

NJPB

# New Jersey Outdoors

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# New Jersey Outdoors

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## FRONT COVER

Looking ahead to Spring. Young lady picking flowers at Ferry House in Washington Crossing State Park. Photograph by Greg Johnson

## INSIDE BACK COVER

Mourning Cloak Butterfly. Painting by Carol Decker

## BACK COVER

"Forests Are More Than Trees" the National Wildlife Week theme for 1988. To help America celebrate Wildlife Week, March 20-26, the National Wildlife Federation and its state affiliates will distribute more than 600,000 education kits, free of charge, to educators across the country. Included in the kits are two 17" x 22" full-color posters, an educator's guide for grades K-12, and a sheet of 36 mini-poster stamps.

(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.

# Editorial

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## **"It's Spring again. There are birds on the wing again . . ."**

That's what the song declares. But it's just a trifle early, although I'm ready for it. And so are many of our readers.


In my case, it could be wishful thinking. I'm putting this editorial together in early February and the temperature this morning was 14 or 15 degrees F. But it's coming. In fact, this past week, "Kittatinny Pete," our garden state woodchuck, predicted an early Spring. Or did I dream it? It's possible. I even dreamt of a deeply-tanned Hawaiian sun worshiper placing a lei around my too-white indoors neck.

And if you too have such a vivid imagination and keep looking hard you'll see the emerging points of skunk cabbage in those swampy areas along some rural roads. And if you look close, you'll observe the small yellow forsythia buds beginning to swell with life.

And did I see a crocus or two poking through that bed of crumbling brown leaves? I know I haven't seen a red-winged black-bird as yet . . . or a robin. Nor have

I heard the annual choral debut of spring peepers in the nearby woods. These are signs of Spring I haven't experienced this year, as of today. But they'll show up—they always do.

We also know that in the Spring a young man's (and young woman's) fancy turns to . . . a walk in a woodland glen, a canoeing trip on a meandering pinelands stream, fly casting on the Big Flatbrook, the Musconetcong, or the Ken Lockwood Gorge. Maybe cycling along the Delaware and Raritan canal . . . or observing wildlife while walking our coastal and Delaware Bay beaches.

But before you do all this, check the Table of Contents and note the variety of activities discussed in this issue. And the Calendar of Events introduces many more. 

*Steve Perrone*

## **In this Issue**


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Our front cover captioned "Looking ahead to Spring", which features a young lady picking flowers at Ferry House in Washington Crossing State Park, brings us face to face with the new season. The cover photograph was provided by Greg Johnson, from DEP's Green Acres Program.

The back cover poster, "Forests Are More Than Trees" introduces National Wildlife Week, March 20-26. The National Wildlife Federation and state affiliates will distribute more than 600,000 education

kits, free of charge. To receive the free kits, write to:

National Wildlife Federation  
1412 16th St. NW  
Washington, DC 20036-2266

One subscriber reminds us that our January/February front cover was a sunrise, not a sunset. Also, apologies to B. Griffin, not Griffith, on pages 9 and 16; D. Visintini instead of Visantini on page 40, and Dave Campione is the photographer of photos on pages 15 and 30. 

# Trout Fishing Techniques

for  
small  
streams

Hip boots and camouflage clothing help to ensure success. Angler is George Chick.



Small spinners and plugs are the author's favorite lures.

PHOTOS BY AUTHOR

Small streams, often called creeks or brooks, can provide some outstanding fishing, especially for trout. Yet, these miniature waterways frequently are ignored by anglers. Why? Small streams tend to be inconspicuous, seldom given a glance by most anglers. Even when noticed by the casual observer, they hardly seem large enough to sustain fish worth catching. In addition, small streams are not subjected to the publicity received by major trout waters such as the Musconetcong, Big Flatbrook or Paulinskill. When is the last time you saw a fishing article mention Dark Moon Brook, Honey Run or Lakihoake Creek? But perhaps the principal reason that many small streams are bypassed by wave upon wave of fishermen headed to more popular waters is that they can be somewhat difficult to fish and generally unreceptive to angling techniques proven effective on larger waterways. In this article, I will discuss trout fishing techniques for small streams which have worked well for me.

To start with, I am particular in selecting the small streams I fish. In addition to the obvious—clean, well oxygenated water capable of supporting trout—I seek those relatively remote, hidden or difficult to reach rivulets which manage to avoid attention. I especially concentrate on segments of small streams where banks are rendered inhospitable by brambles, briars, nettles, quagmire or other obstacles to human intrusion. If the stream is patrolled by hordes of hungry mosquitoes or angry gnats, all the better—I am more likely to have the place to myself and less likely to encounter trout which, because of excessive fishing pressure, are super-educated in the ways of anglers. Although most of the streams I fish are well stocked with trout, thanks to New Jersey's outstanding trout management program, I take special pride in locating those mini-waterways which, despite not being visited by hatchery trucks, hold native brookies, naturally-spawned wild browns or itinerant trout which have migrated from larger trout stocked waters. Sure, it takes time and energy to locate small streams worth fishing, but believe me, it is well worth the effort.

As for equipment, I usually employ spinning tackle. There is nothing like a 4½ to 6½-foot, light or ultra-light spinning rod and a matching open-faced reel spooled with 4-pound test monofilament for casting tiny baits and lures within the narrow, vegetation-choked corridors which typify these secluded waters.

Contrary to the advice given in most "how to" articles on trout fishing, I prefer to fish in a downstream direction. Yes, I am aware that trout face into the current and are least likely to be spooked by casting and wading up-

stream, from behind the quarry. And, I will agree that on larger courses of water, an upstream approach works best. Nonetheless, fishing in an upstream direction tends to be impractical on most small waterways. With some exceptions, small streams tend to run shallow. Cast a subsurface artificial lure or live bait upstream under low water conditions and, upon the retrieve or drift downstream, you will snag bottom and underwater obstructions so often you will wish you had stayed at home. While I sometimes take advantage of an unusually deep stretch of water or pool by casting upstream, it is my view that the merits of this approach are overrated. For me, fishing small streams is basically a downstream proposition. Although many veteran troutsters will take issue with me on this point, I can only say that I catch plenty of trout by fishing in a downstream direction, including some that will not fit into a creel. The trick in fishing downstream is to move along ever so slowly and unobtrusively, keeping noise and movement to a minimum, and disturbing the stream bottom as little as possible.

Since the banks of small streams frequently support jungles of impenetrable brush and tangled foliage or are otherwise difficult to negotiate, I prefer to wade. Even where walking along the banks is feasible, I find that wading is less likely to alarm trout. When the weather is cool, I wear hip boots; when it is warm, I wear sneakers and old jeans. At times I even sport camouflage clothing; however, this is not absolutely necessary. During my descent downstream, I keep close to either bank to reduce my profile and better blend in with the surroundings. If the waters are turbid, which often is the case in the spring, a great deal of stealth is not all that critical; but when waters are clear, it can make the difference between success and failure.

I prefer to fish small streams with spinners. For me, no artificial lure or live bait will take brook, brown and rainbow trout more consistently than these metal-bladed imitations. The spinners I use are small with #0 or #1 blades, weighing 1/16 of an ounce or lighter. As I proceed down a stream with the current urging me forward, I make sure that the spinner covers every inch of water, sometimes casting to the same spot several times or more if experience tells me that the location is likely to yield a trout. I like to direct my downstream casts slightly toward the opposite bank, thereby permitting the current to arc the lure in front of me. As the spinner completes the arc, and if the flow of water is strong enough, I will let it linger and flutter enticingly in the current before initiating the retrieve.

Long-distant casts are unnecessary in this type of fishing. Within the tight confines of

BY GEORGE KIRSCHBAUM

**George Kirschbaum**, a retired military officer and an active sportsman, has been published in our magazine several times dating back to his active service days.



**This 3.5-pound Rainbow Trout attests to the effectiveness of spinners and downstream casting.**

small streams, directing a spinner or other offering toward the intended target is best described as "tossing" and "flipping." Accuracy is much more important than distance.

No lure is perfect, and my favorite spinners sometimes fail to produce. When this occurs, I will not hesitate to use live bait. Usually I prefer worms, more specifically small night-walkers or garden worms. In presenting a worm on a small stream, I seldom use weights or floats. I simply tie a #10 or #8 hook to the end of the line, hook the worm through the middle, and flip it into the current. I then allow the current to bounce the worm downstream, lifting the rod occasionally to keep the bait from hanging-up on the stream bed. In employing this technique, try to avoid slack line, retain a slight degree of line tension, and guide the worm into likely nooks and crannies. Watch the line closely for any unusual movement which might indicate a strike. In many instances, you will actually be able to see the trout take the bait.

Some segments of small streams present special problems. I refer in particular to runs and pools which are too deep or muddy to safely wade, where the current within is not swift enough to drift a bait, and where masses of overhanging branches preclude even short casts. Such stretches of water are not typical of small streams, but they are common enough to warrant discussion. One of my favorite methods for fishing these places is to snap a tiny bobber or plastic bubble on the line just high enough above the bait (a worm or minnow) to keep it off the bottom. Then I drift the bobber and bait combination down into the otherwise inaccessible piece of water. Some of the largest trout I have taken were caught in this fashion.

Still another technique that works well in the situation described above involves using a small floating-shallow diving plug such as the Rapala #5. Float the plug downstream to the desired location, then slowly retrieve it back upstream. If a trout strikes, there is a good chance it will be a lunker.

Now and then, when a masochistic impulse overcomes me, I will invade a small stream with a fly rod. Usually, my ammunition while under this spell is wet flies—a term used here to also include nymphs and streamers. I attach these imitations to the end of a relatively short, tapered leader—no longer than the rod, which should be 7½-feet or less. Again, I wade downstream restricting my casts to short tosses and flips, allowing the line, leader and fly to drift ahead of me in a manner similar to the one described for drifting worms. The idea here is to keep the fly furthestmost downstream in front of the leader and line, applying just enough tension for the current to achieve the desired effect. The most difficult aspect of this technique is detecting a strike and setting the hook when the fly is adrift. It is a procedure which requires plenty of practice if proficiency is to be attained, but it can be very effective.

As for dry flies, it has been my experience that these terrestrial imitators are difficult to fish within the low-hanging canopies of trees and shrubs which converge on small streams. To be properly fished, a dry fly must be cast upstream. This entails backcasts, rollcasts and other maneuvers which are tricky to accomplish within close quarters. However, I have taken a few trout from small streams on dry flies by confining my casts to occasional stretches of open water and by "dapping" the artificials on quiet pools and deep runs. In other words, it can be done. So, if you happen to be a dry fly purist, by all means give these sheltered streamlets a try. For sure, they will provide you with your greatest fishing challenge.

In closing, allow me to emphasize that small streams which sustain trout are common in New Jersey, especially in our northwestern counties. Dragon Brook, Little York Brook (which has a native brown trout population), Pohansung Creek, Muddy Run and Bier's Kill are but a few examples which I will add to those mentioned earlier. There are many, many more.

True, they can be tough to take fish from, but few things worthwhile come easy. Small streams demand that the angler depart from orthodox techniques and beaten paths. In return, they give us solitude, a chance to get close to nature and, of course, the trout. As I see it, these rewards are the essence of fishing.

# The Outlook for the

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# Trout Season

BY ROBERT SOLDWEDEL

Spring may well be a little late this year, but trout season will be a little early; April 2, to be exact. Hopefully, the weather will cooperate this year. If you care to recall last year's opener, you may remember that, on the streams at least, it was a washout. It was indeed unfortunate as the streams had just received one of the finest runs of brook trout ever produced by the Division's hatchery system. More than a few tears were shed by the staff of the Bureau of Freshwater Fisheries as they watched the fruits of their labors washed out to sea.


Generally speaking, the stocking schedule is set up to minimize the potential loss of stocked trout prior to opening day, be that loss to poaching or flooding, but when the rains come the evening before the opener, there is little that can be done to save the situation. It took more than luck, for those adventurous enough to venture forth into the swollen rivers last April, to catch a trout. In some cases it took luck just to safely venture back to the streambank.

Well this year's run of brookies matches up quite well with last year's trout. About 167,000 brook trout, averaging close to 11 inches in length and augmented by over a thousand extra large trout up to and often exceeding 20 inches, will be stocked throughout the state prior to April 2. Add to this the trout still roaming the streams after last year's stockings, plus a few native trout, and there should be plenty of trout available for those bored by a winter of Saturday morning TV and eager to plunge headlong into near freezing water for their annual "Rites of Spring" and cleansing of the soul.

For those surviving opening day, close to 400,000 additional trout, mostly rainbows at first with browns to follow, will be stocked before the spring stocking program terminates May 20. If this seems like an early termination date it should be remembered that this is a necessary consequence of the early opening as the program is set up for seven non-stop weeks of stocking.

There are only a few changes from last year's stocking schedule. A pair of relatively small streams: Burnett Brook (Morris County) and Yards Creek (Warren County) and a small lake, India Brook Impoundment (Morris County) have been dropped from the stocking program. While these three waters don't represent much in relation to the total program, they were probably quite important to those few individuals that regularly fished them and it was with great reluctance that we deleted them from the stocking list, as it is with any body of water we take off the list. This is an irreplaceable loss, but unlike states like Montana that have stream access laws, it is the prerogative of the landowner to close his land to the public. Often the landowner has plenty of just cause to do this. Possibly his property had been damaged, his driveway blocked, his land littered, his pets or livestock shot, etc. and so he reacted to protect his property. Anglers cannot allow the relatively few slobos among them to ruin it for everyone. For their own good, anglers must be their "brother's" keeper.

Two new waters, Mill Pond (a.k.a. Electric Light Pond) in Bergen County and Rockaway Creek in Readington Township, Hunterdon County, have been added to the list of stocked waters and an additional stretch of the Pequannock River through Butler and Bloomingdale will also be stocked. Monksville Reservoir, above the Wanaque Reservoir in Passaic County, was stocked with 12,000 rainbow trout (6-7 inch) last fall and this body of water will be open to fishing. This reservoir will also be stocked in-season.

The Division has done all it could do to make 1988 a good one for trout anglers. So let's hope the weather cooperates. After last year, Mother Nature owes us one. Now it's up to you for it is the skilled angler that is consistently successful, not the lucky one. 

**Robert Soldwedel**, a principal fisheries biologist, Division of Fish, Game and Wildlife, has authored many, many articles for NJO.



BY EILEEN M. VAN KIRK

February, the rag-tag end of winter, when snow still crunches underfoot and gray days follow one after another, and yet, almost unnoticed, a whisper of spring is stirring the land. Gradually the days grow warmer, streams break free of their grip of ice, the groundhog pokes his nose out of his den, and deep within the maple trees the sap is rising. Now is the time to go into the woods and tap the sugar maples in a ritual that is uniquely American, making maple syrup.

The sugar maple, or rock maple (*Acer saccharum*) is one of 200 species, genus *Acer*, family *Aceraceae*, which can be found from Maine to Michigan and from Quebec to Florida. For the purpose of making syrup, however, special conditions are required—below freezing at night, sunny and warm during the day—and these conditions are found only in the northeastern United States and Canada, the one place in the world where sugar maples grow.

While most people associate maple syrup with New England, there is a growing interest in syrup making in New Jersey. According to Charles (Chuck) Fletcher, Education Curator of the James A. McFaul Wildlife Center, Bergen County Division of Parks, maple trees growing in New Jersey provide an excellent source of syrup. Proof of this can be seen at the Ramapo Valley County Reservation, Route 202, Mahwah, where Fletcher, along with fellow naturalists, Wendy Ryan, Caroline Stenzel, Judith Graziano and Jeffrey Kunz, demonstrate the process from approximately the middle of February until the end of March.

# Maple Syrup Time



**Cooking down the sugar in a sugar shack.**

**Collecting the sap.**

**Wood for the wood burning stove.**

**Eileen Van Kirk**, a freelance writer from Wayne, has been published many times by *New Jersey Outdoors* over the past 10-12 years.

"We tap into the trees in mid to late February," says Fletcher. "We make one tap per tree and use about twenty trees." The tree should be at least ten inches in diameter, and can be re-drilled each year without harm.

A tap is made by drilling a two-inch hole at a slightly upward angle and inserting a tube to draw out the sap. (A home owner drill with a half-inch bit is all that's needed and the tube can be as simple as the shell from a ball point pen). A bucket is then hung on the tree to collect the sap. Ramapo buckets each hold three gallons and the take is about half a bucket a day. Once collected the sap should be boiled within twenty-four hours or bacteria starts to grow.

"This is a seven-day-a-week operation," says Fletcher with a grin. "We don't have a switch to turn the trees off over the weekend."

Cooking takes place in the sugar shack, an open-sided shelter erected specially for the season. The sap is poured into a large pan, known as an evaporation pan, (the one at Ramapo holds about 45 gallons), and underneath the pan is a woodburning stove. The stove is designed with what is called a "maple angle", which enables the stoker to watch the fire and also creates a draft which draws the flame directly across the pan, ensuring an even heat. Fletcher explains that the trick is to get the fire as hot as possible. The hotter the fire burns the quicker the syrup cooks down, and the quicker you cook down the sap the better the quality of syrup. Visitors are put to work chopping wood and stoking the fire. This is the part of the program most enjoyed by the children, who line up for a chance to wield the axe, and even welcomed by adults when a cold March wind whips across the park. Approximately eight cords of wood are consumed during the season so any assistance is gratefully received. Hardwoods such as oak or ash make the best fire, and soon the sugar shack is wreathed in clouds of steam as the sap bubbles away.

It is estimated a total of 7,000 visitors attended the demonstrations at Ramapo last year. At the peak of the season at least seven programs are presented each day as one schoolbus after another pulls into the parking lot and interest is growing all the time. Reservations are required for groups from Monday to Friday, but on weekends the program is open to the general public as long as the sap is running.

After watching the process, a number of people ask if syrup can be made at home?

"I made it last year," says Wendy Ryan. "I don't even have sugar maples in my yard so I tapped into red maples. It took forever but I did make syrup." Sugar maples are the

number one choice of tree for maple syrup because of the quality of the sap. These stately trees, which can grow as high as 130 feet, are easily recognized by their symmetrical shape and gray bark. It takes about 40 gallons of sap from a sugar maple to make one gallon of syrup. By comparison the red maple requires about 70 gallons of sap per gallon of syrup.


If you want to try your luck at making maple syrup, a visit to the Ramapo Reservation is a good way to learn. It takes very little equipment, a 50-gallon drum can be used as a stove, and any large pan will hold the sap. But be warned, this is not a fast food operation. When the sap is flowing you may get a bucket a day from a tree, and buckets have to be emptied every day. But most people agree it's worth the effort. You will get a pure maple syrup far superior to the commercially produced maple flavored syrups found in the supermarkets which contain about 2-3% of the real thing.

Who first discovered maple syrup and when?

"It was probably discovered by accident," says Fletcher. "We tell the children the story of Woksis, an Indian Chief, and his wife, Ninimushen. When Woksis went hunting one day near the end of winter he hurled his tomahawk at a deer but missed and the tomahawk became embedded in a tree trunk. Later his wife saw "water" dripping from the tree so she filled her cooking pot with it. When she later stirred her vegetables and tasted the cooking liquid she discovered maple syrup!"

We don't know when this event actually took place, but the Indians were definitely aware of the method of turning sap into syrup when the Pilgrims arrived. An Englishman, Robert Boyle, writing from New England in 1633 described how they (the Indians) cut gashes in the maple trees and inserted hollow reeds to draw out the sap which they gathered into clay pots. They then cooked the sap down into syrup by dropping hot stones into the pot.

The longer syrup is cooked the darker it becomes and the stronger the flavor. If boiled long enough all water evaporates and you are left with sugar. Such sugar was used by both the Indians and the early colonists. Top quality, grade A maple syrup, however, is a pale brown color and this is the syrup produced at Ramapo. Everyone who attends the demonstrations gets to taste this golden liquid which is set out in paper cups at the end of each program. Pick it up and take a sip.

Ah! Dreams of hot cakes, buckwheat cakes, and fresh blueberry pancakes, all topped with butter and dripping with home grown maple syrup. Forget diets, forget cholesterol, simply enjoy this unique taste of America. Move over apple pie! 

# How to Eat a Shad

## The secret's out

And  
so  
are  
the  
bones

BY WILLIAM ZANDER

Spring, birds and blackflies on the wing, the shadbush in flower—and along the Delaware River, the cadre of shad fishermen appears, almost gunwale to gunwale in boats and cheek to cheek on the banks.

The American shad has made a remarkable transition since the last century, when it was primarily a food fish, netted each spring in coastal rivers from Florida to the Bay of Fundy. Commercial fishing in the Delaware reached a peak in the late nineteenth century, when the annual catch was some 14 million pounds. But increased pollution during the first 60 years of this century led to an almost total disappearance of shad from the river.

The enactment of the Clean Water Act and the upgrading of sewage-treatment facilities enabled the shad to make a gradual comeback in the early 1960s. By this time, commercial fishing on the Delaware had virtually died out, and the anadromous shad—that is, a species which comes from the sea to spawn in rivers and streams—had transformed itself into a gamefish.

Somehow, anglers had discovered that these feisty cousins of the herring would hit artificial flies and lures. Being plankton eaters at sea, and eating little or nothing on their upriver journey, shad would not seem to be the type of fish to go after lures. For some reason, however, they do, perhaps because they are in a high state of excitement or are territorial at this time.

But many anglers return the fish they catch to the water. They have perhaps tried eating shad but found the flesh too bony or the taste too strong (shad have some 1,500 bones). Even that storied gourmet's delight, shad roe, has been tried and found wanting.

Fishermen who like to eat what they catch have tried all sorts of ways to overcome what they consider the drawbacks of shad as a table fish. Some smoke it; the brine, the smokiness, and the oils dripping off seem to take away some of the strong taste. Still, the bones remain a considerable barrier. Some have tried pickling or cooking the fish to death in acidic lemon juice, sometimes as much as six hours. But though this may soften up the small bones and make them edible, it makes the flesh mushy and tasteless. What to do?

What to do is bone the shad. It may come as a surprise to some, but all the bones from a shad can be removed, though it is a difficult process that takes a lot of practice. In fact, among professional fish cleaners it is often a closely guarded secret, handed down through the generations in a few families. A shad boner will often lay down his or her knives and quit working when an observer comes near. And as



**William Zander**, a frequent contributor, teaches English and Journalism at Fairleigh Dickinson University and writes part-time for the *New Jersey Herald* newspaper.

shad have given way to other species in popularity, the ability to bone shad has become rarer.

I know no shad angler in New Jersey who knows how to do it, except one. And this one also happens to be a commercial fishmonger—Robert Veres, proprietor of the Clinton Seafood Market on Route 31. In season, Bob's establishment features boneless shad, along with other piscine delicacies. He and his wife, Charlotte, also appear at spring shad festivals in Lambertville and across the river in Bethlehem and Shawnee, Pa. Far from being secretive about his technique, Bob demonstrates boning to eager observers while Charlotte roasts the boned fillets and the roe on a grill and sells them at a modest price.

"I get guys that come back to me and they'll say, 'I saw you do it last year,' and they've come back to watch because they still can't do it," Bob says. "I've never had anybody come back yet and tell me, 'Bob, I can do it now.'"

In the accompanying pictures, Bob shows us how to bone shad. If you don't do it perfectly the first time, don't be surprised. With the bones taken care of, what about taste? As a professional seafood dealer, as well as a scientist who taught high-school biology for ten years, Bob has some tips about that, too.

## Step by Step Instructions

1. First, scale the fish (the skin must be left on to hold the boned fillets together). If the entrails have not yet been removed, do it now. With a roe shad, you must carefully take out the roe sack—assuming you want to use it. Start by cutting beneath the fin below the gill cover. Insert the knife between the roe and the body wall and carefully cut on the left side of the belly ridge toward the vent (Bob uses a clam knife for this).

2. If you have been careful in cutting through the lower body wall, you will be able to see, when you lift the belly flap, that the roe and entrails are intact. Cut the membrane holding the roe sack (do not pierce it) and pull out the pair of roe.

3. Use a sharp, flexible knife with a narrow blade to remove the fillets from the backbone and ribs. Any filleting method you prefer may be used. (Note that for the sake of consistency, Bob will be using a fillet from the left side of the fish for this demonstration.)

4. Before proceeding with the boning, study the above drawing. Notice that there are three rows of bones to be removed from

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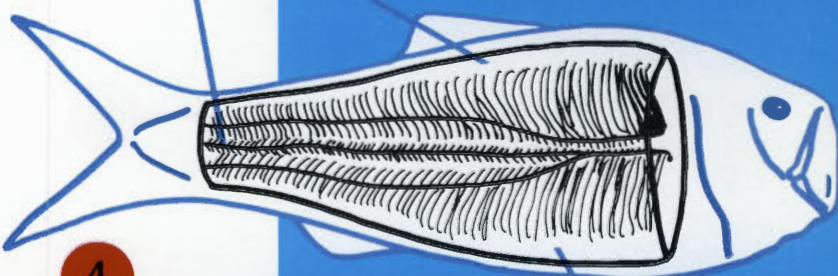


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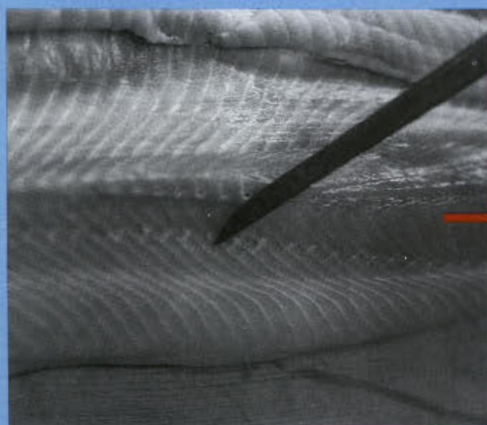
Dorsal

Lateral



4

Ventral



the fillet, one above, one below, and one running along the fish's lateral line.

5. Place the fillet, skin side down, on a grainy board (the graininess helps keep the fillet from sliding around). The head end should be toward you and the dorsal (back) side to your right. Bob's first cut is on the row of bones just below the lateral line, on the ventral (belly) side to his left. The cut begins shallowly at the tail end; at this point, you can't feel these bones, or if you feel them, you've either cut through them or are below them.

6. The cut is made toward the head end, where the bones are not as shallow. Let your knife ride over the bones; don't cut through them. Lift the flap you have cut loose away from the bones.

7. Your fillet now looks like this, with the ventral flap (at the top of the photo) pulled back to expose the bones.

8. This closeup shows the next row of bones you will be uncovering, those on the dorsal side (the knife points to them).

9. Turn your boning board around so that the tail end is toward you. Start with a deep cut at the head end (the knife is not angled). You are cutting across the soft bone tips (to the right of the knife) toward the tail end.

10. As you cut, pull the fleshy flap away from the bones and angle your knife more to the right.

11. The bones shallow out toward the tail.

12. The above shows the fleshy flaps pulled back from both the ventral (at top of the photo) and the dorsal sides. These flaps should now be more or less bone free.

13. Reverse the board again so the tail end is away from you, the dorsal-side bones to your right. The knife is to the right of the ventral-side bones, slicing toward the left so that it goes under these bones.

14. Notice the strip of bones coming loose as the knife is drawn toward you.

15. This strip of bones is now lifted out.

16. The bones are now removed from the dorsal side of the lateral line. The left index finger, above, is lifting some meat, not bones. The knife, angled to the left, is exposing some bones.

17. Your knife is to the left of the dorsal-side bones, cutting under them. You should cut deeper as the knife approaches the head end, and, Bob says, "change the knife angle constantly to run the different contours of the bone structure."

18. The dorsal-side bone is lifted out.

19. Flaps opened. Now all the bones are removed except the lateral bone.

20. Cut just to the left of center—that is, toward the ventral side.

21. Next, cut to the right of center, trying to save as much as possible of the meat between the lateral and dorsal-side bones.

22. The lateral bone is now removed. The cuts were made from the head to two-thirds of the way toward the tail; Bob leaves in the little bones at the tail end, since there is a lot of white meat there and the bones are under it. If you don't eat the dark meat toward the tail, as most people don't, you won't get into those bones.

23. Fold the flaps toward the center, and you have a neat fillet, ready for the pan.

Now that you know how: Bob doesn't think Delaware River shad taste very good, no matter what you do to it. But it is a matter of taste.

"For the oldtimers, the people that have grown up with the shad, shad has been very much a part of their diet in the past, a cheap source of food," Bob says. "They're not going to tend to notice that muddy flavor to it, which it does have, a distinct muddiness and oiliness."

Most of the shad in Bob's shop come from the Connecticut River because he thinks their flavor is among the best. But he thinks a shad will acquire that muddy taste in any river once it gets above the tidal waters at the mouth, where the shad he buys are netted. In fact, Bob feels there is a crucial time for getting the best shad as they move close to shore for their spawning run. If they're still in the bay, the cold water will make for small, underripe roe; if they're too far upriver, the roe will be yellowish and overripe and the flesh will acquire that muddy taste.

But for you river jocks who are determined to try it anyway—and why not?—there are ways to get the best possible flavor out of the shad you keep. First of all, get the fish on ice as soon as possible. It is not foolish to have an ice chest beside you on the bank.

"I think a fish should die quickly," Bob said. "And the best way to have a fish die quickly is, you put it in an ice bath."

Many anglers have noticed that shad don't last long on a stringer. And keeping a dead fish in the water is a good way to make it deteriorate more quickly and turn mushy. This is particularly likely to happen with shad. Keep in mind that these are saltwater fish under excruciating stress as they make their way in an alien environment. They aren't eating, and they're constantly fighting currents and obstacles (including anglers).

Ideally, an angler who wants to eat his shad

10



11



12



14



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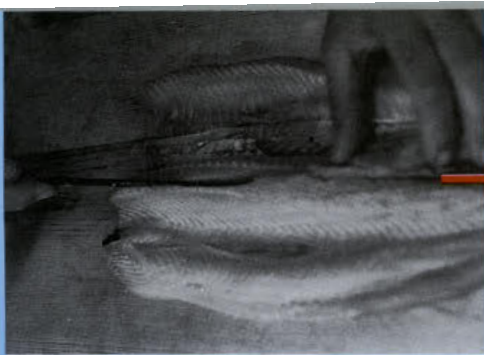


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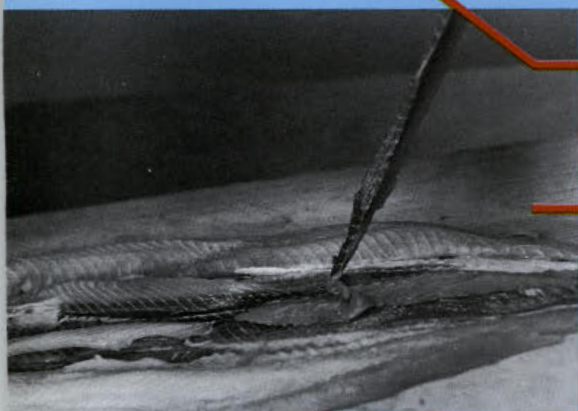


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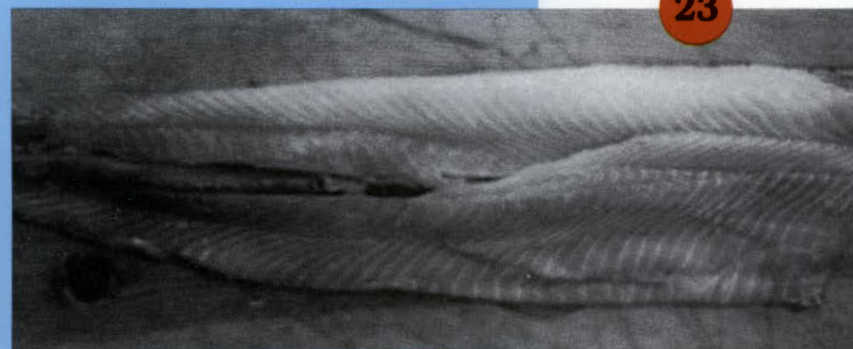
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will remove the entrails and the roe before putting it on ice. However, it takes iron self-control to take time to do this when a big school of shad is in your hole and they seem to be hitting everything in sight. In any case, if you want to eat the roe, it should be removed and refrigerated as soon as possible. For one thing, Bob says, it's easier to take out if you do it right away, since the membrane of the roe sack gets more fragile as it stays in the fish's body cavity. Further, blood causes it to deteriorate and you will get "burnt" roe, a discoloration.

Incidentally, it is not always easy to tell a "roe" shad from a "buck" shad. The roe shad will tend to be bigger and wider. And a buck will have a slit rather than a swollen, circular vent just ahead of the anal fin.

After you get the roe and entrails out, Bob recommends bleeding the fish for a few hours. Otherwise, the blood will ooze into the flesh while you are filleting the fish and make it mushy.

"You take the roe out and then you let them lie for a while on their side," Bob says. "Some people even hang them up."

Bob likes to rinse the fish frequently during the bleeding process. Whenever you rinse the fish, Bob says, let the water run over it from tail to head. This is especially important when you are rinsing the fillets, as the grains of the flesh run from tail to head, and you want to keep water from running into these segments.

Incidentally, Bob says that oily fish, like shad, have a richer blood supply than white-meat fish. And while some people will eat only white-meat fish, it should be pointed out that the oily fish are richer in Omega 3, the fatty acid that lowers blood-serum cholesterol levels. In other words, eating shad might help you prevent heart attacks.

It is beyond the scope of this article to offer recipes for cooking your shad once you get it cleaned and boned. Most any fish cookbook I've looked into seems to have at least one or two recipes for shad and its roe. When Charlotte is charcoal grilling at one of the festivals, she seasons the shad with sweet basil, paprika, lemon juice, and a dot of butter and puts it on a flat piece of heavy-duty aluminum foil. Mesquite wood is added to the charcoal to give the fish a distinct smoky flavor.

What's that you say? Despite all this good advice and instruction, you still can't bone a shad? OK, here's the kicker: Bob will be teaching classes in boning and cooking shad this April at the Clinton store. The classes, offered through the Hunterdon County Adult Continuing and Community Education Office, will have limited enrollment, so if you're interested, better call now at (201) 788-1405.

# Trash Clean-Up

## *at Lebanon State Forest*

Gene Redfield, Chris Bethmann, & Michael Berman loading trash into truck.

Unidentified teenager and Mr. & Mrs. Bert Nixdorf at work.



On Saturday, October 17, 1987 the Sierra Club, West Jersey Group, sponsored a cleanup of Lebanon State Forest near Whitesbog Village. More than 30 volunteers picked up 24 cubic yards of assorted trash—tires, beds, furniture, bottles, etc. According to Sierra Club spokesman, Fran Meehan, the cleanup afforded club members and other volunteers the opportunity to give something back to the land they all enjoy in their spare time.

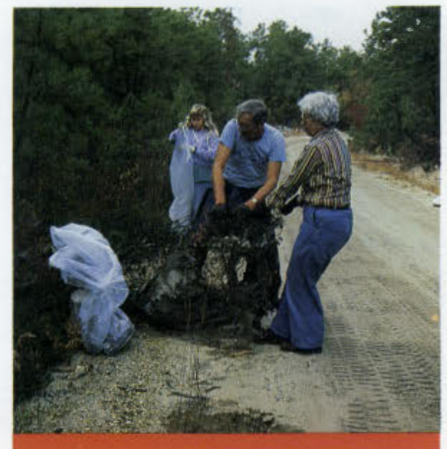
The volunteers included club members and friends, adults and teenagers working side by side. Chris Bethmann,

Superintendent of Lebanon State Forest, supplied the vehicles to cart off the debris.

Another welcome outcome of this Sierra Club project was the raising of \$275.00 through pledges. The money was donated to the Lebanon State Forest nature program and will be used to purchase nature films for the enjoyment of forest visitors.

The group has already planned another cleanup for the coming year tentatively scheduled for **Saturday, October 15, 1988**. Anyone interested in supporting this cause or volunteering their

time should contact the Sierra Club, West Jersey Group, Fran Meehan, 313 Linden Lane, Mount Holly, New Jersey 08060. Telephone number 609-235-7249. 

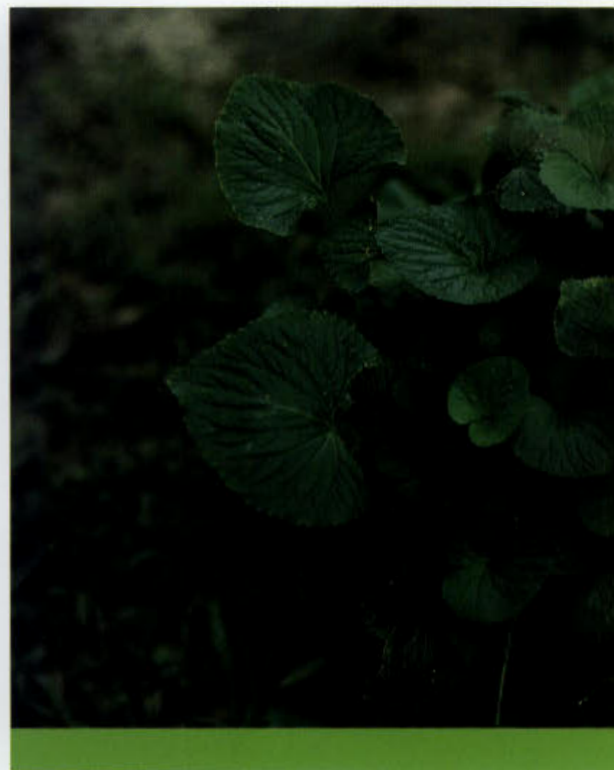


# Back Yard Cuisine

BY CAROLYN HAMILTON



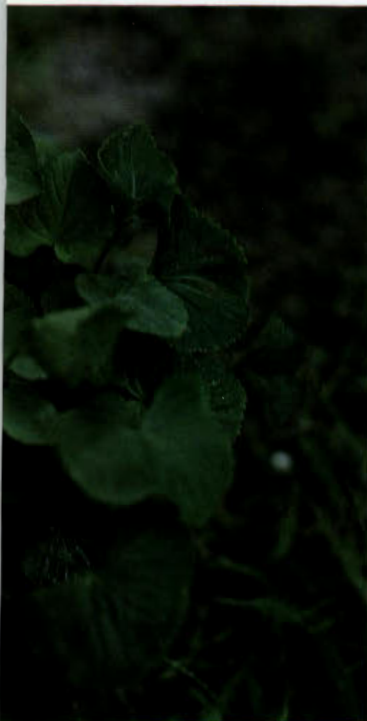
Day Lily



Before you run off to the gourmet shop for a special herbal tea or run out to the supermarket to pick up a green, leafy vegetable tonight, consider your lawn. How can your lawn help satisfy a need for a soothing herbal tea or nutritious leafy vegetable? Unless you've managed to win the weekend battle of eliminating weeds from your lawn, you no doubt have an interesting substitution for some of what's on your grocery list more conveniently located than your corner mini-market.

Our yards have more to offer us than a place to play volley ball. Chances are they contain some of the weeds and flowers that can provide us with some tasty, nutritious—and unusual—cuisine. The homely plantain, stubborn dandelion and prolific violet need not exist for the singular purpose of pulling them out. Healthful and tasty, these plants can provide us with interesting additions to some of the more commonplace foods on our menus and at the same time give us a delightful new perspective on the weeds and flowers we take for granted.

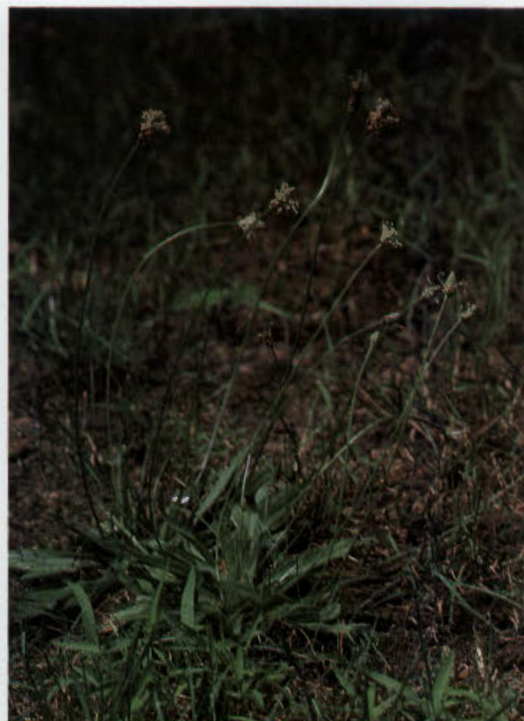
At one time, many of the weeds that invade our gardens and lawns were cultivated by the colonists for their nutritional merits. The uses of some native North American plants, such as the pale plantain, *Plantago rugellii*, were taught to the settlers by the Indians. Other



**Violet leaves**



**Common plantain**



**Narrow-leaved plantain**

PHOTOS BY AUTHOR

useful plants were brought to the colonies by the settlers from Europe where they were highly valued as a source of food or medicine. Many of these hearty plants escaped from the settlers' gardens and became renegades, spreading throughout much of North America, and today they can be found thriving in our woods, meadows, along roadsides and in our lawns and gardens. One of the more successful renegades is the dandelion, *Taraxacum officinale*, a well-known lawn resident that once served the colonists as an important source of vitamin A, calcium and potassium. This highly valued food was a welcome sight in the early spring after a long winter when green plants were not available to provide much needed vitamins and minerals.

Wild foods tend to have a much higher nutritional value than the foods we buy at the supermarket. Vegetables bought at the market are often picked long before they appear on the produce stand, losing much of their flavor and nutrition in the interim. Because studies have shown that consumers place more importance on their visual appeal rather than what they offer in the way of nutrition, vegetables tend to be cultivated more for their physical attractiveness than for their nutritional value. On the other hand, wild foods provide us with a highly nutritious and interesting bounty that can offer us many intriguing uses at our table.

The plants used in the recipes below are easily identifiable plants commonly found in our own backyards. It would be wise to use a good identification book if there is the slightest doubt as to the identity of a plant before eating it. *A Field Guide to Edible Wild Plants* by Lee Allen Peterson is an excellent reference.

Make sure that the area from where you decide to collect has not been chemically treated. The plants you decide to eat may have absorbed the chemical poison. Do not collect plants along busy roadsides, as the lead from car exhaust may absorb onto the nearby plants.

After seeing some of the recipe ideas below, you may decide to put away the weed killing chemicals and surrender to the hearty viability of these lawn and garden "pests" and link yourself to the past by preparing for your table a "vegetable" or beverage from one or two of these tasty invaders.

#### **Common Blue Violet**

(*Viola papilionacea*)

Parts used: Flowers, and leaves in the spring.

Uses: Cooked green, salad, candy, tea.

Description: Familiar violet-blue, white, sometimes yellow five petaled flowers. Leaves heart-shaped. Low growing (3-8 inches).

**Carolyn Hamilton**, a first time contributor, has been studying wild, edible plants for several years and enjoys preparing unusual dishes.



**Dandelion**

### **Violet Leaf Soup**

1 tablespoon butter or margarine  
1 tablespoon flour  
1/2 cup milk  
1/2 cup heavy cream mixed with one egg yolk  
1/2 lb violet leaves carefully washed and drained,  
stems removed  
fresh pepper  
salt  
2 cups chicken stock

Melt butter or margarine in a small saucepan over low heat. Gradually stir in flour. Add milk, stir and allow it to thicken, stirring occasionally over low heat.

In a separate saucepan, bring the chicken stock to a boil, and cook the washed violet leaves covered for about 10 minutes. Add the egg yolk-cream mixture to the flour and milk mixture and heat, but do not boil. Add ingredients of both saucepans to food processor with salt and pepper and puree. Pour into a tureen and adorn with violet flowers, stems removed. Serves 4.

Other suggestions: Young leaves can be added to salads. Tea can be made by drying leaves in a warm, dark, airy place. Use about one teaspoon dried leaves per cup of hot water. Steep for about 10 minutes. Candy can be made from the flowers and used to decorate cakes by brushing washed, dried flowers with egg white, covering them with granulated sugar and allowing them to dry.

### **Day Lily**

(*Heemerocallis fulva*)

Parts used: Tubers, buds, flowers.

Uses: Cooked vegetable, salad, fritters, seasoning.

Buds and flowers can be eaten fresh, frozen or canned.

Description: Six petaled, orange blossom on the top of a leafless stalk. Flowers bloom for only one day. Leaves are abundant lance-shaped and long. Tuberous rhizomes (roots). Do not mistake the poisonous iris for day lily. If collecting tubers, make sure you have positively identified them as day lily. Although not usually considered a weed, the hearty day lily is commonly found growing wild along roadsides.

### **Day Lily Fritters**

1 cup flour  
1 teaspoon baking powder  
salt  
2 eggs  
1/2 cup milk  
about 3 dozen large day lily buds, washed and drained.  
cooking oil

Mix eggs and milk together. Blend flour, baking powder, and salt in bowl. Add milk mixture and beat with a rotary beater until smooth.

Heat oil in a saucepan or skillet to 375° F. Use enough oil to allow the fritters to float. Dip dry flower buds in batter and fry several at a time to a golden brown.

Drain on paper towel, keeping them warm until serving. Serve as a vegetable or hors d'oeuvre. Try them dipped in sweet and sour sauce.

Other suggestions: Dry fresh or wilted, day old

flowers in sun for several days or string on thread and hang in a warm place for 7-10 days. Use as seasoning in stews when dry. Thin your day lily patch by collecting tubers in fall or winter. Scrub clean and cook until tender like corn.

### **Dandelion**

(*Taraxacum officinale*)

Parts used: Young leaves, flowers, flower buds, roots. Uses: Coffee like beverage, salad green, cooked green.

Description: Low growing plant with bright yellow flowers later forming white puffball. Stems are hollow and milky. Leaves are deeply lobes and toothed forming a rosette at the base of the flower.

### **Dandelion Coffee**

Collect dandelion taproots and scrub with a vegetable brush until clean. Roast roots slowly in a 250° F oven for several hours until inner root appears dark brown when broken in two. Grind the roots in a coffee grinder and brew like commercial coffee. Use about one ounce of ground root for every cup of water. Avoid boiling and overbrewing. Serve plain or with cream and sugar.

### **Dandelion Greens in Cream Sauce**

10 oz dandelion greens harvested in early spring  
2 teaspoon butter  
2 tablespoon flour  
salt and pepper to taste  
dash paprika  
1 cup milk or half and half

Carefully wash and drain dandelion leaves. Chop coarsely. Boil 5-10 minutes. Drain. (If collecting leaves later in the spring or summer, first boil in several changes of water. Make sure water is boiling first before each change. This will take away bitterness and make them less tough). Over low heat, melt butter in a medium saucepan. Stir in dry ingredients until smooth. Gradually stir in milk and cook while stirring continuously until thick. Combine with dandelion leaves. Serve at once.

Other suggestions: Use greens in salad or as a cooked vegetable. Flowers can be dipped into batter and cooked as fritters (see day lily). Young flower buds can be pickled and served in salads.

### **Plantain**

*Plantago lanceolata* (narrow-leafed plantain)

*Plantago major* (common plantain)


Parts used: Young leaves.

Uses: Cooked vegetable, salad.

Description: Low growing with heavily veined leaves forming a rosette. Flowers are tiny, green and clustered atop a narrow leafless flower stalk.

### **Cooked vegetable**

Collect young leaves gathered in the spring and rinse thoroughly. As the leaves get older, they become stringy. The stringy leaf veins may be removed if desired by pulling or cutting them out. Boil the very young leaves 10-15 minutes, drain and serve with butter, salt and pepper. Older leaves can be parboiled for a few minutes before cooking.

Other suggestions: Chop very young leaves and add to salads. Spiked seed heads can be gathered, dried in the attic, and used for birdseed. 

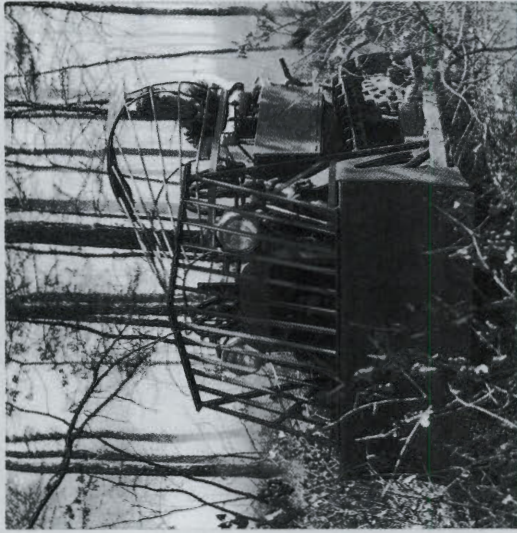
# Forest Fire Control in New Jersey

BY JOSEPH R. HUGHES  
ASSISTANT STATE FIREWARDEN

Then & Now



Aircraft first used for observation, 1927.



Early fire fighting equipment.



PHOTOS BY DIVISION OF PARKS AND FORESTRY



A New Jersey firefighter, 1940's.

resource, but now, they represented an imminent threat to improved property and human life. In 1884, the State Legislature enacted a law authorizing a forest survey.

In 1895, John Gifford reported to the State Geologist that 49 fires burned 60,000 acres in Burlington, Atlantic, and Ocean Counties. Other early surveys indicated that 100,000 to 150,000 acres burned over annually in the Pine Barrens alone.

Nationwide, millions of acres a year were being lost to forest fires. This figure reached 30 million acres at one point. Or, an area roughly the size of New York State was burned over each year by fire!

In 1898, Gifford Pinchot was hired as a forestry consultant by the State of New Jersey. In that year, he submitted a report to the State Geologist which included Gifford's Study. The report emphasized the need for forest fire control and recommended the establishment of a

## History

The origins of the forest fire problem in our country go back to its early beginnings. Early settlers arriving in this new land found vast expanses of forestland. They were generally from agricultural backgrounds and actually viewed the forest as a hindrance to farming, settlement, and progress. Settlers entering colonial New Jersey found a state that was approximately 80% forested. They began to clear the forest for farming and to exploit the forest resource to support the wood fuel and charcoal industries in the State.

The use of burning to clear land was adopted from the Indian practice of burning the woods in the spring and fall for seed, berry production, and a variety of other reasons. Land clearing fires were simply allowed to burn. If they got away—so what! Attention was only paid if they threatened improved property.

# Thumbs Up for Fire Prevention

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*Join Dom Deluise  
& Smokey!*



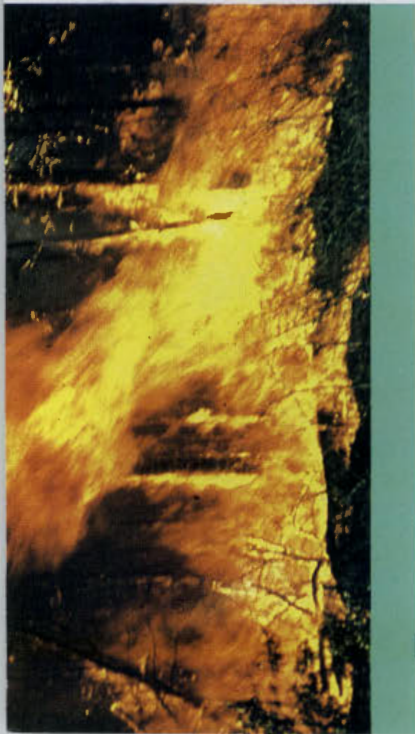
New Jersey State Library

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New Jersey  
Outdoors

# New Jersey Forest Fire Service

Department of Environmental Protection



In 1886, the United States Army was authorized by the Secretary of the Interior and War Department to fight forest fires burning in newly established Yellowstone Park. This marked the first organized effort nationwide to control wildland fires and the beginning of an important public service that still plays an important role in natural resource management and environmental protection.

New Jersey's first organized forest fire control efforts are not quite that old, but have early beginnings and a long and interesting history. This year is the 80th anniversary of an organized system to prevent and control forest fires in the Garden State. A Township Firewarden System, established in 1908, has evolved into the Bureau of Forest Fire Management. The State Forest Fire Service, as it is also known, is currently entrusted with the protection of 2.895 million acres of New Jersey's forests, brushlands, and salt marshes.

Forest Fires still represent a significant threat despite improvements and the application of modern equipment and technology. In fact, the stakes are higher now than ever. The increasing value and diminished size of our forest resource, and the phenomenon of urban and suburban-type development constructed in highly hazardous wildland areas, make forest fire control more important now than ever.

Despite the threat, much progress has been made. Forest fires in the state have been reduced to an average today of 1700 fires which burn over 9000 acres per year (five-year average). This is despite an increasing number of people which utilize the State's great outdoors for various forms of recreation.

practice occasionally got out of hand. It was in that year that the first forest fire protection law was passed in colonial New Jersey. The law required landowners to not set fire to the woods before December 20, and to confine fires to their own property or they could be subject to damage payments and a fine of £40 shillings.

As settlement continued, so did land clearing. Wood burning and exploitation of our "unlimited" forest resources increased in magnitude. Forest fires continued to rage from time to time, but nobody paid much notice. Fires had to be extremely large or, in some cases, reach a million acres or more before they received any attention.

There are a number of historical and newspaper accounts which indicate the size and magnitude of a number of fires which ravaged our newly developing country and state:

1755— Report of a fire in New Jersey Pipe Barrens 30 miles long from Barnegat to Little Egg Harbor.

1761— Fire in Maine, which started in New Hampshire and burned to the sea near Falmouth and Courtland.

1796— Katadin fire in Maine—150,000 acres.

1825— Miramichi fire in New Brunswick, Canada—2,000,000 acres, and 832,000-acre fire burning in Maine at the same time.

1838— Newspaper account from "New York Herald"—September 7-10. Fire 20 miles long by 14 miles wide in Burlington and Monmouth Counties (approximately 179,200 acres).

1859— Henry Hind—during a Saskatchewan expedition describes a wildfire 100 miles long!

1871— Fires in Wisconsin and Michigan burn 3.5 million acres. Town of Peshtigo wiped out of existence and 1500 people perish. This represents the largest loss of life by fire in United States' fire history!

1871— Fire in Bass River Township burns 50,000 acres.

1872— Newspaper account from "New York Times"—May 20. Fires in Sussex and Morris Counties burn 25,000 acres and cause \$1 million in property damage.

1885— Newspaper account from "New York Times"—July 25. Fires near Atco, Jackson, and Aislen (15,000 acres). A 47,000 acre fire near Barnegat also burned during this same period.

The one thing that is different in the July 1885 article is that there is an organized effort on the part of the local citizenry and crew from the New Jersey Southern Railroad to confine the fire and keep it from threatening the towns of Aislen, and Jackson.

Until this time, very little if anything had been done to control or suppress forest fires. However, people began to realize that our forest resource was not unlimited. Forest fires were exacting too large a toll, not only to the

In 1905, the first modern forest protection laws were enacted in the State and a Forest Park Reservation Commission was appointed. In 1908, a Township Firewarden System was established. In 1916, a system of forest fire lookout towers was begun. In 1924, under Clark McNary, the present system of forest fire protection was organized.

Rapid advancements occurred under this system. In 1927, State Firewarden "Colonel" Coyle, first used aircraft for aerial observation. This was one of the first such uses of aircraft in the country. A series of firebreaks and roads were constructed by the Civilian Conservation Corp in the State forests and Parks from 1933-1942. Improvements in motorized equipment and communications occurred in the 30's, 40's, and 50's. In 1961, Steerman Aircraft were first used for aerial attack on fires. Today, the Bureau utilizes 10 fixed wing aircraft and an observation helicopter. The system has evolved from horse and wagon, during the era of the Township Firewardens, to a modern fleet of more than 300 vehicles and state-of-the-art technology in the battle against forest fires.

These advances, especially mechanized equipment, have made control efforts easier. The average-sized fire and acreage burned have been reduced. Prevention efforts in the State have recently begun to have a noticeable effect on the number of fires.

The significant gains in the 100 year history of forest fire control should not lull us into a false sense of security. Large fires will still occasionally devastate the landscape, as evidenced by what happened in California this past fall and what has happened to our own State throughout its history. Bad fire years occurred in 1915, 1922, 1923, 1930, 1941, 1954, 1957, 1963, 1971, and 1977 (see New Jersey Historical Fire Record).

In the not too distant past, a 4,000-acre fire burned the Penn State Forest in 1982 and fires over 1000 acres have occurred as recently as 1985 and 1986. However, prevention and control efforts can reduce the frequency and impact of forest fires. The State must continue an effective forest fire prevention and control program to reduce the likelihood of future disasters. **JD**

**Joseph R. Hughes**, Assistant State Firewarden, in the Division of Parks and Forestry has written several articles for *New Jersey Outdoors*.

Frequent contributor **Gary Ann Lewis**, a graduate of Cook College, Rutgers University, has been contributing to our publication since her college days.

## American bittern

PHOTOS BY AUTHOR



# Close Encounters

BY GARY ANN LEWIS

Its glaring eyes were magnified like huge bulging marbles in my 600mm lens. My heart started pounding and my hands began to shake, not out of fear but excitement. I was really getting close to nature that day.

It was early April and my husband and I decided to go to Brigantine National Wildlife Refuge, about 11 miles north of Atlantic City. With its 34,000 acres of mixed habitat: marshlands, fresh and salt water, upland brush and forest, it's a birding cornucopia.

April is a good month to see early migrants and holds out the possibility of adding new birds to a "life" list. It can also be cold and windy. It was both that day.

As we slowly toured the eight-mile raised road in our car we honed our bird identifying skills using our binoculars, spotting scope and Peterson's "Field Guide to Birds East of the Rockies." Since it is a one-way road you can get out of the car whenever you want.

Brant, black-bellied plovers and great blue herons were abundant in the marshy areas. Black ducks and wigeons were in the bay and Foster's terns and glossy ibis plied the skies. All interesting but not new to us.

About mid-way we came to a bend in the road and my husband said in a loud whisper while pointing to the right. "Look! a bittern!"

"Where?" I was frustrated. I couldn't make out anything in the area of burnt phragmites stubble. After a few minutes my eyes separated this master of camouflage from its back-


ground. When I finally saw the American Bittern it was standing "frozen", its bill pointing skyward, stretching its body to over 2½' high.

We got out of the car very slowly. I had turned my camera to the vertical position and adjusted the tripod legs to the length I guessed to be right. Besides its brown camouflage coloration this bird depends on eluding its enemies by remaining motionless. A photographer's dream.

I knelt down to get good eye-level shots and promptly lost sight of the bird. It had melted away before my eyes. We scanned the area and finally relocated it in a nearby grassy area. It wasn't interested in any photo opportunity.

After I took several shots in the grassy area, my husband walked down the road nearer to the bird so that it would walk back up to an open area where I was waiting. It worked and I started to get full frontal and profile shots. But I wasn't quite prepared for its huge eyeballs set on each side of its head magnified by my 600mm telephoto lens. It glared at me and I knew what a predator might have experienced in my place. I was glad I had a cable release because my hands began to shake from the thrill of such a close encounter.

After several more hurried frames I decided that it was time to quit and let the bittern get back to what it was doing; maybe hunting grasshoppers or getting ready to build its nest in the marshy habitat.

We didn't add a new bird to our "life" list that day; more importantly, we did add to our life experience. 



Saw-Whet Owl

**Doreen Curtin, Clinton.** Educated as both an artist and biologist, Ms. Curtin has dedicated her art skills to help create public awareness of the need for wildlife and environmental conservation. A lifelong wildlife artist, she does design and illustration work for various conservation organizations, including the National Audubon Society, the New Jersey Endangered and Nongame Species Program, the Smithsonian Institution and many zoological institutions.



DOREEN CURTIN

# New Jersey Wildlife Artists



MIKE BUDDEN

White tail deer



IRENE BOWERS



CHRIS FORREST

**Page 22**

**Mike Budden, Roebling.**

Mr. Budden has been painting wildlife for about 12 years, the last 5 years fulltime. In that short span he has garnered about 40 awards. Several are listed below:

New Jersey Ducks Unlimited  
1987 *Swan Family*  
New York Ducks Unlimited  
1986-1987 *Mallard on Ice*.

Delaware Ducks Unlimited  
1987 Artist of the Year  
Award *Canada Geese on Ice*

His work is published and distributed in print by Somerset House, Houston, Texas.

**Page 23**

**Irene V. Bowers, Milford.** At the tender age of 13, Irene V. Bowers won her first art contest by drawing Santa in

his helicopter. Since then the Holland Township artist has enjoyed painting and drawing wildlife and western art. Serious pursuit as a career didn't begin until 1979 when she turned professional artist. Some of her credits include acceptance into the Pennsylvania Outdoor Writers Association and illustrating for national publications such as *Bowhunter, Deer and Deer*

*Hunting, NJ Outdoors* and *Indian Artifact* magazines plus numerous federation publications.

**Page 23**

**Christopher P. Forrest, Willingboro.** Raised in Pennington, NJ, Chris Forrest earned degrees in engineering and served 10 years as an officer in the army prior to turning to wildlife art as a career. His hand drawn lithographs and paintings have been used as covers for *Readers Digest, Ducks Unlimited, and North Carolina Wildlife*; reproduced inside numerous magazines; and the subject of feature articles in *Southwest Art, Prints, and North Light*. Biographical data is contained in *Who's Who in American Art, Contemporary Western Artists, American Artists of Renown and Guide to Collector Prints*. He is a member of the Society of Animal Artists and many conservation organizations.

**Douglas Allen, Neshanic Station.** Studied with Paul Bransom (Dean of American Wildlife Artists) in private classes held in Jackson, Wyoming. (1961)

Illustrated 35 books for the leading publishing houses of Harper & Row, Charles Scribner's Sons, E.P. Dutton, Alfred Knopf, Harcourt Brace, National Wildlife Federation, Outdoor Life Book Division, Reader's Digest Book Division, and Watson-Guptill Publishing Company.

Illustrations and paintings have appeared in periodicals such as *Sports Afield, Outdoor Life, National Wildlife, Time, American Artist, The Reader's Digest, Wyoming Wildlife* and *Audubon Magazine*.



DOUGLAS ALLEN

**Raccoon**

**Jim Hitesman, Trenton.**

The realism of Hitesman's paintings continues past the subject into the background setting of each piece. He begins each new project by studying the natural environment in which his animal subject lives. Then he recreates an entire habitat, including rocks, trees, flowers—even insects. His works become a lesson in wildlife biology and ecology, with scenery so intricately designed that the observer can find something new with each viewing.

Hitesman has exhibited his works in many of the nation's top shows. The Ward Foundation Wildlife Carving and Art Exhibition, the Philadelphia Wildfowl Exposition, the New Jersey Ducks Unlimited International Wildlife Exposition held at Harrah's Marina Hotel Casino, Atlantic City, New Jersey, and the Bucks County Audubon Society Wildlife Art Exhibition in New Hope.

**Osprey**



JIM HITESMAN

**Sanderlings**

**Anthony Hillman, Seaville.**

A resident of the seashore town of Seaville, Tony Hillman has been a wildlife artist and decoy carver for almost 20 years.

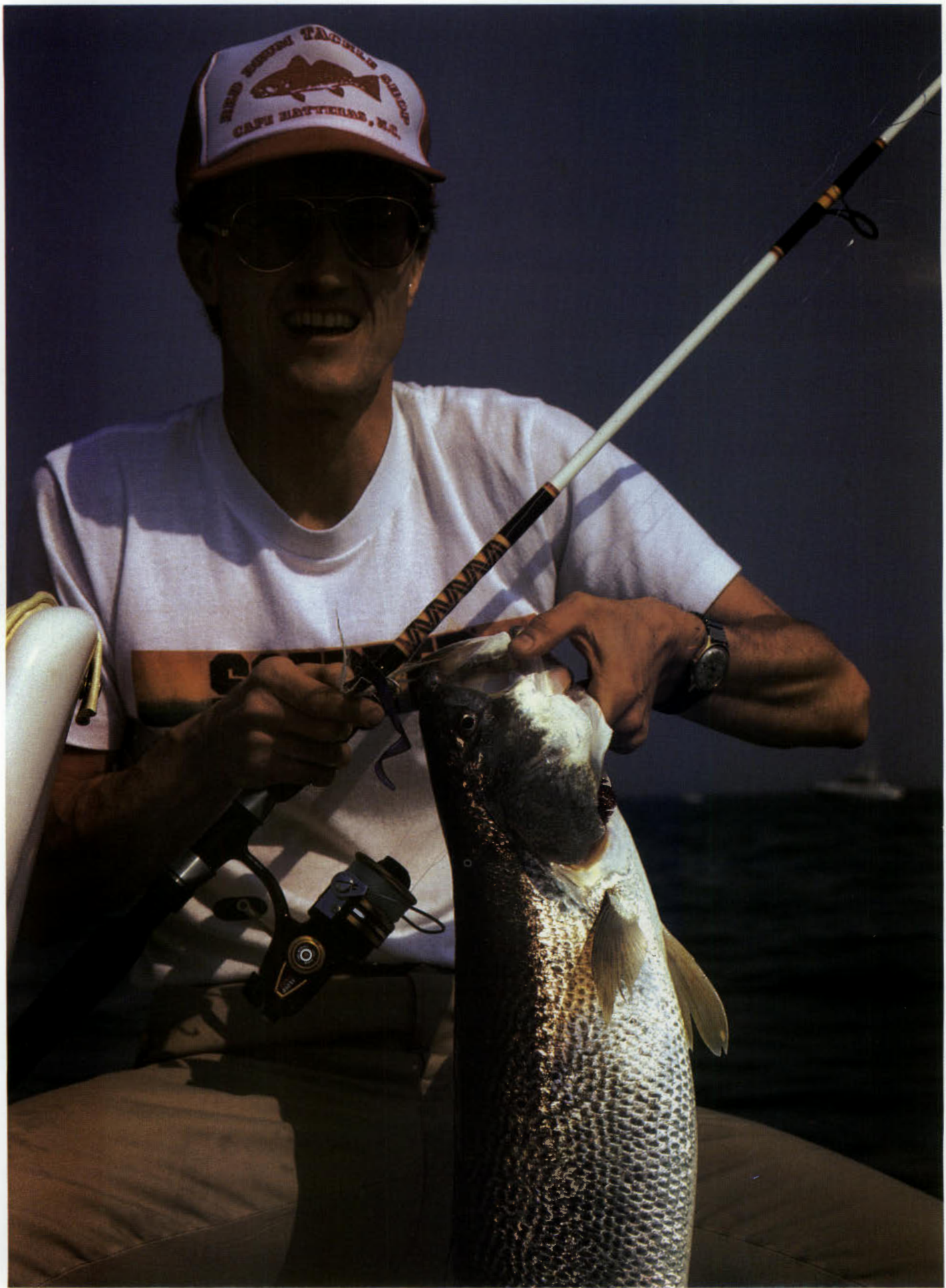
His latest in a long list of books published by Dover Publication Company is a *Classic Shore Birds Decoy Patterns*, produced as a joint effort with the Shelburne Museum in Vermont.

Mr. Hillman is the author and illustrator of the following books:

- *Painting Duck Decoys* 1985
- *Miniature Duck Decoys for Wood Carvers* 1985
- *Carving Classic Regional Shore Birds* 1986
- *Carving Early American Weather Vanes* 1986
- *Painting Shore Bird Decoys* 1987
- *Carving Favorite Song Birds* 1987
- *Carving Classic Swan and Goose Decoys* 1987



ANTHONY HILLMAN



The author with a prime, 10-pound weakfish taken in Delaware Bay.

BY BRION BABBITT

Some of the finest early-spring saltwater fishing to be found in New Jersey is in Delaware Bay. For many savvy anglers that search the coastal waters of the Garden State, this is certainly no revelation. But if it is, you could easily be missing some of the best trophy weakfish action to be found anywhere on the East Coast.

Weakfish populations in general along the Atlantic Seaboard are not as great as they have been in the past; however, the quality of the weakfish has never been better. And May fishing in Delaware Bay ranks with the best. In fact, over the past few seasons a Bay angler really has to subdue a fish of 14 pounds or greater to impress serious weakfish enthusiasts. Most Delaware Bay weakfish tournaments and contests routinely require magnificent, full-bodied specimens in excess of 15 pounds to garner top honors.

The 1987 migratory run of big weakfish into Delaware Bay was good and had most of its sport revolving around the lower bay, in the vicinity of an area known as Brown Shoal. Brown Shoal is southwest of Brandywine Light and just barely west of the New Jersey side of the shipping channel. Throughout the weakfish season from early May to mid-June, New Jersey-based party and charter boats from Cape May, Wildwood, and Fortescue, and a huge fleet of private craft placed anglers squarely into some torrid weakfish action.

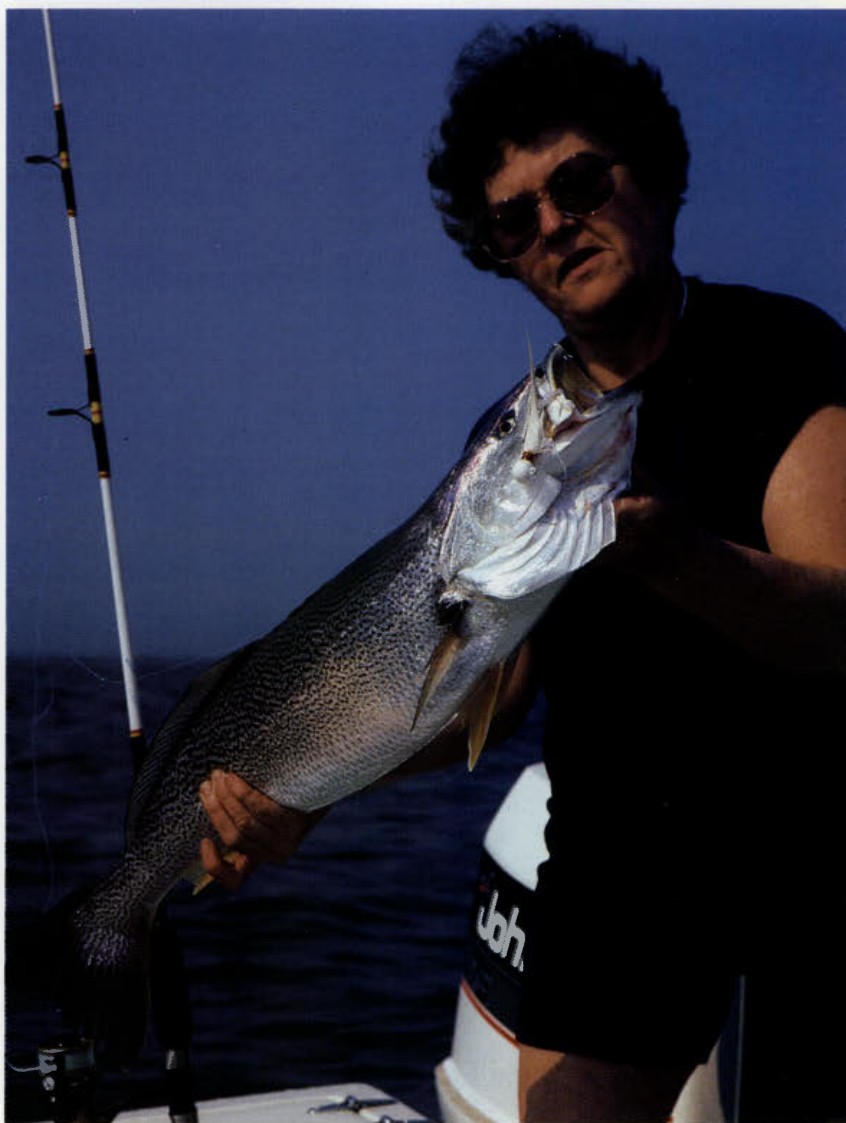
Big weakfish—or “tiderunner”—sport varies from season to season and upper portions of Delaware Bay can be every bit as productive as the lower. The waters encircling and extending miles out from the famous rip-rap at the base of Brandywine Light, the sloping grounds east of Fourteen Foot Bank and the large area north, east and south of Miah Maull in the upper Bay all have produced huge weakfish for us. The largest weakie that we’ve managed in recent years fishing these areas registered several ounces shy of 12 pounds.

Delaware Bay weakfish can be frustrating. The big, rainbow-hued “sea trout” sometimes concentrate over a relatively small area—as with Brown Shoal last year—or are spread over the entire Bay weakfish grounds mentioned above. Initial pursuers must first locate the fish, but this usually does not take long considering the vast numbers of participants. Once located at the season outset, professional boat captains will stay with daily fish movements and provide all anglers with instant information via their large flotillas—although

# Spring for a Delaware Bay Weakfish

**Big, tiderunner weakfish like this are taken each spring in Delaware Bay from early May to mid-June.**

Delaware Bay angler **Brion Babbitt** of Cape May County has also been here before. But the fish are getting larger.



PHOTOS BY AUTHOR

**Party boats from Wildwood, Cape May and Fortescue cover the fast-paced Delaware Bay weakfish action throughout the spring run.**

it isn't unusual for privateers to find isolated schools of hungry fish on their own. Weakfish, like all gamefish, prefer to "stack up" over structures—irregular bottom contours in the bay floor. Forage fish often seek structures to hide from predators and the tiderunners know it.

That's why a good topographical map of Delaware Bay, in addition to providing the necessary navigational information, often reveals distinct variations in baybottom contour that can be critical to finding spring-run weakfish, given little or no other knowledge. More often, though, the best concentrations of weakfish are no secret and a quick call to any tackle shop or marina along Delaware Bay provides the vital, up-to-the minute information needed to plan a successful trip.

But weakfish can be perplexing in another way. Convincing a spring tiderunner to strike can be an artful task, especially in early May when water temperatures tend to be marginal. At 56 degrees F, weakies can be seduced, but usually only with an offering tipped with fresh bait to coax them out of their cold-water lethargy. I've caught first-run fish using bucktails spiced with a clean strip of squid or a slice of menhaden. And fresh mackerel works equally as well if carefully trimmed and added to a slow, bottom-crawled bucktail. The key to effectively presenting any strip bait-artificial lure combination to torpid weakfish is to slowly drift the offering over the bottom with as little vertical action as possible. With this technique you can catch fish long before more energetic anglers ply the weakfish grounds by dancing the traditional bucktail-plastic worm tail duo that will be devastating only after waters warm up to the 60-degree mark.


Tiderunners are just that—they prefer to sate their appetites on a stiff-moving tide. So to counter this measure you'll need bucktails that range from 3/8 to 1½ or even 2 ounces. As tidal movement increases, you can simply up the weight of the offering, but remember to only go as heavy as conditions warrant. Bay weakfishing is light tackle sport, and a light-weight leadhead can improve sensitivity when probing the shoals and sloughs for tentative predators.

During May bluefish occupy Delaware Bay along with the weakfish. The best advice here—if your sole quarry is big, sharp-eyed weakies—is to strictly avoid wire leaders and other hardware in trying to fend off the sharp-toothed blues. I've seen weakfish caught with lures tethered with wire leaders, snaps and swivels, but most serious weakfish hunters strongly recommend against this approach. The loss of bucktails tied directly to tender monofilament is frustrating, especially when

wolfpacks of bluefish are shearing leadheads one after the other as fast as they are lowered over the side. Yet, trophy weakfish fanatics are rarely seen with little more attached to their bucktails than an improved clinch or uni-knot direct-tied to their soft monofilament. It is better, they feel, to take your losses than to diminish your chances of hooking up with a deep-fighting, head-shaking 14-pound weakfish.

Beyond using a bucktail-plastic worm or strip bait combination to attract weaks, personal angler preferences run the gamut as far as color of the bucktail head and worm tail. Most leadheads sport white or yellow, but the long, plastic worm or auger "twister" tails are deployed in a multitude of hues. Red, yellow, white, orange, fluorescent oranges and the highly touted purple receive routine usage on bucktails. Color choice, of course, must reflect the personal experience and belief of the angler, but perhaps even more importantly, gives the fisherman an added dimension in trying to entice reluctant fish to strike. Sooner or later an angler finds himself (or herself) among the fraternity that is stubbornly marking bottom-hugging fish on the chart recorded that refuse to strike. Weakfish can be maddening in this regard and the only recourse is to experiment with your offering and wait for a change in the tide. Clearly, periods of slack or slowing water can turn off feeding weaks as if someone flipped a switch. But when tidal flow resumes, the fish magically return to their foraging posture. Moreover, fish that shunned a brisk incoming tide can suddenly assume attack formation on the outflow. Their behavior is sometimes quite unpredictable, but that is all part and parcel of chasing big spring weakfish in Delaware Bay.

The most commonly used gear for weakfish is light spinning tackle, though I've encountered anglers armed with revolving, "conventional" tackle, too. Regardless of choice, optimum lines should test in the 12- to 14-pound range with some sportsmen opting for monofilament as light as 10 or even 8 pounds. Typically, the one-handed spinning outfits consist of a rod measuring 6- to 6½-feet and reel fitted with 200 yards of line. Any rod, irrespective of style, should have sufficient backbone to handle a stubborn fish up to a dozen pounds or so and be sensitive enough in the tip section to deftly maneuver a light bucktail over the bottom.

Splashed with lavender and white, trimmed in yellow and flecked with iridescent scales of silver, gold and black, the weakfish is truly one of New Jersey's most beautiful saltwater gamefish. And for spring trophy hunters, the best place to catch them is in Delaware Bay. 



# Pequest Trout Hatchery and Natural Resource Education Center

## Open House



**When:** Friday,  
Saturday and Sunday,  
March 25, 26 & 27

**Hours:** 10 am to 4 pm

**Where:** The Hatchery is  
located on Rt. 46  
approximately 9 miles  
west of Hackettstown in  
Warren County.

Come join the fun and The Festivities when the Division of Fish, Game, & Wildlife hosts the Pequest Trout Hatchery and Natural Resource Education Center's Annual Open House. With the opening of trout season on April 2nd, what better way to get in the mood than to visit one of the nation's most progressive trout hatchery. Visitors will be treated not only to slide shows and tours of the hatchery but will have the opportunity to view films, exhibits, fly-tying demonstrations, and more.

- ☐ **Bring the Kids!**
- ☐ **It's Free!**
- ☐ **Meet Smokey the Bear!**
- ☐ **Feed the Fish!**



PHOTOS BY DIVISION OF FISH, GAME & WILDLIFE

New Jersey State Library

PHOTOGRAPHS PROVIDED BY  
THE NEW SWEDEN  
COMMEMORATIVE COMMISSION.



**The Salem Oak**, at 500 to 600 years, is possibly the oldest living thing in New Jersey. It is the survivor of a vast oak forest and in its maturity overlooked the first farmsteads built by Swedes and Finns in establishing the New Sweden Colony three hundred and fifty years ago.



# New Sweden '88

*The Significance of  
Swedish and Finnish Settlement  
in the Delaware Valley*

**Fort Elfsborg**, Elsinboro, N.J.

Somewhere near this marshy shoreline, Swedish and Finnish Settlers, led by Juhan Printz, Governor of the New Sweden Colony in 1643, constructed Fort Elfsborg to interdict river traffic and control trade in the Delaware River Valley. Unlike her sister forts on the western shore, the exact location of Elfsborg is lost in the passage of time and the meandering of the river. Logs and mud rarely last, but reputation does: Elfsborg was known as "Fort Mosquito," suggesting that although the shoreline may have changed, other conditions have not. By 1648 Elfsborg was abandoned. The New Sweden Colony became Dutch and soon after English.

The 17th century was an exciting age of discovery and expansion in the arts, science and industry, as Europeans spread their commercial and political dominion throughout the world. Inspired by the riches Spain and Portugal had won from their overseas colonies, Sweden, England and the Netherlands competed vigorously throughout the first half of the century for control of the middle Atlantic seaboard of North America and for the Delaware Valley.

It is conventional to think of the English and the Dutch as 17th-century colonial powers, but the general public does not usually associate Sweden with early European colonialism. However, the Sweden of the century 1620 to 1720 was a European "Great Power". Her continental possessions made the Baltic Sea a Swedish lake, and included Finland (then a part of Sweden) and, at various times, portions of modern Poland, Latvia, Estonia, Lithuania, Germany, and the Soviet Union. In the middle years of the 17th century the Swedes virtually controlled all trade in the Baltic. Sweden was one of the major military and political combatants in Germany during the Thirty Years War (1618-1648).

But Sweden lacked the money and the manpower to maintain indefinitely her military and economic position in Europe, especially since she was at war throughout most of the 17th century. By the 1630s the English and the Dutch were beginning to realize profits from their colonial and commercial ventures, and the revenue a colony might produce was one of the contributing factors which led the Swedes to found New Sweden.

Swedish, Dutch and German stockholders formed the New Sweden Company in 1637 to trade for furs and tobacco in North America. The company's first expedition sailed from Sweden late in 1637 in two ships, *The*



*Kalmar Nyckel* and *Fogel Grip*. In command was Pieter Minuit, who had been the governor of the Dutch colony of New Netherland, centered on Manhattan Island, from 1626 to 1631. The ships reached Delaware Bay in March 1638, and the settlers began to build a fort at the site of modern Wilmington, Delaware. They named it Fort Christina, after Sweden's twelve year-old queen. It was the first permanent European settlement in the Delaware Valley.

The colony eventually consisted of farms and small settlements scattered along both banks of the Delaware River into modern New Jersey and Pennsylvania. In the next 17 years, 11 expeditions from Sweden followed the first, each bringing supplies and small numbers of Swedish and Finnish settlers.

New Sweden's zenith came during the governorship of Johan Printz (1643-1653), who extended settlement northward from Fort Christina along both sides of the Delaware River. As Governor he improved the colony's military and commercial prospects by building Fort Elfsborg near modern Salem on the New Jersey side of the river to seal off the Delaware to English and Dutch ships. In all, Printz managed to coexist peacefully with his neighbors while strengthening the colony.

Because the Dutch had made the first trading contacts in the Delaware Valley, the Swedish settlement was a commercial and potentially a military threat to New Netherland. For some years the Dutch tolerated the Swedes on their flank because New Netherland's relations with the neighboring

Indians often degenerated into open warfare. Another reason may have been that the generally cordial relations in Europe among England, the Netherlands, and Sweden extended to a measure of mutual tolerance among their colonies in the New World.

But in 1654, Printz was succeeded as governor by the somewhat less judicious Johan Rising, at a time when New Netherland was governed by the energetic Pieter Stuyvesant. Soon after he arrived in the New World, Rising attempted to dislodge the Dutch from the valley by seizing Fort Casimir (present New Castle, Delaware), below Fort Christina on the western shore of the river. Stuyvesant responded by attacking New Sweden late in the summer of 1655. The virtually bloodless Dutch conquest ended Swedish sovereignty—though not the Swedish and Finnish presence—in the Delaware Valley.

While Swedes and Finns continued to settle in New Jersey, Delaware and Pennsylvania, they did not begin to arrive in the United States in large numbers until after 1840.

Swedish immigration to this country was highest between 1867 and 1914. It was due mainly to the combination of poor local economic conditions in Sweden and the availability of cheap land in the American West. At the peak of immigration during the 1880s, an annual average of 37,000 Swedes came to the United States. Most of the new settlers bypassed New Sweden and headed west to Minnesota, Illinois, Iowa, Kansas, Nebraska, Texas, California, and Washington, which remain the states with the largest numbers of Swedish-Americans today.

## New Sweden '88

### HIGHLIGHTS

#### NEW SWEDEN COMMEMORATIVE COMMISSION

The New Sweden Commemorative Commission was created by the legislature under Public Law 1986, Chapter 128, and signed into law by Governor Thomas H. Kean October 20, 1986. Its introduction reads:

*An Act establishing a commission to plan, promote, and coordinate the celebration of the 350th anniversary of the settlement in this State of Swedes and other Scandinavian people...*

The Commission came into being in recognition of the scope of activity of the New Sweden Project in New Jersey, and the need of community and private organizations for coordination in pursuing it. It was placed in the Department of State for ethnic, historical, and other cultural association. Secretary of State Jane Burgio heads the Department and is a member of the Governor's Cabinet.

There are four legislative members of the Commission. There are twelve public members appointed by the Governor from recommendations furnished by cultural, historical, community and county planning, and conservation organizations. Twelve members represent agencies of state government; one the New Jersey Historical Society.

Duties of the Commission include planning, promoting, and coordinating commemorative programs; assisting community and civic groups; arranging fitting observances, programs, and exhibitions; and consulting with state, local, national, and international organizations.

The Commission has met monthly in open session since April 1987. It sponsors certain activities of its own, cooperates with state agencies in their programs, and coordinates and maintains a calendar listing of non-commission programs and events. It is believed that no other state has a similar organization.

The Act, and hence the Commission, expires on December 31, 1989.

### SPECIAL EVENTS

#### THE NEW SWEDEN COLONY EXHIBITION

New Jersey State Museum  
Trenton, New Jersey

February 6-May 15

Opening Reception—February 14

To celebrate the 350th Anniversary of the new Sweden Colony in North America, the New Jersey State Museum in Trenton has mounted an international exhibition of 17th century objects from both American and Swedish museum collections.

This major exhibition will include 300 sixteenth and seventeenth century objects and 50 photographs that document the formation of the colony in Sweden and the subsequent political and economic history of the New Sweden colony in the Delaware Valley from 1638 to 1655.

The exhibition will also show the success of the Swedish and Finnish settlers in bringing their forest-adapted cultural patterns to the New World and their peaceful co-existence with the Delaware and Susquehanna Indians. Rare archaeological artifacts from museums in both the United States and Sweden will show the Indians' lifestyles and how their culture changed with participation in the fur trade.

The exhibition's overall theme will demonstrate the Swedish and Finnish settlers' success in adapting to rural life in the Delaware Valley, and their major contribution to American history and culture.

The exhibition is co-sponsored by the State Museum, The New Jersey Historical Commission and the Pennsylvania State Museum. It is supported by grants from the New Jersey New Sweden Commemorative Commission, the Mid-Atlantic Consortium for the Humanities, and by in-kind contributions from the Swedish government and the Swedish government National New Sweden '88 Committee.

For further information contact Lorraine Williams, New Jersey State Museum, Trenton, NJ (609) 292-8594.

#### GUSTAV HESSELIUS EXHIBITION

New Jersey State Museum  
Trenton, New Jersey

February 13-April 24

Opening reception—February 14, 1988

The works of this 18th-century Swedish-American portraitist are displayed in this Exhibition.



#### Seventeenth Century Colonial Farmstead Museum, Bridgeton.

A major undertaking of the New Sweden Project is the creation of museum. It is an effort of the New Sweden Company, Inc.,

a not-for-profit New Jersey corporation whose directors are private citizens, in cooperation with the city of Bridgeton. It is located in Bridgeton City Park. The Farmstead Museum is intended to be an enduring and substantial monument to the celebration of 350 years of Scandinavian presence in the Delaware Valley.

Gunnar Zetterqvist and his assistant, Severin Johansson, Swedish authorities in both log construction and historical log architecture, supervise. Much of the work is done with tools comparable to those in use in the seventeenth century. The farmstead is made up of seven different functional buildings.

It is partially funded by the National Endowment for the Arts.

Call Zoltan Buki, Curator of Fine Arts, New Jersey State Museum. (609) 292-5420 for more information.

#### THE NEW SWEDEN COLONY

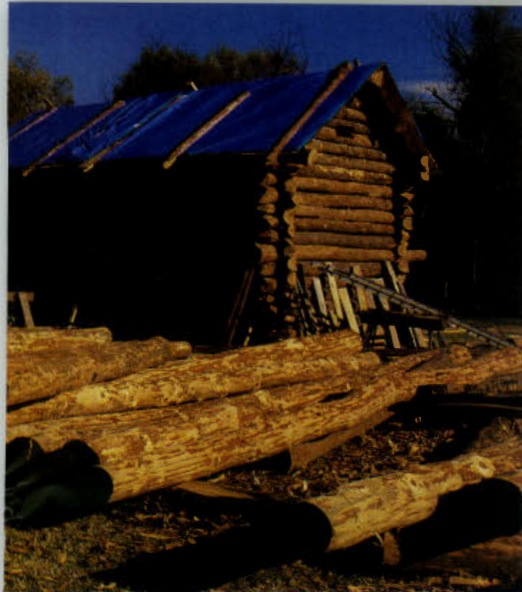
Traveling Exhibition

Available after May 1, 1988

Fourteen photo panels and artifacts from the New Jersey State Museum's permanent collection make up this Exhibition.

The exhibition is co-sponsored by the Jonkoping Lans Museum and the New Jersey State Museum and partially funded by the New Jersey Committee for the Humanities and the Pennsylvania Humanities Council.

Call Timothy Martin, New Jersey State Museum Traveling Exhibition Service, (609) 292-7780 for reservations.



## LITTLE KNOWN FACTS ABOUT NEW SWEDEN

- New Sweden was the first permanent European settlement in the Delaware Valley. It was established in 1638 only 18 years after the Pilgrims arrived at Plymouth Rock.
- During the 17 years of the settlement the colonists procured land on both sides of the Delaware from Cape May to the falls at Trenton.
- On the west bank of the Delaware two Swedish settlements later became major cities—Wilmington, Delaware and Philadelphia, Pennsylvania.
- Unique among European settlers, the Swedes and Finns adapted unusually well because they came from a similar woodland environment and knew how to survive under arduous conditions.
- Their relations with the Indians were easier and less conflict-ridden than were those of the Dutch and the English.
- The Swedes and Finns brought specific skills and knowledge that have been integrated into the American culture: boat-building, iron working, weaving and log building construction.
- Despite the short duration of New Sweden as a colony, its settlers remained. Their descendents live on, 350 years later, many in the same region.
- Many of these descendents fought in the Revolutionary war, and some became well known. John Morton was a signer of the Declaration of Independence. John Hanson, President of the Continental Congress in 1781-1782 is credited with having the Articles of Confederation adopted. This led to the Constitutional Convention and the creation of the Constitution, and the founding of the United States.

## ROYAL VISIT

Bridgeton, Trenton, Princeton, New Jersey

April 14, 1988

New Jersey shares with other states in the Delaware Valley the historical origins of Scandinavian America that began with the settlement of the New Sweden Colony three hundred and fifty years ago.

New Jersey, early and vigorous in recognizing those beginnings, plans to celebrate with a series of projects identified as substantial, enduring and socially beneficial.

In response, the Swedish Parliamentary New Sweden '88 Committee, and the United States National New Sweden '88 Committee in Minneapolis, have designated Bridgeton, Princeton and Trenton, New Jersey as Royal Cities to be visited by King Carl XVI Gustaf and Queen Silvia of Sweden. Governor Thomas H. Kean will lead the welcome of the Royal Couple and the representatives from Finland. Other cities including Budd Lake, Elizabeth and Salem are designated Jubilee Cities.

The Royal Visit will commence in Bridgeton on the morning of April 14, 1988, at ceremonies formally opening a 17th Century Farmstead Museum, the creation of which is the primary project of the New Sweden Company, Inc., a non-profit New Jersey corporation.

At noon in Trenton, the visitors will view two important exhibits at the State Museum: "The New Sweden Colony" and "The Gustav Hesselius Exhibition." Three hours of public entertainment will be associated with this segment of the Royal Visit, with military bands, royal trumpeters, marching groups, gymnasts and a Swedish choir performing on the Museum grounds and elsewhere in Trenton.

Princeton University, in cooperation with the Institute for Advanced Studies, will host a scientific conference in Princeton involving scholars from the United States and from The Royal Swedish Academy of Engineering Sciences, and attended by the King and Queen. Princeton will also host a reception for the scholars at the conclusion of the conference.

The Royal Visit will end with a formal reception at Drumthwacket, the Governor's official residence in Princeton.



Calvin C. Cohen  
607 Place Street  
Anytown, NJ 08000



## Dear Editor

### ANY IDEAS?

As you recall, we also spoke about the project in Bergen County to eliminate the Canada Geese with plastic swans. The theory was that, since the geese are afraid of swans, using fake ones would scare them off. I just spoke to the manager of the Wildlife Center in Wyckoff, and he said that the swans, unfortunately, were a waste of money. The geese swam nonchalantly beside the fake ones (and the real ones, as well.) So much for that theory.

He went on to say that this growing problem—the geese are making an awful mess of the parks and polluting the water, too—has now been transferred to the USDA. They have made several suggestions including the use of balloons along the lakes, shooting crackershells from a shotgun, and other things to harass the geese.

The manager, Mr. Rimmer, said these suggestions were impractical. He feels the best solution is to discourage visitors from feeding the geese. At the Wildlife Center, he has adopted measures to separate visitors from the geese by planting along the edge of the lake and posting no feeding signs.

Eleanor Gilman  
Ridewood

### OOPS!

I would never write to be critical, instead this is just a response in case you are checking your readers for awareness.

The centerfold photograph in the November/December issue is an outstanding winter scene captured by Ken Dahse, even though NJO printed it reversed.

The last time I wrote, NJO had pictured the Barnegat lighthouse on the north side of the inlet. One thing about these beautiful outdoor photographs, they are great no matter which way they are printed.

You know I appreciate the magazine and review it with interest.

Long time subscriber—since the early days when fish and game violators were identified.

Roy Messaros  
Franklin Lakes

Yep, we're checking to see if our readers are paying attention.

### NY-NJ TRAIL CONFERENCE

We certainly enjoyed Kenneth Dahse's article (Nov./Dec. 1987) and photos on hiking in the New Jersey Ramapos. The area's extensive trail system was planned and constructed in the 1960s and 70s by volunteers led by Frank Oliver of Teaneck.

This hiking trail system is maintained by scores of volunteers; hiking clubs and individuals affiliated with the NY-NJ Trail Conference in cooperation with NJ DEP. Any of your readers who are interested in helping or acquiring maps of Ramapo trails are welcome to write us at GPO Box 2250, NY, NY 10116.

H. Neil Zimmerman  
President  
NY-NJ Trail Conference

### CHOCOLATE

"Parlor Theatre" by Patricia Reardon, in the November/December 1987 issue, is an interesting article; but it does not belong in *New Jersey Outdoors*.

A. J. Sonderfan  
Totowa

*Some readers like chocolate ...*

### VANILLA

That was a wonderful article that Pat Reardon wrote for your November/December issue about our performances of Dickens' Christmas Carol done in parlor theater.

It was so good, in fact, that the phone started ringing as soon as the magazines were delivered. Now, almost two weeks later, it is still ringing and we have only a very few seats left.

Our thanks to you. Your subscribers have made, by their reservations, a generous contribution to the Hermitage Restoration Fund.

Florence Leon, Director  
Friends of the  
Hermitage, Inc.

*And some like vanilla*

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.

### THANK YOU

Maybe somehow I missed it, but I was not able to find any mention of National Hunting and Fishing Day (Sept. 26) in your September/October issue—not even in the Calendar of Events." And yet, you were able to devote almost a full page on the inside of the special cover to "Fungus Fest '87." Please remember that many of your readers are hunters and fishermen and would like to see National Hunting and Fishing Day recognized in the state's official outdoor magazine.

All in all, your magazine does a good job in satisfying the interests of many Jerseyans with diverse interests in the outdoors—including hunters and fishermen. But come next September, how about mentioning National Hunting and Fishing Day?

George A. Kirschbaum, Jr.  
Lyndhurst, NJ

*We have included a National Hunting and Fishing Day announcement in our magazine just about every year since I've been editor. The only excuse I can offer is that our office was moved during the time the September/October issue was in production and we did not receive the mailing piece from the National Shooting Sports Foundation.*

### ENTERPRISING AUTHOR

In reading the latest issue of your magazine (Nov./Dec.), I was surprised to find in it the same identical article that I had just finished reading in the "New York State Conservationist" (Nov./Dec. issue).

The article is "The Vanishing Dogs, Birds and Neckties" by Russell Cera.

Is this customary for two "competing" magazines to purchase the same essay and publish it simultaneously? Neither magazine gave "credit" to the other, so I assume each purchased it independently.

Henry B. Green  
Tarrytown, NY

*I didn't know it was printed elsewhere. I know John Dupont, Editor of the Conservationist, and he probably was not aware either. It was a good article—no harm done.*

# Calendar of Events

## MARCH

9 MY WORLD, MY WATER AND ME WORKSHOP. A teacher's guide to water pollution, 9 a.m.—2 p.m. Sponsored by NJDEP and Authorities Association at the Ocean County Utilities Authority, 501 Hickory Lane, Bayville, N.J. Call 609-984-7478. Workbook will be available.

13 HIKE MacNAMARA WILDLIFE MGMT. AREA. 6 miles. Easy pace. Walk the dikes with panoramic views of unspoiled marshes and lakes created by impoundments for wildlife. Bring binoculars, lunch, beverage. Wear cold weather clothing suitable for coastal weather. Take Rt. 50 south from Mays Landing for 7½ miles. Watch for dirt road on left, bearing sign for WMA, just opposite Holiday Haven Campground. Turn left on dirt road. Go ½ mile to parking area on right. Leader: Hank Papit, 609-654-8159. Outdoor Club of South Jersey.

14-16 13TH ANNUAL CONFERENCE of New Jersey Recreation and Parks Association at Sands Hotel, Atlantic City. Call Bill Foelsch, 201-846-8453.

16 MY WORLD, MY WATER AND ME WORKSHOP. 9 a.m.—2 p.m. Sponsored by NJDEP and Stoney Brook Regional Sewage Authority, 290 River Road, Princeton. Call 609-984-7478. Workbooks will be available.

16 HIKE TO CALICO RIDGE. 8-9 miles. Moderate pace. We'll check out the remains on the dam built at Martha for the bog iron furnace. Interested? Come out. Meet at Evans Bridge, Rt. 563, 10 miles south of Chatsworth. Leaders: Walt and Jean Steimaszyk, 609-429-9089. Outdoor Club of South Jersey.

19 HIKE TO APPLE PIE HILL. 8-10 miles. Moderate pace. Enjoy the varied terrain of the BATONA Trail as we hike up to Tea Time Hill and on to Apple Pie Hill. Meet at Carranza Memorial parking, 6.7 miles SE of Tabernacle on Carranza Road. Leaders: George and Dot Werner, 609-859-8160. Outdoor Club of South Jersey.

19 NATURE SLIDE PROGRAM. (All Ages) Showings at 1:00, 2:00, and 3:00 p.m. "Understanding

Northeastern Birds of Prey." This is a one half hour narrated slide presentation dealing with several of NJ's predatory birds. Meet at Nature Center. Preregistration required.

20 TOWN & COUNTRY MAINTENANCE RIDE. 30 miles. Ride around and through Medford Lakes. Leave on time, back by noon. Two 15 mile segments. Lunch between. Meet in K-Mart parking lot on Route 70 in Marlton. Leader: Tem DeSimone, 609-596-7984. Outdoor Club of South Jersey.

23 HIKE TO "THE GORGE." 8 miles. Moderate pace. The Gorge is an interesting landscape feature in this slightly hilly terrain. We'll check out the old and new fire towers. Meet at the Greenwood Wildlife Management sign on Route 539 (Ocean County), 4 miles north of Route 72. Leaders: Sam Breyer, 609-547-0377. Al Loveland, 609-547-7661. Outdoor Club of South Jersey.

26 MARCH GALA '88 Annual Trout Unlimited Dinner at Three Bridges Fire Co., in Flemington. Guest speaker is Leonard Rue III. Call 201-236-2708 or 609-397-1514 for tickets.

26-28 BIKE CAMPING AT BASS RIVER. Mileage optional. Spend the weekend in the heart of the Pinelands. Two nights in a closed lean-to with stove. Good chance to test your touring gear. Limit 6. Cost \$4.00. Call for details and sign up. Leader: John DiFiori, 609-858-6843.

26, 27 FOURTH ANNUAL ART & DECOY SHOW. Toms River Intermediate School East Hooper Ave. The Toms River Area YMCA will hold its Fourth Annual Toms River Wildfowl Art & Decoy Show on Saturday, 10:00 a.m.-6:00 p.m. and Sunday, 10:00 a.m.-4:00 p.m. Contact Maureen Rehms, 201-341-9622.

## APRIL

2 FULL MOON HIKE. Pine Barrens, 7 miles. Sponsored by Sierra Club, West Jersey Group. Meet at Carranza Memorial, 6.7 miles SE of Tabernacle Town Hall (jct., Rt. 532 and Carranza Rd.), Town Hall is 3.4 miles SE of Red Lion Circle (Rtes. 70/206, Burlington Co.). While the Easter Bunny is tip-toeing around your neighborhood, you can do

a bit of light-footed hoofing in his. Under a full moon hike an easy seven mile loop to High Crossing in this uninhabited area. Also learn about Capt. Carranza's "Fate of '28." Bring lunch and flashlight, and meet no later than 6:15 p.m. Bert Nixdorf, 609-267-7052.

24 PAKIM POND HIKE. (6 miles on the Batona Trail, Burlington County). Sponsored by Sierra Club, West Jersey Group. Meet at Pakim Pond, Lebanon State Forest. Turn onto park road at Milepost 3, Route 72 (3 miles SE of jct., Rtes. 70 & 72), and follow signs. Easy hiking at a comfortable pace. See Trailing Arbutus in bloom, plus some reminders of the glacial period. How many species of oaks can you find—4, 5, 6? Bring lunch and meet by 10 a.m. Conducted for the Central Jersey Sierra Group. Dependent on the availability of a co-leader, an 11-mile option may be offered; this is a strong possibility. Call to confirm Bert Nixdorf, 609-267-7052.

27 Thirteenth Annual New Jersey Daffodil Show, Christ Episcopal Church, 92 Kings Highway, Middletown, N.J. 07748, 1-6 p.m. Admission free, open to the public. Information: 201-842-7945 or 201-530-7044.

## MAY

1 DELAWARE RIVER WORKING DECOYS FROM THE BOB WHITE COLLECTION. Exhibit at the Noyes Museum, located in Oceanville, New Jersey, just off Route 9, adjacent to the Brigantine National Wildlife Refuge (Edwin B. Forsythe National Wildlife Refuge). Museum hours are Wednesday through Sunday, 11:00 a.m. to 4:00 p.m. Admission is \$1.50, \$1.00 for senior citizens and 50¢ for full-time students and children. Decoy carving demonstrations are given daily at 2:00 p.m. by Gary Giberson. School groups are admitted free by appointment and group tours are available. This exhibition has been made possible in part through funding by the New Jersey State Council on the Arts/Department of State. For additional information, please call the Noyes Museum at 609-652-8848.

# Mourning Cloak Butterfly

BY MIMI DUNNE

Encountering a mourning cloak butterfly in the dormant woods of early spring is true serendipity. Hikers, turkey hunters and wood-burning homeowners laying in next year's supply have a good excuse to be out in the warm days of March. And if you get out in early spring, you know that old man winter's lost his grip when the skunk cabbage blossoms in the swamp and mourning cloaks flit through sun-drenched uplands.

It requires a good amount of solar radiation to get the internal temperature of the butterfly up to the 80° or so it needs to be able to fly. The adult butterfly will overwinter in leaf litter, crevices or cavities and come out to bask on the forest floor during warm days. Wings are held in a characteristic 45° angle to intercept the greatest amount of sunlight. The large amount of dark surface area on the insect's wings increases the absorption of heat.


The ecological advantages to being an active adult butterfly in early spring seems obvious. Egg laying and growth and development of the larvae timed to the growth of food sources would ensure survival of the species. The earlier in the growing season that the insect can get started, the more cycles that can be completed.

The mourning cloak presumably takes its name from the drab garb worn in mourning. It has a wide distribution and is found in North America, Europe and the temperate areas of Asia. In England it's called the Camberwell Beauty after the town of Camberwell. In New Jersey it's widespread and

common in wooded areas in North and South Jersey. It's also found in old fields. Its shrubby drab undersides, adapted well to blending into the forest floor and tree bark, are in sharp contrast to the upper wings. The iridescent blues, creams and blacks on the outer wing margins are brilliant when the sun catches them.

Mourning cloaks are part of the *Nymphalidae* family, the brush-footed butterflies. It's a large family that includes monarchs, viceroys, red admirals and other common species. Species in this family display a variety of warning colorations and exhibit territorial behaviors. The mourning cloak's camouflaging coloration helps it avoid predators, and it clicks in flight to startle its pursuer if spotted. Some caterpillars in this family consume poisonous plants as protection from predators. The mourning cloak larvae is armored with a row of bristles to thwart predators.

Eggs are laid in groups on twigs of elm, willow, hackberry and other deciduous trees. The caterpillar is 2" long, black with white speckles, red spots, a row of black bristles and orange legs. The caterpillars feed on elm and willow leaves and twigs. The pupae form a tan chrysalis that has two horns on the head and several tubercles on the body.

Mourning cloaks have been known to be attracted to rotting fruit in old orchards. Backyard wildlife watchers might try to attract these and other butterflies to their homes in summer by providing over-ripe fruit concoctions. Like all butterflies, they should be appreciated in the wild, not in a collection. 

**Mimi Dunne**, Information and Education, Division of Fish, Game and Wildlife, is a regular on our pages.



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