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Outdoors



NEO SMITH

Sportsmen Substantially Contribute to Economy

Do you know that there are more than 40,000,000 gun owners in the United States and that sportsmen are probably the only people who have actually asked to have their taxes raised?

Hunters and the shooting industry asked for and got an 11 percent excise tax on the sale of sporting firearms and ammunition. Close to \$300,000,000 has been collected and used to buy wildlife land, and to finance research and conservation programs.

Outdoorsmen support state fish and game agencies which are charged by law with the care of all wildlife.

The following financial facts are presented to show how hunters and shooters pour more than \$1,500,000,000 a year into the nation's economy. Most of these figures are taken from federal reports.

<i>In Millions</i>	<i>In Millions</i>
Licenses, permits and tags\$ 72.7	Duck stamps\$ 8.5
Federal excise tax (11%) on gun and ammo sales 19.0	Hunters spend developing private land for wildlife\$ 50.0

In addition, it is estimated that hunters spend the following:

<i>In Millions</i>	<i>In Millions</i>
Food\$100.0	Boats and water equipment\$225.0
Lodging 30.0	Guns and ammo 209.0
Bus, air and rail travel 10.0	Clothing 268.0
Boots 42.0	Insurance (liability, fire and theft) .. 7.1
Guide fees and other trip expenses 35.0	Fees (hunting and shooting) 10.0
Dogs 158.0	
Motor vehicles* 272.0	
* 47,800 automobiles worn out—retail cost \$143	
300,000,000 gallons of gas burned—retail cost 101	
4,000,000 quarts of oil—retail cost 2	
860,000 tires worn—retail cost 22	
Car maintenance for hunting trips 4	

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Cover—"The Rainbow Trout"—Ned Smith

The rainbow trout, New Jersey's introduced trout from the West, is stocked throughout most of the state. The rainbow is a magnificent fish and a great favorite of both bait and fly fishermen. It is considered by many anglers to be greatest fighter of all the trout. Starting on page three of this issue is a revision of a popular article on the rainbow trout and two on wet fly fishing.

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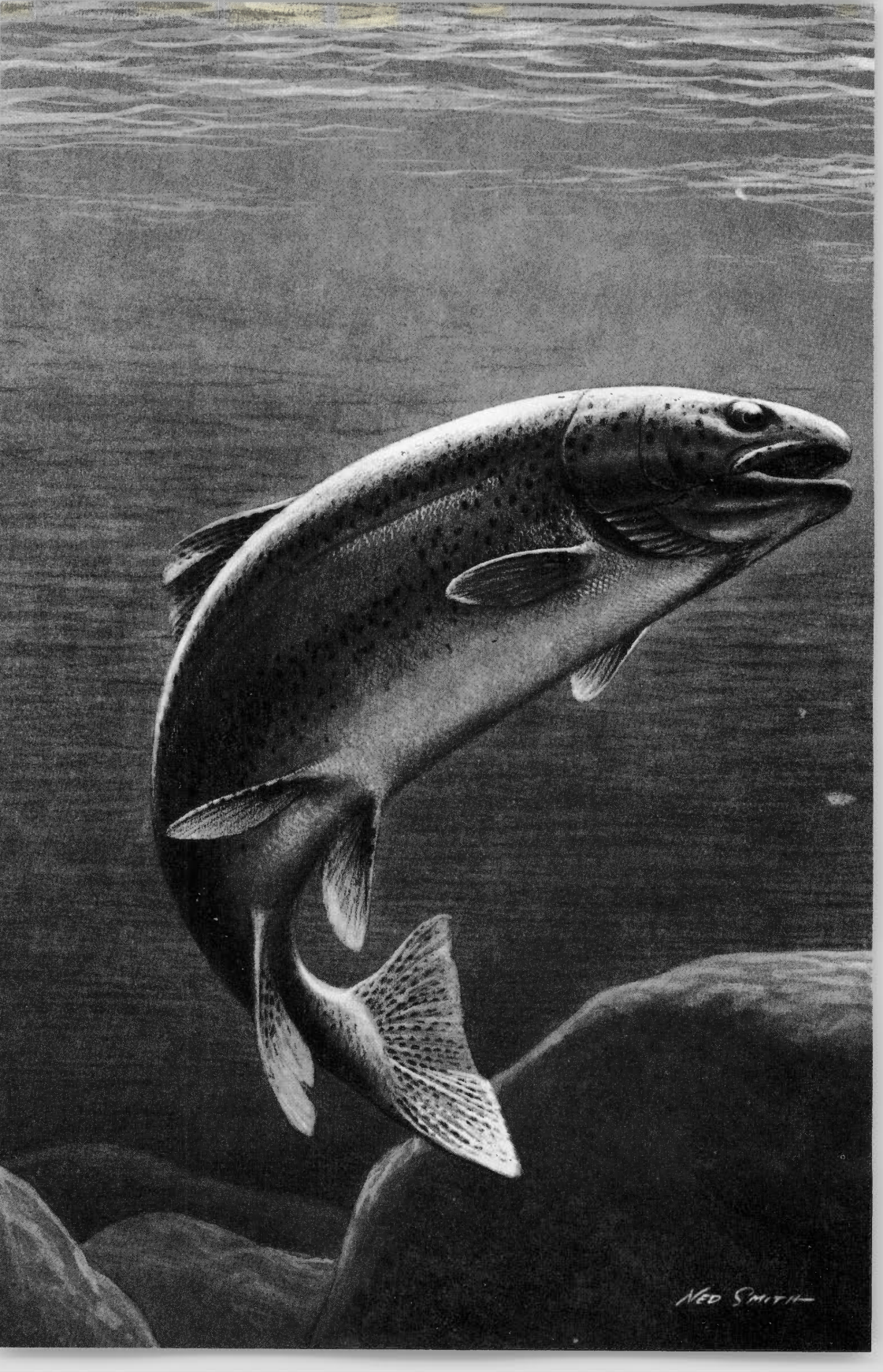
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Rainbow Trout

New Jersey's Western Cousin

By Harry Goodwin

THE RAINBOW TROUT is New Jersey's welcome cousin from the West. It is actually a native of the cool waters of the Pacific slope of western North America. The rainbow is now found in our state through the efforts of fish culturists.

The rainbow trout in keeping with its wide distribution, has been bestowed with a number of names including the following: steelhead, coast rainbow trout, hardhead, coaster, Coast Range trout, Pacific trout, salmon trout, California trout, steelhead salmon, Columbia River steelhead, and red-sides. The true steelhead (the sea run form) is actually the same species as the rainbow trout; both are *Salmo gairdneri*.

Description

The adult rainbow trout is in general silvery or iridescent with a more or less conspicuous red, pink, or purplish stripe along the sides. Fresh sea run or large-lake rainbows are usually very silvery and with only a hint of the red stripe.

Sharp, black spots, never red speckles, are present in varying abundance on the lighter back-

ground of the head, back and sides, as well as the dorsal and caudal fins. As a matter of fact, the black spots on the tail fin are one of the most distinguishing characteristics of the rainbow in New Jersey.

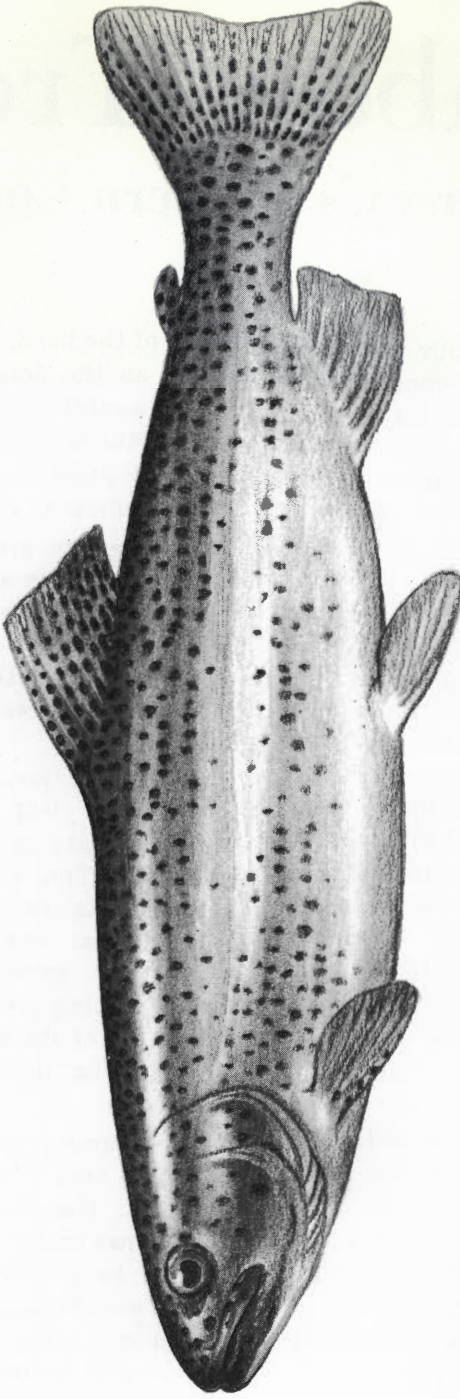
The lower fins are plain and not edged with white as are those of the brook trout. The adipose fin is bluish to greenish in color. The scales, while relatively fine, are easily seen and readily rub off in quantity.

Dark, deep pools and beaver ponds often yield rainbow trout that are so dark as to appear to be melanistic. This particular black phase results as a response to environmental conditions rather than from genetic influences. After spawning even the steelhead loses much of its silvery paleness and takes on the appearance of stream fish.

In the same pool two rainbows may have very dissimilar overall coloration. One fish may keep in the shadows under an undermined tree and be a "black" fish while another may habitually maintain a position in a sunny shallow over a light colored bottom and be very

Body—Iridescent or silvery
Sides—Light background color

Sides—Dark spots on light
Sides—No red speckles



Belly—Usually whitish
Sides—Often a red stripe

Tail fin—Many black spots
Lower fins—Relatively plain

How to Identify the Rainbow Trout

. . . Rainbow Trout

pale. This is an example of the fact that our trout cannot be positively identified on the basis of color alone.

Rainbow trout do not possess the "wrist" at the juncture of the caudal peduncle and tail fin as do the Atlantic and landlocked salmon. This difference alone should help you to separate rainbows and salmon.

Catchable fish fresh from the hatchery vary greatly in appearance depending on age, sex, strain, and hatchery pool. The large adults and "sugar" fish may be either bright as a new silver dollar or dark and scarlet as the last minutes of a summer sunset. The pan-sized hatchery fish, with the expected exceptions, are more uniformly like the picture-book conception of rainbow trout with the stripe and black spots.

Since they have long been a favorite of fish culturists, many, many varieties of rainbow trout are now to be found in stocked waters. Originally a number of local types of rainbows, such as the McCloud River rainbow trout and the Kern River rainbow trout were to be found and identified in their home waters. It is debatable whether or not any pure strains of many of these varieties may be now found since mixing in hatcheries has been so thorough. The New Jersey hatchery rainbow trout is a development of strains that are singularly suited to the conditions of our state. Currently

the Bureau of Fisheries Management is experimenting with various strains of rainbow trout, such as the Donaldson trout.

In general, mature male rainbow trout have larger, more angular heads than the females and have deeper but vertically flattened bodies. The breeding males are more colorful than the females. Mature females have more of a bullet-shaped head and rounded bodies and are of more subdued coloration. Immature rainbows of both sexes are quite similar in external appearance. The young fingerlings have dark parr marks on the sides but lack the definite rainbow stripe.

Not enough information is available to provide complete growth rate data for wild rainbow trout in New Jersey. However, based on growth of rainbow trout in other areas, wild rainbows of one year of age in New Jersey streams could be from 2 to 4 inches while three year old fish may be 7 to 8 inches long. On the other hand, hold-over rainbows in suitable lakes with landlocked herring for food, such as Hopatcong and Greenwood, may grow several inches in a single summer. The monster rainbows of the Delaware River also apparently attain their great size in a relatively short time.

The largest rainbow trout recorded landed with rod and reel in New Jersey was an 8-pound, 5-ounce fish caught in Greenwood Lake by Fritz Benzavitch in 1964. A good number of 2- to 4-pound

. . . *Rainbow Trout*

rainbows are taken from the regularly stocked waters each season.

Since most of the rainbow trout caught in New Jersey are hatchery products, the size of the fish taken in general depends on the size of those stocked. Most of the rainbows distributed from the state

TABLE I. Size and number of catchable rainbow trout from state hatchery stocked in New Jersey during 1966.

Size in inches	Number distributed
7-8	16,579
8-9	46,608
9-10	56,866
10-11	47,891
11-12	27,331
12-13	9,205
13-14	2,884
14-15	917
15-16	449
16-17	31

hatchery are from 7 to 14 inches in length. The numbers of catchable rainbow trout by sizes distributed from the Hackettstown Hatchery last season are listed in Table I.

In addition to the state hatchery fish, rainbow trout from federal

TABLE II. Size and number of catchable rainbow trout from federal hatcheries stocked in New Jersey during 1966.

Size in inches	Number Distributed
7-8	10,359
8-9	28,230
9-10	26,179
10-11	8,356
11-12	1,391
12-13	82

fish hatcheries were liberated in our streams last season. The numbers of rainbow trout by sizes

obtained from federal hatcheries and stocked in New Jersey last year are given in Table II.

As mentioned previously, the rainbow trout was not native to New Jersey prior to being stocked by man. Therefore, its distribution stems from stocking.

Apparently just about all of our rainbow trout are hatchery fish. However, this does not mean that no truly wild rainbows are to be found in New Jersey. Fingerling-sized rainbows with the characteristic parr marks on the sides may well be wild fish since few such fish are stocked in the state in all but a few selected waters. There is evidence that the Delaware River and its cooler tributaries do support a resident population of rainbow trout.

The places in general where rainbow trout are to be found with any reasonable degree of regularity coincide quite precisely with the locations at which they are stocked by the state. These waters include practically every lake, pond, and stream open to the public that has suitable water conditions for trout at least during the spring months. Thus, rainbows may be caught in most parts of the state at some time of the year. A list of the waters stocked with rainbow trout was published in the past April issue of *New Jersey Outdoors*.

Not all the rainbow trout are confined to the waters stocked since rainbows often are remarkably migratory and move about considerably. Large rainbow trout

have been caught in Barnegat Bay, the Hudson River, many unstocked reservoirs, and, of course, the Delaware River. Occasionally, a seagoing rainbow apparently from New Jersey is reported taken from the ocean itself.

Rainbow trout often prove to be dependable as hold-over fish in both lakes and rivers where they provide year-around fishing. And, they frequently are the most tenacious trout to survive the adversities of life in park ponds. There is strong evidence to suggest that rainbow trout are more tolerant of high water temperatures and conditions of pollution than the other trout species.

For years rainbow trout have been associated with turbulent, white water of large streams. However true this conception of rainbow habitat be, it is more fanciful than factual in New Jersey. The fish are simply found where they are stocked. If placed in a pond or slow stream, the rainbow will be there for at least a while. Even in large streams with heavy water and swift rapids the rainbow is just as apt to keep in a large, deep pool or under a log or bank. Of any rule for finding rainbow trout in a particular stretch of water, that of seeking them in the deepest spot immediately available is generally dependable.

In lakes and ponds rainbows cruise about most anywhere during all but the warmest weather when they may be forced to seek the cooler waters of spring holes

or deep sections. In herring lakes they frequent the open waters where the forage fish are, while in ponds they often favor the moving water at the lip of the outlet.

Behavior

Rainbow trout prefer well-oxygenated waters of 50° to 60° F. with plenty of space. Although



Rainbow trout are excellent stream fish

they can tolerate water temperatures in the upper eighties, the highest limiting water temperature is believed to be about 83° F. They do best in the wild where minimum temperatures do not go below 39° F. and maximums do not exceed 60° F.

Stream bottom conditions that best suit rainbows are gravel beds, rocky stretches, or silt and detritus that yield food. In lakes and ponds the bottom-type preference is usually immaterial as long as food is present.

Rainbow trout in streams are

. . . Rainbow Trout

quite as active at any time of the year as are other trout and generally feed well in both winter and the dead of summer. In lakes however, they almost invariably are most available during the last week of May and the first week or so of June. This period is *the* time for lake fishing.

Early in the springtime between ten in the morning and four in the afternoon are the better hours to fish. As the season progresses and the waters warm and recede the better fishing times are early morning, evening, and the witching hours around midnight. During and immediately after a summer rain are notably productive periods to fish for rainbows.

Food and Feeding

The food selection of the rainbow trout places it as our most omnivorous trout. Under usual conditions the mainstay of the rainbow trout's diet is aquatic insect life supplemented with other fish (especially in certain lakes), land insects, and worms. In some waters scuds or plankton may be the staple food while in other waters plant life in the form of freshwater algae may be the staff of life for the rainbow. And, the sweet-tooth the rainbow has for salmon eggs is widely exploited.

The larvae, or nymphs, of mayflies, caddis flies, and two-winged flies are the most important foods of the rainbow trout in most streams. Beetles, ants, stoneflies,

snails and grasshoppers are other prominent foods. Most of the food is obtained underwater but during hatches floating insects are also taken well. In most rainbow trout lakes herring are the basic food much of the year.

In streams the favorite feeding locations are at the heads of riffles, in deep runs, behind a boulder in white water, ahead of an obstruction in heavy rapids, or under an overhanging bank or log. When taking surface food rainbows often position themselves just under the surface of the water in the main current of a pool. In lakes the open waters of the main lake and large bays are favorite areas while drop-offs are preferred haunts.

Reproduction

Originally rainbow trout were spring-spawning fish that laid their eggs in the headwaters of streams during February to June. However, manipulation of breeders and selection of strains by fish culturists has produced many different reproduction habits in rainbows with winter and fall, as well as spring, spawners.

Since virtually all rainbow trout in New Jersey are direct products of the hatchery, natural spawning is rather unimportant. It is rare to find successful reproduction in appreciable quantity to provide sport fishing. The Division is making efforts to establish spawning runs in Spruce Run and other waters.

Of the wild fish that do spawn most seem to do so in the middle of spring, about the first two weeks

of May. In their brilliant breeding colors, the adult fish ascend suitable streams where they select gravel or rubble beds for the redds or nests. The fertilized eggs are left unguarded and hatch in about a month to six weeks under usual stream conditions. Because of silt, other types of pollution, and general unfavorable conditions only token quantities of the eggs hatch and even fewer of the vulnerable fry ever reach catchable size. Those that do reach maturity are, however, beautiful and sporty fish.

The hatchery production of rainbow trout involves artificial stripping of mature breeder fish for the eggs and milt and incubating the fertilized eggs in troughs. With proper diet and disease control, no easy task at times, the yield of quality fish is high.

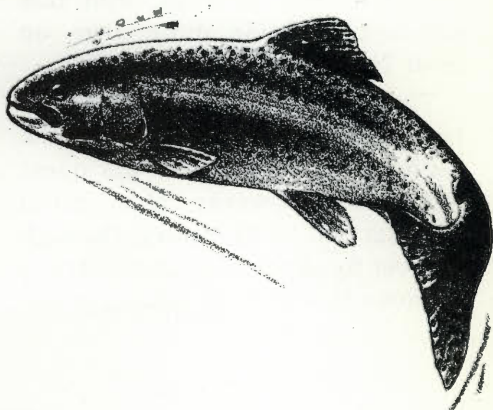
Value

The rainbow trout justly has the reputation of being the fightingest of all trout. In quick water it will strike a fly with a fierce rush and put up a fight of never-to-be-forgotten thrills. In a lake it will savagely smash into a trolled streamer and immediately take to the air in an aerial display of acrobatic leaps. Truly, the rainbow is a top-notch gamester.

The clean-cut lines and silvery burnish of a good rainbow make it a magnificent fish to behold. They keep well after being caught and are excellent for eating. Rainbows grow to a respectable size in the hatchery to provide large, fighting fish in heavily fished waters.

Of prime importance is the fact that, while rainbows will bite well even early in the spring, they do well all through the season and provide year-around fishing in suitable waters. Freshly stocked rainbows may hit most any old lure with abandon; but, once they have been nicked by a hook they can become cagey and difficult to entice. And, rainbows are excellent for fly fishing as well as spinning.

The rainbow's tolerance of adverse water conditions render it an



The rainbow is the fightingest trout

excellent choice for stocking some of our border-line trout waters where it usually provides very satisfactory fishing. Its adaptability to life in either the largest rushing rivers or the deepest lakes, and virtually all trout habitats in between, makes it popular with many large groups of fishermen. Finally, its very name, rainbow trout, weaves a vision of singing waters, pleasant hours astream, and a treasury of trout lore in the minds of hopeful anglers. #

Some hints for the amateur and tyro on
what to use to catch trout with the

WET FLY

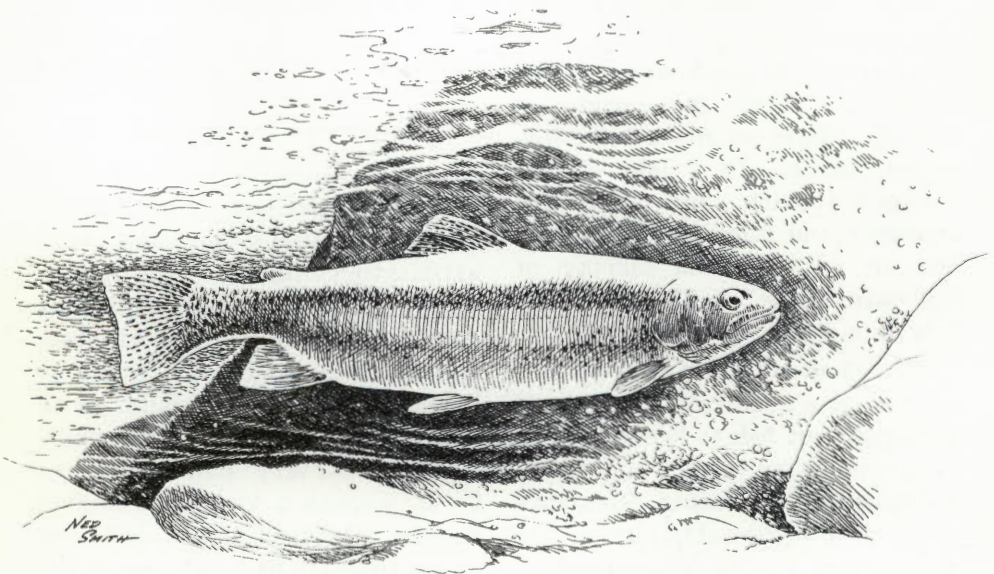
by Jack Phillips

SINCE TROUT obtain most of their food under water, it follows that flies fished beneath the surface of the water should, during most times in the course of a season, take the most trout. And, this assumption holds quite true on most New Jersey trout waters.

Therefore, wet fly fishing is the logical form of fishing for the beginner to take up in his quest for trout. However, this initial introduction to fly fishing through the wet fly should not be construed to mean that wet fly fishing is the

easiest method of fly fishing. On the contrary, the wet fly is the most difficult type of fishing to do *properly*. Nevertheless, wet fly fishing is of such importance that every fisherman who wishes to become a serious all-around trouterman, and not a purist of the dry fly only, must master the technique.

Lest any tyro be scared off at this point we would like to emphasize that it is the *fishing* of the wet fly that is difficult. While the fishing of the dry fly is relatively



simple, the casting skill required and the knowledge of stream insects essential more than offset any simplicity the dry fly method has over that of the wet fly.

Of further comfort and encouragement to beginners is the fact that much less specialized and expensive tackle is required for effective wet fly fishing. It is the selection of the fishing gear with which we are now concerned.

Tackle

Most fishermen already have some kind of a fly rod, line, and reel that can be used as a starter outfit. As long as it is reasonably suitable for the task, use it. But, if it is of very low quality, in a very poor condition, or not fairly well "balanced," we suggest that at least a balanced rod and line be acquired. Fly fishing requires the proper tools if it is to be rewarding and enjoyable.

Fly Rod Outfit:

The rod, line, and reel are practically a unit as used together. Thus, each component should be selected in relation to the other. Although the line is essentially the primary implement of the fly caster (the rod is merely employed to propel the line), the rod is customarily chosen as the nucleus of an outfit.

At one time bamboo fly rods were offered in a vast array of actions from soft-wet-fly to stiff-dry-fly. Nowadays a glass rod made by a reputable manufacturer in a fairly stiff, dry fly action is best for general use, including wet



fly fishing. The rod should be 7 to 8 feet long, preferably two-piece.

The line must fit the action of the rod. Most appropriate rods handle a number 5, 6, or 7 line to best advantage. While a level line will do the job satisfactorily, a tapered line will permit better presentation of the fly and be of immeasurable value for dry fly casting. Floating lines of synthetic material are the best all-purpose kind. Since the reel is merely a convenient spool for the line, any decent single-action fly rod reel with a large diameter arbor to prevent line kinking is acceptable.

Leaders:

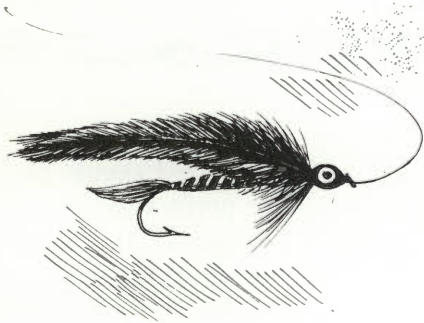
For most wet fly fishing a 7½-foot nylon tapered to 3X is appropriate. For large bucktails or streamers in heavy water or in snaggy pools a 1X tippet will save more heavy fish that may be hooked. As the waters go down and clear and smaller flies are

. . . Wet Fly

used, 5X and 6X tippets on 9- or 12-foot leaders are sometimes required to take fish.

Accessories:

As in most trout fishing, certain items will add to the efficiency and sport of the anglers. For stream fishing waders or boots are prac-



Streamers are good for large trout

tically a must. A landing net and creel help to land and keep fish in good condition for eating.

Two small fly boxes are better than one large one for flies. Smaller ones are easier to pocket and, if one is lost, the day's fishing is not ruined. A leader box or packet is handy as are a knife and a combination fly fishing tool with disgorger, stiletto, and clipper. Line dressing and leader sink are often helpful. All these are most conveniently carried in a fly fishing vest or jacket.

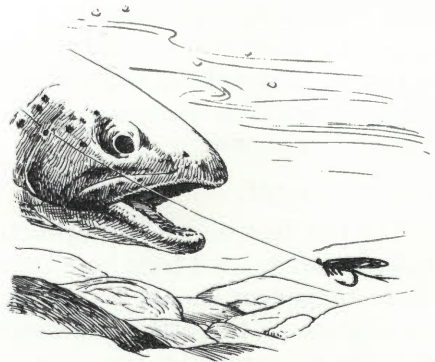
Flies

Under wet flies we are considering the nymph, the conventional hackle and winged flies, bucktails,

and streamers, as well as life-like imitations of insects or other natural food only if they are tied solely of the usual feather, hair, and body materials. We are excluding plastic, metal, and wood lures at this time.

Nymphs:

In most waters the larval form of aquatic insects, commonly just called "nymphs" by fishermen, are the main food of trout. Therefore nymphs, in the parlance of anglers, should be prominent in the trout-er's selection of lures. Artificially that represent the larval stage of mayflies, caddis flies, two-winged flies, and stoneflies, are basic ones to select. General rules are that



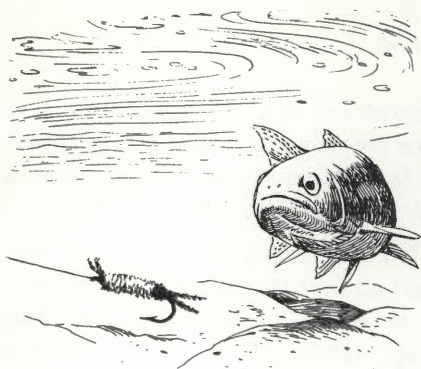
Trout really go for the wet fly

nymphs be sombre hued, not overdressed, and of smaller sizes such as on 12 and 14 hooks of stout wire.

Wet Flies:

Conventional wet flies may be taken by trout as aquatic insects in the transformation to the adult

stage, drowned adult flies, minnows, or drifting organisms of many kinds. While larger, heavily-dressed wet flies often attract big trout in large waters, the smaller, lightly-dressed wets consistently



Nymphs should usually be fished deep

bring the most hits. For New Jersey fishing the following patterns, each in size 10, 12, 14, and 16, will ordinarily suffice: Royal Coachman, Coachman, Black Gnat, Dark Cahill, Brown Hackle, Gray Hackle, Quill Gordon, and Iron Blue Dun. These flies should be tied on either turned-up or turned-down eye hooks of heavy wire and without snells. (At this point, we emphasize that the tackle and flies suggested in the article are for the tyro and amateur. As experience increases even they will add to, or possibly subtract from, the tackle and patterns here recommended.)

Streamers and Bucktails:

Streamers and bucktails are long-shanked flies quite obviously

meant, at least by the fly tyer, to represent minnows of some kind. For this reason those that are either similar in color and shape to the forage fish found in a given water or composed of the colors of the spectrum generally produce fish. Flies of this type that comprise a basic assortment for New Jersey conditions include: gray squirrel tail, brown and white bucktail, Mickey Finn, Silver Doctor, and Royal Coachman on long-shanked, heavy hooks in sizes 8, 10, and 12.

Specialties:

Specialties include those flies tied with conventional fly tying material to represent such trout foods as grasshoppers, inch worms, frogs, crayfish, hellgrammites, and scuds. This category is almost limitless, and can become very expensive if you do not tie your own flies. Nevertheless, it is usually advantageous to have at least one fly in a small size to represent each of the listed organisms.

In General:

Several representative patterns of flies in appropriate sizes almost invariably will prove adequate for wet fly fishing in New Jersey. Small sizes are generally best. (The size of the fly is considered by some experts to be more important than the color or pattern.) Purchase only good quality flies, or better yet tie your own flies. Finally, know what to *do* with the fly you do use. #

*Some hints for the amateur and tyro on
what to do to catch trout with the*

WET FLY

By Jack Phillips

THE METHODS of fishing wet flies are even more important than the tackle and flies used. All the items absolutely needed are a rod, reel, and line and a reasonable assortment of flies. But, when it comes to knowing what to *do* to catch trout with wet flies, a fair bit of savvy is required.

Fundamentals

The fisherman who already knows how to catch trout with bait has a good start toward being a fly fisherman. He no doubt realizes that the main idea is to present the lure to the trout without scaring the fish. If it be the correct fly at the right time, a hit is most likely to result.

Since fly fishing comes into its own as the streams recede and clear, the fish are apt to have become increasingly wary. Also, many of the better fish are ones that have been hooked, lost, and thus educated. Consequently, more care in approaching likely waters is essential for fly fishing.

Rigging the Tackle

The smallest feasible fly on the lightest suitable leader generally means the most rises or hits.

Therefore, for nymphs and wet flies employ at most a leader tapered to a 3X tippet and for streamers one not heavier than a 1X.

No split shot or weight of any kind should be used for fly fishing. It is wiser to learn how to fish deep, when necessary, by using sinking leaders and flies with stout wire hooks and heavy bodies.

To begin with the line should be dressed, if desired, and leader-sink applied to the leader, which should be stretched to remove kinks. The fly selected should be tied directly to the leader without snells, loops, snaps, or swivels. Although formerly quite popular, the use of a cast of two or three wet flies is less frequently employed nowadays. A single fly is more easily cast and manipulated, and seems every bit as effective.

Stream Fishing

Wet fly fishing for trout in streams is one of the most challenging and inviting forms of angling. It is the classical trout fishing around which has been built a veritable heritage of trout lore and about which have been written reams of trout fishing

tales. In New Jersey, since the bulk of the trout are stocked in streams, stream fishing also offers the opportunity for more fishermen to fish for trout.

Two rather closely intertwined approaches for presenting wet flies to trout in streams are common. Although any one method may be used to the exclusion of the other, the two should be tried to meet various conditions. Frequently the two systems may be combined in one cast.

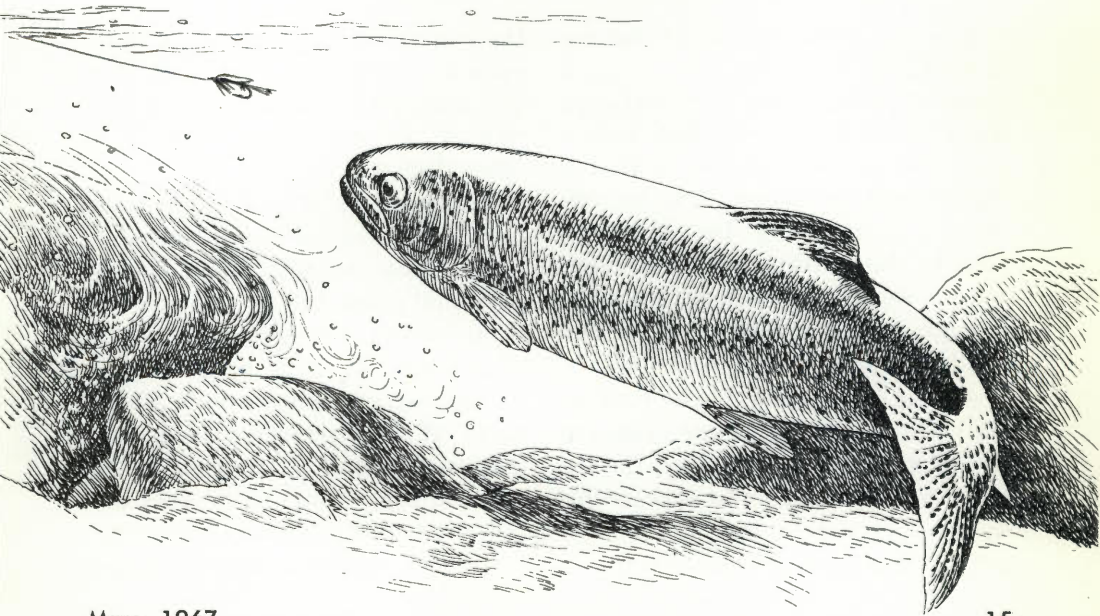
Drift Method:

The natural drift method of wet fly fishing is somewhat akin to bait fishing except that an artificial fly is used and the hook must be set the instant a strike is registered. In this type of fishing the fly usually is meant to represent a drowned

insect, a larva or nymph, or a free-drifting, emerging insect. It would probably account for more trout in a given season than all other fishing methods combined, if it were faithfully and studiously practiced by more anglers.

The lures most suitable for this fishing are the conventional, sombre wet flies, the so-called nymphs, and specialty imitations. However, on occasion exceptional results may be obtained by drifting a streamer or brightly dressed wet fly, which probably represent a dead or injured minnow caught in the sweep of the current. This method permits the deep fishing often necessary for the big fellows.

The cast for this method is made upstream into a pocket, riff, pool,



. . . Wet Fly

or other likely water so that the fly has an opportunity to sink to the depth of feeding fish before being lifted by the drag of line and leader. The fly may advantageously be permitted to continue on past the angler for cross-stream coverage and then let drift even further downstream with a slack line. Or, individual casts may be made to cover each section of water.

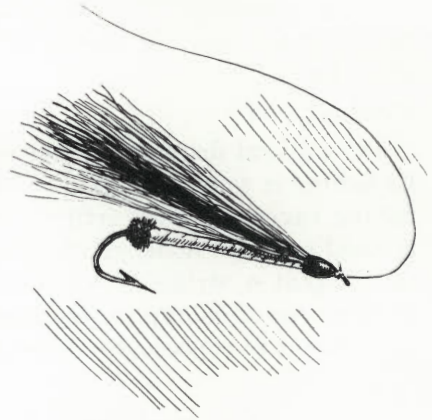
By observing feeding fish or deducing where feeding fish should be located, the prime spots to fish and the depth at which to drift the fly may be determined. As a rule the deeper the fly goes the better are the chances of a fish seeing it and taking it. Particular care should be taken to work the fly well under logs, banks, brush, and large boulders. Even though frequent snagging may result more fish will be found.

Key to successful drift fishing is to know when and how to hook trout that take the lure. Always keep control and careful watch over the line and leader so that a strike will be either felt or observed if only by the slightest twitch. Immediately set the hook with a steady pull, not with a wild, abrupt yank. Strike even at the faintest flash of a rolling fish.

At the conclusion of the cast in the drift method some experts follow through by bringing the fly back to them with the succeeding system, or action method, before lifting the fly from the water.

Action Method:

The action method of wet fly angling is generally used to give movement to a fly meant to represent a minnow or other small fish. The action is caused by sweeping or twitching the rod, retrieving line with the hand, or even reeling in line. The rhythm and intensity of the twitches and the speed of



Bucktails represent various minnows

the retrieve should be varied under various conditions. At one time fish may strike savagely at a fast moving fly only to ignore it at other times.

Occasionally, it is worthwhile to impart an ever-so-slight action to a fly being drifted. This system may well cause the fly to appear as a drowning or emerging insect swimming. It is a good way to fish grasshopper imitations. Sometimes it is productive to simply hold a streamer stationary in the current for a minute or two and then let it drift downstream before retrieving it with a series of jerks.

In action wet fly fishing the tight line employed and the usual fierce strike of the fish generally result in the fish hooking itself on a rise. Nevertheless, be prepared to set the hook by a quick flip of the rod tip.

The old-timers' trick of skipping the fly along the surface is a form of wet fly fishing that still takes fish. It is usually best done with a bright fly in riffs or on a windy day.

Dapping:

One other variety of wet fly fishing, actually a modification of the two basic methods, is dapping. In

The fly should be dropped into the water, permitted to drift while sinking toward the bottom, and then returned to the surface with action. For a nymph and most flies the action should be subdued; for streamers it may well be erratic and flashy.

Dapping is a good way to present nymphs, artificial grasshoppers and hellgrammites, and imitation frogs. Often the fish can be seen taking the lure and little problem is experienced in setting the hook. If the fish cannot be seen, watch the line or leader where it enters the water and strike at the slightest indication of a twitch or pause.

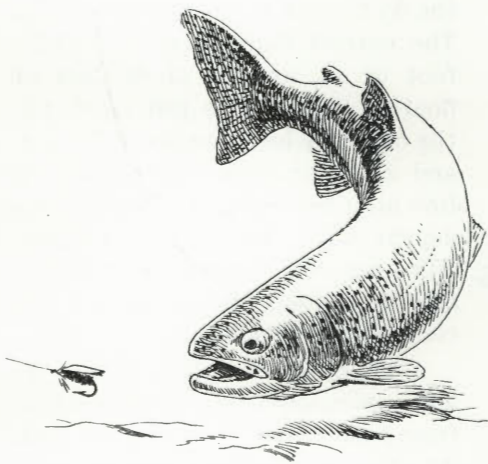
Lake Fishing

Lake fishing can provide some of the best of wet fly fishing. Some of our lakes are well-stocked and many of them contain good hold-over fish so that really large trout may be taken on flies. Frequently, the trout fishing pressure on lakes becomes relatively light after pickerel and bass fishing come into their own.

Trolling:

Without doubt trolling a streamer behind a boat or in the wash of an outboard motor is one of the most exciting and rewarding forms of trout fishing. It permits covering the most water while keeping the fly in the water, where the fish are, for most of the time. And, it sure produces big trout.

Large, gaudy streamers are considered best for trolling. A 9- or



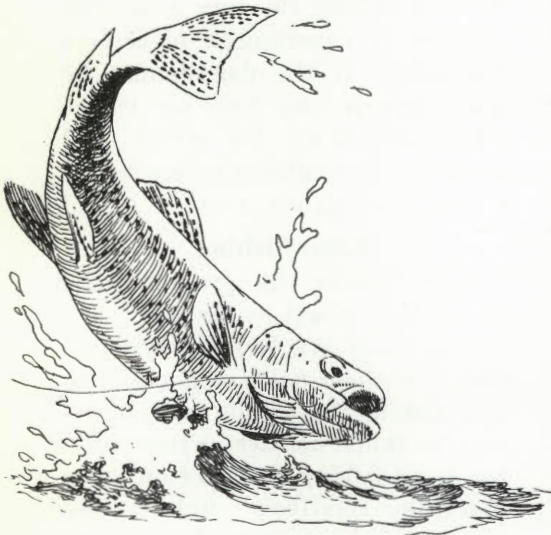
Wet flies may be given action

dapping a fly a short line, about rod-length or less, is used. The fly is simply dunked directly into the water without a true cast. It is a most appropriate way to fish small brooks, isolated pockets, and brushy spots.

. . . Wet Fly

12-foot leader tapered to 1X, or a 12-foot level 4- or 6-pound test leader, will bring more hits than the frequently used 20-pound test nylon. But, go easy on setting the hook. The fish usually hook themselves anyway.

The so-called fast, or short-line, troll is made by operating the motor (a necessity) at a speed of



The fish usually hook themselves

about three to six miles an hour. Then enough line is stripped out so that the fly is held about 25 to 30 feet astern in the churning wash of the propeller, which seems to draw fish. Troll through the open waters in the middle of the lake and in large bays, along drop-offs, and at inlets and outlets. And, be alert for action at any instant.

The slow, or long-line, troll is

used to get the fly down to deeper waters where the fish may be during warmer weather or unusually busy days when many boats are on the lake. This kind of trolling may just as well be done with or without a power boat since paddling, rowing, and even drifting in a brisk breeze provides sufficient headway. A speed of one or two miles an hour will suffice.

While big, bright streamers are usually used for this method, smaller imitations of insects, crayfish, or minnows may be tried. A leader of 12 feet tapered to 1X or 3X is good and a sinking line is often advisable.

As the craft moves slowly along, enough line is stripped out to allow the fly to sink to the desired depth. The correct depth may be only a foot or so, and 50 or 60 feet of floating line may be just right. Or, the fish may be down about 30 feet, and a 100 or more feet of sinking line may be required. Try various depths until the fish are located. (The use of a thermometer to find fish is beyond the scope of this elementary article.)

A bit of action given to the fly will commonly bring forth a strike from otherwise disinterested fish. At other times bold sweeps with the rod will provide an action that will induce hits. As long as a reasonably tight line is held, the hook may be set by merely increasing the tension.

Casting:

Fly casting in lakes may well be done from boats, docks, the shore,

or by wading. It is especially worth trying early mornings, late evenings, and at night.

The same techniques employed for the action method in streams apply. In addition to the streamers and gay flies that represent minnows, however, experiment with the small nymphs, dark flies, and imitation scuds. These smaller morsels are often taken by trout in lakes as irresistible tid-bits.

Since the feeding trout are likely to be cruising, it is not always necessary to change your location

and outlet areas and both the drift and action methods used for streams should be employed. The dapping method can be especially rewarding in beaver ponds. Concentrate on the smaller, sombre flies and nymphs when the water is very clear.

This brief introduction to the ancient and stimulating art of wet fly fishing is offered merely to assist the beginner in getting started and to help the amateur catch a few more trout. A few trips to stream or lake will open



once a good spot is found. But, stealth, camouflage, and long, fine leaders are important.

The same methods used for lake fishing may be used in larger ponds. In smaller ponds particular attention should be given the inlet

up new vistas of possibilities for wet fly fishing. A good fly fishing book will provide the broad background that is so essential, and the acquaintance of a successful local fly fisherman will fill in the chinks of the finer points. #

Policy On Fishing Programs

The Division of Fish and Game wants youngsters to enjoy fishing and encourages adult sponsored programs that truly stimulate interest in the sport. We feel, however, that the type of fishing "contest" that stresses the catching of the largest number of fish too often tends to encourage greed, poor sportsmanship, and waste of the basic natural resource. A lasting interest in the sport may well be discouraged rather than stimulated by a fish catching "derby" particularly in an over-stocked pond.

For these reasons, the Division will cooperate to the fullest extent possible with programs that agree to the following conditions:

1. Arrangements will be made for a Division fisheries biologist to check the pond or stream where the program will be held. He will investigate water conditions and existing fish populations. Stocking by the state will be undertaken only if he believes it is warranted. We will follow his recommendations as to the number of fish to be stocked.

2. Time should be provided prior to the main fishing period for the local conservation officer (or a Division assigned alternate) to explain briefly the basis of fishing regulations and state stocking and management policies to the youngsters.

3. Instruction should be provided in proper fishing methods. Whenever possible, this should be given by respected local sportsmen, but the conservation officer or other Division personnel will participate where necessary. Instruction should include:

- a. Explanation of successful fishing techniques to increase enjoyment of the sport.
- b. Emphasis on sportsman-like practices and the desirability of fishing for fun rather than "meat fishing."
- c. Instruction in proper cleaning of fish. Youngsters should be urged to release any fish they do not intend to clean and eat. If it is possible to arrange for youngsters to cook and eat the fish they have caught and cleaned, it would probably enhance this aspect of the program.

If the above conditions apply to your anticipated program, we would be happy to talk further with you about promoting fishing for the youngsters of your area.

Contact: Mr. William Peterman, New Jersey Division of Fish and Game
P. O. Box 1809, Trenton, N. J. 08625 Phone: 609 292-2965



The Division of Fish and Game wants youngsters to enjoy fishing and encourages adult sponsored programs that truly stimulate interest in the sport. The Division will cooperate with programs that agree to specified conditions. William Peterman, shown above at a program for young fishermen, is the official to contact for information and assistance

State Federation of Sportsmen's Clubs Conservation Convention

Preservation of New Jersey's outdoor heritage was the theme of last year's Conservation Convention of the New Jersey State Federation of Sportsmen's Clubs, held on May 21 and 22 at the LaConcha Hotel, Atlantic City.

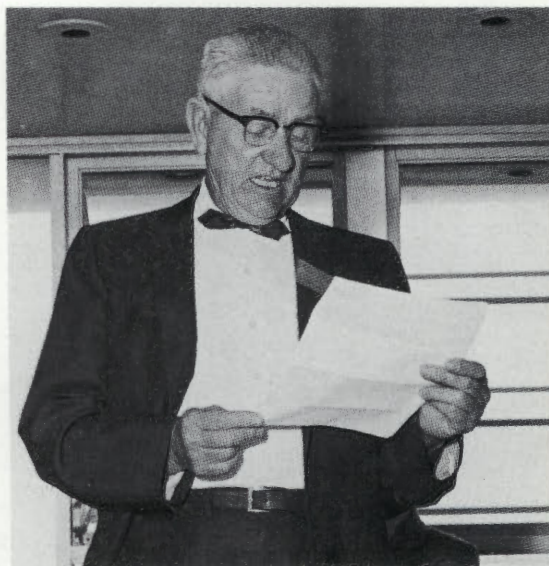
A series of distinguished speakers discussed aspects of the state's heritage during the Saturday program. The tone was set by the welcoming speech of Atlantic County Federation President Harold Gray and the Keynote address of State Federation President Raymond G. Wilson.

Commissioner Robert A. Roe described the problem of competition for the state's available land. New Jersey is facing problems 15 or more years ahead of other states because of our population density. It is vital that planning include consideration of available natural resources. Sportsmen must take the lead in support of such planning and programs like Green Acres that are aimed at preserving needed resources.

He described pollution as "public enemy number one", noting the complex problems posed by proposed nuclear plants, offshore dumping, and cumulative pollution. The need for property tax dollars

has caused municipalities to seek ratables without considering problems of waste disposal and other effects. Classifying streams is important, but standards must be enforced.

Commissioner Roe envisioned multiple use of fish and game lands as a means of maintaining the



Council Chairman David H. Hart

Division's fiscal integrity. He cited the Great Gorge Ski Area as a source of important revenue and recreation without detriment to hunting. Research programs and

a willingness to innovate can solve existing problems. Sportsmen have a responsibility to help by supporting worthwhile programs, such as attendance at local Green Acres hearings, and by setting an example of worthwhile use of recreational facilities.

Fish and Game Council Chairman David H. Hart described the Council's activities during a year of "cooperative achievement." He paid special tribute to the late Lillian B. Godown and to George H. McCloskey who presented the Council's stand on firearms legislation and headed the special Marine Fisheries Finance Committee. Captain Hart said, "In the area of marine fisheries, the Council is determined that the law will be enforced," citing efforts to obtain new coastal patrol vessels designed to do the job. He mentioned special council meetings and new legislation endorsed by the Council, stressing a new pollution bill that will aid enforcement procedures.

Director Lester G. MacNamara outlined accomplishments and problems of the Division of Fish and Game. He cited addition of 13,000 acres of land through Green Acres, building of Prospertown Lake and Kennedy Pond, increased subscriptions to *New Jersey Outdoors*, improved radio communications, and the fine hunter safety record, among positive points. Problems include meeting rising costs, providing more help in the information and education section, holding qualified person-



*Conservation Commissioner
Robert A. Roe*

nel, and combatting pollution. These problems are complex, but they can be solved through a coordinated effort and long-term planning.

Councilmen Joseph L. Alampi, Charles Cane, Jules W. Marron, Sr., and George H. McCloskey spoke briefly. Councilman McCloskey summed up their views, saying that the Federation has grown in stature and prestige, but sportsmen must grow in unity to fight together for preservation of all aspects of our heritage.

Colonel John Lee Jr., of the National Rifle Association extended

. . . Conservation Convention

greetings to the Convention. He described the Federation as a "sleeping giant" that is awakening to the danger of gradual change. The interest in our heritage is not selfish, but will benefit future generations.

Dr. Lionel Walford of the Sandy Hook Laboratory of the U.S. Bureau of Sport Fisheries and Wildlife put fisheries research into historical perspective. Large scale, year-round research is needed. Closer cooperation would lead to better use of limited research



Division Director L. G. MacNamara

funds. The greatest problems are close to home, the destruction of wetlands and pollution of estuaries, but the effects are widespread, so that local research and regulation are inadequate. Research frequently leads only to new unan-

swered questions rather than absolute proof, so there must be a greater willingness to take action on the basis of "educated opinion" in order to preserve the heritage of marine resources.

Henry R. H. Long of the New Jersey Campers' Association stressed development of land for recreation, feeling that use of land rather than the amount is important. If people live too long under crowded conditions, even the mind of man becomes polluted. He was critical of the efforts of the Department of Conservation and Economic Development in not providing more campsites and other facilities. He concluded on a positive note, quoting a west coast judge who had found over 20 years that not one juvenile delinquent had an outdoor hobby.

Paul DeFalco of the U.S. Public Health Service showed slides illustrating cumulative pollution as a major river flowed downstream. He said that recent transfer of federal pollution control to the Department of the Interior should result in higher water quality standards. Help is needed in justifying expenditures for better waste treatment. It is people who pollute and people who want to make money. Thus, people must be willing to pay to clean up pollution. Active citizen groups are needed. "The choice is yours," he concluded.

Secretary of Agriculture Philip Alampi praised the growing co-

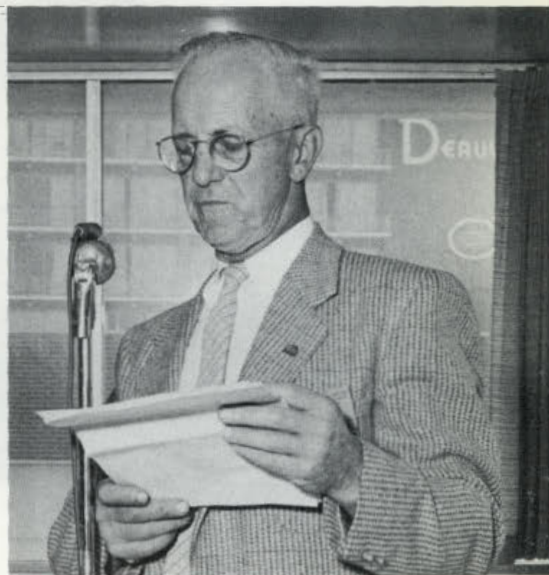
operation between agriculture and conservation interests. Sportsmen saw the need to preserve open space years ahead. Conflicts have lessened between farmers and sportsmen since farmers gained representation on the Council, and the two groups have a great mutual interest in resource conservation. Much of New Jersey's land is still left in forest, water, and open space. The challenge to preserve this heritage demands organized cooperation.

Chester Gabler of the New England Council of Sportsmen noted the common interests of the northeast in marine resources and preserving outdoor recreation. Sportsmen must engage in educating the public about the justice of their cause and in planning. They must have courage to act with limited knowledge, for action increases knowledge.

At the evening banquet, awards were presented to three youngsters for outstanding essays on preserving our outdoor heritage. They were Patrick Hennington of Westfield, Thomas Flint of Laurel Springs, and Catherine Fried of Laurel Springs. Special presentations were made to two of the ladies' group: Mrs. John Perint of Old Bridge for her participation in the Convention activities and Mrs. John Hartiger of Indian Mills for special assistance in presenting the sportsmen's case regarding firearms legislation. Councilman Marron carried out the role of

toastmaster in the style for which he is famous.

The principal speaker, Carl Fenderson, Northeast Regional Director of the National Wildlife Federation, asked, "Where are the sportsmen?" He recalled the historic activity of sportsmen in the grass roots formation of the N.W.



Councilman Raymond G. Wilson

F., and listed major issues of today, as follows: 1) environmental contamination; 2) preservation of natural beauty; 3) providing outdoor recreation through a comprehensive plan of land and water acquisition and, later, management; 4) holding and developing public lands for multiple use, including hunting and fishing; 5) firearms legislation—at the federal level, the King-Hickenlooper Bill is aimed at restricting abuse of weapons without hardship to legitimate

. . . Conservation Convention

users; 6) cropland adjustment, making possible recreational use of lands set aside from agriculture; 7) acquisition and protection of wetlands and conservation of

convince legislators and support those who stand for sound conservation.

Following the Sunday morning inter-denominational service, a



*Councilman
George H. McCloskey—
the Federation has
grown in stature and
prestige. But, sportsmen
must grow in unity*

threatened wildlife species. To preserve our heritage in these areas, sportsmen must forget provincialism, uniting on major issues. They must become active in planning on the local level, providing help rather than belated criticism, and they must use their voting power to

meeting was held to install the Federation's new officers, headed by President Al Toth of Middlesex County. In the afternoon, many participated in a trap shoot at the Atlantic City Gun Club, furnishing an enjoyable ending to a worthwhile Conservation Convention.

Responsibilities of the Bureau of Wildlife Management field units include the management of over 100,000 acres of public shooting and fishing grounds, the farm-game restoration projects, deer management, game farm propagation, forest management, research and investigation, wildlife control and land acquisition.

More Game Through

Wildlife Plantings

By Ulysses R. Thayer

Photographs by Harry Grosch

Do you want to find more game on your favorite hunting area this fall? If your answer is yes (and whose isn't?) Wildlife Manager George Howard has a word of advice for your club or group:

"If every club would spend one day a year planting, there would be much more game in the fall."

To learn more about how this is done, why don't you pay a vicarious visit through these pages to the Clinton Public Shooting Grounds on a spring morning—it could be Flatbrook or Colliers Mills or Millville, other centers of activity for the Bureau of Wildlife Management.

You accompany Wildlife Manager Howard to the south side of Spruce Run Reservoir. Here an area that was formerly a hayfield was allocated to the Division of Fish and Game upon completion of the Reservoir. The field had furnished virtually no cover, and a plan had been worked out with the Soil Conservation Service to achieve the dual goals of recreating wildlife habitat and preventing soil erosion. Contours and terraces have been laid out for plowing and

planting of various annual and perennial plants and seeds.

The phase of operation that is underway the day you are there is the planting of various tree seedlings and shrubs.

If you had come another time, it could have been planting of seeds for corn or rye or a food patch mixture.

The seeds used on these areas included: pasture mixtures, 1521 pounds; New Jersey food patch mix, 1050 pounds; Japanese millet, 700 pounds; buckwheat, 350 pounds; red top clover, 330 pounds; burnet grass, 300 pounds; birds-foot trefoil, 286 pounds; lespedeza sericea, 180 pounds; alfalfa, 120 pounds; switch grass, 100 pounds; blue indigo, 43 pounds; rye, 413 bushels; soy beans, 137 bushels; oats, 103 bushels; wheat, 28 bushels and corn, 18 bushels. The ground was prepared with the use of 497 tons of ground limestone and 143 tons of fertilizer.

Later, you return to the Clinton Tract headquarters. You find Wildlife Manager Fred Carlson on hand to meet a sportsmen's group that has arranged to obtain some



. . . Wildlife Plantings

*Nelson Boss, above,
discs an area in
preparation for the
planting being done
by the crew*

*Ken Fowler, right,
prepares autumn olive
seedlings for the crew
to set in the ground*



*Fred Carlson, right,
helps a sportsman load
New Jersey feed
patch mix seed*



Fred passes seedlings to the sportsman cooper



The result: You could expect game along this bedgerow

. . . Wildlife Plantings

trees and seeds. Tomorrow they will be planting them on tracts which they hunt. As you watch you make a note to contact the Bureau of Wildlife Management now about getting trees for your club next spring.

One thing you should bear in mind is that a successful habitat improvement program requires planning. Whether it is a Public Shooting Ground or your club

lands, indiscriminate scattering of shrubs is not likely to achieve satisfactory results. The trees and shrubs will not be given out to your club just because you ask, but on the basis of a planned program to benefit wildlife.

For Assistance

Even if the full quota of trees is consigned, the Bureau of Wildlife Management stands ready to recommend techniques that will improve habitat. Why don't you contact them today? #

Council Highlights

February Meeting

The regular monthly meeting of the Fish and Game Council was held in Trenton on February 17. In addition to the Council members and Division personnel present the following persons attended: Edmond Shuler, John Higgins, and Joseph Briel.

Fisheries Committee

Councilman McCloskey, Chairman of the Fresh Water Fisheries Committee, reported that the committee had requested additional information on waters for stocking purposes and that the Fisheries personnel had done an excellent job in preparing this. It allows better distribution of trout that should result in an improved harvest. The aspect of pollution was considered by the committee, and based on the recommendations of the local conservation officers, Bear Swamp Brook in Bergen County would not be stocked and the Pohatcong in Warren County would be stocked above Washington but not from Washington to several miles below the town because of the sewage disposal problem. This includes the area that sometimes runs dry and the area affected by a foaming condition.

Trout Stocking

Mr. McCloskey further reported that Donaldson rainbow trout have been stocked in Spruce Run Reservoir and the entire pre-season stocking in Wawayanda and Hopatcong would be of the same Donaldson strain, as well as in-season stocking in Greenwood Lake. Some off-color golden trout, which would be vulnerable because of their color, would be stocked in impoundments throughout the state. The tentative pre-season stocking list had been released to the press and Councilman McCloskey requested Chief Hayford to furnish a copy to each member of the Council. He stated that the conservation officers have been requested to make a study of the pressure in their areas with the idea of revising stocking numbers next year.

Land Acquisition

Councilman McCloskey also reported that Green Acres is proceeding with the acquisition of the Terhune property at Pompton Lakes and this will supply the public access to this body of water which the sportsmen in that area and the Council have been endeavoring to secure for many years.

Deer Season

The recommendation was made by Councilman McCloskey that consideration be given to extending the deer season in areas experi-

. . . Council Highlights

encing a heavy loss due to cars. (At the request of Councilman McCloskey, Chairman Hart appointed him a member of the Game Committee.)

Ditching at Marmora

Councilman Reid referred to recent correspondence from the Shellfisheries Association in regard to the deleterious effects of ditching at Marmora carried out by the Cape May Mosquito Commission. Director MacNamara advised that our biologist was investigating the situation. Action on the matter was to be held in abeyance until the biologist's report was received.

Sussex Show

Councilman Space extended an invitation to the Council to attend the Sussex County Outdoor Show to be held at Great Gorge the week end of May 13-14.

Marine Fisheries Meeting

Councilman Richardson reported on the meeting of the Atlantic States Marine Fisheries Commission which he and Chairman Hart attended in Washington. The meeting was pertinent to states involved in menhaden fishing. As a result of action at the meeting, Paul Hamer was designated to represent New Jersey on a sub-committee appointed to contribute whatever they can in determining the cause of the decline in the menhaden population.

Sports Writers Dinner

At the suggestion of Councilman Reid, the Council set the date when the outdoor sports writers will be invited to dinner as guests of the Council. The affair will take place at the Italian-American Sportsmen's Club, Trenton, on Tuesday, May 9, at 6:00 p.m. It also was decided that an invitation to the dinner should be extended to the Legislative Sub-committees on Fish and Game. A motion approving these arrangements was made by Councilman Alampi, seconded by Councilman Wilson and passed.

Spruce Run Fishing

Councilman McCloskey called attention to the fishery program carried on in Spruce Run and the publicity this program receives in the newspapers. He said that persons desiring to fish there are limited to the hours of 9:00 a.m. to 5:00 p.m. and that the restricting of fishing privileges to only these hours prevents many people from availing themselves of this opportunity.

By motion, duly passed, the Council went on record in favor of

requesting Commissioner Roe to endeavor to have the hours for fishing at Spruce Run Reservoir set from 5:00 a.m. to 9:00 p.m.; also, that he give consideration to selling a season pass for using this facility.

Hen Pheasants

Councilman McCloskey suggested that the Game Committee give consideration to the extension of the area where hen pheasants may be shot. Sportsmen in Warren County indicated to him that they would be in favor of a bag of two hens or cocks throughout the entire county since a great many hens were being lost presently that could be harvested by the gunner. Mr. McCloskey stated that this would save work at the game farms since the chicks would not have to be sexed, and the sportsmen would have the benefit of more birds at less cost as it would not be necessary to keep as many breeders on hand.

Director MacNamara favored the shooting of hens and cocks on all public shooting grounds.

The matter was referred to the Game Committee to consider and present at the March meeting, and also to reappraise the entire pheasant stocking program. In the meantime, the Bureau of Wildlife Management was to study the proposal and make their recommendations prior to the March meeting since time is of the essence if any changes were to be made in policy before the onset of the spring breeding season.

Lake Wapalanne

Further consideration was given to the administration of Lake Wapalanne, which was discussed at several meetings during this winter, and it was moved by Councilman Alampi that the administration of the lake be turned over to the State School of Conservation on a trial basis for one year, and if fishing is allowed in the lake, it will be necessary to abide by Fish and Game laws. Motion was seconded by Councilman Wilson and passed.

Coastal Patrol

Mr. Newman Mathis, Chief of the Coastal Patrol, reported that there was very little dragging activity along the coast during the month. Seventeen apprehensions were made. One case involving a lobster violation was settled, and sixteen complaints involving net violations were postponed. Personnel of the Coastal Patrol Unit attended in-service training courses at the State Police Station in West Trenton.

Fisheries Management

Robert Hayford, Chief of the Bureau of Fisheries Management, reported that fish at the hatchery are growing nicely and would be in fine condition when stocking commenced. He called attention to

. . . Council Highlights

the 3,960 largemouth bass stocked in Malaga Lake and 17,500 trout fingerlings placed in Round Valley Reservoir. Trout to be received from the Federal Government this year for stocking purposes would total 242,550 and our trucks would begin to pick these fish up in March. Close to a half million fish will be stocked for this year's fishing season.

Public Relations

William Peterman, Supervisor of Public Relations reported that personnel were busy setting up the new record fish program and would have the rules and regulations promulgated and released in the near future. Plans call for the preparation of a certificate to be awarded to those who qualify with a record fish.

Law Enforcement

In the absence of Chief Coffin who was ill, John O'Dowd, District Conservation Officer, reported that February was a relatively slow month as far as enforcement was concerned. Ice fishing had not been pursued too actively because of unfavorable ice conditions. Personnel were busy posting signs for the coming fishing season.

With regard to pollution cases, a question was raised concerning the length of time within which a complaint must be filed. Mr. O'Dowd advised that a complaint must be filed within one year, but once the complaint has been filed, it can continue for longer than a year. The Council cautioned the law enforcement unit to keep this in mind and to make certain a complaint, when warranted, is filed within the required time limit.

Wildlife Management

George Alpaugh, Chief of the Bureau of Wildlife Management, reported that analysis of deer recently found dead at the Hercules Plant in Morris County showed no evidence of virus infection, which had previously been suspected. The State Health Department was very cooperative in making this analysis for us and Mr. Alpaugh was grateful for their assistance.

Waterfowl appeared to be wintering well, according to Mr. Alpaugh, who reported that the marshes along the entire coast were checked and waters were open and the birds were feeding. Pheasants and deer have been observed in the wild, and if weather conditions continued as they had, wildlife should have wintered over well.

Three new employees have been added to the staff of the Bureau of Wildlife Management and it is hoped that two or three more will

be employed. This help is needed to handle the increased land being assigned to the Division through Green Acres purchases. Progress is being made with purchases at the Assunpink Tract. There should be some area open for hunting as well as for field trials next fall. Two more properties have been acquired at Black River and some beagle trials have been held there.

In order to revitalize the pheasant stock at our game farms, eggs have been ordered from England and should arrive by May.

Smithville Dam

John Higgins, representing the Burlington County Federation of Sportsmen's Clubs, spoke to the Council in the interest of maintaining the Smithville Dam on the Rancocas Creek. This dam is in poor condition and will be pulled unless financial support is found to repair it.

Director MacNamara advised that the repair of this dam was discussed at a meeting of the township engineer and Commissioner Roe. The township was to investigate the possibilities of securing BOR funds for this purpose. At the present time the Assemblyman from Burlington County has introduced a bill providing for an appropriation of \$30,000 to repair the dam, and if this bill passes, this would solve the problem.

Chairman Hart assured Mr. Higgins that the Council is in sympathy with the efforts of the Burlington County sportsmen and if there is anything the Council can do, they will be happy to assist; however, the dam is owned by the township and it is their responsibility to maintain it. #

Outdoor

Cracks and Tracks

*"Watch your step, Harry . . .
there's quicksand in this swamp
Harry? . . . Harry? . . . Harry?"*



Scrub Oak

(*Quercus ilicifolia*)

Scrub oak, sometimes called bear oak, is commonly found on dry, sandy, or gravelly sites. Within its range, areas frequented by forest fires often become good scrub oak sites. Soil improvement tends to favor the better oak species, and since scrub oak cannot endure shade, it gives way to other hardwoods.

Range:

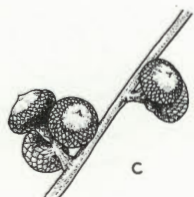
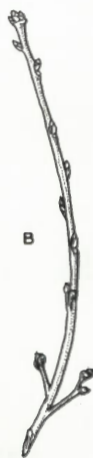
Southern Maine through New York, Pennsylvania, and New Jersey, and south to West Virginia and Western North Carolina and Virginia.

Leaves:

Alternate, simple, 2 to 5 inches long, broadest near the tip, wedged base, bristle tipped, 5 to 7 lobes, and often 3-lobed at the tip. The leaf is dark green and shiny on top and light grayish-green on the bottom with dense brownish hairs along the main conspicuously yellow midribs and veins. The leaf is thick and leathery with a petiole three-fourths to one inch long. (See figure A.)

Twigs:

Slender, and when young they are greenish-brown and hairy. Older twigs become dark brown and smooth. Buds are alternate, one-



Scrub Oak

A. Leaf

B. Twig, with buds

C. Acorns, on twig

eighth inch long, and rounded. (See figure B.) The bark on older trees becomes scaly and turns dark brown in color.

Flowers:

Male and female are borne on the same tree, usually in May when leaves are about one-third mature. The male flowers are borne in catkins 4 to 5 inches long, and they often remain on the tree into late summer. The female flowers occur on short stalks and are reddish in color.

Fruit:

An acorn that matures in 2 years. It ranges in size from one-half to three-fourths of an inch long. It is about as wide as it is long. The acorns are sessile or attached directly to a short stalk. They are usually clustered in pairs. The acorn is broadly ovoid, and it has a flat rounded base half enclosed in a thick cup. The acorn is light brown and usually striped. The fruit is very bitter. (See figure C.)

Uses:

It is of little commercial value. Usually it does not exceed 6 inches in diameter and 20 feet in height. Its main use is for fuelwood and protection against soil loss. It serves as deer food, too. #

—Austin N. Lentz, *Extension Specialist in Farm Forestry*
Rutgers—The State University
Drawings by Aline Hansens

Scrub oak is actually very important to wildlife, especially in south Jersey. Deer depend to a great extent on the acorns and utilize the buds and twigs. Grouse, rabbits, and quail also make good use of scrub oak. If wild turkeys were to become firmly re-established in south Jersey, the scrub oak acorns would probably be one of their mainstays.

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1967 Federation Convention

to be held May 20-21

New Jersey sportsmen should mark May 20 and 21 as red-letter days on their 1967 calendars, the dates of the two-day annual convention of the State Federation of Sportsmen's Clubs at the La Concha Hotel, Atlantic City.

A highly interesting program is being planned. Commissioner Robert A. Roe has already agreed to speak on Saturday morning; his frank discussion of the state's conservation program has been a highlight of the last two successful conventions. A number of prominent conservation authorities are being contacted to speak, in addition to the usual reports from state fish and game officials and federation officers.

An innovation is the scheduling of the annual trap shoot on Saturday afternoon. Switching this event from Sunday afternoon will enable more delegates and visitors to participate. A special ladies program will include a tour of the Lenox China Works and a luncheon and tour at historic Smithville Inn. Presentation of awards to young winners of the conservation essay competition will be a highlight of the Saturday evening banquet.

The program is as follows:

Saturday—May 20

- 8:00— 9:30 a.m. Registration
- 9:30— 9:40 a.m. Welcome Address President of Atlantic County Federation
- 9:40— 9:50 a.m. Keynote Address—Al Toth, President New Jersey State Federation of Sportsmen's Clubs
- 9:50—10:05 a.m. Robert A. Roe, Commissioner, Department of Conservation and Economic Development
- 10:05—10:15 a.m. Introduce Council Members
- 10:15—10:30 a.m. David Hart, Chairman, Fish and Game Council
- 10:30—10:45 a.m. Lester G. MacNamara, Director of Fish and Game
- 10:45—11:15 a.m. Speaker—to be announced
- 11:15—11:45 a.m. Speaker—to be announced
- 12:00— 1:00 p.m. LUNCH

1:00— 1:30 p.m. Speaker—to be announced

1:30— 2:00 p.m. Speaker—to be announced

2:00— 5:00 p.m. Trap Shoot

Fun Shoot

Delegate Shoot

8:00 p.m. Banquet—Toastmaster—Jules Marron

Reading of winning essays

Presentation of awards

Speaker of the evening—to be announced

Sunday—May 21

8:00— 9:00 a.m. Breakfast

9:00— 9:30 a.m. Non-denominational Church Services,

Jules Marron

9:30—11:00 a.m. Business Meeting

Installation of Officers—1967-68

11:30—12:30 p.m. LUNCH

Inquiries about reservations should be directed to one of the following regional representatives:

Northern Region —Gil Ernst

42 Sanford Drive

R.D. #2

Dover, N. J.

Central Region —Irving Luizza

24 Dudley Avenue

Edison, N. J.

Southern Region —John Cavagnaro

79 Avon Place

Vineland, N. J.

Mrs. Marjorie B. Wilson of Route #38, R.D. #2, Mount Holly 08060 is Secretary for the convention. #

Camping and Sports Fair

New Jersey State Fair Grounds, Trenton

May 5, 6, and 7, Inclusive

Daily — — 10:00 a.m. to 10:00 p.m.

Sunday — — 1.00 p.m. to 10:00 p.m.

Camping and sports equipment and demonstrations

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New Jersey State Federation of Sportsmen's Clubs, Co-sponsor

Special, reduced rate, family tickets available from Federation members

Guide to the

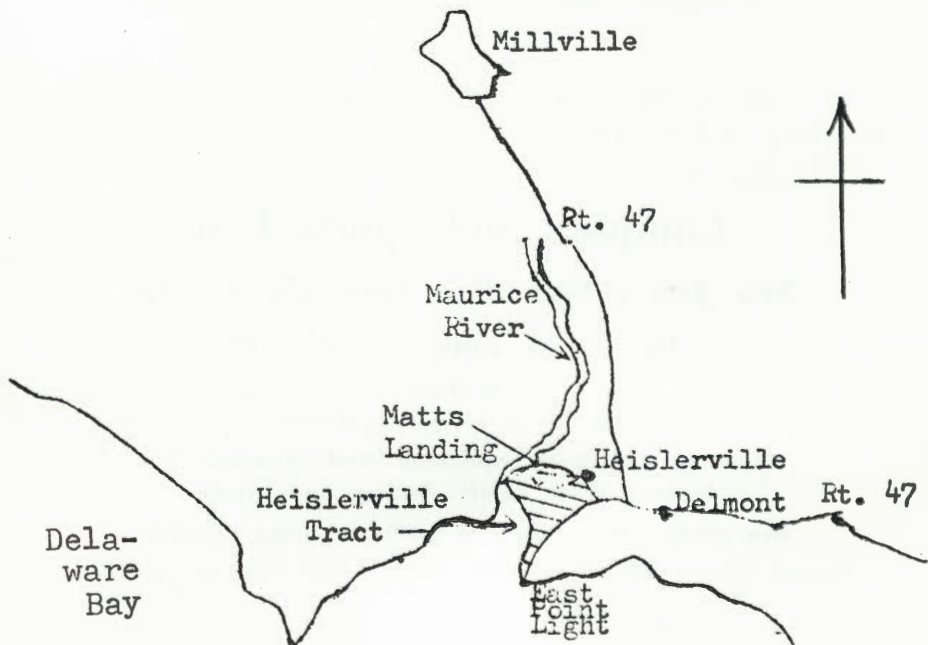
Heislerville Tract

The Heislerville Public Shooting and Fishing Grounds (Cadwalader) Tract is located in Cumberland County and comprises about 2,678 acres of mostly tidal marsh and a small amount of upland. The tract is bounded on the east by Thompsons Beach, on the west by the Maurice River and Delaware Bay, and on the north by Menhaden Road.

The upland and higher tidal marsh offer excellent pheasant, quail, and rabbit hunting and the lower marsh provides good duck hunting and some muskrat trapping. The Matts Landing waterfowl impoundments comprise some 350 acres of diked-in marsh which is divided into three management units. These areas are managed for waterfowl production and as resting areas for waterfowl during their migration.

At Matts Landing there is a commercial party boat dock where boats leave daily for fishing in Delaware Bay. The East Point lighthouse is maintained as a historical site. A boat-launching site is available near the lighthouse.

To reach the Heislerville Tract from the city of Millville, take Route 47 south about 15 miles toward the town of Delmont. Turn right off Route 47 and proceed 3 miles to the village of Heislerville. To reach Matts Landing, turn right in Heislerville and take the first blacktop road to the left and proceed 1 mile to the landing. To reach East Point Light, turn right off Route 47 just before reaching Delmont and follow this road about 5 miles to the lighthouse. #



Trout Stamps for Collectors

Stamp collectors now have an opportunity to add the ninth issue (1961) of the New Jersey trout fishing stamp to their collections. There are two denominations: a \$2.00 stamp for the resident fishermen, and a \$5.00 stamp for non-resident fishermen, which may be purchased at reduced prices.

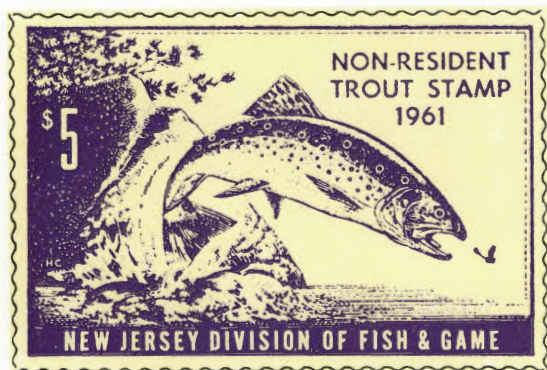
The stamps come in sheets of ten, each stamp in the sheet being fully perforated. Collectors may purchase them in single sets, block-of-four sets, or in full sheet sets. The set of two stamps (a \$2.00 and a \$5.00 denomination) is offered at 50¢, blocks of four of each at \$2.00, and in full sheets of 10 of each at \$5.00.

Remittances should be made by U. S. check or money order, payable to the New Jersey Division of Fish and Game. Postage stamp payments cannot be accepted because of accounting problems. Orders should be sent to Trout Stamps, Division of Fish and Game, Box 1809, Trenton, New Jersey, 08625.

Needless to say, collectors may purchase the current 1967 trout stamps in any quantity at the face value of the stamps, namely \$2.00 for the resident stamp and \$5.00 for the non-resident stamp. (It is not necessary to have a fishing license to buy the stamps.)

All revenue received from the sale of these stamps is used for fish and game management.

The opportunity to secure this ninth issue of trout stamps in mint condition is limited to requests received before June 1, 1967. Any remainder of this limited issue will be destroyed after that date, as was done with the previous issues.



The 1961 non-resident trout stamp is purple on yellow. (The resident trout stamp is black on white.) The reproduction of the non-resident stamp at the left is approximately one half larger than the original

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Do not touch!



The young of wildlife, especially fawns and baby raccoons, make tempting pets.

But, they are better off if left with their mothers. (No, few are actually orphans. The mother is usually nearby.)

(Also, it is illegal to pick up and keep such wildlife for pets.)