnight, and shower facilities for dinner guests. Accommodates vessels in excess of 65 feet. Reservations are not taken although slips are usually available. The meals are French oriented and specialties include crab imperial, beef wellington, prime rib and a number of veal dishes. Credit cards accepted.

##### LOBSTER SHANTY

4 Robbins Parkway, Toms River (201) 240-4800

Nautical, historical Toms River decor. Serves seafood and beef with shrimp scampi a specialty. Can accommodate large vessels at its docks. No overnight privileges. Credit cards accepted.

##### PJ'S ON THE BAY

Bay Boulevard, Berkeley Township (201) 269-6161

Nautical decor overlooking Barnegat Bay. Serves veal and seafood dishes. Credit cards accepted.

##### PIER ONE

Route 37 West, Toms River (201) 270-0914

Docking, overnight, shower and electrical hook-ups for dinner guests. Accommodates vessels to 65 feet. Specializes in seafood and Italian dishes. Reservations for slips are recommended. Credit cards accepted.

##### WATER'S EDGE

Off Bayview Avenue, Berkeley Township (201) 269-3000

Nautical decor with docking facilities west of buoy 58. Continental cuisine, Italian dishes, and seafood. Credit cards accepted.



# Sportfishing for Sharks

BY BRION BABBITT

*Skillful angler Taylor Mills (left) with his 434 pound mako shark, Captain Skip Visakay and Jeff Kraengle.*



No aspect of marine sportfishing has undergone such explosive growth in recent years as angling for sharks. Scores of fishermen in New Jersey have turned much of their attention from more traditional saltwater gamefish to search for sharks in ocean waters and in Delaware Bay. Each year, increasing numbers of shark fishing tournaments appear along the Jersey coast with no shortage of active participants—or sharks.

Sharks attract anglers for a variety of reasons: They rank among the more mysterious sea-dwelling fishes; they are ominous and therefore feared; there is a real element of danger in their pursuit, and, probably most importantly, they are tough opponents on rod and reel. Offshore fishing for larger sharks has carved its own niche in New Jersey in much the same way as big-game glamour angling for the billfishes and tunas.

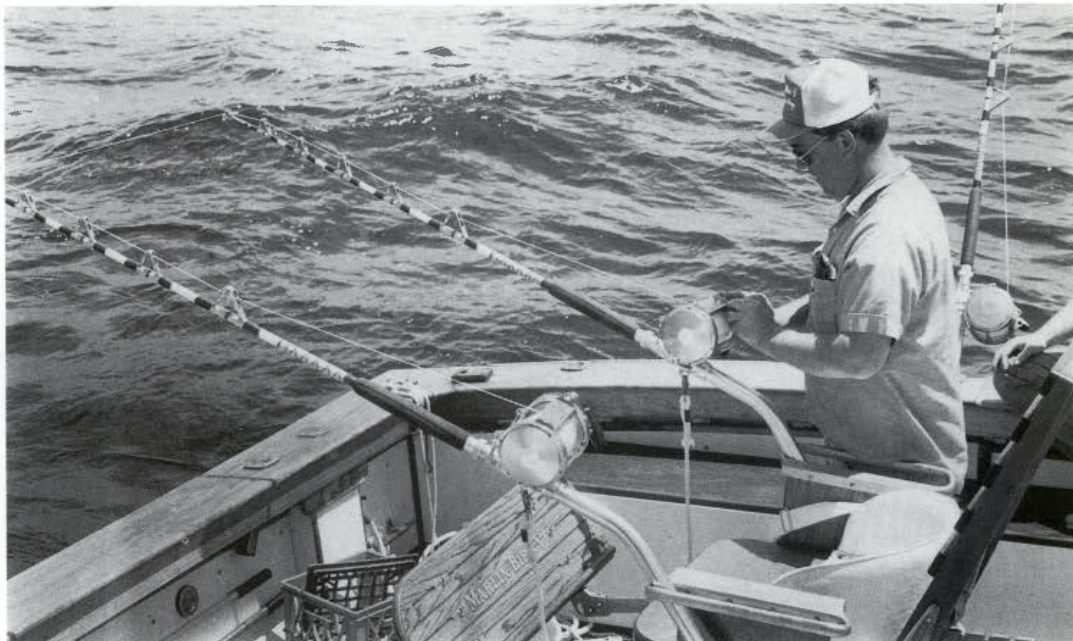
In addition to the obvious equipment demands, shark fishing requires careful thought and planning. Any shark four feet or longer should be treated as potentially very dangerous. Before embarking on a shark hunt it is best to rehearse the clean dispatch or release of the fish prior to boatside encounter. Proper treatment of the shark during the final moments at the end of the battle is most critical to ensure the catch—or the successful release—and the safety of all on board.

Last June I had a chance to accompany Captain Rich Harker aboard his *Marlin Bird V*, which sails from Cape May. The quarry, of course, was shark and we were participating in a coastwide tag-and-release tournament sponsored by *The Fisherman* magazine.



Captain Richard Harker checks equipment while driftfishing for sharks.

BRION BABBITT



Cape May County sportsman **Brion Babbitt** again takes us where the saltwater action is—from catching weakies in lower Delaware Bay, subject of his spring article, to offshore shark fishing and the chance to participate in shark research.

Shark fishing requires specialized equipment and tactics, and fishing with an experienced captain and crew is a good way to learn the sport firsthand.

Successful ocean shark fishing means drifting, either with wind or current, to find fish. But before fish can be caught, a chum slick must be established to lure fish within striking distance of baits. Frozen blocks of chum consist of ground-up fish such as bunker and can be purchased at most tackle shops that cater to sharkers. The block is placed in a perforated bucket, a plastic box such as a milk crate or a mesh bag. A lid on the dispenser is necessary to prevent loss of the block over the top.

The chum slowly thaws in the seawater aided by the rocking action of the boat. Particles of chum spread out, drifting down and away from the boat and creating a sizeable slick. When sharks cross the chum slick, their incredible sense of smell will guide them to its origin—the boat. Along the way, hopefully, the sharks will detect large baits that have drifted out into the chum slick.

Most sharks that are caught are under 100 pounds. These fish can be taken comfortably on 30-pound class tackle. Middleweights to 300 pounds require 50-pound equipment, while the true heavyweights over 500 pounds demand 80-pound class gear and a fighting chair to help the angler wear down the fish. About 250 yards of line should be enough to subdue small sharks, while at least 500 yards should be carried if larger sharks are the quarry. A powerful, determined run by a giant can

strip a reel in seconds, so ample yardage is an absolute must. Dacron is the preferred line material for shark fishing, as it has very little stretch compared to monofilament. Sharks have tough mouths, so to set the hook solidly the line must not elongate when the angler hauls back the rod.

“Standup” fighting of middleweight sharks usually includes the use of a gimbal belt and shoulder harness to allow the angler to anchor the rod butt and help take some of the strain away from the arms. Depending on angler strength, small sharks up to five feet can usually be handled without ancillary fighting gear.

Because of their massive, well-developed dentures and their tough, abrasive hide, sharks—both small and large—require a sharp hook and lengthy wire leader. The Mustad No. 7699 is a popular style hook among shark fishermen. It has an offset point to ensure hookup and comes in a variety of sizes to suit the game: 5/0 to 9/0 will meet the needs of smaller sharks; 8/0 to 12/0 fills the bill for the larger specimens.

Harker prefers to use brown-colored, single-strand wire as leader material for attachment hooks. A simple haywire twist allows connection to hooks and other terminal hardware such as swivels. To form the important terminal rig, the hook is attached via a haywire twist to the wire leader, which should be of 100-pound test and 10 feet long for small game and 250-pound test (heavier for monsters) and 15 feet for larger sharks.

The opposite end of the leader is attached,



BRION BABBITT



*A hooked 5-foot dusky shark.*

again through a haywire twist, to a big-game snap swivel such as a 5/0 Sampo. The swivel is tied directly to the running Dacron line using a knot such as an offshore swivel knot. Some anglers will add a large barrel swivel at leader mid-length to help prevent a wildly gyrating shark from kinking or twisting the leader.

The most popular shark baits are bluefish fillets and whole or filleted mackerel. Bluefish and mackerel fillet baits can be impaled once and further fastened to the hook shank with the aid of light rigging wire or line. Whole mackerel can be strung, using a rigging needle to through-rig the bait with wire and seat the hook in the vent, or simply "chin-hooked." To chin-hook the bait, pass the hook into the mackerel underneath and just behind the gills. Pass the hook out again through the belly, exiting it just aft of the pelvic fins. If you leave a 3- to 4-inch tag end of the wire when first attaching the hook with a haywire twist, this piece can be passed up through the mackerel's lower jaw and out the nose to secure the bait and prevent it from spinning. Otherwise a separate piece of wire or line is needed to tie the mouth closed.

The shark baits, whether fillets or whole fish, are suspended from floats a predetermined distance below the water's surface. The floats can be prefabricated cork, balsa or styrofoam types made specifically for sharking and sold ready-to-fish at any tackle store that supplies shark fishermen.

Ordinary styrofoam blocks from any convenient source can also be used to float baits. A two-inch thick by four-inch square block can be cut and used to suspend a bait. Make slices into alternate sides of the block and wedge the line into each slit, wrapping it around the block once. When the shark hits, the block will be cut cleanly in half, permitting an unencumbered fight.

When fishing offshore for sharks, Captain Harker likes to run four lines, using both whole baits and fillet baits. Each offering is adjusted for a different depth to cover all angles of approach to the chum slick. He also attaches a weight of several ounces just above the hook to keep the bait down and hanging straight below the float. In-line egg sinkers or plain bank sinkers taped to the line immediately above the hook can be used.


In the event that a shark is to be kept, the following equipment is needed: A big-game flying gaff, at least one straight gaff (ideally two), and a tail rope. A flying gaff is a large gaff with a detachable head that is connected to a rope. When the gaff is sunk in the fish, the head is freed from the handle, thus allowing maximum maneuverability and safety to the boat and crew.

A straight gaff is used only to subdue the fish to the extent that a tail rope can be slipped around the shark's caudal fin. Once a tail rope is secured it can be tied off to a cleat and the shark can be towed until it dies. A live shark should *never* be brought into the boat since these creatures are amazingly powerful and capable of considerable damage or injury.

Tagging and releasing a shark is very gratifying. The creature is spared and, moreover, shark research is carried out. Shark tags are supplied by the National Marine Fisheries Service to serious shark anglers who wish to participate in shark research and may be obtained by writing to: Dr. Jack Casey, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Narragansett Laboratory, South Ferry Road, Narragansett, RI 02882. Each tag is numbered and carries an accompanying numbered postcard to which the angler adds information. After tagging and release of the shark, the fishermen fills out the postcard and mails it to the National Marine Fisheries Service. The card contains such information as shark identity, estimated length and location of capture.

Upon the shark's eventual recapture, the tag—a capsule which contains a handling message in several languages—is (hopefully) returned to NMFS, again with data including site of recapture. Some tagged sharks have remained at liberty for many years before capture, and some have been caught a thousand miles from their location of initial tagging. NMFS will notify taggers whose shark is recaptured, providing full information on the location and nature of the recapture.

Sharks found in New Jersey waters include the tiger, hammerhead, dusky, brown, mako, thresher and the white shark. Top sport begins when waters warm sufficiently in June and continues through to early September. Many gourmets find shark meat—especially mako—quite delectable. All should be cleaned immediately to preserve their excellent table qualities.

Even though most people are familiar with sharks in a general sense, these mysterious, much-feared creatures remain, to a large extent, poorly understood. Shark researchers desperately need additional data regarding shark behavior, especially information relating to seasonal migration patterns. So if you presently enjoy these potent gamesters on rod and reel—or plan to include sharks in your sportfishing repertoire—try the tag and release approach to shark fishing. You will be able to enjoy your chosen sport and at the same time help researchers gain sorely needed information about sharks that frequent our New Jersey waters. 



# Barnegat Days

BY DICK RIKER



RIK  
VIOLA



The gray-haired man was standing in the front yard when the car came down the lane and pulled up in front of the cottage. Three children came boiling out of the back seat all talking at once. "Grandpa, Grandpa, we're here. We're here for a vacation." Out of the house came the Grandmother and quickly children and luggage disappeared into the house.

"Come on, change into your swimsuits and we can head for the beach," said Grandpa. Brian, the oldest at 12 and the only boy, had appointed himself leader. Patience, whose name and temperament were direct opposites, was two years younger and Shannon the youngest at nine. It seemed but a moment when all were walking up the lane in the glare of a summer sun headed for the swimming beach and two weeks of vacation with the Grandparents. "Now let's have a quick swim before supper and tomorrow we'll go crabbing," promised Grandfather.

The day had started early. Grandfather woke up the kids just after daylight. After a quick breakfast they had walked down the lane to the bayside dock where the boat was kept. Brian carried the nets and the basket with hand lines and frozen menhaden which Grandpa had gotten before waking up the kids. They had eased down the shoreline into First Cove looking for crabs in the shallows and had scraped up a few soft-shells before the sun got high. Now they were using hand lines and were doing well. Grandpa had taught them all the trick of lifting the crab close to the surface before sliding the net gently under it and letting the crab drop off the bait into the waiting net.

The big blue-claw crab had been quietly gnawing on a bunker head he had found when he was lifted gently from his blue-green home and unceremoniously dumped into the bottom of Grandpa's old garvey. Brian had not meant to miss the bushel basket when he swung the net holding the crab into the boat, but the crab didn't know that and being a particularly nasty-tempered specimen of a nasty-tempered species, he stood at bay under the seat waving his claws at every move the boy made.

Now there was an angry crab under the front seat, both girls were standing on their seats, and Grandpa stood laughing at Brian's attempt to grab the crab without getting nipped by the stabbing claws. The crab scuttled back and forth and in the excitement the boy kicked over the basket releasing another dozen or so large crabs into the bottom of the boat. Now Brian too got up on a boat seat, taking his barefeet out of range of the scuttling crabs, and Grandpa stopped laughing long enough to scoop up the loose crabs with his net. Shannon quietly reached for the net and added another big crab to the catch while Patience excitedly lifted line after line, giving the crabs no chance to grab the bait. "Oh Grandpa, I've got one," shrieked Patience, and still another crab joined the group in the basket. From the basket came the sizzling sound of crabs which reminded the old man to give them a dousing of cool water from the bay.

With the sun now high in the sky and almost a bushel of crabs in the boat, along with a dozen or so softies, a bit of exploring was in order. The boat was turned south along the wooded shore to where a tall pole stood near the water. The pole had what looked like a pile of sticks on top of it with a large bird standing on the pile. Shannon thought the bird might be an eagle, but Grandfather explained that the black mask across the eyes showed it to be an Osprey or Fish Hawk. He told the kids how, until very recently, the Osprey had been so scarce as to be listed as an endangered species. "When I was a boy here by the bay, there were nests like this all down the road to the very end. Okay let's go home to lunch and then we'll take Grandma to the beach." And so they did.

"Jersey skeeters are still with us," complained Grandpa as he swatted away at a cloud of salt marsh mosquitoes gathered around his head. The family had walked to the bayfront after dinner and was admiring the boats moored just off the little beach. It had rained the previous week and a fresh swarm of mosquitoes were drifting up the bayfront on a southwest breeze. Patience smacked one feeding on her lobe and asked, "Grandpa, were the mosquitoes this bad when you were a boy?"





"Why when I was a boy we lived right here in the same house and the salt marsh started just across the street. You couldn't go out at night the skeeters were so bad. One night I was in bed and two skeeters got through the bedroom screen. They took the sheets right off me and then called in the rest of their gang for a feast."

"Easy there," said Grandma.

"No, it's true! Some nights you had to chain the dog to the back porch to keep the skeeters from dragging the poor thing off into the

marsh. We kids used to run from house to house nights trying to find a radio that could play loud enough to drown out the skeeter's hum! We didn't have television back then. We would hide behind the screens and watch the moon come up over the ocean. Some nights the skeeters were so bad that they covered the moon and we couldn't see our way home without a flashlight."

"Grandpa, were skeeters bigger than these are?" asked Brian, swatting vigorously at his bare legs. "Bigger, much bigger! When we



wanted to make some pocket money we caught three of them alive and put them in a box. We went by the post office the next morning and got them weighed. They averaged a bit over one pound each. We lugged them all the way to the boardwalk the next night and sold them, complete with collar and leash, for three dollars each."

"Now that is enough," said Grandma. And it was!

Grandpa and the kids were at the state park beach and were getting a snack after a morning swim. Patience stumbled, dropping the small tray of french fries she was eating. Several Laughing Gulls flew down and grabbed at the scattered potatoes, squabbling among themselves. Nearby a small boy's laughter turned to tears as a gull swooped down and grabbed the partially eaten hot dog from the boy's fingers. "What makes gulls act like that, Grandpa?" asked Shannon, "and why do they keep dropping clams on the parking lot?"

"They drop the clams to break the shells so they can get at the meat inside. They'll drop them on anything hard like a street or even a rooftop. I have seen people get really upset because a gull was dropping a clam on a car roof." Grandpa went on, "Seagulls are nature's garbage disposals. One lady got so mad she wrote the state park and asked that armed rangers go to the bathhouses and shoot all the seagulls."

The sunshine was warm on their sunburned bodies and the kids hated to leave the beautiful white sand of the beach. "Hurry now, before the greenheads start biting. They will really take a nip out of you," said the old man, loading all the beach equipment into the car. "What are greenheads, Grandpa?" asked Shannon.

"I suppose there is a purpose for greenheads but I don't know what it might be," the old man responded. "They are flies, biting flies from the marsh. They make life miserable for man and beast. They aren't as bad as they used to be though. I've seen them drive a strong man to his knees with their bites. Seem to be smaller now too. Now you stay off the marsh during fly season and they generally aren't too bad. It's the black stable flies that bite the most now. The west wind brings them



over to the beach and they really go after you. They are fast as blazes too. A stable fly can bite you three times while the greenhead is making up his mind where to bite you. You can swat a greenhead but the stable fly is a tough target."

Too soon the two weeks of vacation were over and Daddy packed the car for the trip home. Grandpa found Shannon crying in her bedroom. "What's the problem, sweetheart? You shouldn't be crying."

"Oh, Grandpa, I can't find Gertrude, George and Herman. I had them safe in a peanut butter jar Grandma gave me and I put a bit of grass in it too. I can't leave without them. I want to take them home and train them like you did."

"Who and what are Herman and Gertrude and why are they in a peanut butter jar?" asked the old man.

"They are my pet skeeters and I've looked everywhere for them," Shannon sobbed.

"You never mind, Shannon, I'll find them and keep them safe until you return. They'll be here when you come back next time," said the old man, with a big smile on his face.

And so the children left the gray-haired couple standing in the front yard waving as the car turned out of the lane and up the highway. Grandma turned to her husband and said, "Pa, you must stop telling those kids such whoppers."

"Jenny," he replied, "I'll stop telling my stories when you stop telling Shannon and Patience that we have an alligator living in the basement." **NB**

Yarn spinner **Dick Riker** has appeared on NJO pages before. With 29 years of State Park Service from the mountains to the shore, Dick knows the Barnegat area and shore misadventures well. He served seven years as superintendent at Sandy Hook State Park and the last four years as Island Beach State Park superintendent.





Piping Plover

**This bird's life is a beach**  
**Help by supporting New Jersey's wildl**





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New Jersey State Library

NJ Department of Environmental Protection  
Division of Fish, Game and Wildlife  
Endangered and Nongame Species Program

To obtain an 11" x 22" "This bird's life is a beach" poster, send a \$2.00 check (postage and handling) payable "Endangered and Nongame Species Program" to: Piping Plover Poster, Division of Fish, Game and Wildlife, CN 400, Trenton, NJ 08625.





By PETE MCLAIN

July and August are vacation months in New Jersey. The outdoor enthusiasts take to the beaches, bays, rivers, woodlands, and mountains for a day or a month in the sun. It's a glorious time to be outside sunbathing, hiking, fishing, camping or just picnicking for a day.

However, nothing will ruin a vacation quicker than getting sick. Every year thousands of people spend some miserable days in bed suffering from the results of eating spoiled foods which were not kept cool or hot enough in the great out-of-doors.

There probably isn't a family that doesn't have some sort of ice chest or insulated cooler. This may be only a small insulated handbag for carrying a six pack of soda, or it may be a large insulated cooler with enough space for perishables to last a week or more on a camping or beach trip.

Keeping the perishables cold in an insulated chest or bag requires some attention to detail and a basic understanding of what an insulated chest or bag is supposed to do.

Several years ago I was bonefishing with a native guide at Eleuthera in the Bahamas. He picked me up in the morning in his small outboard, and we ran several miles to the turtle grass flats where the bonefish feed. I opened my quart Thermos bottle and poured a cup of coffee.

My guide looked long and hard at my heavy vacuum bottle and finally asked, "What's that, mon?"

I told him it was a vacuum bottle, but he kept staring at it. Finally he asked, "What's it do?"

"It keeps cold things cold and hot things hot," I said, in a matter of fact tone.

Insulated chests and bags do just that, and it's important to make certain

# Keep it Cool

the chest does what it's supposed to do. Keeping perishable food either cold or hot is essential if you are to avoid food spoilage by uninvited bacteria, which can cause nausea, vomiting, or diarrhea that may last for hours or days. Food poisoning is usually caused by common infectious bacteria, staph, and salmonella. Botulism grows in food which is not properly canned or preserved.

To protect yourself and family from food which might be infected, remember the basic rule, "Never exceed the cooling capacity for your food storage. Make more frequent trips to the store, and use nonperishable foods."

Keeping perishable food cold is usually accomplished by using blocks or cubes of ice. To get the most efficiency from your cooler and ice, pay attention to how you load it.

First, don't fill the cooler or ice chest with food and then throw in a small amount of ice. This just doesn't work. As a general rule, it's wise to fill a cooler one-third with ice and the remainder with food and drink.

You will increase the efficiency of your insulated chest and save ice by precooling your perishables at home in the refrigerator or freezer. Remember that it takes 1½ pounds of ice to cool one six-pack of soda. The trick is to cool or freeze items before you pack them in the chest.

It's best to pack the ice in the chest last covering your cold drinks and food for the best cooling. Use crushed ice to cool items and block ice to keep them cool longer. Those reusable plastic packs you freeze in the home freezer are good. Quart or gallon plastic bottles of ice frozen in the home freezer are great for conserving ice. They also provide a supply of clean cold drinking water.

A good trick is to leave melted ice water in the bottom of the cooler. It helps conserve ice better than empty air space. Always protect perishables and cardboard items in plastic zip-lock bags to prevent them from getting wet.

When you open your cooler, act quickly to get what you need out, and close the lid fast before you lose too much cold air. Always keep your cooler in the shade, or cover it with a blanket if you are out in the sun with no shade available.

Place your most perishable foods like meats and dairy products right on the ice. Dry ice can be used to keep frozen food. Be sure the dry ice is wrapped in several layers of newspaper and that it does not touch the plastic of the cooler.

Most veteran campers and people who use insulated coolers prefer two ice chests: a small one to keep the drinks and items you use frequently, the other for the food items, which may be used only a few times a day. This is a good way to conserve ice.

Remember to keep cold food cold and hot food hot. Bacteria grow fast between 60 and 125 degrees. Cook food thoroughly and always reheat leftovers, bringing gravies and sauces to a boil before serving. Never thaw frozen food in the air, as the outside will thaw and support bacteria while the center may still be frozen.


Always ice fresh fish as soon as you catch them. Don't drag them in the water during warm weather, as they will quickly spoil. Fish should be cooked and eaten within 24 hours or, better yet, within a few hours!

Inspect canned goods when you buy them and also before you open them. Any cans which are bulged, cracked or have a milky liquid should be discarded. If in doubt about canned goods, throw them away. Botulism is a deadly food poisoning and causes a serious infection.

When you plan your picnic or camping menus, avoid or limit the products which tend to suffer the most from inadequate refrigeration including dairy foods, mayonnaise, jam, catsup, mustards, and opened canned goods which must be refrigerated after being opened. Today's freeze dried foods are a vast improvement over what they were a dozen years ago, and they don't require cooling.

There is no need to be concerned about taking foods on a picnic or camping trip if you pile on the ice and maintain the ice in the chests or coolers. Plan to eat the most perishable foods first.

If you are a photographer, pack your unexposed and exposed film in a waterproof plastic bag and store it in a cooler or ice chest. Heat will damage photographic film.

Remember to precool your ice chest and the items you place inside. Then pile on the ice and keep it cool. 





BY CORNELIUS HOGENBIRK

PHOTOGRAPHS BY AUTHOR

*Dragon's Mouth orchis.*

# Ocean County

## *a botanical treasure*

Ocean County is blessed with fifty miles of fine, white sand beaches stretching from Point Pleasant through the lovely Island Beach State Park preserve—thence across Barnegat Inlet to famed "Old Barney," and southward through Long Beach Island to its tip at the Holgate Wildlife Refuge. A plenitude of sand where one can gather the "rays," taste the salt spray on one's lips, and get a breath of refreshing clean air.

West of the beaches and dunes, Barnegat Bay spreads its bountiful reaches, renown for its blue-claw crabs, clams and fishes. In the summer the bay waters blossom with sails of all sizes and colors.

Tranquil salt marshes border the inland bay shores wherever development have been stayed. Sizeable salt marsh acreage still remains at the Barnegat National Wildlife Ref-

uge, the Manahawkin Wildlife Management Area, and in sections of Stafford and Eagleswood townships.

The marshes are important. They act like a sponge to absorb flood tides. They scavenge run-off pollutants to fertilize plant growth. It is said that there is nothing quite as productive as a marsh. In New Jersey yields of marsh production run about five to six tons of dry organic material per acre, as compared to a wheat field yield of around one-half ton per acre.

Picturesque stands of phragmites billow in the breezes, and numerous birds find food and shelter here.

Flowing into marshes and bay are the major rivers, along with their tributaries, as well as dozens of creeks. Their watersheds create fresh water wetlands that help to control

Ocean County resident **Cornelius Hogenbirk** has frequented the pages of NJO as both photographer and writer. In this issue we again offer both of his journalistic skills. The retired sales engineer was a photographer at the 1947 War Crimes Trials in Yokohama, Japan, and has been published in *Modern Photography* and other publications.

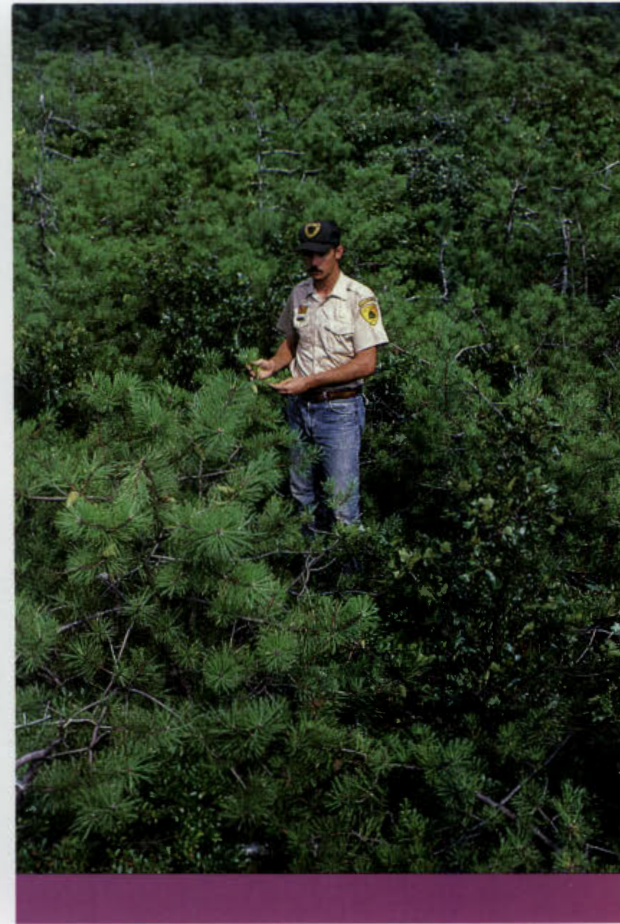




*Colicroot.*



*Grass Pinks.*



*New Jersey Pygmy Pines.*

erosion and to replenish underground aquifers. These streams and wetlands provide a singular habitat for both flora and fauna, and for recreational use.

Now the coastal plain fans out. A scattering of meadows and farmlands appear. A short drive west of the towns and developments clustered along Route 9 the environment changes again. The Pine Barrens have their beginning.

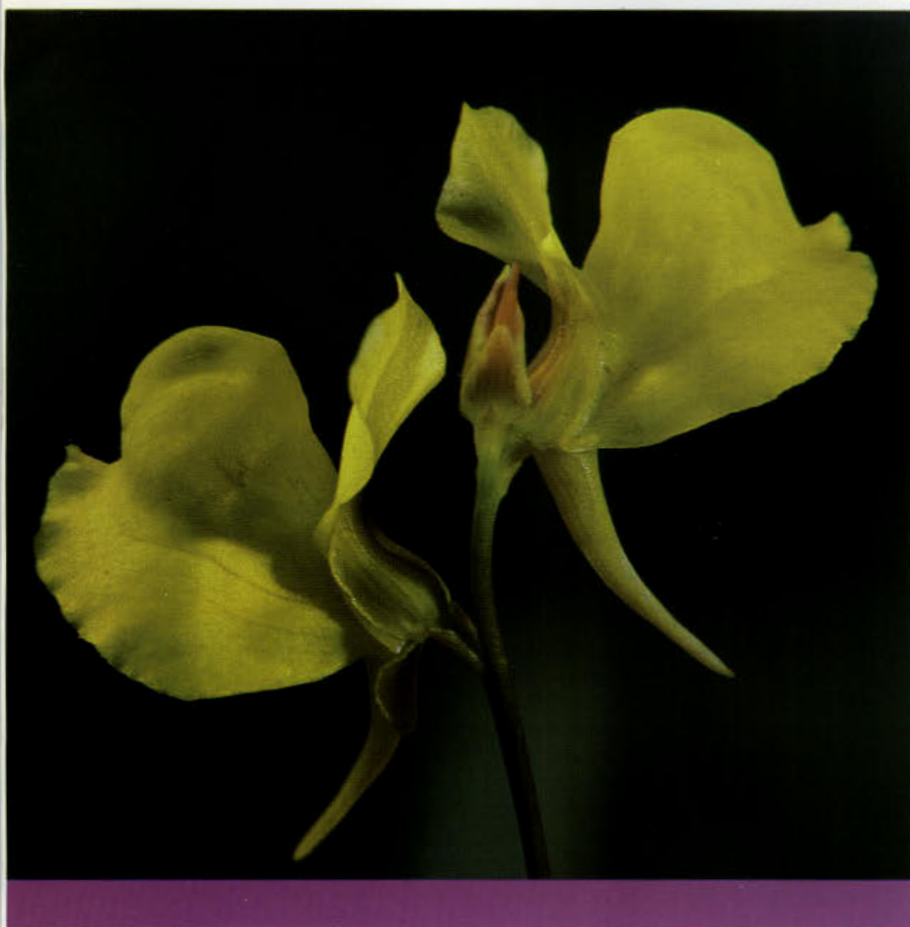
Stands of the predominant pitch pine appear. Other woodlands present a mixed bag, with oaks, sassafras and pines, together with a rich understory of plant life, including clumps of mountain laurels and bushes of the wild huckleberries. Then to add a bit of the mystique to our scene, one comes upon vast tracts of the unique Jersey Pygmy Pines as far as the eye can see.

There are, all told, about 20,000 acres of the four to eight foot tall pygmy trees. Some are more than 100 years old. Here, in late March, the first flower of the spring, the Broom Crowberry, brightens the desolate white sand trails.

With such an unusual range of environments and habitats it is no wonder that Ocean County can be viewed as a Botanical Treasure Chest. According to one noted, local botanist there are at least a hundred endangered plant species in the county. Rare wild orchids and other esoteric flora attract botanists worldwide to the shores of Ocean County and the adjacent Pine Barrens.

An 11-page Island Beach State Park booklet lists a total of 292 plant species found on the island. Plant life in the salt marsh is more





Horned bladderworts.

## New Jersey State Library

limited. Nonetheless clusters of the Swamp Rose Mallow brighten the scene in late summer. In the fall wherever the glassworts, the Marsh Sapphire grow, the meadows blaze in shades of red.

Where the woodlands meet with the marsh, a procession of interesting plant life abounds. One will find Jack-in-the-Pulpits in shady spots, while ferns proliferate in wetter places. Varied thistles bristle, while the more kindly sorts present their blossoms to the bees; for example, the brilliant red Cardinal flower. Also to be found are plants of medicinal interest such as the Colicroot and the Rattlesnake Plantain.

A hike along a Piney woods sand trail may lead one to discover the fragrant Trailing Arbutus, Pixie Moss and Sand Myrtle. Nodding demurely here and there is the Pine Bar-

rens Bellwort. In secluded patches of open meadowlands the Pine Barrens Gentian opens to challenge the deep blue of a fall sky.

Along creeks and in the bogs one may search for the elusive and fragile rare wild orchids. More abundant are the Grass Pinks and the Dragons's Mouth orchids.

Curious plant carnivores enjoy an insect repast in bogs such as that at Webbs Mills at milepost 20 on Route 539. Here in abundance are Pitcher plants, bladderworts, and nature's flypaper plants, the Sundews. Here too, if one's eyesight is good, you are apt to spot the diminutive, unfernlike Curly Grass Fern, a botanical curiosity.

Hike the nature trails at Double Trouble State Park, starting at the old cranberry house built in 1916, to find Swamp Candles, Turkey Beards, the Laurel-leaved Greenbriar, and the Carrion Flower. That odd double-fruited Peanut Grass, *Amphicarpium purshii*, is here too, a grass that has its fertile seeds underground on its roots.

Field botany, the study of plant life, is a relaxing way to enjoy nature, as well as a way to get in some health supportive walking time. Plants are always there—but bring along bird and insect guide books, too. Wherever one finds flowers and fruits, there also will be birds and bees.

I have mentioned just two specific, easy to find, botanical locations. Other good hunting grounds exist throughout the county.


Go to the Office of Public Information in Toms River at Hooper and Washington and get a map of the county. Visit the Cattus Island Environmental Center, and sign up for one of their walking tours. Inquire about other nature walks that are conducted by the Ocean County Department of Parks and Recreation.

The Torrey Botanical Club and the Rancocas Nature Center have regional field trips from time to time. Go along on one of these trips and you will be sure to meet some local experts and specialists, friendly people who will gladly share their knowledge and expertise.

Books are important, too. Three that you may wish to review are:

*Newcomb's Wildflower Guide*, by Lawrence Newcomb  
Little Brown & Company

*The Vegetation of the New Jersey Pine-Barrens*, by John W. Harshberger  
Dover Publications, Inc.

*The Plants of Southern New Jersey*, by Witmer Stone  
Quarterman Publications, Inc., Boston  
(A joy of a book to read as well as study, if one can be found). 



# Plastic Pollution

BY TIM CAIN



Plastics removed from a sea turtle's stomach.

Pedestrian? Maybe, but the shot of Benjamin's face emoting scarcely veiled disdain for Mr. Robinson's prognostication is classic. "The future is in plastic," Robinson says in *The Graduate*. The writer's aim was philosophical, but the reality connected with the statement turned out to be a literal one.

Twenty years later, this is a world of plastic, not just one of phoniness as Benjamin perceived but of enormous leaps of progress on the earth and in space with plastic the enabling material. Like the nuclear geni portrayed by Walt Disney, plastic can do human-kind miracles and at the same time, we are finding, can endanger life on earth.

Because it doesn't decompose on its own and is a substantial part of every load of goods or refuse we shuffle around, the enduring stuff has become a major intruder into the marine environment. Practically everything we make and throw away is cheaper, lighter and stronger made of plastic.

People strolling South Jersey beaches found that out last summer: six-pack holders, tampon applicators, balled up fishing net and used hypodermic needles. As with the tragic strandings of hundreds of bottlenose dolphins in 1987, the washing ashore of so much plastic junk—some of it hospital waste—sounded an alarm that could not be ignored. If this much plastic is winding up on the beach, how much more must be floating out at sea and what must it be doing to the environment in which so many of our food sources live?

The ecological crisis New Jerseyans faced last summer was no surprise to environmentalists and others working with or making their livelihood from marine life. Fishermen have been reporting for years that just a few miles offshore were floating dumps of plastic refuse. Likewise, specialists overseeing the

protection of marine mammals, birds and reptiles have told reporters and policymakers horror stories of animals they saved or failed to save from ingested balloons, drifting "ghost nets" and the plastic gallows six-pack holders become when they snare the necks of seals, sea lions or gulls.

According to the Center for Environmental Education (CEE), 50 species of seabirds have been found to ingest small, floating bits of plastic, probably mistaking them for the plankton and fish eggs on which they feed, and, because they are unable to digest the beads and cylinders, they may eventually starve to death. Similarly, when sea turtles come upon deflated mylar balloons, plastic wrap or bags, they mistake them for the jellyfish upon which they prey. The material blocks their digestive tract, nutrients are cut off and toxins build up. They too die.

Photographs of gulls or seals halted in a noose of plastic that once held cans together or strapped newspapers or freight foretell the agonizing death each will experience as it grows beyond the unyielding circumference of the material, slowly strangling itself. Were they few in number, these cases could be dismissed as merely unfortunate. But they are many and their numbers are growing.

From 1981 to 1984, 403 fur seals were sighted entangled in plastic, 84 in plastic strapping band. Since that time, the amount of plastic discarded in the ocean has multiplied and the numbers of animals dying as a result have risen accordingly. New Jersey Senator Bill Bradley, in testimony on the Senate floor on November 5, 1987, described the extent of the problem.

"Not only does plastic waste and other debris foul our precious beaches," he said, "but it also poses a grave hazard to marine life. Sea turtles, pelicans, herons, cranes, and other waterfowl become entangled in plastic fishing lines and net fragments, packing bands, six-pack connectors and plastic bags. Marine mammals and waterfowl ingest plastic pellets along with other foods. It is estimated that 50,000 northern fur seals die each year after becoming entangled in plastic packing bands. That number, I am sorry to say, is growing. . . . Plastics don't sink or decay, they persist, and they float—until, of course, they wash up on our beaches or kill marine life."

Among the chief contributors to the problem have been merchant ships, blamed by the National Academy of Sciences with dumping at least 6.6 million tons of trash overboard each year. It further is estimated that nearly 650,000 plastic containers and bags and

*continued on page 26*



Fish strangled by plastic ring, "gallowed" when younger.



Sea turtle killed by plastic pollution.





PHOTOGRAPHS COURTESY OF MARINE MAMMAL STRANDING CENTER

## New Jersey Outdoors 1988 Reader Survey

Three years have elapsed since our last survey. It is important for us to know you better and seek your input in the planning of future coverage and direction for **New Jersey Outdoors**. Please participate. When completed tear along the perforation to remove the survey from the magazine, seal the trifold and drop it in the mail. Postage is on us, and we thank you.

**1. Which of the following have you done more than once in the last year?**

(check as many as applicable)

- |  |  |
|--|--|
| <input type="checkbox"/> birdwatching/nature study | <input type="checkbox"/> hiking                |
| <input type="checkbox"/> boating/canoeing/sailing  | <input type="checkbox"/> hunting               |
| <input type="checkbox"/> camping                   | <input type="checkbox"/> outdoor photography   |
| <input type="checkbox"/> cycling                   | <input type="checkbox"/> skiing (snow)         |
| <input type="checkbox"/> fishing (fresh/salt)      | <input type="checkbox"/> swimming/water sports |
| <input type="checkbox"/> gardening                 | <input type="checkbox"/> other                 |

**2. About how much time per week do you spend out-of-doors in a sport or hobby?**

- |                                       |   |
|---------------------------------------|---|
| <input type="checkbox"/> 0 - 2 hours  | <input type="checkbox"/> 11 - 20 hours      |
| <input type="checkbox"/> 3 - 5 hours  | <input type="checkbox"/> 21 - 30 hours      |
| <input type="checkbox"/> 6 - 10 hours | <input type="checkbox"/> more than 30 hours |

**3. How did you learn about New Jersey Outdoors?**

- |  |   |
|--|---|
| <input type="checkbox"/> another reader                            | <input type="checkbox"/> newspaper/magazine article |
| <input type="checkbox"/> conference or exhibit                     | <input type="checkbox"/> school or library program  |
| <input type="checkbox"/> fish and game publication                 | <input type="checkbox"/> state facility             |
| <input type="checkbox"/> motor vehicle or boat registration insert | <input type="checkbox"/> other                      |

**4. How long have you been subscribing to NJO?**

- |   |   |
|---|---|
| <input type="checkbox"/> less than a year | <input type="checkbox"/> 6 - 10 years       |
| <input type="checkbox"/> 1 - 2 years      | <input type="checkbox"/> more than 10 years |
| <input type="checkbox"/> 3 - 5 years      |   |

**5. Which of the following article categories attract your interest and keep you subscribing? (check no more than three)**

- |  |   |
|--|---|
| <input type="checkbox"/> environmental education   | <input type="checkbox"/> pictorial essays       |
| <input type="checkbox"/> fishing or hunting        | <input type="checkbox"/> recreational           |
| <input type="checkbox"/> historical                | (boating, camping, hiking)                      |
| <input type="checkbox"/> nature study              | <input type="checkbox"/> wildlife in New Jersey |
| <input type="checkbox"/> parks or state facilities | <input type="checkbox"/> wildlife management    |
| <input type="checkbox"/> other                     |   |

**6. Which of the following article categories would you like to see more often? (circle no more than three)**

- |                            |                                  |
|----------------------------|----------------------------------|
| a. boating/canoeing        | h. historic sites/preservation   |
| b. camping                 | i. hunting                       |
| c. cycling                 | j. natural resource conservation |
| d. environmental education | k. nature study                  |
| e. fishing                 | l. parks and forests             |
| f. gardening               | m. photography                   |
| g. hiking                  | n. swimming/water sports         |

o. other \_\_\_\_\_

**7. Which, if any, would you want to see less often?**

(list by letter no more than three) \_\_\_\_\_

**8. Other than yourself, how many people read your copy of NJO? \_\_\_\_\_**

**9. Check the appropriate response**

Age:

- ☐ under 18  
☐ 18 - 29  
☐ 30 - 40  
☐ 41 - 50  
☐ 51 or older

Education:

- ☐ didn't complete high school  
☐ high school graduate  
☐ attended college  
☐ college graduate  
☐ post-graduate degree

Sex:

- ☐ female  
☐ male

continued on next page



ADD TAPE TO SEAL

NEW JERSEY SHORE

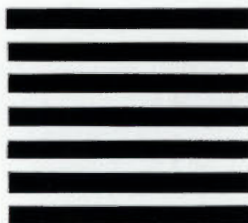
Keep it PERFECT

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### New Jersey Outdoors 1988 Reader Survey *continued*

Occupation: \_\_\_\_\_

County of residence: \_\_\_\_\_

10. What do you believe are the three most serious environmental problems in New Jersey?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

11. Which New Jersey environmental problems would you like to see featured in **NJO** articles?

\_\_\_\_\_

## Beach Pollution & "U"

Other plastic pollution or floatables found on New Jersey beaches comes from beach use itself. Litter left by beachgoers includes plastic wrapping, packaging materials, food or beverage containers and sundry items in plastic containers. The amount left behind depends on the varying level of seasonal beach use. In 1987 New Jersey's 40 beach municipalities spent approximately \$2 million for beach cleanups and removed nearly 26,000 cubic yards of litter. Tides and ocean currents can move litter from one beach to another; but of all the plastic floatables, beach litter is more likely to remain in the area in which it was left because incoming high tides generally move materials farther up the beach than out into the ocean.

A 1987 survey of New Jersey coastal communities indicated that human refuse transported from offshore, as described in the story, was the second most cited litter problem. The failure of beachgoers to dispose properly of the trash brought to the beach was cited by 70 percent of the municipalities as the major beachfront litter problem. Recreational boaters, anglers, picnickers and bathers can help to make our 127 miles of oceanfront shore perfect by placing litter in its proper receptacle.





**Tim Cain**, Absecon Sun News reporter and resident of Ocean City, is a first time contributor. He has written on plastics and other environmental problems for *New Jersey Hazardous Waste News* and the *Cleanwater Navigator* in New York state. Mr. Cain is the author of a recently published book titled "Peck's Beach: A Pictorial History of Ocean City, NJ," published by Down the Shore Publishing Company.



*continued from page 24*

150,000 tons of plastic fishing gear are lost or left at sea annually.

The National Academy identified the Northern Hemisphere as bearing the greatest concentration of plastic litter and the United States as being the source of about one-third of it. The Society of Plastics Industry estimates that not only will plastic production not decline in the foreseeable future but, rather, it will increase by ten times by the year 2,000. If their prediction proves true, the United States will be manufacturing 225 billion pounds of plastic a year by century's end.

Although New Jersey's 1987 summer at the shore focused the state's and the country's attention on the problem with wire photos of plastic hospital wastes on the beaches, the United Nations International Maritime Organization (IMO) initiated action on the matter in 1973. The organization convened a conference resulting in an international treaty commonly called MARPOL (the International Convention for the Prevention of Pollution from Ships).

MARPOL is made up of two parts, one of which sets the guidelines of the treaty, and the other contains five categories, or Annexes, that state the regulations governing specific types of pollution. Annexes I-IV address the prevention of pollution from oil, hazardous chemicals, sewage and other potentially harmful substances. Annex V specifically addresses intentional discard of trash, including that of fishing gear and packing materials. Included in the language describing prohibited litter is "the disposal of all plastics, including but not limited to synthetic ropes, synthetic fishing nets and garbage bags" from all ships, except in special circumstances, such as emergencies related to wartime activity.

Annex V is optional for each signatory to the treaty and would become enforceable only after ratification by "at least 15 countries whose combined merchant fleets constitute at least 50 percent of the gross tonnage of the world's merchant fleet." Ratification of Annex V by the United States in November 1987 brought the combined tonnage as required by that condition just over the specified 50 percent.

Dean Wilkinson, Greenpeace's legal director for ocean ecology, said the implementing legislation needed to make the ratified treaty U.S. law was spearheaded by the New Jersey delegation in both houses. Because Annex V essentially becomes law at the beginning of

1989, at the first of January it will be illegal to dump plastic within the 200-mile zone claimed by the United States as its maritime territory.

Furthermore, with the federal government's recent signing of an International Fisheries Agreement, driftnets, plastic nets that are over 30 miles long and 30 feet deep, are prohibited in U.S. coastal waters, although there are appeals brought by Japanese fisheries pending.


Wilkinson explained the danger the nets pose to wildlife. "If a mile-long piece breaks off (from the free-floating nets), it will continue to fish," he said. "Birds are being killed diving into the nets for the fish. Marine mammals are being killed. It is a tremendously wasteful way of fishing. There may have been up to a million birds killed in the north Pacific region, and the Danes had one off the Atlantic coast which took so many auks that over a four or five year period the population of the species crashed."

Plastic nets still pose an environmental problem off the East coast because fishermen use sizes less than a mile across and thus not fitting the definition of the proscribed devices.

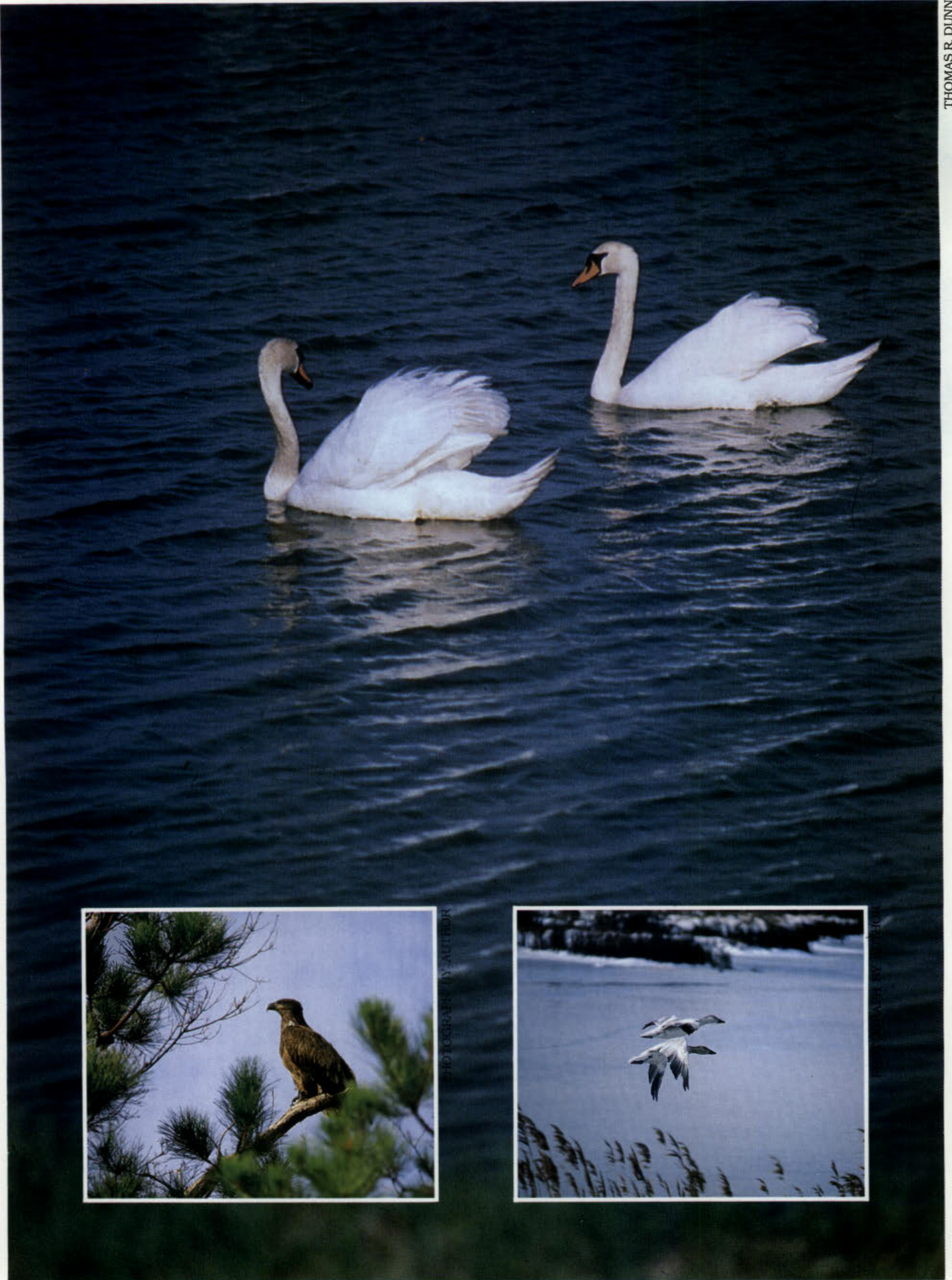
After campaigning for years against balloon launches at rallies and as promotions, Bob Schoelkopf, director of the Marine Mammal Stranding Center in Brigantine (See NJO July/August 1987), is finding that his attack on the metallic-looking mylar balloons was just the beginning of his task. Although latex balloons are advertised as biodegradable, they don't degrade fast enough to prevent their killing marine life when they land in the ocean.

"We don't know the extent of the effect on the animals yet," Schoelkopf said. "On the same day, we found floating in the water balloons launched from Bethlehem, Pa., on April 30 by Sigma Tau Sigma at Moravian College and some from Balloons Over America launched from Baltimore Inner Harbor on March 19. Some of the balloons that landed in the water had ribbons attached with plastic baggies containing notes tied on. Any animal that would have eaten that would have had serious trouble trying to ingest it."

Schoelkopf, who gained national attention last summer by being the first to identify the plague of dying dolphins, said the balloons often are launched for the most idealistic of purposes with the most devastating results.

"I'm surprised at the lack of knowledge of the people doing these balloon launches," he said. 





PHOTOGRAPH BY AUTHOR



PHOTOGRAPH BY AUTHOR



# Brigantine Revisited

BY BOB BIRDSALL

In the movie comedy "Vacation," there is one scene where Chevy Chase and his movie family, the Griswolds, see the Grand Canyon for the first time. They pull up to the Canyon, take a 30-second perfunctory look and drive off, convinced they've seen all the Grand Canyon has to offer. In many ways, a full appreciation of the many offerings and splendor of the Brigantine Unit of the Edwin B. Forsythe National Wildlife Refuge cannot be realized in one visit. Although, like the Grand Canyon, one visit is certainly better than not seeing it at all!

Each season is different and special in the variety and number of wildlife available for observation. Comprised of over 20,000 acres of salt marsh and woodlands, Brigantine is a virtual oasis of wildlife habitat. While Brigantine supports a small population of mammals such as deer, raccoon, fox and otter, it is the wide variety of birds attracted to Brigantine that makes it unique. Armed only with binoculars and a bird book for identification, a visitor can enjoy the three walking trails or the eight-mile auto tour.

Any visit to Brigantine is worthwhile, regardless of the season; however, the calendar of events beginning in September is perhaps the most exciting. In September, the arrival of the fall migrants begins with the blue and green-winged teal; October brings the Brant, Black Ducks and Shovelers; November signals the arrival of the Snow Geese. These and other species too numerous to mention form a wintering population of more than 150,000.


Another special time of year is May and

June when the newly hatched Canada Geese parade around the dikes as if trying to outdo themselves in their comical antics and poses for photographers. Fluffed up in their yellow down, they look as though they just stepped out of an Easter Basket as they follow mom and dad through the marsh.

Tail waders such as the little blue and great blue herons, and the snowy and great egrets, are particularly plentiful in the summer. They are best observed on the auto tour and also make good photography subjects as they slowly work the shallow waters in search of prey. The sight of a great blue heron making a successful "strike" will thrill the patient observer no matter how many times observed before.

While never disappointing in its display of wildlife, it is the chance sighting of a rarity such as a Bald or Golden Eagle or a Peregrine Falcon that adds additional excitement to a day at Brigantine. A check of the log book of sightings at the Visitor's Center will alert you as to which species have been sighted and the location where they were observed. It was this very procedure that enabled me to locate a Bald Eagle at the end of the North Dike on Thanksgiving morning.

Brigantine is located just off Route 9 in Oceanville, ten miles north of Atlantic City. If traveling from North Jersey, drive south on the Garden State Parkway to Exit 48 (Route 9 south), continue south on Route 9 for six (6) miles to Great Creek Road in Oceanville where refuge signs will direct you the rest of the way.

Located within the shadow of Atlantic City (the skyline of Atlantic City is clearly visible on the auto tour), Brigantine constantly reminds us of a heritage we must preserve for future generations and, of course, revisits. 

**Robert E. Birdsall** of Morgansville, a first time contributor, is an avid retriever trainer, hunter and angler. Mr. Birdsall, a District Manager with AT&T, has had several articles published in the *Retriever Field Trial News*.

*Mute Swans.*

*Immature Bald Eagle.*

*Snow geese in flight.*

*Snowy Egret.*

*Killdeer.*

*Canada geese family.*



M. BAYTOFF



PHOTOGRAPH BY AUTHOR



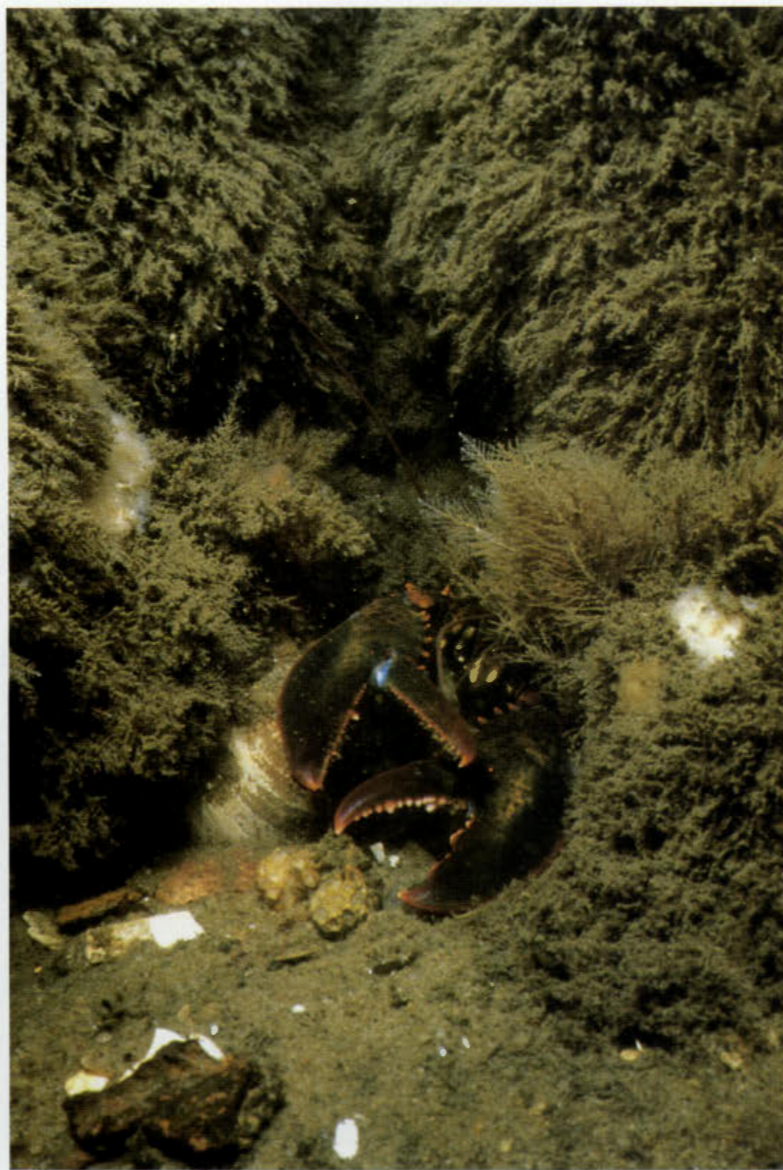
PHOTOGRAPH BY AUTHOR



# The North American Lobster

By HERB SEGARS

*With its tail in a hole, the North American lobster protects itself with a pair of formidable weapons.*



The scenario repeats itself over and over again on a daily basis at restaurants throughout the Garden State. Whether it be boiled, steamed, stuffed or in an au gratin sauce, the North American lobster, *Homarus americanus*, has been the unwilling guest of honor at more seafood dinner parties than almost any other species of underwater life. Yet few people know how the lobster lives, what it eats, or how it survives in the undersea community. Locally, the clawed crustaceans are found in the shallow waters of inlets such as Shark River, Manasquan and Barnegat and on shipwrecks and rock piles in deeper offshore waters.

The name lobster arouses thoughts of the rocky shores of Maine as the two have become synonymous over the years. For many years, the prime inshore fishery for lobsters has been from southeastern Labrador to southern New England and primarily in the waters of Maine, Nova Scotia, and the southern Gulf of St. Lawrence. In recent times, the inshore fishery has expanded as far south as Cape Hatteras, with sizable quantities of lobsters being harvested in the submarine canyons off the coasts of New Jersey and Long Island. It is reported that in 1956, a 44½-pound North American lobster was hauled from the deep water off eastern Long Island.

The claws of the lobster are its prime weapons; the smaller, slender claw is the feeder or shredder claw and the larger, more massive claw is the crusher claw, capable of doing exactly what its name intimates. Despite these formidable weapons, the lobster is vulnerable from the rear. For protection, it resides in holes in rocky jetties or in shipwrecks.

During the daylight hours, lobsters are found in their usual positions, facing the entrance to their lairs with claws at the ready and antennae swaying to and fro like an underwater radar detection system, retreating at the slightest movement. It would be a reasonable assumption that the lobster's large eyes sensed the movement and provoked the quick reaction. The eye of the lobster is very similar to that of a fly. It is compound, made up of thousands of tiny facets or little eyes which are extremely sensitive to light, as evidenced by the lobster's nocturnal roaming habits. Although very sensitive, sight seems to be the lobster's poorest sense. As compensation, Mother Nature has bestowed on the crustacean other sensory devices to alert it to



# For the Love of Lobster

BY MEG GRIGGS

The weight of the catches has decreased and the price per pound has increased, but Tom Meany's love of lobster pot fishing has not wavered at all in more than 35 years.

Meany, 66, has been pot fishing on a regular basis since 1950. A few times he retired for one reason or another, sold his boat, piled the wooden traps in a corner of the backyard and tried to live happily ever after as a landlubber. It didn't last long, though.

Some might say the Point Pleasant fisherman has saltwater running in his veins, side by side with the white corpuscles in his blood. He probably wouldn't disagree. It might even be true.

"When I quit I found I missed the old pots. It's the nicest kind of fishing, I think. Just you and the sea; no fancy high-tech gadgets or gear. And it's so exciting, keeping your eye focused on the pot as you haul it in, trying to see ahead of time how many you got," he said. "Mostly, though, it's what I like ... what I like best."

In the days of plenty, Meany and his partners would come back to the docks on the south side of the Manasquan Inlet with a catch of 1,000 pounds. Sure, that was one of the best outings, but the pot fishermen worked hard to get even an average catch of 600 pounds a day. Using maybe 1,200 pots (or traps) on a rotating basis, each boat's crew would toss (or set) and retrieve the pots at least once in a 10-day cycle.

Sheer numbers, though, don't tell of the sweat and toil that went into it. Throwing out and hauling in even one pot was a lot of work. Each pot stood 5-foot tall and had a 5-foot diameter hoop. "The old-timers called them bungalows," he said. "They were that big." Meany still has a photo of his oldest daughter, Janice, standing in front of one. If she wanted, she could have stood inside it.

Adding to the complexity of the job was maneuvering in somewhat small boats and being wise about where to find the shellfish. So, Meany figures, although the odds were against him then and against him now, he's a man willing to play. Out of perhaps three dozen lobster pot fishermen up and down the extensive coastline in New Jersey, he probably has the best shot at winning.

"When we first started you'd have to find the good spots and when you did you'd take the ranges so you could find the spot again. We'd

Making her first appearance in NJO, **Meg Griggs** is a professional journalist who has written for *Surfer* and *Wind Surf* magazines. Of all the world's beautiful beaches this former reporter and editor has traveled to, her favorite is, of course, the Jersey Shore.

*Lobster pot fisherman Tom Meany.*





# The North American Lobster continued...

impending danger.

These functions are similar to smell, hearing and touch, and are honed to a high degree of sensitivity. On nearly every part of the lobster's body are tiny hairs that sense movement in the water and transmit the data to the lobster's nervous system, much the same way the human ear senses sound waves in the air stream. This same sensory system is used in orientation and navigation. Hairs on the tips of its legs provide the lobster with information about the terrain it is traversing. In many ways, the lobster operates as a blind person would, feeling its way over and around many irregularities on the ocean bottom. While hearing and touch are recorded by the tiny, bristle-like hairs, the lobster's keenest sense is that of smell. It accomplishes this through tiny chemical receptors on various parts of its body. Remaining down current, the lobster samples the water for scents of enemies or possible food sources and reacts quickly to information. Lobsters even communicate with each other by releasing chemicals into the water.

One of the interesting capabilities of the lobster is its ability to shed a claw at will. This occurs near the second or double joint, where the claw is the smallest. This happens during molting if the lobster has difficulty withdrawing from the claw and also when threatened by an enemy. The rejuvenation process proceeds quickly and within three molts, the claw


will have been regenerated to its formidable former self.

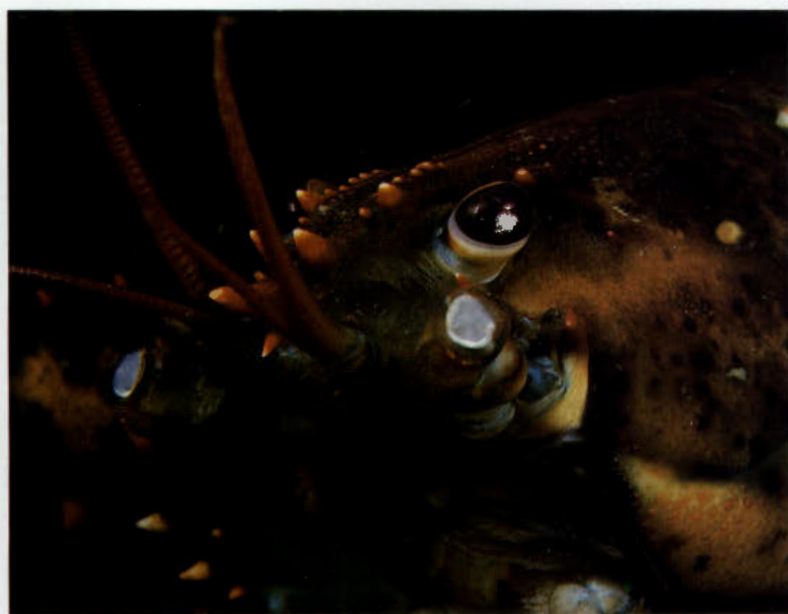
The lobster's diet consists of clams, mussels, snails, marine worms, seaweed, starfish and fish when they can be captured. One of the favorite meals of the lobster is the rock crab, *Cancer irroratus*. This crab is a feisty little fellow who will rear up and defend itself when threatened. This fighting position, although brave, provides the lobster with many flaying appendages to grapple. In contrast, a close relative of the rock crab, the Jonah crab, *Cancer borealis*, is not favored by the lobster. When threatened, the crab will tuck in its appendages and settle into the bottom, giving the lobster very little to grasp.

It is very difficult to predict the age of a lobster because its growth rate depends on salinity, availability of shelter, frequency of regeneration, water temperature and food—the latter two being the most important factors affecting growth and weight gain. Scientists have estimated that the typical lobster found in a restaurant or seafood store, weighing about 1 to 1½ pounds, is between six and eight years old.

Determining the sex of a lobster is accomplished by turning the crustacean over and looking at the first set of swimmerets on the tail. These appendages are found directly to the rear of the last set of walking legs. On the female, the swimmerets are soft and feathery while the male displays hard and bony projections.

Besides codfish, man is the major predator of lobsters. The current lobster laws in the Northeastern states require that a lobster be at least three and three-sixteenths inches in length from the end of its eye socket to the beginning of the tail before it can be kept. Studies have shown that female lobsters are not ripe for mating until they reach a length of three and three-quarter inches. Harvesting of immature females may be the cause for the decrease in the average size of commercially caught lobsters over the last few decades. More laws are being introduced each year to control the numbers and sizes of lobsters that can be taken.

The North American lobster is an entrenched member of our culinary heritage and must be harvested in a responsible manner in order for our descendants to enjoy this clawed crustacean. Remember that the North American lobster comes from the waters of our own state. When somebody says "that was a wonderful Maine lobster," smile ... and let them in on our secret. 





# For the Love of Lobster continued ...

use certain things on shore, like the side of a building or a pole at the end of a building as landmarks," he said. "Today, it's much different."

The new breed of lobster potters employ loran, low-range navigational equipment which uses pulsed signals sent out by two pairs of radio stations to pinpoint a fishing spot. "They can go out in fog and find their pots with no trouble at all. There's no more magic involved and certainly there are no more secret spots. They're all gone."

Also gone are the days of affordable prices. Meany's wife Claire remembers when she and her family and friends would think nothing of eating lobster three, four times a week. "We used to have it for a snack," she said. "If you went to a fish market you could get lobster for \$1.80 a pound. Two dollars per pound was the top price for the 'select' meat from the small lobsters. And remember, that was at the market. Tom would sell it for much less than that, about 25 cents a pound for meat from a big one, 40 cents a pound for the select."

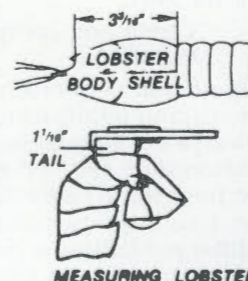
Meany has made more than 6,000 pots, each handcrafted from oak he buys direct at the sawmill. He has owned several boats; all have been made of wood. He wouldn't have it any other way. The boat he's using this year to lobster pot with his brother Richie was made in 1958 and all 24 feet, from bow to stern, is solid wood. "I'm rebuilding 90 percent of it. Sure, it'd be easier and cheaper to buy a new boat but there's none (made of wood) available to buy. A wooden boat's bottom soaks up the

water and gets a natural balance, so it floats better. In a fiberglass boat you bob around like a cork. Wooden boats are the only kind I've had, the only kind I'll ever have."

Word is that Meany is the best wood craftsman in this neck of the woods. Anyone in the Monmouth-Ocean county area who's thinking of buying such a boat and fixing it up calls Meany first. "I get more calls than I can handle," he said. "You have to be handy to work on a wood boat. It's not the same as carpentry work; there's a lot more involved. Of course, everything must be water tight. It's a real challenge making things fit."

Although lobster pot fishing is possible year-round, it's not all that practical in the winter. Besides, there's plenty of boat repair and pot making to do then. May to October is the ideal season to go to sea. In season, it is an everyday job. "You have to go out every day to protect your interest. Otherwise, people will lift the pots, empty them of lobsters or, worse yet, smash the pots. That certainly takes some of the fun out of it but it happens. Used to be no one bothered with them. Not anymore."

Time has its way of changing everything. In 35 years, Meany has seen the good times and the bad times. And of all the lobsters he's seen, none were more memorable than the 31-pound shellfish that was about four feet long, had claws that were three feet long and a shell that measured close to an inch thick. "He had backed into the pot. Just his tail caught. You'll never find one of those again."



Tom Meany hauls in line attached to lobster pot.

## CRUSTACEANS American Lobster in New Jersey Marine Waters

The legal possession size of whole lobsters, measured from the rear of the eye socket along a line parallel to the center line of the body shell to the rear of the body shell, shall be not less than  $3\frac{1}{8}$  inches. Lobster tails, with not more than two (2) claws per tail, may be possessed, provided that the sixth tail segment, when measured along its dorsal center line with the tail flexed is no less than  $1\frac{1}{8}$  inch. No person shall possess any lobsters with eggs attached or from which eggs have been removed. The use of spears, gigs, gaffs or other penetrating devices as a method of capture for lobsters is prohibited. The use of pots or traps for the capture of lobsters requires a license.





Cheryl C. Olson  
207 Pine Street  
Anytown, NJ 08000



## Dear Editor

## No Yarnspinning Here

We have been receiving *New Jersey Outdoors* for several years. The entire family, from my ten-year old grandson to sixty-five year old Grandma and Grandpa, enjoys it very much.

We especially love the great paintings by Carol Decker. They're the first thing we look for before going on to enjoy the rest of the magazine.

Thank you all very much. Keep up the good work.

Vanda and Harry Hurilla  
Manville

*Thank you very much for the compliments and telling us what you look for first in the magazine. It is that type of information we are hoping to receive from the Reader Survey in this issue. Your responses will enable us to continue publishing a magazine that you find entertaining, informative and visually pleasing.*

## Live, Work and Love in New Jersey

As an employee of the Department of Environmental Protection, I too love to read the bi-monthly publication *New Jersey Outdoors*. With that I'd like to offer you two ideas.

#1: I think using the outline of New Jersey to pinpoint each article is an added touch to the "In this Issue" section. We do live and work in New Jersey and that's what your publication is all about.

#2: At the end of each article you now use the NJO symbol. This is a DEP publication, right? Let's use the symbol that was born on Earth Day, April 22, 1970, to represent the Department at the end of each article.

Bill Wilmouth  
Sparta

*The "Story Locator" map will return with the September/October issue. Since this issue is dedicated totally to the Jersey Shore, 127 miles of Atlantic oceanfront as diverse as any eastern*

*coastline, it was not used. Although this magazine is a DEP publication, many of the contributors to the magazine are freelance writers and photographers whose work may represent their own point of view. It therefore seems appropriate to identify all of New Jersey's natural resources with the magazine's symbol rather than the department's. We appreciate your interest in NJO and the pride in and support of the DEP which we read in your letter.*

## Saving the Earth for Future Generations

I am one of the 19 founders of Kids Against Pollution (KAP). We thought of this idea when we were talking about our first amendment rights in social studies class. So we decided to use our first amendment rights of freedom of the press and speech.

We have a program called KAP that you can participate in too. If you decide to participate, you will be asked to be a part of our network. You will be responsible for contacting other schools to see if they are interested too. If they would like to, they will be responsible for contacting five other schools. We have 10 schools actively participating!

KAP does not make policy. The content of each letter is up to the person, school, or school district on an individual basis. If a school, class, or district would like to concentrate on one issue, they can do so. Our goal is to clean up the whole world and make it a better place to live.

Please feel free to give any suggestions, information or anything that you feel will be of interest in our fight against pollution. This is not only for our sake but for future generations.

Jason Pitofsky  
age 10

*New Jersey Outdoors welcomes letters from readers. Letters for publication should include the writer's name and address and should be mailed to: Editor, New Jersey Outdoors, CN 402, Trenton, N.J. 08625. Letters may be edited for reasons of length or clarity. Please keep the letters coming. We'd like to hear what you think about the magazine. We'll also try to answer questions and if we cannot, we'll ask our readers for help.*

P.S. Please join us in our fight against pollution. We have already prohibited the use of styrofoam in the Closter school system. All correspondence should be mailed to: KAP Founders, Tenakill School, 275 High Street, Closter, NJ 07624.

*BRAVO to an inspired group of fifth graders and their teacher, Nick Byrne, for putting thought into action. KAP did appear before the Closter Board of Education to "educate" adults about the problem of non-biodegradable styrofoam and its harm to the environment. The board subsequently voted to suspend any further procurement of styrofoam cups. KAP has received recognition from local officials, newspapers and radio stations, the board of freeholders, Channel 4 and Parade magazine. With this issue now in your hands, they will have appeared before the State Assembly in June and completed writing more than 1,000 letters to U.S. Senator Bill Bradley and New York Governor Mario Cuomo on air and water pollution.*

KAP and the mentor role of Mr. Byrne are an appropriate follow-up to the Natural Resources Education feature in the May/June NJO. We hope that interested students will contact KAP at the above address and that teachers or administrators will send us their natural resources education information as requested in the May/June issue and as distributed by the New Jersey Education Association.

## Free Fishing Day

Saturday, August 20

This statewide event allows anglers to fish anywhere without a license. All other rules still apply during the 24 hours of free fishing.

From 10 AM to 4 PM, beginning anglers can participate in spin and fly rod casting classes at Pequest Trout Hatchery and Natural Resource Education Center. For details, call 201/637-4125.

The two annual Free Fishing Days were established by the Legislature in 1986, affording us the opportunity to participate in the second most popular form of recreation in the U.S.



# Calendar of Events

## JULY

- 9-10 FOLK, COUNTRY AND BLUE-GRASS FESTIVAL at Batsto Village in Wharton State Forest (Hammononton). Free festivities on Saturday feature New Jersey artists. Sunday (\$10 fee benefits New Jersey Shore Foundation) features national entertainers. 1 PM to 7 PM each day. For information, call 609/561-0024. Sponsored by the Division of Parks and Forestry, Division of Travel and Tourism, and New Jersey State Council on the Arts. (P&F, T&T and Arts).
- 14-15 THOUSAND FATHOM CLUB OPEN MARLIN TOURNAMENT. Third year tourney features 100 entrants. Weigh-ins and photo sessions each evening at the Frank S. Farley Marina, Huron Avenue, Atlantic City. For details, contact marina office at 609/441-8448.
- 16 TUBING IN CEDAR CREEK. Bring lunch, a tube, life jackets for children and wear sneaks. 10:30 AM start at Double Trouble State Park, Pinewald-Keswick Road (Bayville), about six-tenths of a mile west of Garden State Parkway. Call 609/267-7052. Sponsored by Glassboro Alumni Association.
- 16 NIGHT IN VENICE, Ocean City's most famous event. Parade of more than 100 decorated boats of all sizes on Great Egg Harbor Bay.
- 22-23 13th ANNUAL WATERFOWL AND WOODCARVING SHOW will attract nearly 100 carvers and exhibitors to Cape May City's convention hall on Beach Drive. 11 AM to 10 PM. For details, call 609/884-9565.
- 23 ANTIQUE BICYCLE MEET. Bone-shakers, penny-farthings and other two- or three-wheeled contraptions to be demonstrated by local wheelmen. At Historic Cold Spring Village in Cape May. 10 AM to 4 PM. Admission (over 12) \$1.50. Call 609/884-1810.
- 27-31 MONMOUTH COUNTY FAIR, East Freehold Showgrounds, Kosloski Road, Freehold. Fireworks, balloon races, antique auto show, 4-H and livestock exhibits and rides for children of all ages. W, 5-11 PM; Th-Sa, 11 AM to 11 PM; and S, 11 AM to 5 PM.
- 29-31 MORRIS COUNTY 4-H FAIR, Chubb Park, Route 24, Chester. Animal and craft exhibits, petting barn, folk dancing, canoe races and carnival games. F, 5 to 9 PM; Sa, 10 AM to 9 PM; S, 10 AM to 4 PM. For details, call 201/285-8301.

30-31 JERSEY JAZZ FESTIVAL at Monmouth Battlefield State Park. Sponsored by P&F, T&T and Arts. Saturday events are free. \$10 admission for Sunday's featured entertainers benefits New Jersey Shore Foundation. 4 PM to 7 PM each day. For information, call 201/462-9616.

## AUGUST

- July 31-Aug. 5 ATLANTIC CITY RACE WEEK, premiere sailing event along the mid-Atlantic seaboard. Feeder races start on July 31 at Manasquan and Cape May. Eighty 24-50' vessels from Connecticut to Virginia compete for eight separate championships. First annual Heart Cup, sponsored by the American Heart Association. Frank S. Farley Marina, Huron Avenue, Atlantic City. For racing registration, call 609/398-3760.
- 4 and 10 KALEIDOSCOPE 1988. DEP-sponsored, "fun while learning" family day on environmental quality and quantity, resources and programs. Subject experts and DEP staff will teach K-9 children, adults and other students. Cheesecake State Park in Matawan, 9 AM start. For registration information, call 609/984-9802.
- 4-6 1988 NATIONAL AND JUNIOR NATIONAL LIFEGUARD CHAMPIONSHIPS. Twelve event program to attract more than 500 female and male lifeguards for rowing, surf skiing, running and swimming competition to Cannone and Congress beaches and the surf in Cape May City. For information, call 609/884-2189.
- 5-6 FIFTH ANNUAL PINELANDS FOLK FESTIVAL. Antiques, crafts, Civil War reenactment, continuous musical entertainment including folk music and local Pine Barrens artists. 10 AM to 8 PM Sa, 10 AM to 5 PM S, at Atlantic County Park, Route 50, Estell Manor. For details, call 609/628-2552 or 476-2219.
- 5-14 NEW JERSEY STATE FAIR at Garden State Park in Cherry Hill. Admission and parking charge. M, T, W and F, 2 PM to midnight; Th, Sa and S, noon to midnight.

- 6 FOLK AND COUNTRY FESTIVAL featuring New Jersey artists. 5 to 9 PM at Belleplain State Forest in Woodbine. Sponsored by P&F, T&T and Arts. For information, call 609/861-2404.
- 14 AROUND ABSECON ISLAND MARATHON SWIM, international competition with more than 12 countries represented. 7 AM start and finish line at the Frank S. Farley Marina, Huron Avenue, Atlantic City. Contact marina office at 609/441-8448 for details.
- 20-21 DECOY, WATERFOWL, WILDLIFE CARVING SHOW at Historic Cold Spring Village. See southern New Jersey woodcarvers and their decorative and working decoys. Demonstrations, sales and prizes. 10 AM to 4 PM both days. \$1.50 admission (over 12). For information, call 609/884-1810.
- 20-21 CLEARWATER FESTIVAL sponsored by Monmouth County Friends of Clearwater. Arts and crafts display, ecology awareness presentations, folksingers, ethnic singing groups and blues bands. Rides on sloop Clearwater by reservation. Noon to dusk both days. Call 201/872-9644 for details.
- 20-26 SOUTH JERSEY FISH FOR LIFE TOURNEY. Bluefish tournament benefiting the Leukemia Society. For information, call Frank S. Farley Marina at 609/441-8448.
- 21 FESTIVAL OF HORSES. Standardbred and thoroughbred yearling shows, exhibitions and country fair at Horse Park of New Jersey at Stone Tavern, Upper Freehold Township. For information, call the State Department of Agriculture at 609/292-2888.
- 27 NEW JERSEY CHAMPIONSHIP TOMATO WEIGH-IN. Semi-finalists from all counties will participate in 11th weigh-in at Monmouth Mall, Eatontown. Prizes for the biggest Jersey tomato. For details, call 201/229-2395.
- 27-28 THE WILDWOODS CLASSIC CUP, a sailing regatta for more than 100 Hobie catamarans. On the beach at Ocean and Rambler Avenues at 10 AM each day. Til 5 PM (weather dependent). Class races for one and two-man crews in 14', 16', 17' and 18' cats. Benefits Juvenile Diabetes Foundation, Cape-Atlantic Chapter. For registration (fee) details, call Doug Ackroyd, Fleet 443 Commodore, in the PM at 609/861-5674.



# Piping Plover

BY DAVE JENKINS

Cape May County resident **Dave Jenkins** is a Senior Zoologist in the Division of Fish, Game and Wildlife's Endangered and Nongame Species Program. As project leader, Dave has primary responsibility for the management and research of the beach nesting bird program.

"Pale denizen of beach and dune ..." is how naturalist Henry Collins described the piping plover, an apt description for this cryptic shorebird sometimes known as the beach bird. No other bird in New Jersey is as intimately tied to the beach as the piping plover. To be sure, the piping plover's current status as an endangered species is directly related to its dependency upon oceanfront beaches.

The piping plover, a close cousin of the more common and familiar killdeer, spends the winter along the beaches of the Southeast and Gulf States and returns to New Jersey in late March. Often, the first clue to this bird's presence is its bell-like "peep-low" call which seems to come from nowhere.

Unlike the least tern and black skimmer, the plover's fellow beachnesters, the piping plover is not a colonial nester. The male spends the beginning of April setting up his territory and attracting a mate. Courtship rituals are usually complete by the beginning of May, and the pair has formed a small depression in the sand, usually lined with small shell fragments. Typically, the nest is located on the high beach or foredune just in front of the primary dune, although nests in overwash areas or dune blowouts are not uncommon.

Incubation, which is shared by the sexes, begins when the female has finished laying the clutch: four speckled eggs nearly invisible against the sand and shells. The eggs hatch after 25 days, yielding down-covered chicks which resemble dirty cottonballs propped up on toothpicks. The young are totally precocial: within hours of hatching, their down is dry, their eyes are open and they leave the nest on their own two legs, following their parents about the beach. Unlike the least tern and black skimmer who feed their young on the nest, the plover leads their spindly chicks to the beach wrack or surf where they feed themselves on marine worms, crustaceans, insects and other invertebrates, returning to the vegetated dune for cover.

During incubation and when caring for the brood, the parents try to protect their charges by coyly attempting to fool any approaching predator. The incubating bird leaves the nest quietly, well ahead of the predator, and will begin calling only after it is several feet from the nest. The bird will continue to run ahead of the predator, calling and often feigning injury to divert attention away from the nest or chicks crouching quietly in the sand.

After about 30 days, surviving young have learned to fly. By the end of the summer plovers gather in groups, eating their fill before their migration south. Plovers which have lost their nests or chicks may renest several times, so vulnerable chicks may be on the beach through August.

As early as 1937 Whitmer Stone, the

famous Cape May ornithologist, wrote, "Of all the birds that frequent the New Jersey coast, the Least Tern and Piping Plover have suffered most from the spread of summer resorts along the shore ... The reason for their rapid decrease in numbers lay in the fact that they, like the Least Terns, were nesting birds of the strand, and the constant annoyance of a throng of summer visitors, apart from any actual molestation, has been enough to drive them from most of their former haunts ... while the habits of visitors to the shore of running their dogs on the strand results in the active pursuit of any birds that may be found there."

Indeed, Stone's assessment of the plover's plight was accurate, and after recovering from the excessive market hunting of the 19th century the piping plover is again an imperiled species. Only about 750 pairs nest along the entire Atlantic seaboard from North Carolina to Nova Scotia. New Jersey, a relative stronghold for plovers, supports just under 100 nesting pairs according to the most recent surveys by the Endangered and Nongame Species Program. Currently, New Jersey classifies the piping plover as an endangered species, while the Federal government designates the entire Atlantic Coast population as threatened.

The reasons for the plover's continuing decline remain the same as in Stone's time—nearly all can be tied to human presence on the beach. Continued commercial, residential and recreational development of our barrier beaches has severely decreased the amount of nesting and feeding habitat. Because so many people crowd them, the beaches that remain become functionally unavailable to plovers. As a result, piping plovers are now primarily confined to our more remote and less crowded beaches such as Holgate, Corson's Inlet and the northern half of Sandy Hook. Even in these locations, plovers do not produce enough young to sustain their population.

Occasionally, off-road vehicles and unwary beachgoers crush the plovers' inconspicuous nests. On rare occasions even mobile chicks can become trapped in deep tire ruts where they are unable to escape predators or the next crushing tire. People nearby can force parents to leave nests for extended periods exposing their eggs to lethal summer heat and hungry predators. People may also cause family groups to scatter, leaving chicks easy pickings for opportunistic gulls. Unleashed dogs chase chicks and adults and occasionally eat eggs and young. Pets also cause a great deal of disturbance, since they are seen as predators by the plovers.

More subtle, but possibly more serious, are the effects of humans on piping plovers feeding in the surf. The surf and the adjacent beach are the areas most heavily used by people. Here human activity can seriously decrease the time plovers spend feeding or prevent it entirely. At the same time, their

energy needs increase as they constantly run from joggers, frisbee players, and the constant parade of beach walkers.


In addition to contending with people, plovers and their nests can fall prey to a whole host of predators: gulls, hawks, foxes, raccoons, skunks, rats, and domestic dogs and cats. People not only increase the vulnerability of plovers to predators but are partially responsible for increases in certain predators on the beach. Raccoons, skunks, rats, and gulls are all attracted to the assorted refuse we leave on the beach, and gull populations have soared in response to our burgeoning landfills.

The role of each of these factors and their complex interactions are not entirely understood in the plight of the piping plover. Biologists are now busy trying to piece together the puzzle. We still have much to learn about the "beach bird." This year the Endangered and Nongame Species Program will again survey the population and attempt to locate as many nests as possible. Biologists will closely follow the fate of each nest and brood, trying to determine the reasons for failures and losses. In addition, scientists from Rutgers University will study the feeding behavior of plovers and their responses to all types of human activities.

Biologists know enough already to make things a little easier for nesting plovers. Each year, with the help of dedicated volunteers, workers from private and public conservation groups erect miles of string and post or snow fencing around piping plover nesting areas. Signs warning the beach visitor to stay away and explaining why are also set in place. At many areas volunteer and paid wardens patrol, providing important public contact and a source of information for beachgoers. Wardens also distribute fliers describing the piping plover and other beachnesters.

Dealing with predators is not such a simple matter. Fenced enclosures can be erected around particularly vulnerable nests. In some areas, managers have engaged in aggressive rat control programs. Biologists are still searching for innovative ways to reduce the impacts of predators.

The most important tool in protecting piping plovers and their fellow beachnesters is an educated and concerned public. People who understand and are sensitive to the predicament of our beach nesting birds will respect the very minor portion of beach posted to provide endangered beachnesters a place to nest in peace.

You CAN help: Respect all areas fenced or posted for protection of wildlife; Do not approach or linger near piping plovers or their nests; Avoid flying kites near nesting areas; If pets are permitted on beaches used by plovers, keep your pets leashed at all times; Don't leave or bury trash or food scraps on beaches. Survival of the piping plover depends on all of us. 





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Carol Decker



