

New Jersey Outdoors



DIR

New Jersey Outdoors

- 2** New Jersey's Parks: Unique Classrooms for the Outdoors • *Fran Wood*
Teaching the importance of natural resources
- 6** Hunting and Fishing Education for Youth • *Jan McDowell*
One man made it happen
- 9** Ultra Light Dynamite • *Russ Wilson*
Atlantic bonito, fighters of the highest order
- 12** Duck Hunting on the Delaware • *Howard Brant*
An under-utilized resource
- 15** Smallmouth Bass—An Exciting Gamefish • *J.B. Kasper*
How to and where
- 18** The Wild Palisades • *John Serrao*
An oasis of solitude and natural beauty
- 22** Hunter's Moon Woodcock • *Al Petnecke*
First get a good bird dog
- 26** Hackensack Meadowlands/A Place to See and Learn • *Theresa Foy DiGerontmo*
The kids will love it
- 28** Day Hiking the Gap • *Douglas W. Smith*
Pick out a trail and do it
- 32** DEP Poster and Essay Contest Winners
Expressing interest in wildlife

DEPARTMENTS

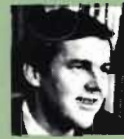
- 24** Calendar of Events
- 35** Letters to the Editor
- 36** Wildlife in New Jersey/Monarch Butterfly • *Molly Montca and Mimi Dunne*

Mini Features

- 21** New Jersey's Second Waterfowl Stamp
- 25** Triple J Bike Ride • *Bert Nixdorf*
- 31** Fishing + Kids = Fun • *Mark Tucci*
- 34** Halloween in the Pines

New Jersey Outdoors (USPS 380-520) is published bi-monthly (six times a year) by the N.J. Department of Environmental Protection. Second-class postage is paid at Trenton, N.J. and additional mailing offices. Subscriptions are \$6.50 for one year, \$11.95 for two years, and \$15.95 for three years payable by check or money order to New Jersey Outdoors Mailing Office, CN 402, Trenton, N.J. 08625. Single copies, if available, cost \$1.50. POSTMASTER: Send address changes to *New Jersey Outdoors* mailing office. Send old and new addresses and the zip code numbers. The Post Office will not forward copies unless forwarding postage is provided by the subscriber. Allow eight weeks for new subscriptions and change of address to take effect. *New Jersey Outdoors* welcomes photographs and articles, but will not be responsible for loss or damage. Permission granted to reprint with credit to *New Jersey Outdoors*. Telephone: Circulation (609) 292-1281 or 292-1939; Editor's Office, (609) 292-2477. Toll free number, 1-800-345-8112 for subscription information.

State of New Jersey



Thomas H. Kean
Governor

Department of Environmental Protection



Robert E. Hughey
Commissioner

Natural Resources Group

Helen C. Fenske
Assistant Commissioner

Resources Interpretive Services

Howard J. Wolf, Director
CN 402, Trenton, NJ 08625
Telephone: (609) 633-2102

New Jersey Outdoors Magazine Staff

Steve Perrone
Editor

Sally Dudley
Special Projects Editor

Contributing Editors

Sharon Ann Wander

Cathie Cush

Carolyn Bevis

Circulation

Lucy Brennan

Jackie Fisher

Margaret Scott

Graphic Design

Paul J. Kraml

Editorial Advisory Board

Jacqueline Berke

Charles Coffin

John T. Cunningham

Patricia Haughey

Gene Hill

Robert Lick

Scott McGonigle

Jim Naylor

Thomas M. O'Neill

Karen Reeds

Richard J. Sullivan

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.

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

The views and opinions of authors do not necessarily represent the opinion or policies of the Department of Environmental Protection or the State of New Jersey.

FROM THE EDITOR

Bye Bye Summertime

What did I do in the outdoors this past Spring and Summer? Not much. I went fishing a few times, and even caught some fish. And I did take a May moonlight hike in the pinelands. After promising hike leader Bert Nixdorf for several years that I would make one of his moonlight hikes, I finally made this one. About 100 other hikers showed up at historic Whitesbog from all areas of the state, including a group of seven or eight cub scouts. And it was a custom-made night for a hike.

The hike was co-sponsored by the West Jersey Chapter of the Sierra Club and the Chapter officers were there in force.

At our first pause in the seven mile jaunt, the full moon was sitting on the horizon at the far end of a cranberry bog, with some wispy clouds floating across its face. There was a Springtime chorus of frogs, toads, and whippoorwills as we all gazed at the moon, mesmerized by the beauty of the scene.

By the time we stopped at the mid-point for a snack break, the moon had left its perch on the bog and floated to the center of the sky as if inflated with helium, so sudden seemed the ascent. Now it was surrounded and partly obscured by a haze which darkened the trail below and introduced a spooky feeling to the hike.

For awhile I hiked in silence behind a group of cub scouts and listened to their grade school jokes and scary comments about the Jersey Devil. One of the Sierra Club officers who had her hair cut (too short) earlier that day worried that the Jersey Devil would spot her shorn head in the moonlight and snatch her from the group. He never showed.

And I, the incurable romantic, looked in vain for the beautiful woman in white. Legend has it that she appears on moonlit nights walking along deserted Pine Barrens sand roads looking for her long lost lover. I'll try again on Halloween night.

Steve Perrone

IN THIS ISSUE

Rather than start with *this* issue, I'm first going to talk about the last issue (July/August)—by popular demand! We learned that you are an alert, on-the-ball group of readers. And you're good letter writers too. Also, good phone conversationalists too.

I received about 40 to 50 letters and 30 to 40 telephone calls—all inquiring about one or both (unmentionable) photos in the July/August issue. I must mention that your comments (written and verbal) were not without humor and tongue in cheek. And I appreciate that.

Seriously, July/August 1985 was the 70th issue I've published and the one issue I won't soon forget. There were some extenuating circumstances. This issue was the first where a Natural Resources Group committee reviewed and selected all the photographs. And we should have had a fisheries person to identify the striper. I should have recognized it—but I didn't. No excuses, the buck stops here.

Over the past twelve years, I puffed up and took the praise you directed my way. Now I'll have to take the heat. As long as you don't tar and feather me, use me as bluefish bait, challenge me to a duel, give me 20 lashes, or threaten to baptize me in Barnegat Inlet during a winter storm, I'll take the heat.

I'm in the process of framing a large 8" x 10" photo (corrected) of the Barnegat Bay aerial for my office. And I'm looking for a large color photo of a bluefish. Ouch! I'll have to stop punishing myself.

Keep the letters coming. But let's try some new subjects.

Now about this issue: September ushers in the new school year and our September/October issue focus is on the Environmental and Natural Resource Education courses and facilities available in our state.

The articles on these subjects are: *New Jersey's Parks: Unique Classrooms for the Outdoors* by Fran Wood, a frequent contributor. A sidebar to this article provides *Help for Teachers, Parents, Scout Leaders and Naturalists*.

Hunting and Fishing Education for Youth was written by Jan McDowell, also a frequent contributor. Jan writes about John Kauza of Pittstown, who has devoted his weekends and much of his spare time over the past seven years to teaching Boy Scouts (thousands of them) the fundamentals of marksmanship, fishing, and wilderness survival.

Hackensack Meadowlands/A Place to See and Learn by Theresa Foy DiGeronimo, describes the facilities and the educational programs at the Hackensack Meadowlands Environment Center. Author DiGeronimo, from Hawthorne, is new to NJO, but she has been published in the *English Journal*, the *Record News*, and *Scholastic Scope*.

For the angler we have *Ultra Light Dynamite* by Russ Wilson, Editor of *The Fisherman*. Russ tells us how to catch Atlantic Bonito, a great fighter.

Author J.B. Kasper, a fishing guide on the Delaware, writes about *Smallmouth Bass—An Exciting Gamefish*.

Veteran outdoor writer Howard Brant writes about *Duck Hunting on the Dela-*

ware. Howie says the Delaware is an underutilized resource that "pays off in considerable dividends."

Hunter's Moon Woodcock by frequent contributor Al Plenecke discusses the "fringe benefits" of being afield during woodcock season.

A pictorial article, *The Wild Palisades* by John Serrao, Director of the Greenbrook Sanctuary, describes with words and pictures the natural wonders of Palisades Interstate Park.

For the hiker looking for challenges, read *Day Hiking the Gap* by freelance writer Douglas W. Smith.

Our *Wildlife in New Jersey* series article is the *Monarch Butterfly* by butterfly person Molly Monica and biologist Mimi Dunne.

Mark Tucci writes about *Kids + Fishing = Fun* and the pleasure and satisfaction such an outing provides for father and child.

If you have the stamina and the desire, try the *Triple J Bike Ride* by Bert Nixdorf. Bert will lead this trip on October 5. For information, call 609-267-7052.

The New Jersey 1985-86 waterfowl stamp is featured on page 21. The stamp was designed by David Maass, one of the nation's best known wildlife artists.

Last year's *Whitesbog Halloween Party* was a spooky but fun-filled night out in the pines. The Jersey Devil showed up and he has been invited again.

More than 2000 elementary through high school students entered the *DEP Poster and Essay Contest*. The *Winners* are featured on pages 32 and 33.

New Jersey's Parks: Unique Classrooms for the Outdoors



BY FRAN WOOD

Quick, tell me where you'd go to learn something about coastal erosion, the history of lighthouses, plant succession, bird migration, or preserving natural resources in an industrial area?

Stumped? Would you believe the New Jersey state park system's outdoor education and interpretive programs? Each of New Jersey's 35 state parks has its own unique features and the education programs in each reflect those features. Makes sense when you think about it. New Jersey, after all has a wide variety of environments, ecosystems and geological terrains. How can programs in even two locations be alike in a state where you can't drive five miles without finding a change in landscape?

Environment isn't the only factor which accounts for the differences. Most parks have historical significances and history is unique to each locale. Contrary to popular assumptions, many education programs in state parks incorporate lessons in both the environment and in history. Although some state parks have more formal interpretive programs than others, there's something to learn about New Jersey's environment and history at all of them.

This phenomenon can be illustrated by looking at any of the state parks' interpretive programs. To simplify matters, let's take just four of them: Liberty State Park in Jersey City; Cape May Point State Park in Cape May; Washington Crossing State Park in Titusville; and Twin Lights in Highlands. Each is part of the state park system. And each is different.

Liberty State Park

Fifteen years ago, the thought of turning this strip of Hudson River frontage into a state park would have been laughable. The site was an industrial wasteland, and river pollution had long since driven away wildlife.

The Clean Water Act of 1972 changed all that. "With the cleanup of the Hudson, the wildlife began to return," says the park's interpretive specialist Frank Gallagher, "and today we have species you would never expect to find in an urban area."

It's admittedly an unusual setting for a state park, situated as it is in the shadow of the New York skyline, with the Statue of Liberty just offshore and Ellis Island "so close you could skip a rock to it," but

*Liberty State Park
Interpretive specialist
Frank Gallagher seeks out
clams in the waters of
Upper New York Bay.*

Gallagher says its value as an educational facility isn't duplicated anywhere in the state.

Information is also available by calling (201) 435-1021.

Washington Crossing State Park

The name alone gives the only clue you need to this park's historical significance, but it doesn't even hint at the environmental riches this Delaware River facility offers.

In Revolutionary times, this was all farmland, and the education program here enables visitors to observe the process of plant succession. "There is an ongoing growth process in any field or forest," explains Kevin Kopp, chief naturalist at Washington Crossing State Park. "Here, we have examples of exactly how that process works. You can see, by the kinds of growth, which areas remained uncleared and which areas were once farmland—and you can see them in transition."

Fields which have long since ceased to be farmed will have a variety of mature hardwood trees like oak and hickory, he says, while those which have been in transition for only a few decades will have large stands of cedars and dogwoods. "By observing the kinds of trees and their height, you can see precisely where the old farm fields were."

Some of these areas were crossed by creeks, and guides explain the importance of a seasonal creek and what kinds of animals it serves.

"The tours wind up at our nature center museum, where visitors can see examples of most owls that frequent New Jersey," says Kopp, as well as birds, butterflies and rock indigenous to the area. There is also a live beehive for observing the workings of a bee community, and a "pick up" exhibit for children, featuring skulls and bones, turtle shells, paper wasps' nest, sea shells and the like.

The historic aspects of the park area are concentrated in the area where Washington's legendary crossing took place, and the Visitors' Center serves as a repository for the park's 900-unit collection of Revolutionary War memorabilia, including firearms and ammunition, clothing, medical instruments, documents and letters.

The nature center is open from 10 to 4 Wednesday through Sunday, from Labor Day until Memorial Day. Information on tours is available by calling (609) 737-0609.

JOHN PIETRAS

"People need to have an understanding of the importance of natural resources, especially in urban areas," he says. Without such a facility, he believes, people would understandably assume there would be no possibility of preserving natural resources in an industrial area. "That's very obviously not so, and we're proving it right there."

While the park has been open since 1977, and features a swimming pool, picnic and recreation area and boat launch, it is the new interpretive program that is drawing visitors from all over the state these days. Instituted just last April it revolves around the park's salt marsh and mud flat and rich history.

"Our 20-odd-acre salt marsh is an intertidal area, dominated by spartina grasses, that gets flooded twice a day by tides," Gallagher explains. "It has a unique diversity of associated fauna, and it's a nursery ground for many of the ocean's fishes." The adjacent mud flat, he adds, is a lower-lying area of sand and silt where worms, snails and other invertebrates live and reproduce.

"The most exciting thing about Liberty Park is that it is located in the middle of an urban area," says Gallagher. "It is one of the few examples in the world where wildlife are re-inhabiting an area."

And there are examples aplenty here. In the improved river waters, fisherman now catch snapper blues, flounder and striped bass. And the gradually returning bird population continues to flourish, with more than 70 different species counted since last November, including nesting marsh hawks and all types of water birds. "We even have snowy egrets and glossy ibis during the nesting season, birds you'd never expect to find here then."

Given the opportunity, Gallagher says, "wildlife will come back. Scientists have known this for 40 or 50 years. Now, with this resource, the general public is beginning to realize it."

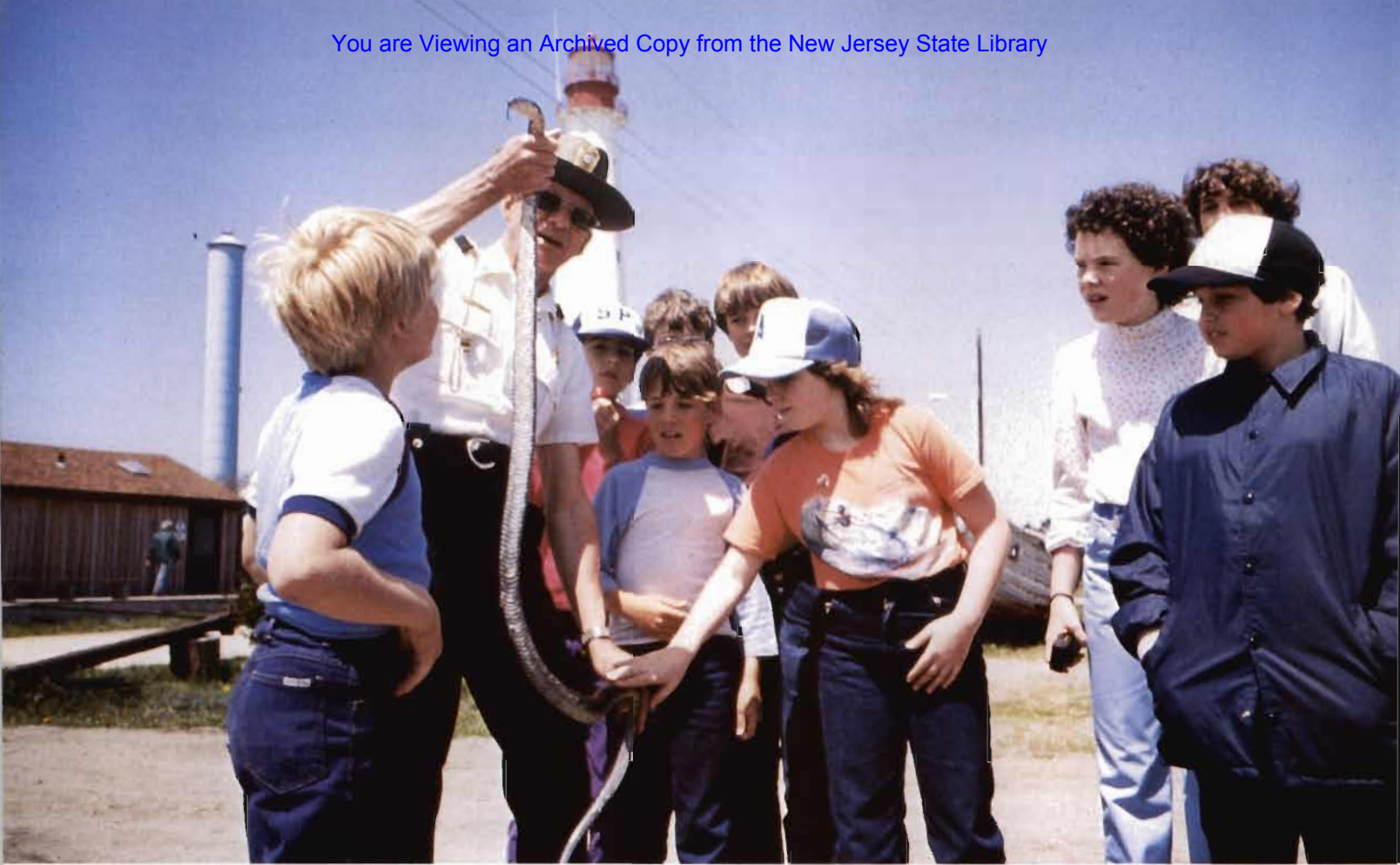
The park is open from 8 a.m. to 10 p.m. daily, and the office operates from 9 to 4. There are education programs both for school groups and the general public. To get on the mailing list, send your name and address to Liberty State Park Interpretive Center, Morris Pesin Drive, Jersey City, N.J. 07304.



PHOTO COMMUNICATIONS CORP.



Washington Crossing State Park naturalist Kevin Kopp uses blindfolds to help children learn different bird calls.



Cape May Point State Park's Chief Ranger Phil Breden uses the real thing to teach children about snakes. It's a harmless, black rat snake.

Cape May Point State Park

During World War II, the U.S. Army constructed a bunker some 900 feet inland from the coast here. Since then, 1200 feet of coastland have washed away, and today that bunker sits on pilings offshore.

"We are visited by students from all over who come to observe and study our erosion," says Phil Breden the park's chief ranger. "It's a unique vantage point to study beach erosion, because you've got the Atlantic currents on one side merging with those of the Delaware Bay on the other."

Erosion is not the only phenomenon this park offers. A self-guided, half-mile-long trail offers examples of shrubs and trees common to the area (wax myrtle, red cedar, pitch pine), and there is a living, in-progress example of pond succession, where what was once a pond is now growing into a field.

However, the biggest attraction at Cape May Point State Park is the bird life—notably hawks, which in the fall draw visitors from all over the U.S. and from Europe. From August 15 through the end of November, the Audubon Society conducts its annual hawk count here, because it is a migration stopover for 12 species of hawks.

There are other birds of prey to observe here, as well, including peregrine and merlin falcons and bald and golden eagles.

The unusual freshwater to brackish marsh along the ocean draws a great diversity of wildlife, Breden says, where river otters account for the more entertaining inhabitants.

The park is an ideal vantage point for one of the ocean's more visible acts. "Bottle-nosed dolphins

calve in the lower Delaware, and for several weeks in June they can be seen in groups of about 75," he says. "They put on quite a show each day."

What makes the Cape May area most unique and its wildlife so varied, says Breden, is that "it is a geographical merging point for many northern and southern species. That is, this is as far north or as far south as one can find many of the plants, animals and birds we have here."

The variety of activity at Cape May isn't exactly a secret. This year, the park will have more than half a million visitors. In addition to its naturalist program conducted spring through fall, there are guided walks for the general public. The schedule is available by calling the park office at (609) 884-2159.

Twin Lights Lighthouse

You'd think there might at least be some similarity between two coastal parks. There isn't, other than the fact that they look out on the Atlantic.

For one thing, Twin Lights is located on a bluff 200 feet above sea level, overlooking Sandy Hook and the ocean, and offering a panoramic view of lower New York harbor. "You can't get a better view of the New York skyline anywhere else in New Jersey," says Tom Laverty, senior historic preservation specialist at Twin Lights.

For another, Twin Lights is chiefly a historical facility. Administered by Cheesequake State Park, it was the home of one of the most powerful coastal signal lights ever used.

The first twin towers were erected in 1828, although Laverty says there is some evidence a sig-

nal light was operating on the site as early as 1756. By 1850 the building had seriously deteriorated, and the U.S. Lighthouse Board, then in charge of the lights, recommended new towers. The imposing brownstone and brick structure that sits on the site today, erected in 1862 is the result of the Board's recommendation.

It is the mammoth lens formerly housed in the south tower that brings some 60,000 visitors a year to Twin Lights. Based on a principle developed by 19th century French physicist Fresnel, the nine-and-a-half-foot wide lens is the focal point of Twin Lights. It is part of a working exhibit which shows visitors exactly how it worked when it was installed in the tower in 1898.

It was at Twin Lights that the first commercial use of the wireless telegraph took place. Lavery says. In 1899, Marconi, inventor of the wireless, was hired by the *New York Herald* to report on the America's Cup races taking place off Sandy Hook. Situated on a boat from which he could observe the races, he transmitted his reports to the receiving antennae at Twin Lights, which were then relayed to Manhattan. If this represented a great success for Marconi, it was also a coup for the *Herald*, which printed results hours before its competitors.

In addition to tours for school groups, Twin Lights provides interpreters for groups making reservations. A museum, the towers, and a walk-in exhibit accompanied by an audio explanation are open from 9-5 Wednesday through Sunday from Labor Day to Memorial Day. There is parking for 60 cars on the site, and a picnic grove is open until dark. For further information call (201) 872-1814.

And so it goes from park to park all over the state from the rocky outcroppings at High Point to the



BILL VIBBERT

The top of the south tower is a favorite spot for children visiting Twin Lights.

coastal plain campgrounds of Belleplain State Forest; from the peaceful lakes and woodlands of Alamy Mountain to the historic waterways of the Delaware and Raritan Canal; from the restored ironworks of Allaire to the shady forests of Hacklebarney; from the Civil War burial grounds at Fort Mott to the grassy dunes at Island Beach; from the Pequest Natural Resource Education Center and Trout Hatchery to the forest nursery at Jackson. You can learn something about history, about biology, about ecology, and about geology at all of them.

Help for Teachers, Parents, Scout Leaders and Naturalists

"Everything is connected to everything else."

Barry Commoner

Interested in learning more about man's connections to the animals, the plants, the air, the water and the soil that make up planet earth? More than 50 centers, operated by the state park service, federal, county and municipal governments, and private organizations offer a variety of programs for adults and children throughout the state; displays and exhibits showing local flora and fauna, guided walks on nature trails, and educational programs on subjects from food chains and energy cycles to solid waste and natural resources.

In addition, a variety of curriculum aids, available from the Department of Environmental Protection's Environmental Awareness and Education Program will provide ideas for activities and projects for students from kindergarten through high school. Ranging from fact sheets on current issues to comprehensive guides, they all can be integrated into existing programs—science, mathematics, language arts, social studies, nature study, arts and crafts, etc.

For example, three Awareness and Activity packages cover Acid Precipitation, Forest Fire Prevention and Forest Management, and Water Conservation. Developed by DEP, they contain basic information and references, awareness quizzes, essay and discussion topics, vocabulary and number games, mathematical exercises, creative writing projects and other activities for students from kindergarten through 12th grade.

One of three curriculum guides available from DEP, PROJECT LEARNING TREE uses the forest as a base to help students explore the relationships between all living and non-living things by developing awareness and by understanding the diversity of forest roles, cultural contexts, societal perspectives, management and interdependence of natural resources, life support systems

and lifestyles. Each unit contains basic information, an activity, and suggestions for extensions and variations. Jointly sponsored by the Western Regional Environmental Education Council and the American Forest Institute, this program offers supplementary activities for students from kindergarten through 12th grade. Additional curriculum guides distributed by DEP include CLASS PROJECT and Project WILD.

In addition, the Division of Fish, Game and Wildlife's Hunter Education program provides the courses required by law for all first-time purchasers of hunting, archery, rifle/muzzleloading and trapping licenses.

For a list of state, federal, county, municipal and private environmental education centers and for further information about environmental education programs available from DEP, contact Resources Interpretive Services, Department of Environmental Protection, CN 402, Trenton, NJ 08625, telephone (609) 633-2102.

State-Operated Environmental and Outdoor Education Programs

Allaire State Park, Farmingdale
Bass River State Forest, New Gretna
Batsto Nature Center, Wharton State Forest, Hammonton
Center for Coastal and Environmental Studies at Rutgers, New Brunswick
Hackensack Meadowlands Environmental Center, Lyndhurst
Island Beach State Park, Seaside Park
Marine Sciences Consortium, Fort Hancock
N.J. State Museum, Trenton
Pequest Natural Resource Education Center and Trout Hatchery, Oxford
Pinelands Commission, New Lisbon
School of Conservation, Branchville

It's a family affair as Dan Dawson spots for his son as he shoots for his merit badge.

Hunting & Fishing

Education for Youth

BY JAN McDOWELL

PHOTOGRAPHS BY CHARLES E. PASON

There was none of the noisy frivolity usually found among groups of 10 to 17-year-old boys that sunny Saturday in Hunterdon County. The boys of the George Washington Boy Scout Council seemed to know there was a job at hand, and that they were going to work their hardest to finish things up with their best work.

After attending about five hours of classroom instruction, these Scouts had completed a take-home test of 20 true or false, 10 multiple choice, 3 composition and 4 label-the-parts questions. Now they were participating in one of three shooting sessions at the Watchung Scout Reservation's shooting range.

This day, eight boys took their positions, lying on pieces of rug on the concrete pad. Twenty-two caliber rifles in hand, they were ready for the qualifying rounds which concluded the rigorous course in the Rifle and Shotgun Shooting Merit Badge program. Another day they would shoot in a standing position, and yet another, kneeling.

Some of the boys were very small and had trouble holding even the youth-sized rifles steady. Some were seemingly more competent. All appeared determined to shoot their best.

Now in position with guns pointed downrange, Dave Wilson, a long-time assistant Scoutmaster of Troop 112, Alexandria Township, Hunterdon County and range officer for the course, asked, "Ready on the firing line?" When the adult watchers noted that the boys were ready, the next command, "Commence firing," brought the range to life as the boys tried to make every round hit the coveted spot—the center of a small paper target some 50 feet away.

Who was responsible for making this kind of Saturday morning possible for some 25 Scouts this year? John Kauza of Alexandria Township, a dedicated and competent merit badge counselor has devoted his weekends and much of his free time over the past seven years to teaching Boy Scouts the

fundamentals of marksmanship, fishing, and wilderness survival.

After watching this smooth-running program and hearing about several others now operating in this Scout Council, it was clear that, if I needed a volunteer to handle an involved project, I would surely think about this man with the seeming workaholic drive, especially if the need was in Kauza's interest range—generally speaking, the outdoors.

How It Started

It might have been, however, that not just any person could have gotten John Kauza into this endeavor at the start seven years ago. But his son, John Jr., 13 years old then and a member of Boy Scout Troop 112, did the asking. And his request was only for help with his own troop's work on the fishing badge. Since children usually know more about their parents than the parents think, John Jr. probably knew his Dad had the background and the organizational skills to do the job when he asked.

Well, he was right. Dad, a graduate of West Point, a Viet Nam veteran, a member of several military marksmanship teams and an avid hunter and angler, had what it took and must have been ready. "I like to work with kids," he says in what must be a whopping understatement. He believes young people who learn good hunting and fishing skills will have a better understanding of the importance of our natural resources.

Although never a Boy Scout himself, John picked up the ball and in the second year developed a fishing course for the boys with merit badge requirements forming only the nucleus. The third year he also developed courses for archery, wilderness survival and marksmanship. Since then, he has dropped the archery due to equipment problems, but has upgraded and expanded the others to reach



In seven years John Kauza has tallied up 60 scores for Boy Scouts earning their Rifle and Shotgun Shooting Merit Badges.

A special sighting and triggering device designed by Bob Torok helps improve trigger squeeze.



not only the troop, but the You are Viewing An Archived Copy from the New Jersey State Library District and finally the George Washington Council.

At first, John plugged along on his own with the boys, giving the courses virtually every weekend during the school year and spending countless hours in the evenings to develop the material. But during the last two years, the growing popularity of his course has necessitated the addition of some additional help.

Dan Dawson, an employee of AT&T Communications, an excellent marksman, according to John, and an NRA-qualified instructor, teaches proper shooting positions during classroom sessions of the marksmanship badge and then offers individual instruction to bring scores from the 90s at the beginning of shooting to 150-plus in an hour. He has helped for two years.

Bob Torok, who works for Ditschman-Ford in Flemington, teaches the shooting fundamentals of sight alignment and body control. His creative training aids encourage proper trigger control and sighting techniques that bring about good shooting results. An avid hunter and highly skilled rifle and shotgun shooter, according to John, and also NRA-qualified, Bob started with the program this year.

Mike Tarbox Jr., a senior Scout and winner of the previous two years' Top Shooter honors, is another able instructor on the shooting range. Sacrificing the opportunity to compete this year, he also teaches safety, ethics and game laws to his fellow Scouts in the classroom.

John credits these men with helping three-quarters of the boys pass the course. John's two sons, John Jr., now in college, and Chris, a high school senior, also help out when they can. Both are Eagle Scouts.

Marksmanship, Fishing and Wilderness Survival

The marksmanship course consists of detailed classroom instruction in safety, ethics, marksmanship techniques and New Jersey game laws, as well as range firing and an added competition. Although everyone gets a patch for participation, top shooters are in line for prizes like guns, scopes, shooting glasses, knives, shooting vests, etc. John applauds the generosity of the sporting goods industry for donating so many nice prizes to the boys.

"My long range goal is to make this program statewide. I'd like to get all the Scout Councils involved

shooters from each council for a shootoff," he says. John also thinks an air gun course for younger Scouts and a Division of Fish, Game and Wildlife-approved hunter education course are needed.

The fishing course saw 400 plus Scouts go fishing last year. They learned about fish identification, game laws, cleaning and filleting, natural baits and their artificial counterparts, tackle and what to use for each species of fish. John has also proposed a Girl Scout fishing badge, which may someday catch on, and a statewide fishing contest for kids.

The wilderness survival program is limited to 20 older boys who have met Boy Scout prerequisites every other year. They are taught wilderness camping, how to build a shelter, cooking, first aid, edible plants, and how to fish for sustenance. Then they spend two days and an overnight equipped only with basic fishing gear.

A Close Match

A high point in John's spring this year came when his two top scorers came up just one point apart after their three days on the firing range. John gave the boys three choices: They could let the score stand, ask for a recount, or shoot off.

Much to his delight, the two, Doug Tarbox of Alexandria Township and Alden Fulcomer of Holland Township, both students at Delaware Valley Regional High School, decided to shoot again.

Although it wasn't the Olympics, tension ran high at the range for the 45 minutes that the boys shot, without coaching or noise of any kind from the spectators.

As it turned out, Doug, the original winner, came out on top and went home with a Mossberg model 500 shotgun. Alden, who had outshot Doug in the prone position, was awarded a Bushnell custom .22-caliber scope for his achievement.

"Someone needs to take the time to share with kids something they have. I like seeing kids learn. They're at an age where they want to learn," he says.

No matter what it might seem, John doesn't consider himself a workaholic. A new services developer with AT&T, he just enjoys what he's doing so much that the rest of his life has had to become more organized so he can make time for the Scouts.

What a way to spend your weekends!

Come! Speak For The Environment!

Yes!
I want to speak for the environment!
Enclosed is my \$20 registration fee

name _____
address _____
city _____ zip _____

Please make checks payable to ANJEC and return to Box 157, Mendham, N.J. 07945

People, Problems and Progress for the '80's Saturday, October 26
12th Annual Environmental Congress Princeton Day School
The Great Road, Princeton

Featured Speakers

- Governor Thomas Kean (invited)
- Essex County Executive Peter Shapiro (invited)
- Dr. Barry Commoner, scientist, author of *The Closing Circle*
- Dr. Ian McHarg, planner, author of *Design With Nature*
- Robert E. Hughey, Commissioner
N.J. Department of Environmental Protection
- Tom O'Neill, executive director, Partnership for N.J.

\$20 registration fee also includes workshops, exhibits and lunch

For further information contact
Association of N.J. Environmental Commissions
Box 157, Mendham, N.J. 07945, 201-539-7547



RUSS WILSON

Ultra Light Dynamite

By RUSS WILSON

When Atlantic bonito invade the coastal zone, light tackle anglers cash in on an under-utilized bonanza fishery.

The thin wisp of monofilament gave off a hissing sound as it zipped through the water and passed under our anchored boat. I knew the fish was fast, but this was utterly ridiculous. No fish I'd ever tangled with had the speed that I was witnessing, and in more than 20 years of fishing the Jersey Shore we'd taken most of the species that inhabit these waters.

It happened so quickly that none of us really had a chance to get set. The line, baited with a medium-size spearing, had just touched the water, and in that instant a fish lunged up, grabbed the tasty morsel and was off to the races. The six-pound-test monofilament literally smoked as it was torn from a loosely set drag and for several moments all I could do was hang onto the slender rod and pray the fish did not strip the reel of its contents.

That was our introduction to the Atlantic bonito (*Sarda sarda*) and the beginning of a friendship that has lasted for more than 20 years. Make no mistake, bonito are fighters of the highest order and once you've tangled with one you will definitely want to do it again and again.

Atlantic bonito do not attain heavyweight status. A four pounder is above average and if you are lucky enough to hook one weighing eight or ten pounds you have bragging rights. Closer to average are fish

of two or three pounds, and on occasion you will be catching bonito that do not weigh more than a pound. It is not their size that makes them so important to salt water anglers but their willingness to fight.

Light tackle is the order of the day when seeking these pint-size speedsters. We have seen newcomers trying to bring fish to the boat with gear that is more at home on a trout stream than on the saltwater scene. More the norm, however, are light spinning or plugcasting rods that are rated to handle line weights of up to ten pounds. With an outfit such as this you can eventually beat even the strongest bonito.

Our favorite set-up consists of a five-and-a-half-foot plug casting rod, matching casting reel and six-, eight- or ten-pound-test monofilament line. A single hook completes the entire outfit. If you are not familiar with conventional type casting reels you can substitute a spinning outfit of similar proportions and you are set to enjoy some of the finest fishing to be found on the eastern seaboard.

Bonito generally invade the coastal inshore waters sometime after the first week of July. For a few weeks they will not respond to a chum slick of ground up menhaden, but by the first week of August they are ready to do battle and will attack any bait or lure that looks good to eat.

You can use a variety of baits to catch these brawlers. Spearing smelts, butterfish, bunker, killies, sandeels and tinker mackerel will get their

The Atlantic bonito's torpedo-shaped body makes it a top-speed swimmer.

attention. Most are available at shore area bait and tackle shops.

If we had to select one offering above all others we'd opt for the slender-bodied spearing—probably the best bonito bait we've used and they are readily available all along the Jersey seaboard at reasonable prices.

Bonito are blessed with keen eyesight; hence the need for light lines, tiny hooks and a proper presentation of the baits. Many experienced bonito fishermen find the short shank tuna style hooks in sizes #2 thru #10 perfectly suited to use with spearing, sandeels or smelts. The short shank style allows the bait to drift in a natural manner but is still strong enough to hook any fish. Of equal importance is the ability to "hide" the small hook in the bait so it is not spotted by the sharp-eyed bonito.

These fish hit with lightning speed. One second the bait is drifting along in the current, and in a flash it simply disappears as a bonito charges in, grabs the bait and runs with it quicker than a bolt of lightning. From that moment on you must hang onto the buckled rod and hope the line doesn't part as the fish makes its initial run. After several such bursts of speed you may bring the fish back to the boat, but the battle isn't over until you slip the net under the fish or a buddy smacks it with the gaff.

Atlantic bonito travel in large schools much like bluefish or school-size bluefin tuna. Where you catch one you are likely to find thousands. That's why many bonito fishermen prefer to do their fishing from an anchored boat, allowing the chum slick to bring the bonito to them. It usually pays greater dividends than trolling or casting to fish that are on the move.

Bonito prefer a textured bottom. The lumps and high bottom crowns located anywhere from two to ten miles off the beach are usually inhabited by bonito throughout August and September. If the weather is unusually mild you may find bonito on the lumps through the month of October, and some years we've even caught them during early November.

Those high bottom lumps were made to order for the boater who likes light tackle fishing. It is quite easy to anchor on a lump, start up a chum slick and await the arrival of the speed merchants. As a rule you will find your best results during early morning or late afternoon hours. Bonito are easily spooked by boat traffic and once the fleet arrives and engine noises drone into the depths the fish will move off the high bottom and into the deeper waters where they will stay until the commotion ceases.

It pays to head offshore early. You want to be at one of the lumps at first light. The fishing may be fast and furious for an hour or more or it may last for only a short time. If you are not out there early you could easily miss out on the best fishing of the entire day.

We generally leave the dock before daybreak and run slowly east until we locate a lump or ridge. The anchor is set, chum slick started and lines baited with fresh or frozen spearing. If we don't have action within a half hour, up comes the anchor and we're off to find another lump which may harbor a school of hungry bonito.

Bonito chumming requires a bit more finesse



A. NUNES VAIS

Boating a bonito



RUSS WILSON

than does chumming for bluefish or other fast-moving predators. When you seek bonito you must present a chum slick that will attract fish but not give them anything big enough to eat. If you ladle out the chum in a heavy slick as you might when seeking bluefish you will accomplish nothing more than to feed the fish you hope to catch.

A thin, watery "soup" of menhaden and sea water will create a very oily slick without too much actual food for the fish to eat. And, when you slip a spearing that has a tiny #2 hook buried into the slick your chances of hooking a fish are much greater.

We prefer to hide the hook in whole bait strips or chunks. By placing the small hook through the bottom of the chin and up through the head when using whole baits such as sandeels, spearing, smelts or killies, the bait looks natural as it drifts back in the slick. When using strips or chunks you must hide the hook in the bait in such a manner that the bait will not spin as it drifts. A good method, and one we often employ, is to place the hook at the widest part of the strip. Hooked in this fashion, a bait will not spin and will look as close to natural as possible while still giving a high percentage of hook-ups.

When the action is hot one angler must keep the chum slick going even if it means he or she cannot fish. This is the key to successful bonito chumming and is the reason why so many charter skippers do not allow the mate to pick up a fishing rod.

For a chum dipper we use a small plastic cup that is nailed to an 18-inch piece of firing wood. It is easy to make and will last for several seasons.

Chumming does take a certain amount of concentration. As each ladle of chum is tossed overboard it will dissipate and drift away from the boat with the prevailing current. Once the chum drifts out of sight another ladle of chum tossed overboard and the system continues until you have enough fish or run out of chum.

You can substitute frozen chum, but if your chum slick is too heavy you will eventually attract bluefish and the bonito will move off to look for an area where there are no bluefish to compete for the food.

Chumming with frozen bunker has gained a large following in recent years. It is less messy, requires less work and will often bring fish to the boat.

To use the frozen chum invert the container in a larger plastic holder, place the whole mess along a gunnel and tie it to the boat so only the bottom of the chum bucket is actually in the water. As the boat rocks with tide or wind, the chum is automatically washed out and mixed with sea water to form a slick.

We've fished most of the prime fishing grounds along the Atlantic, Gulf and New England coasts and have sampled the famed Pacific Coast fishing on several occasions, and we can honestly say we have yet to meet a fish that gives more pleasure per pound than does the Atlantic bonito. These pint-size speedsters are bantamweight brawlers that show the finesse of a middleweight boxer with style.

Bonito are prime table fare when treated properly. You must keep them cool and out of the sun if you intended to bring them home for a family meal. We usually carry a cooler that is half filled with ice. As each fish is brought into the boat it is promptly deposited in the cooler, and when we've finished fishing for the day we clean and filet the catch and return the filets to the ice chest for the trip home.

Bonito are a soft-fleshed fish and if you do not take the proper precautions you will end up with a mesh of soggy filets that are only good for cat food.

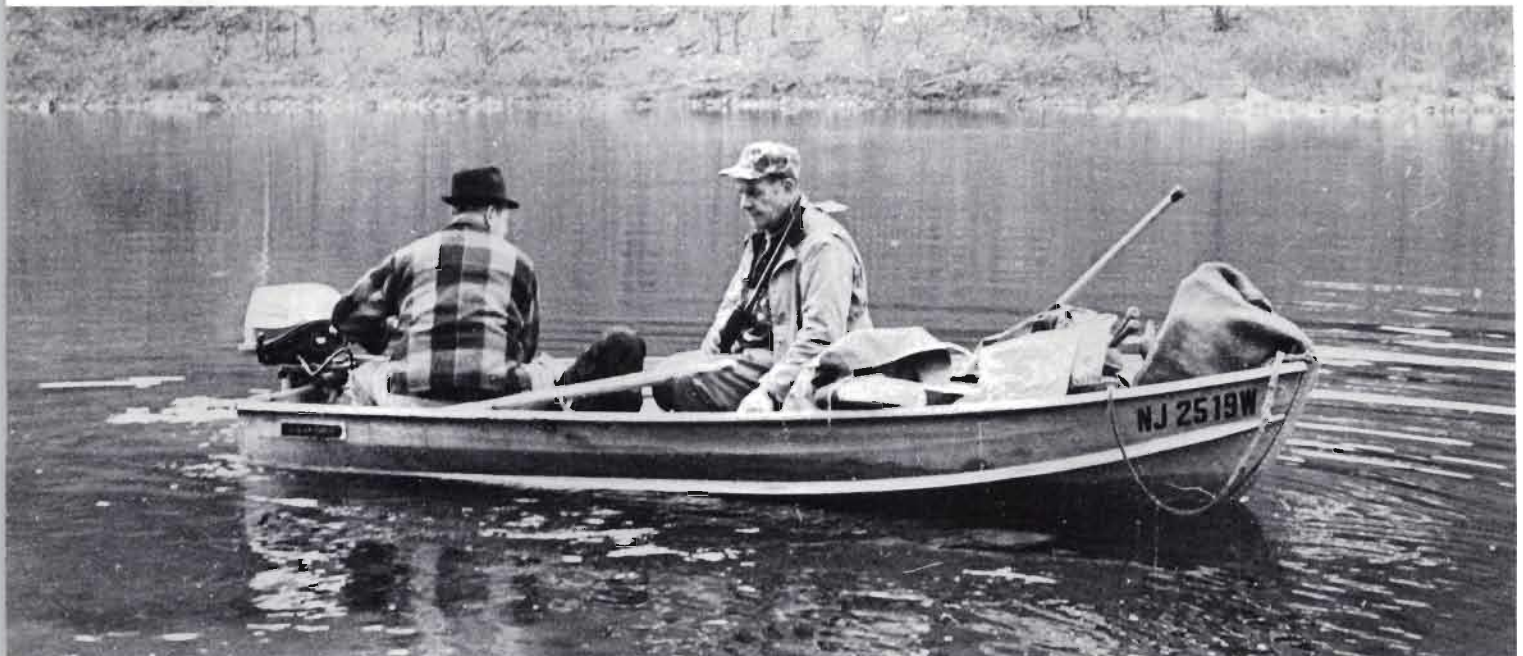
The filets can be pan fried, broiled, boiled, baked or made into a salad that tastes much like fresh caught tuna. We remove all traces of dark meat, leaving two thin strips of light meat. Those filets can be frozen for use at a later date, but some of the flavor is lost if stored in the freezer for long periods of time. Bonito are definitely at their best when prepared fresh or eaten no more than two days after being taken from the sea.

This year, when you're tired of hauling in those blues or want to try something new, give the *Sarda sarda* a try. We can guarantee you'll be pleasantly surprised when that first bonie latches onto your bait and heads for parts unknown. It is thrilling fishing. Try it.

Duck Hunting . . .

The wood duck's unique markings and slicked back crest make it easy to identify.

BRECK P. KENT





BY HOWARD BRANT

BLACK AND WHITE PHOTOS
PROVIDED BY AUTHOR

... on the Delaware

Rising from its confluence with its East and West Branches in the Catskill Mountains at Hancock, New York, flows the mighty Delaware River. Transsecting portions of New York, Pennsylvania and New Jersey, it meanders ever southward through sweet-scented meadows and rolling pastures, through pine groves and hardwood ridges and quaint riverside hamlets, ultimately emptying into the sea in Delaware Bay some 200-odd miles to the south.

To be sure, the Delaware River lies within easy access of some of the largest cities in the nation, yet ironically, it remains under-utilized by sportsmen in the East. Its boundless whitewater raceways and subtle deep-water pools harbor a number of species of gamefish including shad, smallmouth bass, trout and walleyes. Only since the rebirth of the river's shad fishery back in the early '60s have the upper reaches of the river received any fishing pressure at all. But the upper river holds yet another interesting potential—its waterfowl hunting opportunities.

A Lucky Find

Like most sportsmen who happen upon good hunting and fishing areas by luck, we stumbled upon this "mother lode" quite by accident during our shad fishing sorties along the river many years ago. It was springtime and as we fished for shad along the river's upper reaches we invariably flushed waterfowl from the shoreline. We encountered waterfowl constantly trading up and down river—but our thoughts were then centered on shad.

Of course when the fall hunting seasons arrived our activities were channeled into other gunning endeavors, and the Delaware and its waterfowl hunting possibilities were soon forgotten. It wasn't until mid-fall, after we suffered through a slowdown of flight woodcock in our favorite upstate alder thickets, that we once again remembered the Delaware and its wildfowl.

"Nothing ventured, nothing gained—let's give it a try", remarked my hunting companion when, one evening in front of the fireplace at our northern New Jersey hunting/fishing camp, I mentioned duck hunting the river. Scattered frost covered the countryside when we tumbled from our sleeping bags in

The author displays a brace of prime, acorn-fed wood ducks that are a relatively common species of wildfowl along the upper reaches of the Delaware.

You'll need some equipment—a boat, motor, decoys, and perhaps a retrieving breed of gun-dog too.





BRECK P. KENT

A colorful male mallard outshines the mottled brown female.

the early pre-dawn light; the woodlands sparkled and conditions seemed right for waterfowling.

Our 14-foot boat, gathering dust behind our camp since spring shad-fishing time had passed, was soon strapped to the top of our station wagon. We crammed the wagon with our outboard, two bags of decoys, oars, anchor, anchor line, scatterguns, shells, plus all the other paraphernalia so necessary for waterfowl gunning, including "Suzie," my partner's Labrador retriever.

Duck Rig on the Delaware

While the mere handful of local duck hunters who gun the big river seek waterfowl by "walking-up" birds along the river's many tributaries, we had yet another plan in mind. Our tactics called for setting up a full-scale duck rig similar to those used by Barnegat Bay and Chesapeake Bay wildfowlers.

There's no question that waterfowl along the Delaware receive little hunting pressure, and the reason is simple—the sport involves considerable work despite the fact that it pays off in considerable dividends. To be wholly successful one must have an extensive duck hunting rig, including boat, motor, a dozen or two decoys, a portable blind of sorts, and above all, a good retriever—a bird dog that can be counted on to retrieve birds before the river's treacherous currents carry them downstream.

Our hastily selected launch site was nothing to brag about, but the sky was brightening and we were anxious to get on our way. The 75-foot bank sloped at an angle of 45 degrees. We placed our boat at the edge of the steep bank and quickly piled all our gear aboard. Pointing the rig bow first over the bank, we gently shoved, sending it bounding toward the water's edge. No problem launching our rig; we'd worry about getting the craft up the steep bank after the hunt.

We had our little outboard purring in a matter of seconds and aimed the car-topper toward a miniature island in the middle of the river. The early morning was overcast and heavy with fog, but we soon caught sight of waterfowl trading overhead and we watched a small flock of black ducks, disturbed by the sound of our approach, flush from cover along the water's edge.

We gently slid the boat into the mud at our destination, and while my gunning partner set to work putting out decoys in the island's back eddy, I set up the camouflage netting about our boat. With the addition of some undergrowth we quickly constructed a respectable blind.

Several mallards flared over our decoys when they spotted us setting up our rig. It was 8 a.m. before we had the scatterguns loaded and were finally

settled in the makeshift blind. "Keep a watchful eye downriver and I'll look upriver," I whispered. I barely got the words out when a flock of wood ducks pitched from the Pennsylvania shore and whistled overhead—but they turned, took a look at our decoys and pitched in.

The woodies flared immediately as we stood up to shoot. A single tumbled from the flock and splashed down just beyond the decoys. "Fetch," we shouted to the Labrador. Eager Suzie bounded into the water and quickly returned with the drake held gently in her mouth.

Flock After Flock

But the day was far from over. Throughout the early morning flock after flock of wood ducks traded over our miniature island, and it didn't take us long to "limit out." Ever since that morning many years ago, we have explored the Delaware's waters and have enjoyed exciting gunning action with little or no competition from other hunters.

Remember, the Delaware River annually attracts many species of wildfowl to its shores. During the hunting season we've watched vast numbers of Canada geese follow its course southward. But aside from the big birds, the river harbors amazing concentrations of wood ducks, mallards, black ducks, goldeneye, teal, merganser; even scaup trade downriver at some point during the gunning season.

During the early season, there's excellent hunting for teal, woodies, mallards and an occasional black duck. Most early wildfowlers diligently ply the backcountry potholes, marshes and bogs, constantly pushing ducks from these back country retreats to the comparative protection of the big river's open water, where there is little gunning pressure.

As the weather turns colder and local potholes and marshes become ice-locked, more waterfowl seek the Delaware's open waters. The colder the weather, the greater the number of birds that filter southward, following the ancient course of the Delaware.

Waterfowl on the Delaware are not the usual "fishy"-tasting specimens found on many of our coastal marshes. The river's corn and acorn fed wildfowl not only offer prime gunning sport, but outstanding table fare as well.

So if waterfowl are not present in any numbers along your favorite backcountry pothole, stream or marsh when the season opens, simply remember the Delaware River. You won't be pressured by too many hunters, and you'll find waterfowl in numbers you might not have bargained for—and that's indeed, the name of the game.

Smallmouth Bass

an Exciting Game Fish

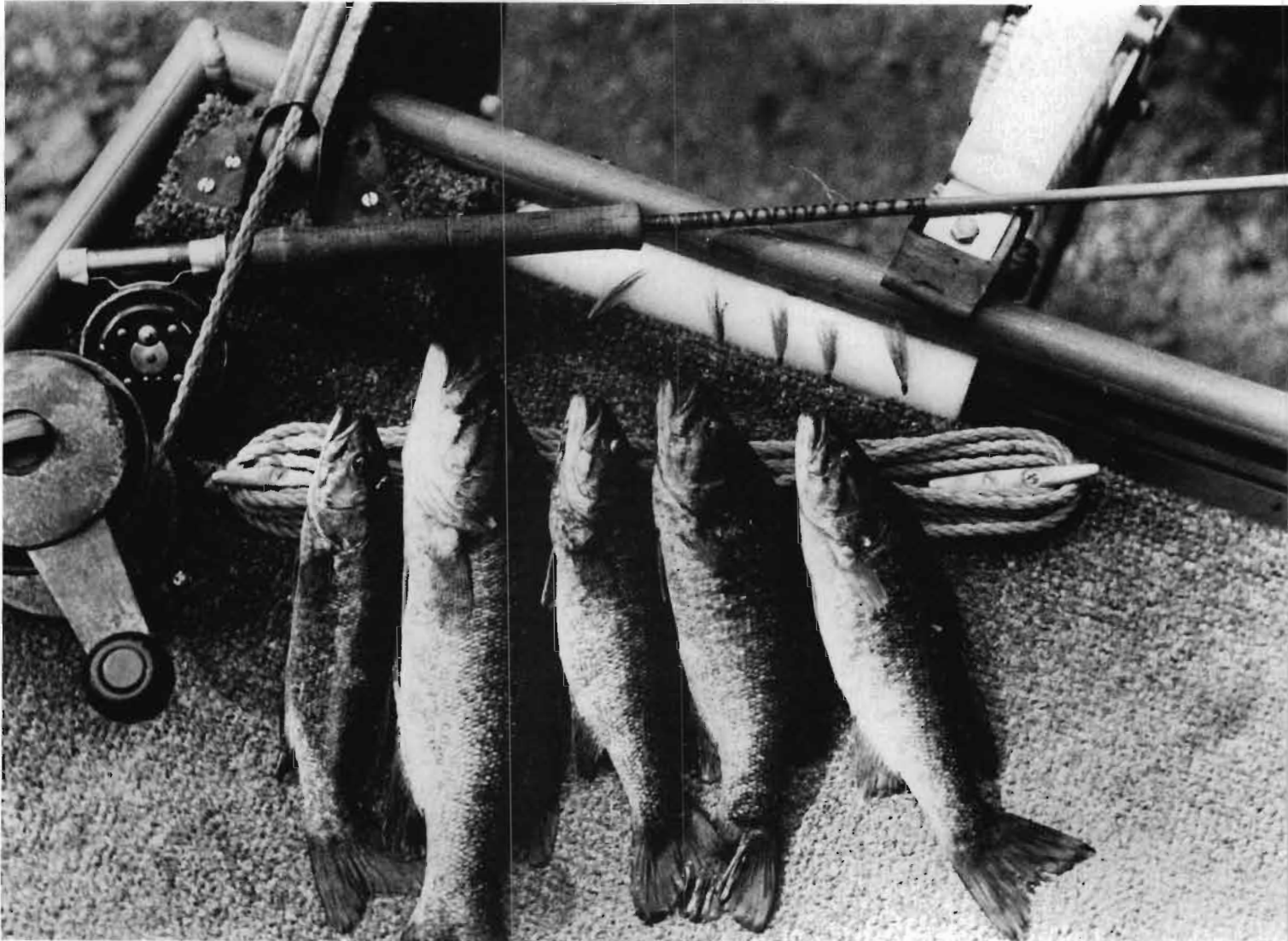
BY J.B. KASPER

Pound for pound, ounce for ounce, the smallmouth bass is one of the finest fighting and most exciting game fish in North America. A member of the sunfish family, it is a cousin to the largemouth bass, but contrary to many misconceptions, the two are very different in appearance. The name smallmouth, means just what it implies: the corner of the closed mouth doesn't extend past the eye. Skin color is a combination of green and brown, with markings much different from those of the largemouth. Of the many nicknames for Mr. Smallmouth, smallie, bronze back, and red eye are the most common; however here in New Jersey this fish is just plain fun.

Before we go any further, let me explain a feature common to almost all good Smallmouth streams: most have bedrock bottoms, and there are very, very

Smallies caught at Round Valley Recreation Area in Lebanon come in all different sizes.

PHOTOS BY AUTHOR





few exceptions to this very important rule. The Delaware is a good example. This river contains a great smallmouth population from about Trenton north to its headwaters. Below Trenton smallmouths just about disappear, for two reasons: the river bottom becomes one of silt; and the water quality gets poorer. So don't look for the smallmouth in silt-base streams or streams with polluted water, as they will be few and far between, if present at all. These requirements confine Smallmouth fishing in New Jersey to the northern and western part of the state.

Where to Find the Smallmouth

To begin with, smallmouth bass are found both as school fish and as individuals. In rivers and large streams like the Delaware, Raritan, and Paulinskill rivers, they will school up at certain times and these situations are well worth learning, as they will provide you with some fast and furious action.

The smallmouth school in the fall and go on a feeding spree to fatten up for the winter ahead. Personally, this is my favorite time to fish for them, mainly because the bigger fish are more available. Smallies also gather in the spring, prior to spawning, and like largemouths, are more difficult to catch at this time. Certain conditions, in relation to structure and water levels will cause bass to school.

During times of low water smallmouths often school up in deeper pools and eddies that are preceded by white water or fast-moving water. This condition keeps these pools and eddies well oxygenated, which is of prime importance in the hot summer months. Keep in mind that when I say deeper water, I mean water that is deeper in respect to the surrounding water, a variance that may range from a few feet to as much as 15 feet and then some. These pockets and eddies will also vary in size and this will have a bearing on how you fish them. Another prime spot and time is around islands and gravel bars, at sundown or sunup, when smallmouths have been known to herd bait fish such as river chubs, dace and hardheads. This is a common occurrence from late spring to late fall, and a good knowledge of the water you are fishing is an essential aid in locating such spots.

The smallmouth will most often be found in

schools according to size; however, over the years I have found that there are often a few bigger fish in with some of these schools. Last year, while fishing the Delaware, I found a school of smallies in the ten- to fourteen-inch class and much to my pleasant surprise, two nice four-pounders were also in with them.

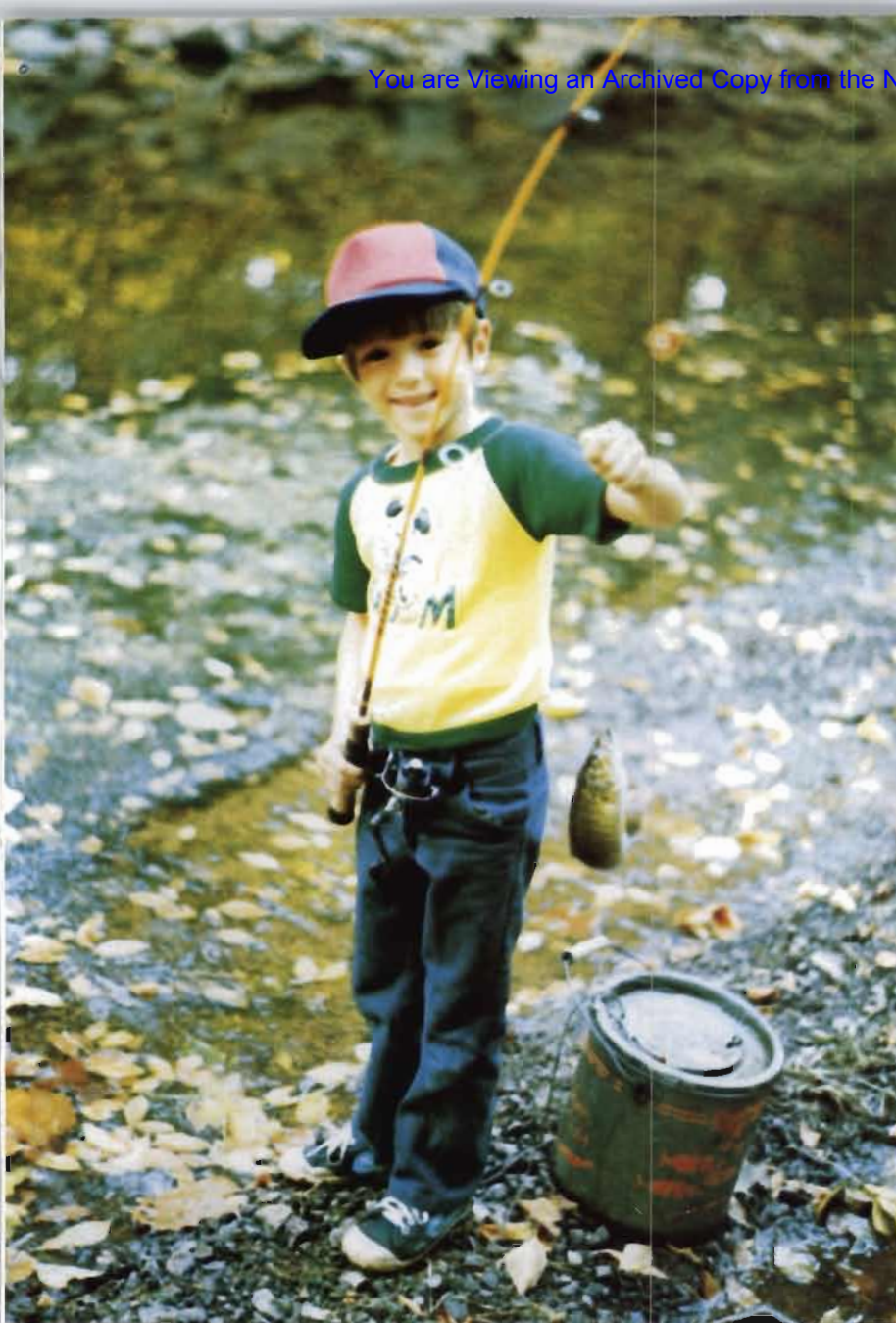
Smallmouths will seek out cover from the sunlight on a hot midsummer's day, often going under rocks, fallen trees, riprap, or along undercut banks and banks with overhanging trees especially in shallow water. In places such as the Delaware Water Gap, where the mountains are tall, fishing is best when the sun dips below the mountain and the water is shielded from direct sunlight. The reverse seems to hold during the cold water seasons of early spring and late fall. I have found that a sunny day during these periods will offer some good fishing in the late afternoon.

Methods to Use

Well, we have covered most of the general habitats of the smallmouth, so let's now look at some of the methods that will take him. When fishing a bar in a river such as the Delaware, I use a set method that I seldom deviate from, as it has produced well for me through the years. Starting with early morning, I fish the bar with surface plugs (plunker, blabber mouth, chugger spook, etc.), real close in. Before sunup, the fish will usually be feeding in only about a few inches of water and will really smash at these lures. The lures should be kept in the one- to three-inch range, and worked only fast enough to create a small but visible disturbance on the water. Make sure to keep these plugs in the water right to the end of the retrieve, as quite often smallmouths will follow them right to the shore before hitting them. As the sun comes up, the bass will move down the bar further and further as they retreat from the light. When you are sure that they are no longer taking surface plugs, the next step is to use a small Rebel-type plug, again in the one- to three-inch class. Before doing this, check the bar to see what kind of bait fish they have been feeding on, then try to match it with one of the natural colors that now can commonly be found in most tackle shops. (I have found that the natural colors will outcatch the plain ones by about two to one.) The best way to fish these is to cast them upstream and twitch them without taking in any line until they are downstream. Then retrieve them very slowly, twitching the rod tip to make them dart short distances in the current. This method will produce until the light penetration forces the fish off the bar, back to their deeper haunts or under some type of cover.

Crank Baits or Live Baits

In the deeper, slower-moving parts of rivers the crank bait is the prime lure, and drifting live bait will also catch you a good share of fish. Most often one of the two methods will outproduce the other. If you're fishing with a partner, one person can fish



crank baits and the other can fish live bait to see which will be the ticket. When fishing crank baits it is best to know the size and depth of the pocket of water you are fishing. This is not hard and can be accomplished with the aid of a fish finder (when in a boat), but a pair of polarized sunglasses usually enables you to see the outline of the bottom and get an idea of its size. Once this is done, take your boat upstream from the pocket and position it so that it drifts alongside the pocket, casting your plug across it so that when you retrieve it, it will start down one side, dive into the deep water and come up the other side. Most of your hits will occur while the plug is bouncing off the rocks on the bottom. You may lose some crank baits, but you will catch some nice fish.

When using live bait, instead of drifting alongside the hole, drift over it with as little noise as possible. I use only enough weight to allow the bait to drift close to the bottom. Strip lead is usually better for this purpose, as it will not get hung up too often. However, there are times when split shot will be necessary especially in a faster current. Stream chubs or hardheads will produce best when hooked

through the lips. Crayfish will also work well when hooked through the back; although they catch some nice fish, they are sometimes hard to obtain and are hard to keep. Worms and night crawlers are also good, but they tend to catch too many sunfish.

Try Quiet Pools and Waterfalls

In rivers and streams with little deep water, pools of quiet water with vegetation are prime smallmouth areas. I have waded the Raritan River near Clinton and fished with good results especially when I used Rebel and rapala-type plugs. I was successful under these conditions by casting them at an open pocket in the weeds and causing the plug to dart under the surface a few inches. When the fish hits, you will usually see the water boil as he turns away. A minnow and weedless hook will also pluck some nice bronze backs out of these spots. (Note when using live bait under these conditions a six- to eight-pound test and a medium-action rod are best because between the time the fish hits and the time you set the hook, he will run under the weeds and back to his shady retreat.) Another place I like to fish for smallies is around waterfalls and fast water with big rocks. My favorite method for catching them under these conditions is the jig and plastic worm combo. Because of the fast water it is necessary to get the lure down quickly. Most often crank baits, spinners, Rebels, etc., will either fail to work properly or not get down to where the fish are. However, the jig and worm does the trick. Cast into the fast water and allow it to sink into the eddy that forms behind the rock or under the falls. Once it is in the right position, jig it up and down and wait for Mr. Bass to hit. You must set the hook fast, as he will spit it out quickly.

Best Tackle

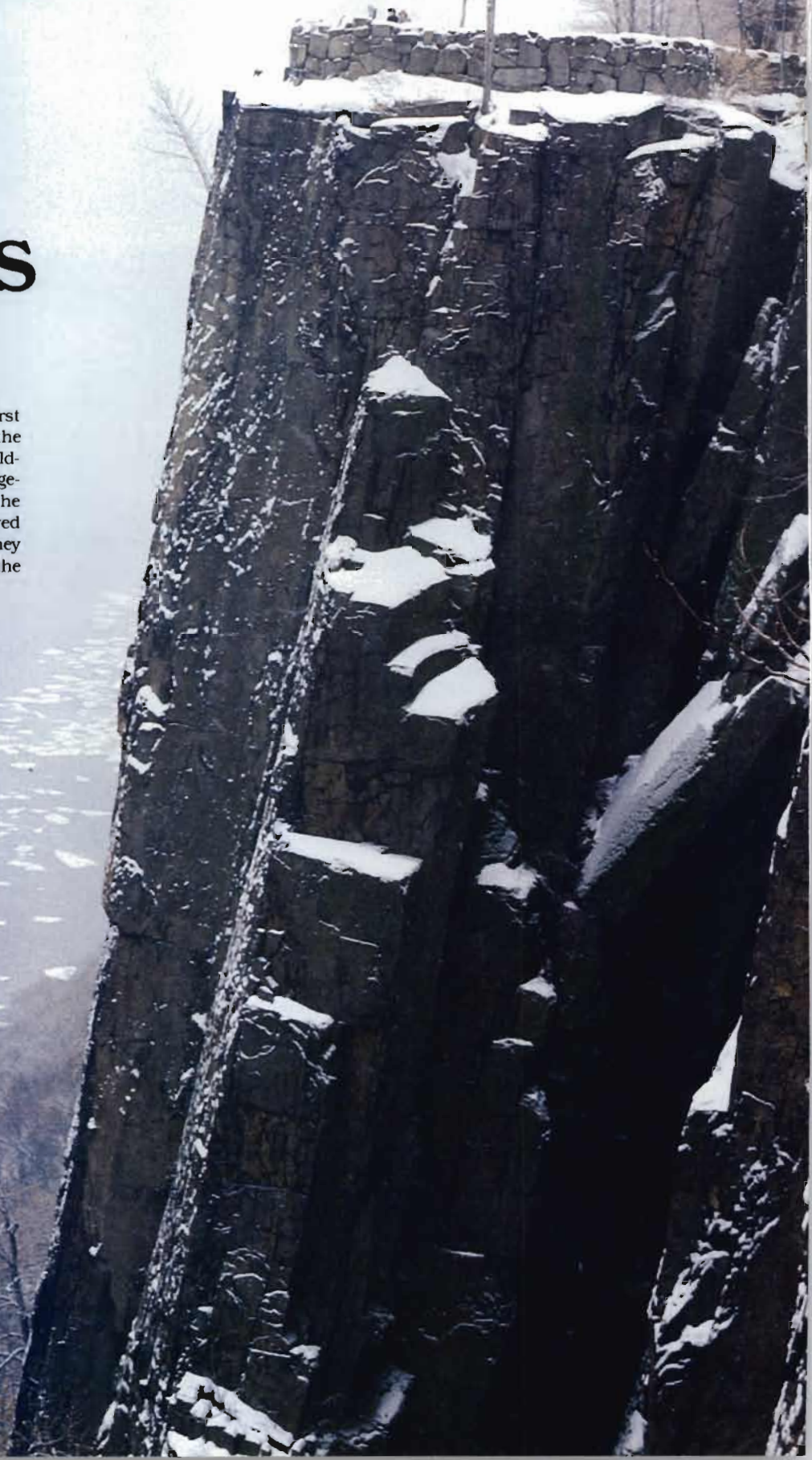
Regarding the tackle that I find best when smallmouth fishing, light and small is the way to think. The rods that I like are no more than five-and-a-half to six feet in length and are of medium to light action, a Mitchell 308 or an Orvis 50-A, depending on which balances with the rod best. In the line department, four- to eight-pound test will do the job, and the size depends on the type of water you are fishing and whether you use a boat or are fishing from shore you can use much lighter line. Generally you should use a boat only to get to an island or shallow bar and then wade the bar when fishing. Hooks should be small (#8 or #10), and a six-pound test leader is a good all-around set up. A wading-type minnow bucket, with a battery-powered air pump and a shoulder bag, is a big help. A net and polarized glasses are standard equipment.

One final note: Keep an open mind, and try all these methods and see which will work best for you. And above all don't be afraid to experiment, for you may find a way to improve on them. Most diehard bass fishermen consider the smallmouth a second-class citizen to the largemouth, but try these methods, catch a few smallmouths, and I'm sure you will agree that they are worth the effort.

the Wild Palisades

BY JOHN SERRAO, DIRECTOR
GREENBROOK SANCTUARY

Ever since the Italian explorer Verrazano first viewed the "Grand Escarpment" in 1524, the Palisades of the Hudson River have been world-famous for their magnificent scenery, unique geology, and fascinating history. It was not until the summer of 1983, however, that these cliffs received the formal recognition they deserved, when they were declared a National Natural Landmark by the U.S. Department of the Interior.





PHOTOS BY AUTHOR

The beautiful fall foliage of the Palisades is reflected in the Greenbrook Sanctuary pond.

Emerging from the ground as a low ridge in Travis, Staten Island, the Palisades cross the Killvan-Kull into New Jersey, and become the 40-mile-long western wall of the Hudson River. The ridge gradually becomes higher and steeper as it proceeds northward past Weehawken, Fort Lee, Englewood Cliffs, Tenafly, and Alpine, where, just south of the New York State line, the majestic cliffs rise abruptly and sublimely 530 feet from the river. The Palisades continue northward into New York, where different sections of the cliffs bear such designations as Tallman Mountain (150 feet, Palisades, N.Y.), Hook Mountain (730 feet, Nyack), and then, curving westward away from the Hudson, High Tor, at 830 feet the highest point, in Haverstraw. Shortly beyond here, in Mount Ivy the ridge finally disappears beneath the ground again.

"Rocks that Look Like Rows of Trees"

Almost 200 million years ago, when this region was part of a vast low basin of sedimentary sandstone and shale, underground volcanic activity caused molten rock, or magma, to erupt upward through great fractures in the earth. Much of this magma failed to reach the surface but was instead squeezed horizontally between layers of the sedimentary rocks as a 1000-foot-thick, sandwich-like "sill." The molten matter slowly cooled and solidified deep underground into the Palisades rock called diabase. As it hardened and contracted vertical fractures broke up the entire diabase sill into a series of upright columns. After millions of years of erosion the thick upper covering of soft sandstones and shales were weathered away to expose the hard, resistant diabase sill—the top of the Palisades. The Hudson River cut its way downward and removed all the sediments bordering the eastern face of the diabase sill, finally exposing it as the cliffs of the Palisades.

The vertical fractures now became natural lines of weakness into which water could seep, freeze into ice, expand, and pry apart the columns. As blocks of diabase fell below the cliffs into piles of talus, some that remained became isolated, picturesque pillars of rock along the cliff edge. During the last Ice Age, which ended here only about 17,000 years

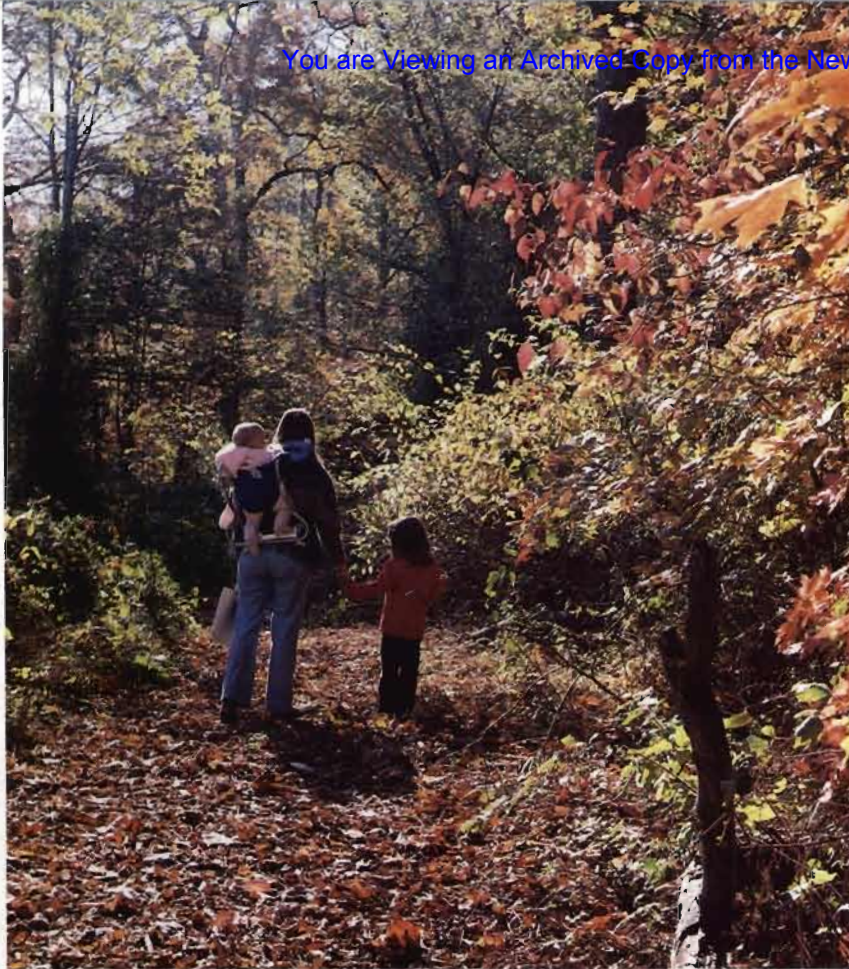
ago, immense glaciers scoured all soil and vegetation off the top of the Palisades, smoothed and polished the bedrock, and removed most of the talus. Today's pillars and talus slopes have accumulated since that time. The resemblance of these cliffs to a continuous row of vertical columns has given them the name "Palisades": a walled-in stockade of upright posts. The Lenni-Lenape Indians called the cliffs "we-awk-en," or "rocks that look like rows of trees."

Although some timber had been cut from the Palisades forests since the mid-1600's—as fuel for Hudson River steamboats, firewood for New York City residences, and building materials for the developing cities—the rugged topography, thin soils, and dense woodlands represented barriers to development of the cliff summits. Most settlements were established either in the fertile valleys west of the Palisades or along the Hudson, where fish and shellfish were plentiful and river travel convenient. Some of these fishing villages, like "Undercliff" (Englewood, N.J.) lasted below the Palisades until the early 1900's. A few cliff-top estates were built looking across the river to New York in the late 1800's, but the Palisades forests remained essentially wild and undisturbed—so much so that an 1899 report by the State Forester ranked them among the finest in the state.

A Park Since 1900

One activity which did threaten to destroy the forests and the cliffs themselves was quarrying. Vast sections of talus and cliff-face were being blasted away from Weehawken to Haverstraw as the hard, durable diabase rock gained a reputation as a valuable material for roads, sea walls, rip-rap, and buildings. As citizens saw their famous scenic landmark being destroyed, public sentiment was aroused to preserve the cliffs. In 1900, the women's clubs of New Jersey finally rallied to establish the Palisades Interstate Park Commission to purchase the Palisades, stop the destruction, and create a system of parks. Beginning with the Fort Lee and Englewood sections, the Park was gradually expanded over the next few decades to include virtually the entire Palisades in both states—roughly

Even in winter, the Palisades look majestic from Point Lookout near the northern N.J. border.



Mother and children hiking the Shore Trail.

8,000 acres of summit, talus slope, and river shore from Fort Lee to Haverstraw. Today the Palisades represents an oasis of solitude and natural beauty to millions of people in the New Jersey-New York metropolitan region. Last year almost two million visitors were recorded in the New Jersey sections of the Park alone.

A Wilderness Within View of New York City

Yet it is still quite easy to hike a trail in the Palisades and not see another person all day, even within view of New York City's bridges and skyscrapers across the Hudson. Many sections of the Park can only be described as near-wilderness.

Immense tulip trees—up to 130 feet tall and 10 to 17 feet in circumference—rise from the bottoms of shaded northern hardwood coves, where red foxes and great horned owls pursue their prey. Mixed oak forests with 200 to 300-year-old trees dominate the rocky summits and ridges, providing food and shelter for flying squirrels, pileated woodpeckers, and even deer. Brooks meander through soggy red maple-sweet gum swamps where spotted salamanders and wood frogs breed in March, and waterfalls cascade hundreds of feet through steep, fragrant hemlock ravines over the cliffs into the Hudson River. Black birch and royal paulownia are the dominant trees on the rugged talus slopes, where copperheads and black rat snakes sun themselves on the rocks, five-lined skinks dash along ledges after insects, and woodrats (one of New Jersey's only known colonies) hide in the deep caves among the boulders.

Over 350 different wildflowers bloom from March to October in these diverse habitats. The Palisades

bird list exceeds 250, including such exciting winter residents as red-tailed hawk, saw-whet and long-eared owls, and an occasional bald eagle, and regular breeders like scarlet tanager, ruffed grouse, worm-eating warbler, wood duck, broad-winged hawk, Carolina wren, veery, and indigo bunting. In its annual spring bird count on May 19, 1984, Greenbrook Sanctuary in Tenafly had a record 93 species in its 165 acres! From many exposed vistas along the Palisades the dramatic spectacle of the autumn hawk migration can be viewed from September to early November, when up to 15 species of raptors utilize the updrafts and thermal air masses rising from the cliffs to lift them on their southward journeys. An observer may be treated to over 5,000 broad-winged hawks, 30 osprey, hundreds of sharp-shinned hawks, and even a rare peregrine falcon, goshawk, bald eagle, or golden eagle on one good autumn day.

Two Excellent Trails

Two trails afford excellent opportunities to experience the Palisades. At the bottom of the cliffs, the Shore Path winds its way along the river shore from Edgewater north to Alpine and the New York State line. It passes magnificent cove forests with rare paper birches, extensive talus slopes, waterfalls, old landings, busy boat basins with playgrounds and picnic areas, and spectacular cliff scenery. Beginning at the George Washington Bridge, another trail called the Long Path traverses the top of the cliffs for their entire distance into Mount Ivy, and then beyond into the Highlands. It includes several steep side trails which connect with the Shore Path and features diabase steps and hairpin turns. Besides unparalleled cliff vistas, the Long Path passes the ruins of old estates, ancient oak woodlands, and three developed Lookouts—Rockefeller, Alpine, and StateLine, the latter containing a restaurant and areas for cross-country skiing. All three lookouts can also be reached from exits off the Palisades Interstate Parkway. A second, very scenic road, Henry Hudson Drive can be travelled by car (except in winter) beneath the Palisades for eight miles between the Alpine Park Headquarters and Edgewater, and affords access to the boat basins and picnic areas along the river.

The Fort Lee Historic Park, opened in 1976, features exhibits, literature, and programs about the role of Fort Lee and the Palisades in the Revolutionary War, as well as a 200-seat auditorium for concerts, lectures, and meetings.

Greenbrook Sanctuary, a 165-acre nature preserve in Tenafly, specializes in weekend field trips and programs about the flora, fauna, geology, and ecology of the Palisades, all conducted by a professional, full-time naturalist. Since 1946 the sanctuary has conducted research and field studies about the Palisades' changing forests, rare plants, small mammals, butterflies, breeding bird populations, and reptile and amphibian habitats. The results of these studies are printed as booklets and bulletins, and often published in professional journals.

Running along the Hudson River in Bergen County, the Palisades Interstate Park's lookouts, boat basins and trails can be reached from various exits of the Palisades Interstate Parkway. For further information, contact the Park Headquarters, Box 155, Alpine, NJ 07620, telephone (201-768-1360), Monday-Friday between 8:30 a.m. and 4:30 p.m.

New · Jersey's · Second Waterfowl Stamp



New Jersey's 1985-1986 waterfowl stamp features a pair of mallard ducks taking flight from a pond, a design by David Maass, one of the nation's best-known wildlife artists. Over the past 10 years, Maass has been named artist of the year by Ducks Unlimited, the National Wild Turkey Federation and the Minnesota Wildlife Heritage Foundation. In addition he won the prestigious federal Duck Stamp competition in 1974 and 1982.

Limited edition, signed and numbered prints of the second New Jersey Waterfowl stamp may be purchased from art dealers. To find the dealer nearest you contact the publisher, MIDWEST Marketing, Sullivan, Ill., 61951, telephone (toll free) (800) 382-5723.

Each print includes a resident and non-resident stamp and sells for \$142.50. Prints of New Jersey's first waterfowl stamp issued last year were originally offered at the same price; today they are selling in the secondary market for considerably more than that.

Each year, two waterfowl stamps are issued; one with a \$2.50 face value for residents and one with a \$5.00 face value for non-residents. State and federal stamps are required for waterfowl hunting in New Jersey. The state stamps are valid from July 1, 1985

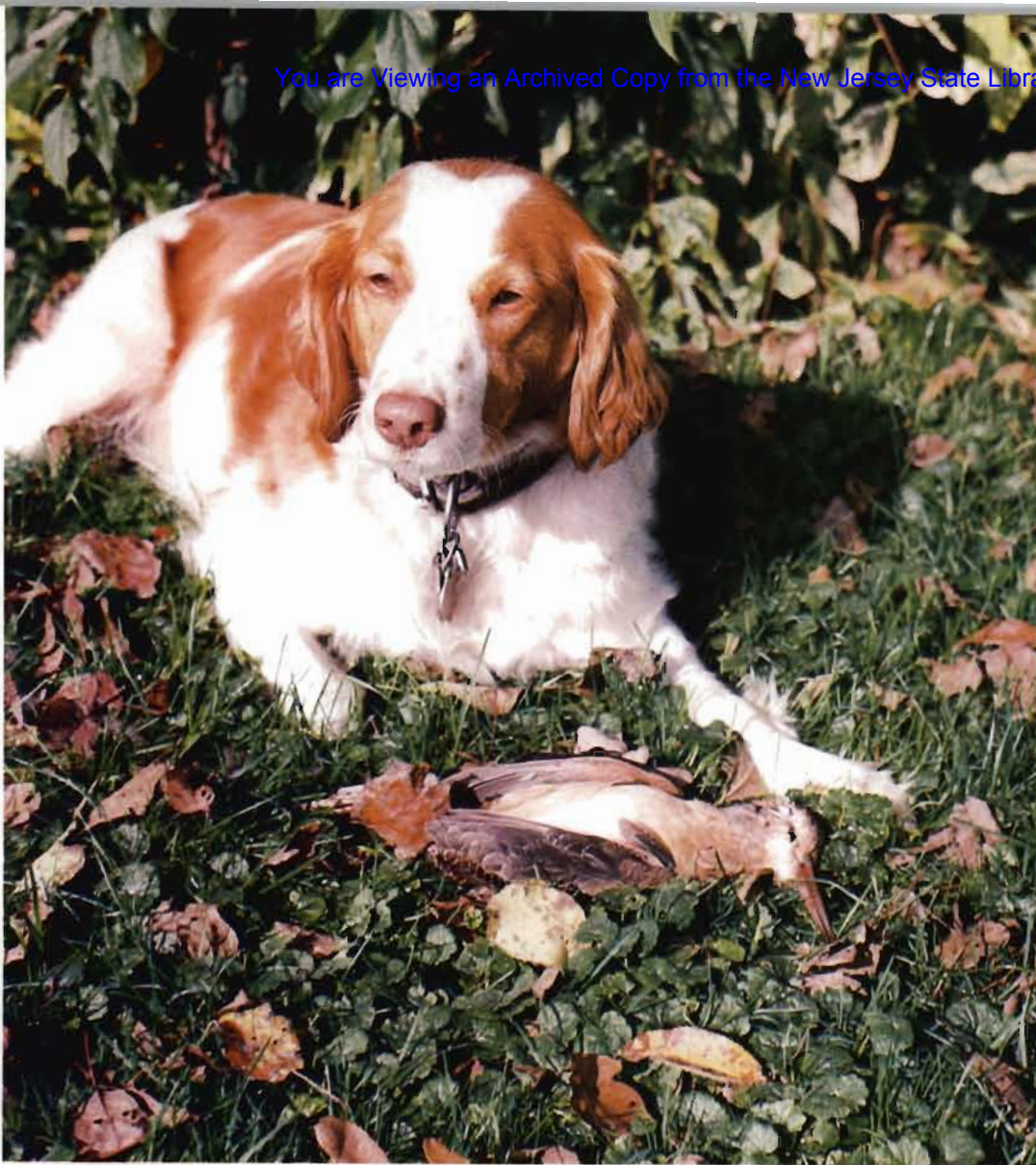
through June 30, 1986. Only people with valid New Jersey resident firearm hunting or bow and arrow licenses may buy the resident stamp before June 30, 1986. The non-resident stamp is available to anyone up until December 31, 1986. After that time, all stocks will be destroyed.

Stamps may be obtained from regular fish and game licensing agents and from the Division of Fish, Game and Wildlife, Waterfowl Stamp, CN 400, Trenton, N.J. 08625.

The 1984-1985 "first of state" stamps, featuring a resting pair of canvasback ducks, designed by Tom Hirata, may be purchased from the Division of Fish, Game and Wildlife, CN 400, Trenton, N.J. 08625 through December 31, 1985. After that date all remaining 1984-1985 stamps will be destroyed.

If you invest in these beautiful pieces of wildlife art, you will make a contribution towards conserving and acquiring wetlands and waterfowl habitat. Think about it. By purchasing a limited edition waterfowl print or waterfowl stamps, you can help preserve a piece of New Jersey's fast disappearing wildlife habitat. Proceeds from the sale of New Jersey's first waterfowl stamp, issued in July 1984, total over \$600,000 and will be used for wetlands conservation and acquisition throughout the state.

Day's end—not quite the limit of three woodcock, but part of a bountiful day outdoors.



AL PEINECKE

H u n t e r ' s M o o n W O O D C O C K

The young Brittany's bell stops and I locate her locked up on point along the overgrown remnants of an old stone wall. Pole-sized brush crowds the cedars bordering the opposite side of the wall, and the ground is just moist enough—made to order for woodcock.

The bird whistles skyward, the gun speaks, and there is a shower of twigs; on the second try, the longbill folds. Directly, the dog finds the bird and I heap praise upon her.

It is the latter half of October, and frost has executed its brilliant artwork on the North Jersey swales and hillsides. Woven into the lore of the hunter's moon which rides the autumn sky is the fancy that woodcock migrate at the full of the moon. Indeed they do—if they so choose. From now until one moon hence, the aficionado goes forth each day with high expectations of encountering "the flight" of woodcock, alias "timberdoodle." This whimsical-

looking, eight-ounce bird with long bill, solemn countenance, and fast, erratic flight, is at once a challenge to the gunner, a table delight, and the young (or old) bird dog's dream.

The dog's bell sounds far ahead as youthful enthusiasm gets the upper hand. The pup flushes the next bird out of range, and the woodcock's whereabouts become a mystery. We have a little "talk," then proceed to cross the old woods road to have a go at a one-time farm field, grown up to head-high saplings.

Where the Woodcock are

Chalky-white droppings on the damp leaf mold clue us that woodcock have been feeding here, and along the barely discernible path of an old land, the Brittany comes to an abrupt halt, bent halfway around to the left. I garner a second bird, and I'm off to a promising day.

BY AL PEINECKE

Finding woodcock can be a challenge because of its almost perfect camouflage in the fall foliage.



LEONARD LEE RUE

This cover is new to me, a place that had looked good one spring day while I was trout fishing. Woodcock covers often become established where old farms have begun to revert to the wild, but eventually, if these areas become heavily wooded, the birds will seek a more suitable situation. Scouting for potential covers becomes a way of life for bona fide woodcock hunters, a rather secretive group.

A tiny, birch-lined brook entices me uphill, and about halfway to the top the terrain flattens out into an alder-dotted spring run—a setting that spells woodcock. Facing north, this upland cover probably had been a pasture in bygone days. Flight birds moving south often drop into those higher places, and past experience has shown that such covers are worth investigating in addition to the bottom lands where woodcock usually are found.

The Brittany makes game across the rivulet and freezes on point near a patch of multiflora rose. I move in, but the timberdoodle sits tight. While maneuvering for a better approach the briars snatch off my cap and it flips over my eyes. I hear the bird flush and frantically try to become disentangled, to no avail. I only glimpse the cock as he vanishes over a knoll. Wondering what happened, the dog looks at me as if to ask "Did you forget to load your gun?"

Most shots at woodcock will be under 30 yards, and a fast-handling, open-bored gun, with one ounce of number eights, is adequate to the job. Brush loads, if available, offer an alternative for the more tightly-choked shotgun.

We continue along the upper edge of the cover and a pair of grouse flush wild. I make a mental note of this and hope for a chance at some future date. Recent splatters indicate woodcock have been here; that is the way of the woodcock—here today, gone tomorrow—or is it here yesterday, gone today?

The view of the valley below is picture-book material, and I pause to reflect that this is one of the "fringe benefits" of being afield during woodcock

season, in addition to the light hunting pressure.

Gradually we angle downhill and discover an old orchard, bordered by a crumbling stone wall. My anticipation mounts as I recall old orchards past. The sparse cover beneath one ancient apple tree in particular had consistently held birds, its rich soil probed and splattered by their feeding habits.

A Miss and a Hit

The two-year-old pup stands on point in the far corner, but she gets fidgety as I approach and the bird flushes at a distance. I miss, and gently remonstrate that she should be more careful. In a sapling-studded pocket at the edge of the orchard, she locates another woodcock, and this time everything goes according to the book. She noses the downed bird, and after I smooth the beautifully muted buff, black, and gray plumage, a prime woodcock is pocketed.

Before the season ends, much to the surprised pleasure of my hunting partner of more than 30 years, my Brittany would voluntarily deliver to *his* hand, the bird *he* had shot. Developing bird dogs takes infinite patience—and a little luck.

Given the woodcock's near-perfect camouflage, a dog's ability to find dead birds is a welcome attribute. One English setter, whose bell now rings in bird dog heaven, chose to point the downed bird. I recall a time when I called her in to help find a woodcock and she pointed at my feet—there lay the woodcock, almost underfoot!

There is a chill in the late afternoon air as the sun touches the crest of the nearby hill. Down along the trout stream, one last woodcock spirals upward and vanishes behind an isolated stand of cedars. Tomorrow he could be well south of here, but perhaps others of his kind will arrive. Lured on by the mystique of the woodcock, the dedicated timberdoodler will pursue his feathered quarry on the morrow, for tonight's hunter's moon is his talisman.

CALENDAR

OF EVENTS

SEPTEMBER

- 14 DOLL SHOW/SALE—Allaire State Park, Farmingdale 201-938-2371
- 14 8TH ANNUAL DECOY SHOW—Salem County Sportmen's Club 609-678-5994
- 14-22 ANNUAL HAWK WATCH—High Point State Park, Sussex 201-875-4800
- 15 ED JONES MEMORIAL TRIATHALON—Belleplain State Forest 609-861-2404
- 15 LIBERTY STATE PARK 5-MILE RACE—Jersey City 201-435-0736
- 15 STEUBEN DAY—Steuben House, River Edge 201-487-1739
- 21 SAILBOAT SHOW—Liberty State Park, Jersey City 201-435-0736
- 21-22 ANTIQUE ENGINE AND FARMSHOW—Washington Crossing State Park, Titusville 609-466-1949
- 21-22 CRAFT SHOW AND SALE—Allaire State Park, Farmingdale 201-938-2371 High Point State Park, Sussex 201-875-4800
- 22 OUTDOOR CLUB OF S.J.—NOT ANOTHER ONE OF THOSE ROUND ROBIN RIDES! 50 miles. Bring or buy lunch. Meet at Lenape High School, corner of Church and Hartford Roads, Medford, 8:30 a.m. Leader: Bill Carr, 609-596-8265.
- 22 BIRDING FOR BEGINNERS—Cape May Point State Park, Cape May Point; Lor-rimer Sanctuary, Franklin Lakes; Mon-mouth Battlefield State Park, Freehold; Rancocas State Park Nature Center, West-ampton; Scherman/Hoffman Wildlife Sanctuaries, Bernardsville 609-261-2495
- 22 18TH ANNUAL HISTORIC ART FESTI-VAL—Batsto, Wharton State Forest, Ham-monton 609-561-0024
- 22 "FALL FROST" 5 MILE RACE—Liberty State Park, Jersey City 201-435-0736
- 22 APPLE FESTIVAL—Rockingham, Rocky Hill 609-737-0623
- 27-29 FALL BIRDING WEEKEND—Cape May Point State Park, Cape May Point 609-884-2159
- 28 BARNEGAT BAY DECOY & GUNNING SHOW—Tip Seaman Park, Tuckerton 609-296-5606
- 28 NATIONAL HUNTING AND FISHING DAY—N.J. BEACH BUGGY ASSN. AT ISLAND BEACH STATE PARK—Guests are mem-bers of Johnston Training and Research Centers. Ron Woods, 609-854-4825
- 28 NATIONAL HUNTING AND FISHING DAY—Rockaway Townsquare Mall, Rockaway 201-366-9017
- 28 NATIONAL HUNTING AND FISHING DAY—Space Farms, Beemerville 201-383-3097
- 28-29 SPORTSMEN'S JAMBOREE—Good Sports, Meadowood, Menantico Sports-men's Clubs, Millville 609-692-2961

September 1985

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 1985

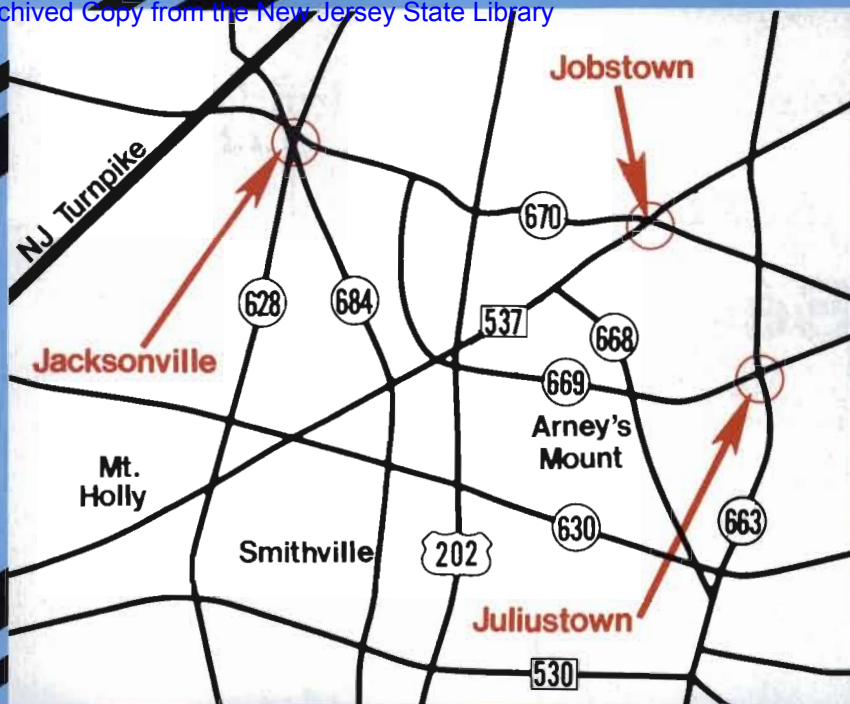
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

- 29 ANTIQUE GLASS AND BOTTLE SHOW/SALE—Batsto, Wharton State Forest, Hammonton 609-561-0024
- 29 SAILBOAT SHOW—Liberty State Park, Jersey City 201-435-0736
- 29 BIKE-A-THON—Swartswood State Park, Newton 201-383-5230

OCTOBER

- Weekends HAWK BANDING DEMONSTRATION—Cape May Point State Park 609-884-2159
- 5 COLLECTIBLES EXPO—Liberty State Park, Jersey City 201-435-0736
- 5 TRIPLE J BIKE RIDE—Hikes & Bikes, Mount Holly 609-267-7052
- 5-6 SEAFOOD FESTIVAL—Mauricetown Fire Hall, Mauricetown 609-785-1538
- 5-6 INDIAN ARTS FESTIVAL—Rancocas State Park, Westampton 609-726-1191
- 6 18-MILE RUN—Barnegat Lighthouse State Park, Barnegat 609-494-2016
- 10-14 RAPTOR WORKSHOP—Cape May Bird Observatory, Cape May 609-884-2736
- 12 "RUN FOR LIBERTY" 5 MILE RACE—Liberty State Park, Jersey City 201-435-0736
- 12 KENNEL CLUB DOG SHOW—Liberty State Park, Jersey City 201-435-0736
- 12-20 ANNUAL HAWK WATCH—High Point State Park, Sussex 201-875-4800
- 13 OCTOBER FESTIVAL—Ringwood State Park, Ringwood 201-962-7031
- 13 RAIL EXPO—Liberty State Park, Jersey City 201-435-0736
- 13 YOUNG WATERFOWLERS PROGRAM—N.J. Waterfowlers Association Highlands Community Center, Highlands 201-222-4820
- 14 RIDE-A-THON—Winslow Riding for Handicapped Foundation Wawayanda State Park, Highland Lakes 201-853-4462
- 19 HARVEST FESTIVAL—Allaire State Park, Farmingdale 201-938-2371
- 19 PASADENA & GOOSE POND HIKE—7 easy miles. Bring lunch and meet on SW corner of jct., Rtes. 539 & 530/70 by 10 a.m. Bert Nixdorf 609-267-7052.
- 19-20 CRANBERRY FESTIVAL II—Chatsworth Club II, Chatsworth 609-726-1020
- 20 COUNTRY LIVING FAIR—Batsto, Wharton State Forest, Hammonton 609-561-0024
- 26-27 ANTIQUE CAR SHOW—Liberty State Park, Jersey City 201-435-0736
- 27 HARVEST HOME—Wallace House, Somerville 201-725-1015
- 28 FALL GRASS WORKSHOP—Ringwood State Park, Ringwood 201-962-7031
- 29 ANTIQUE GLASS/BOTTLE SHOW—Batsto, Wharton State Forest, Hammonton 609-561-0024

Triple J Bike Ride



(JACKSONVILLE-JOBSTOWN-JULIUSTOWN) 31 miles

Terrain:

Flat or slightly rolling. One long, slow hill approaching Arney's Mount.

Parking:

Heritage Bank, Rt. 38 & Eayrestown Rd., Mt. Holly, or in parking lot near A & P shopping center, across from Heritage Bank.

Route:

1. Go north on Pine Street into Mt. Holly (Pine St. is north of Rt. 38; Eayrestown Rd. is south of Rt. 38) as far as SHREVE STREET. .5
2. Turn RIGHT onto Shreve Street. Stay on this until reaching SMITHVILLE (West Railroad Ave.) 2.5
3. Turn LEFT onto SMITHVILLE-JACKSONVILLE RD. Cross Mount Holly-Route 206 Rd. (3.2) to North Pemberton Rd. (3.9). Cross next road, Rt. 537 (4.8), and Oxmead Rd. (5.8) into JACKSONVILLE. 7.6
4. Turn RIGHT in Jacksonville onto Rt. 528-670 and continue, crossing Route 206 (9.7), into JOBSTOWN. 11.7
5. Lunch stop at JOBSTOWN COUNTRY STORE
6. From the store, go north on Rt. 537, to the first road (Rt. 670). Turn RIGHT onto Rt. 670 to next crossroads (Rt. 663). 13.0
7. Turn RIGHT and go into JULIUSTOWN (14.3). Go straight across in Juliustown for 3.5 miles to the light at COMICAL CORNER. 16.5
8. Turn RIGHT onto Rt. 630, then RIGHT again onto ARNEY'S MOUNT RD.
9. Stay on this to ARNEY'S MOUNT FRIENDS MEETING HOUSE. Rest here. 18.8
10. Turn LEFT, onto Rt. 669, crossing Rt. 206 (20.8), to RT. 537. 21.0
11. Turn LEFT onto Rt. 537 to first road on right (WARNER ROAD).
12. Stay on Warner Road to JACKSONVILLE ROAD (23.3). Then turn LEFT into JACKSONVILLE. 24.5
13. Make a sharp LEFT onto Jacksonville-Smithville Rd. to OXMEAD. 26.4
14. RIGHT onto Oxmead Rd. to MOUNT HOLLY-JACKSONVILLE ROAD. 27.4
15. LEFT onto Mt. Holly-Jacksonville Rd., back to WOODLANE RD. 29.0
16. Cross Woodlane Road onto JACKSONVILLE RD., Mt. Holly, passing the high school on right and Folwell School on left, and onto CLOVER STREET. Follow Clover to GARDEN ST. RIGHT on Garden to MT. HOLLY AVE. LEFT on Mt. Holly Ave., to MILL ST. RIGHT on Mill St., to PINE STREET. LEFT on Pine St. to ROUTE 38. Cross RT. 38 to starting point.

BY BERT NIXDORF

Slabtown, Arney's Mount, Jobstown; zebras, buffaloes and an ostrich. If these words and places conjure up confusion or wonderment over "Is that for real?" read on. Discover what awaits you if you pedal through the quiet countryside of western Burlington County.

The Triple-J (Jacksonville-Jobstown-Juliustown) ride begins in Mount Holly, a county seat community steeped in Revolutionary Era history.

JACKSONVILLE, known as Slabtown in the 18th Century when lumbering was a chief occupation, is only three miles north of Mount Holly. Homes dating to the 1700s dot all spokes of the five-pointed intersection and village center.

You'll pass Paradise Acres (not open to the public at this writing). The owners' hobby is raising and housing exotic animals.

JOBSTOWN (Jobes-town), named after early settlers, offers a mid-point rest stop with a lovely shaded lawn next to a well-stocked country store.

JULIUSTOWN, near Fort Dix, is little more than a crossroads community, but the town approaches have delightful rural scenery for bikers. Turn westward at the post office, and after a slight incline, you'll roll easily down a long hill and around a wide curve. Here you will have to exert your "best" uphill effort to reach Arney's Mount, one of the three highest elevations in the county.

The map shows major roads connecting Jacksonville, Jobstown, Juliustown and Smithville.

For step-by-step details of the 31-mile Triple-J classic bike ride, see directions.

Of interest: JOBSTOWN COUNTRY STORE

The "JOBSTOWN HOLLY," judged to be about 230 years old (1976), measuring 71 inches in circumference or 22.3 inches in diameter.

ARNEY'S MOUNT MEETING HOUSE, established in 1775.

SMITHVILLE was the former home of Hezekiah B. Smith, inventor of the bicycle railway which ran from Mt. Holly to Smithville. Mr. Smith also manufactured the Star Bicycle, famous high-wheeler.

"SALT BOX" house in Jacksonville, on the Mt. Holly Road.

Hackensack Meadowlands

A Place to See & Learn

THERESA FOY DIGERONIMO
PHOTOS PROVIDED BY
HACKENSACK MEADOWLANDS ENVIRONMENT CENTER



A visiting group of students try their hand at catching samples of marine life in the Meadowlands estuary



Robin Trautmann (bottom right) with a class in the Hackensack Meadowlands

The New Jersey Meadowlands has become a mecca for sport fans. Horse racing, football, basketball, soccer, and ice hockey have drawn national attention to what was once a wasteland. Not far from the track, stadium, and arena another building which has escaped the din of the crowds sits quietly among the remaining tall grasses and murky waters of the Hackensack River. It is the Hackensack Meadowlands Environment Center (HMEC).

Opened in the winter of 1983, the Center's programs explore the varied environments of the 19,730-acre Hackensack Meadowlands District—the Hackensack River, uplands, salt and freshwater wetlands. As part of the proposal to build the nearby sports complex, the N.J. Sports and Exposition Authority agreed to help build, finance and maintain this educational and scientific resource facility. Constructed with \$1 million from the Department of Environmental Protection's Green Acres program and \$750,000 from the Hackensack Meadowlands Development Commission, the Center is operated by the Development Commission with funding by the Sports Authority.

On a recent visit to the Environment Center, I was cordially greeted by Jim Kealy, the supervisor of educational programs. A soft spoken man, Jim and program specialist Robin Trautmann have put their hearts and brains into creating an impressive program which is both educational and fun. Jim explained their work and goals as he gave me a tour of the facility.

The entrance lobby displays live estuarine turtles and fish, as well as stuffed birds and other wildlife in a simulated meadowlands environment. A quiz board invites visitors to match the animals to their proper identities. One question asks, "What animal has the greatest impact on the meadowlands?" Lifting a wooden block to find the answer, I found a mirror. This attitude, which stresses man's responsibility for the care and use of our natural resources, summarizes the Center's philosophy.

Solar Heated Visitors Center

We then moved to the solar heated visitors center which is perched on stilts over the Kingsland Creek Marsh in the Hackensack River. Furnished with tables, chairs, and couches, this glass-enclosed octagonal room offers a spectacular view of the meadowlands as they spread out against the contrasting Manhattan skyline. Visitors are welcome to bring their lunch, sit, eat, and enjoy the view.

The newly opened planetarium was our next stop. This is a must-see attraction for everyone who drops by. Craftsman Victor Haeselbarth has created an intimate dark room where the skies of each season revolve on the overhead dome.

In its two years of operation, the HMEC has attained a positive reputation among area schools and community groups. Working with a small staff the Center serves more than 10,000 students each year. Group leaders may choose from an assortment of education programs on such varied topics as solid waste and natural resources, acid rain, the microscopic world of plankton, food chains and energy cycles. Programs are personally tailored for age and ability levels, are hands-on and last from one to four hours. Special events planned throughout the year have included: the N.J. Environment Fair, the

Hackensack River Festival, teacher and family workshops, and gifted and talented convocations.

I joined a group of school children who had come to learn about the ecology and wildlife of an estuary. Robin brought us to the 288 seat auditorium to watch a slide show which gave background information on the meadowlands, its plant, animal, and water life, and man's impact on natural resources. Individuals and families who visit the Center are also welcome to enjoy film and slide shows which feature a variety of environmental subjects from winter birds of the meadowlands to recycling and ocean dumping.

With some basic knowledge of estuarian elements, we went out to tackle the real thing. Following dirt paths that wind through the eight foot high swamp grass, our group quickly moved out of sight of the main building. Jumping over puddles and pushing back reeds to keep Ms. Trautmann in sight, I was glad I had worn sturdy shoes and rugged outdoor clothing. As dark clouds threatened hard rains, a hazy fog muted the distant Manhattan skyline. But we ignored the mist that pressed against our faces, and trekked further and further into the heart of the meadowlands. When we finally arrived at a clearing, there was a quiet moment of realization. Even these youngsters seemed to know we were only guests in this wetlands home of the wild.

After a quick experiment to remind us why this part of the Hackensack River is a mixture of fresh and salt waters, we divided into groups and carefully spread out along a rickety, low-slung bridge. Scoop, drop, and throw nets in hand, we took turns trying to capture samples of estuarian water life.

Within seconds, piercing squeals from the other end of the bridge signaled a catch.

"Look! Look what I caught!" screamed little Anthony. "It's bright green. Look!"

Anthony's friends tripped over each other to admire his find.

"No, no," laughed Ms. Trautmann. "That's seaweed. don't put that in your bucket. But look closely in the seaweed. Is there anything moving?"

"Yes!" they chorused.

"Good. Now carefully pick up those wiggling things; put them in your bucket and let's see what we have."

And so we learned to identify killifish, fiddler crabs, mud crabs and grass shrimp.

An older group might bring water samples back to the classroom lab to examine the microscopic plankton found in this estuary. For today, though, I was content to watch these young people work without being bothered by constant adult interference. They were on their own to experiment in the wild and they loved it.

Marsh is a Home

Looking out over these meadowlands, I understood why Kealy had encouraged an earlier visitor to borrow a pair of binoculars from the main desk. The marsh is home to scores of birds. Even with my naked eye, I could see a snowy egret wading out in the river among mallards and black ducks, while a ring-necked pheasant sneaked out from behind a fallen tree. Overhead the red-winged blackbirds and northern mockingbirds played aerial games with

barn swallows, march wrens and starlings. A checklist of over 250 species of birds has been compiled by the HMEC staff with the help of N.J. Audubon's Richard Kane, Dr. S. Marie Kuhnen of Montclair State College, and HMEC staff naturalist Don Smith. It is obvious why this area has become a favorite haunt of bird watchers.

With moans and groans of reluctance, the group returned to the Center. Jim Kealy was waiting to hear out tales of adventure and to lead us to the next segment of the class—animal adaptation. Using the stuffed and live animals, fish, and birds which are displayed in the lobby, Kealy explained how each is created with certain physical features to survive in the wild. Each child was given a stuffed specimen to examine and to determine how it was specially made to move, find food, and protect itself from predators. The kids took over the lobby as they giggled, jumped, and yelled with joy, but when holding an animal, they calmed with respect. Someone had trusted them to care for this animal and they took that responsibility seriously. Maybe this time spent with Kealy and Trautmann had instilled in them a special respect and love for our natural environment and the creatures that inhabit it. I hope so.

A Research Laboratory

The Hackensack Meadowlands Environment Center also contains a modern state-certified environmental laboratory which is a research, monitoring, and educational resource for the region's school, colleges, civic and community groups. Water and air quality monitoring is conducted on an ongoing basis. Animal and fish tissue analysis helps to assess the biological health of the estuary. And groundwater monitoring is performed regularly to measure the impact of possible leachate contamination and to guard against the migration of pollutants. The staff is presently offering opportunities for college student internships and graduate research. This lab offers New Jersey a necessary environmental safeguard in an area of overburdened landfills and industrial build-up.

The future of the HMEC is a bright one. Environmental Center Director Anne Galli hopes that additional teaching staff will soon allow more groups to visit. She expects to open a museum in spring 1986. Her face beams as she describes the hands-on displays that will soon fill what is now an empty room.

Most exciting of all is the plan to transform the Bergen County landfill which borders the Center into the upland portion of DeKorte Park. When completed, the park will be a diverse recreational resource, as well as a model for land-reclamation and wetlands protection.

My visit focused on only one of the educational programs offered by the Center. There is still so much more to see and to learn. I'm sure my family will enjoy many return trips to this wonderland in the wetlands.

The Hackensack Meadowlands Environment Center is located at 2 DeKorte Park Plaza, Lyndhurst, N.J. 07071 (201-460-8300) and is open on weekdays from 9:00 a.m. to 5:00 p.m., Thursday evenings 7:00 p.m. to 8:30 p.m. and Saturdays from 9:00 a.m. to 3:00 p.m. The staff welcomes individuals and families to drop by anytime, and asks large groups to call ahead for a reservation.



Day Hiking the Gap



KEN ORAVSKY

BY DOUGLAS W. SMITH

If you prefer day-hiking to the rigors of shouldering a heavy pack and spending one or more nights out on the trail, the New Jersey's Delaware Water Gap is for you. The Gap affords the day-hiker a number of trails which can be walked alone or in combinations to create treks varying in length, degree of difficulty and terrain.

Situated on the New Jersey/Pennsylvania border, the Gap, which is part of the Delaware Water Gap National Recreation Area, is accessible to tri-state area residents via Interstate 80. Two parking lots are available on the westbound side of I-80 across from the information center. Either of these serves as excellent jumping-off points for the day-hiker. Once you've parked, you're nearly set to do a few miles. But first you must decide upon a route.

The Shortest Walk

A good choice might be to follow the world-famous Appalachian Trail, which goes right through the westernmost parking lot. From the lot, the trail parallels Dunnfield Creek for a distance through a

beautiful hemlock forest, then veers away from the creek in a gradual ascent toward Sunfish Pond, a registered National Landmark. The total distance to the pond is about 3.75 miles. It should take the average walker about two and a half hours, counting breaks and map checks. A nice day's walk would include the ascent to the pond, lunch at the pond, and then the walk down before dark.

Most of this distance is through climax deciduous forest, and following the white blazes of the Appalachian Trail is no problem for even the most inexperienced walkers. There are only a few turns, and they are clearly and distinctly marked with two white blazes.

Most Scenic

Probably the most scenic, dramatic and diversified trail at the Gap is the "Red Trail." This trail originates at the first parking lot the westbound motorist encounters, but can also be reached from the second parking lot by following the well-worn footpath up the grassy slope.

This trail begins its climb up Mount Tammany, named after the Lenni Lenape chief Tamenund, by gradually ascending on a smooth and well-used path. To the right there are periodic overlooks which get better as the climb continues. Care should be taken not to get too close to the edge of these overlooks both for your safety and the safety of people below. Loose rocks are abundant and the area is heavily used by people both on and below the trail.

After roughly a half-mile, the trail levels off onto a small plateau, which allows the walker a little bit of recovery time before tackling the next section. From here the trail ascends a small escarpment. Caution must be exercised here. The trail is loose, steep, dotted with exposed tree roots and, because of a spring at a higher elevation, may be wet and slippery.

Past the escarpment, the Red Trail continues over a short boulder field with many loose rocks. The hurrying hiker could be slowed by a twisted ankle or worse. Take it slow through this section. Eventually the grade lessens some, but the trail remains rocky in varying degrees. You'll know you are nearing the top of Tammany by the appearance of the trees. They get more weathered and stunted as your elevation increases.

The summit of Mt. Tammany affords exceptional views of the Delaware River, Mount Minsi on the Pennsylvania side of the Gap, and the Pocono Mountains. The summit is 1,552 feet above sea level and roughly 1,200 feet above the level of the Delaware River. The exposed rocks are an excellent place to lunch, watch hawks or just sit and think.

No water is available on Tammany's summit, so be sure your canteen is filled. It would also be worthwhile to stick an extra sweater or shell into your daypack. The summit is often noticeably cooler and windier than the parking lot area, and you will have worked up a sweat by the time you climb the mile and a half to the top. Figure on an hour and a half up and at least that long to descend. But the walk is worth every ounce of energy needed to do it.

A Creek and Hemlock Ravine

Another way to reach Tammany's summit is by the "Blue Trail." The Blue Trail offers two options. The one you choose will depend on how long a walk you desire.

The shorter of the two, about 2.1 miles to the summit of Mount Tammany, begins on the Appalachian Trail toward Sunfish Pond. After about a third of a mile the Blue Trail branches off to the right, crosses Dunnfield Creek, then turns to the right up a very steep, rocky footpath. After another third of a mile the trail levels for an instant, then continues straight up the side of the mountain. It plateaus again and then switches back a few times before it tops the ridge.

Once on the ridge, turn right at the "T" in the trail. A quarter-mile walk will get you to the summit and the end of the Red Trail, which you may want to use to return so you don't have to retrace your footsteps.

If you're interested in a longer walk to the top of Mt. Tammany, about 4.3 miles, begin on the Appalachian Trail as previously described, but disregard the right turn onto the Blue Trail. Instead, continue on the Appalachian Trail until it intersects the Old Sawmill Road. Here, turn right. This is an important turn and is indicated by markings on a rock at the junction. On the Old Sawmill Road, which is wide with good footing, you'll descend to Holly's Spring after about one quarter of a mile. Canteens can be filled here as the spring, according to local reports, is dependable during all but the driest seasons.

From the spring the Old Sawmill Road follows a steady downward course until it meets Dunnfield Creek. There are no turns on this portion, but the road does curve to the right near the creek. At this point, you'll be enjoying an easy walk through a magnificent hemlock ravine in view of Dunnfield Creek. There are numerous pools in the creek where the day-hiker can soak weary feet.

To climb Mount Tammany you must make a sharp left up a steep incline where the road intersects the Blue Trail. If at this point you think maybe you've bitten off more than you can chew, you could follow the Blue Trail straight back to the parking lot.

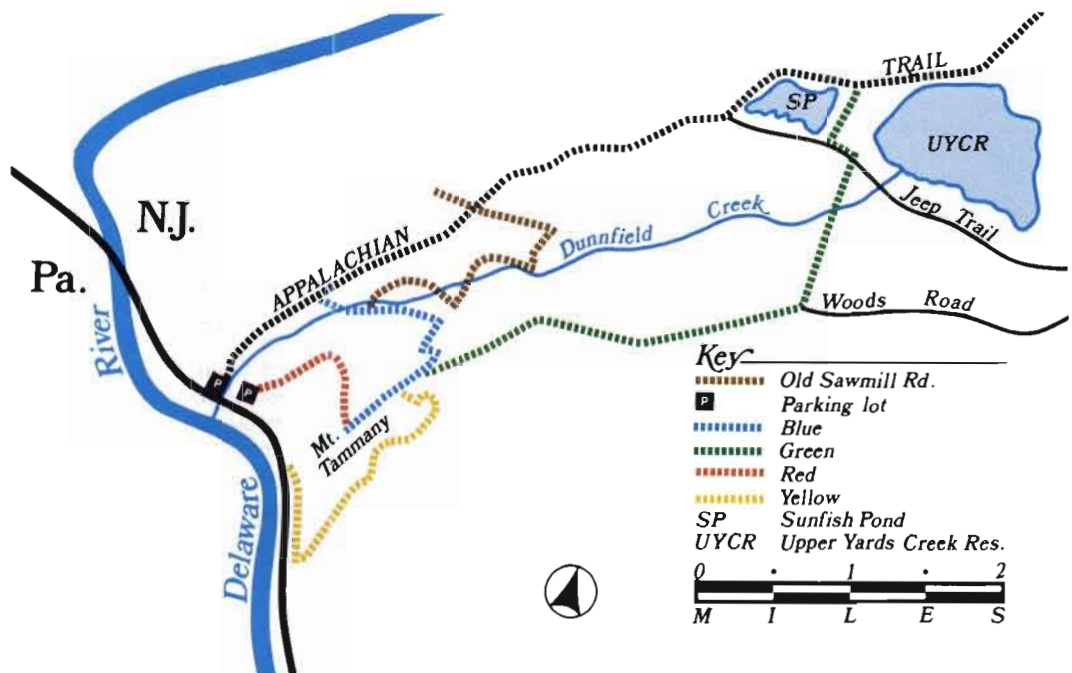
The Longest Walk

One of the Gap's most remote and little used trails is the "Green Trail." Unlike the others this trail begins on top of Tammany. When used in conjunction with the Appalachian Trail and either the Blue or Red trail, it can provide the day-hiker with the longest circuit walk at the Gap.



DOUGLAS W. SMITH

Greg Fiorina on the trail.





Greg Ficarra picking up litter around Sunfish Pond.

The easiest way to get on the Green Trail is to look for the end of the Red Trail on Tammany's summit. This point is marked on a tree with three red blazes in the shape of a triangle. If you continue past this marking, you'll be on the Blue Trail, which leads to the source of the Green Trail. Where the Blue Trail turns left down the mountain, the Green Trail continues straight ahead. The Green Trail is as not well marked or maintained as most of the Gap's other trails. It should be attempted only by hikers who are both confident in their abilities and experience, and who are also in good physical condition. A map, a compass and the ability to use them would also be advised.

As soon as you're on the Green Trail, you're going to wonder about the blazes. First of all, most them aren't a true green they're closer to grey making you wonder why it is called the Green Trail. Secondly, they are far from frequent enough to give the walker the feeling that he or she is definitely on the right course. To make matters worse, there are intermittent blazes in a number of different colors—mostly shades of red. These should be ignored. Follow the green-gray blazes.

Generally speaking, the Green Trail is a ridge trail. From the onset you'll be walking anywhere from north-northeast to east-northeast along the ridge on primarily footpaths and wooded roads. One can tell that this trail is not widely used because of the density of the underbrush, the lack of litter and the occasional cobwebs at face level. Some of the forest is recovering from a fire, and this gives the area an eerie appearance at times.

Wildlife abounds up there. The quiet hiker will surely see deer and, depending on the season, may even be lucky enough to see a black bear.

About three miles from the start of the Green Trail there is an important left turn. It is marked with two blazes that are a truer green than most seen to this point. These are on a rock adjacent to the trail. It will appear that you're turning onto nothing more than a deer trail, and that may originally have been the case. From the turn, the trail descends for roughly two thirds of a mile to the headwaters of Dunnfield Creek. Much of the walking is through low scrub oak almost resembling sections of the Pine Barrens. The blazes are few but the trail is obvious. Across the creek, the Green Trail ascends through the woods to a Jeep trail where a left turn must be made. This can be a confusing point, because the turn is not marked with the traditional two blazes, and it appears that the footpath continues straight across the Jeep trail. It does not—as many hikers, including this author, have certainly found out.

Just about a half mile after you make the left onto the Jeep trail or woods road, the Green Trail makes a right turn back into the woods. Within a quarter-

mile you will have arrived at the northeast end of Sunfish Pond. The pond and the view from the top of Mount Tammany are the highlights of this hike.

In a few hundred yards you'll intersect the white blazes of the Appalachian Trail. Turn left in order to half-circle the pond, then continue on the Appalachian Trail for almost four miles to get back to the parking lots at the Gap. This trek can be anywhere between 11 and 13 miles depending on the exact route taken.

For Bushwackers and Rock Climbers

If you do wish to hike the Yellow Trail, you must first walk along I-80 under the sheer cliffs of Mount Tammany for a good half-mile until you come to a gate in the wire fence, which is the entrance of two buildings that apparently once served as park headquarters. No parking is allowed here. Through the gate, make a right on the service road and continue walking until you pass a stone foundation on the left. At this point, roughly a half-mile from the gate, make a hard left onto a woods road which is well marked with yellow plastic squares nailed to trees.

Getting to the start of the Yellow Trail is not easy, and this may be why it appears to be used rarely. Another probable reason is that one portion of it can be quite dangerous.

The woods road ascends gradually for about a mile with no confusing turns or intersections. Soon, however, things change. At about the one-mile point, a yellow arrow painted on a tree indicates a left turn, which necessitates crossing a small brook and then following yellow blazes that are very faded with no trail apparent.

Basically, you're bushwacking through the woods as you approach the rock ledges of Mount Tammany. With patience and concentration you will eventually find yourself at the base of a large talus with a steep and dangerous climb in front of you. To make matters worse, the yellow blazes are very difficult to find, and there are intermixed red blazes on some of the rocks. You're basically on your own to find the safest way up the talus and the ledges that follow it to the intersection of the Blue Trail on the top of the ridge.

Once on the ridge, turn left to reach the summit. The total time needed to do the two miles of the Yellow Trail is roughly two and a half hours. Because of this last section, the Yellow Trail really shouldn't be attempted unless you're physically capable of handling some pretty serious boulder scrambling and are competent in the use of safety ropes, which may be required to make the climb safely.

With the Appalachian Trail and the Gap's four color-coded trails to choose from, there is something for every member of the day-hiking community. So, waterproof the boots, fill the water bottle, pack a lunch and head to the Delaware Water Gap!

Kids + Fishing = FUN!



BY MARK TUCCI

The long figure is silhouetted by the golden glow of the rising sun against the glassy surface of the small lake in southern New Jersey. Suddenly, the water swirls in a boil 20 feet from the sandy bank. A slapping splash shatters the anxious silence of the August morning.

The young boy's pulse begins to race and his muscles spring reflexively into action as he snaps the 5-foot pole up to his chest. The monofilament line pops taut, and the youngster lets out a resounding "All right!", knowing he has latched into a formidable quarry. After two minutes of careful reeling and line stretching the battle is over. Twelve-year-old Nicholas beams from ear to ear as he proudly poses with a living testimony to his angling skill—a 3-pound largemouth bass!

My camera records the event; the bass is returned to the safety of his warm, cedar-water solitude, and Nicholas and I return to our nearby campsite with his "photo-trophy" and a lifelong memory.

This was the thrill experienced by my oldest son on a recent weekend outing. He and I have been sharing similar such experiences together since Nicholas first asked me to take him fishing five years ago. As a matter of fact, it was then that I, too, was first introduced to fishing. Quite honestly, had it not been for my son's request, I might never have wet a line to this day.

It is difficult to describe accurately the excitement in a youngster's face when his line is yanked under by that mysterious, unseen creature that lurks in the murky depths of a lake, pond, river or ocean. If facial expression is an accurate indicator, that feeling is probably tripled when he actually lands the fish. This is something an adult must experience firsthand in order to truly appreciate the magnitude of the youngster's joy.

Opportunity for Learning

Taking a youngster fishing is an easy, inexpensive activity which can be fun and educational. It also can provide an opportunity to nurture a close rapport with the youngster.

It is well known that fishing is one of America's most popular recreations. In New Jersey alone, it is estimated that there are more than one million angling enthusiasts. Fishing is more than just

another recreational pastime. It is also a valuable survival skill by which one can obtain food.

Further, fishing can provide the opportunity for an adult to impart valuable knowledge to a youngster without the child realizing that he is engaged in a teaching-learning situation. For instance, depending upon the child's age and the degree of the adult's involvement, one may focus conversation around a variety of topics. These could include the appreciation of nature; the importance of conversation; the effects of environmental pollution on wildlife and the food chain; weather/seasonal changes and their effects on a fish's metabolism/feeding habits; fish habitats; why various baits and lures are used on specific types of fish, and so on.

A Chance to Communicate

How can the simple act of fishing lead to better rapport with a youngster? Fishing—particularly bobber fishing, as practiced by most children—requires little or no physical exertion. This and the mental preoccupation with the activity at hand, leads to a comfortable state of relaxation. This feeling of ease, in turn, helps alleviate most of the usual defense mechanisms that may hinder true communication between adult and youth. Thus, the opportunity is provided for the adult to communicate with the youngster. One can probe inner feelings and discuss sensitive topics such as the child's likes and dislikes; his fears, hopes, aspirations, and so on.

Easy for Everyone

I would remind those of you who say, "But I don't know the first thing about fishing;" that five years ago I was in the same boat (no pun intended). I didn't know the difference between a popping plug and a short-arm spinnerbait. So, be assured that the basics are very easy. Anyone can learn them with a minimum of time and effort.

If you are a seasoned angler, but have never taken along a young novice, I would strongly encourage you to consider sharing your knowledge with a youngster from your family or neighborhood. Your time and effort will be well spent and appreciated, and will form the basis of some golden memories that will be treasured by that child throughout his life. The excitement you help a youngster to experience through fishing is directly proportional to the joy you will experience as a result. So take a kid fishing and have some fun!

PHOTO BY AUTHOR

It's a proud moment for Nicholas as he displays his catch.

D.E.P. Poster & Essay Contest Winners

More than 2,000 elementary through high school students showed their keen interest in wildlife by entering the Sixth Annual Poster and Junior High Essay Contest, an environmental education program sponsored by the Department of Environmental Protection. The top winners and their families were honored at a special awards ceremony held at the New Jersey State Museum in Trenton.

Wildlife in New Jersey was the general theme of this year's contest; each division had a different subtheme. The first prize winners in each category are reproduced here. All the winning entries are being displayed at various environmental education centers around the state.

Lisa Ohayon of the Fieldstone Middle School in Montvale, Bergen County won the essay contest with her entry, "Backyard Squirrel," which is reprinted here.

Backyard Squirrel

By LISA OHAYON

Two years ago I had a pet squirrel who spoke and wrote perfect English. Every morning he came to my back door, and he and I would talk while we both ate peanuts. One morning about five months after we had become friends, I went to the back door as usual, and there I found a note, signed with a pawprint. Here is a copy of it.

Dear Lisa,

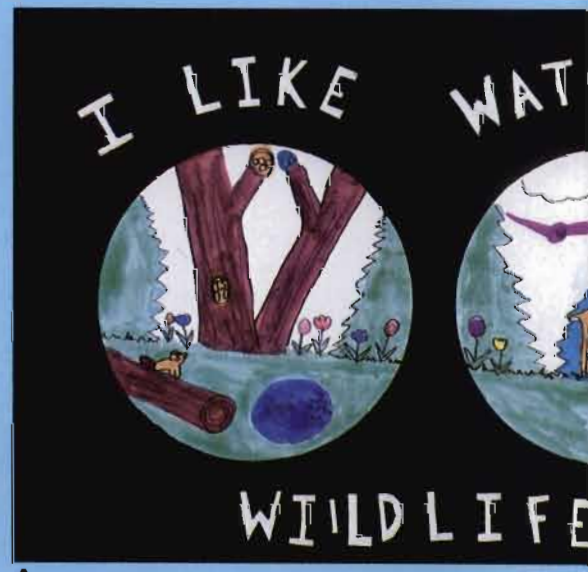
I am sorry to be leaving your backyard, but I feel that I must. Although you live in a small neighborhood, there is just too much pollution. Each morning I am cruelly awoken by the sound of passing cars. These fire-breathing monsters exhale black, poisonous smoke which makes my fur dirty and less resistant to cold and wet weather, and makes it difficult for me to breathe. My eyes sting from the acid precipitation. The food is less plentiful because many starving animals have been uprooted from their natural homes because of construction and have moved here. At night I can't fall asleep because of the noise pollution caused by the loud parties next door. On your front lawn I once was burned by a smoldering cigarette butt, and I am sometimes cut by broken beer bottles inconsiderate people have thrown from their cars. When I look up to see the stars, light diffused by atmospheric particles and pollution from New York City fills the atmosphere and blocks my view. I love green fields, blue skies, refreshing spring showers, and starry night skies, but I can't find them here. I will write to you when I find a new home.



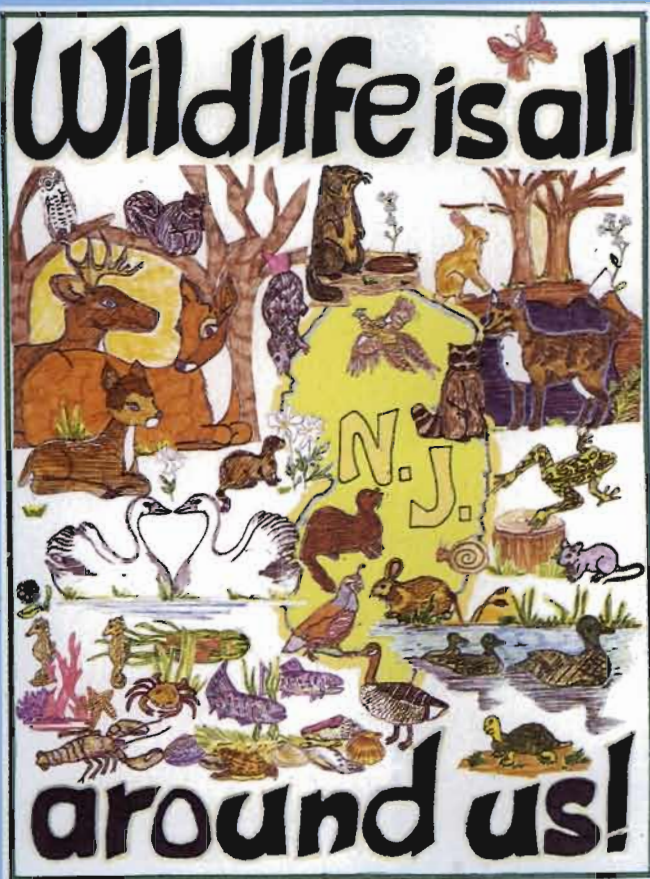
I was very upset by this letter, and I anxiously awaited news from my friend, telling me of his safe arrival in a new home. At long last, I found a postcard in my mailbox with the return address of Tree #9, Van Saun County Park. My squirrel told me that the park was very beautiful, and if everyone made sure that there were always places like Van Saun, the world would be a better place for animals. He added, however, that since not all animals were as lucky as he was, all people should make a special effort to keep pollution to a minimum. I have taken his advice, and now I make sure that my property is safe for animals. I also put out birdseed and peanuts. I am doing my share, and I hope you take his advice and do your share, too.



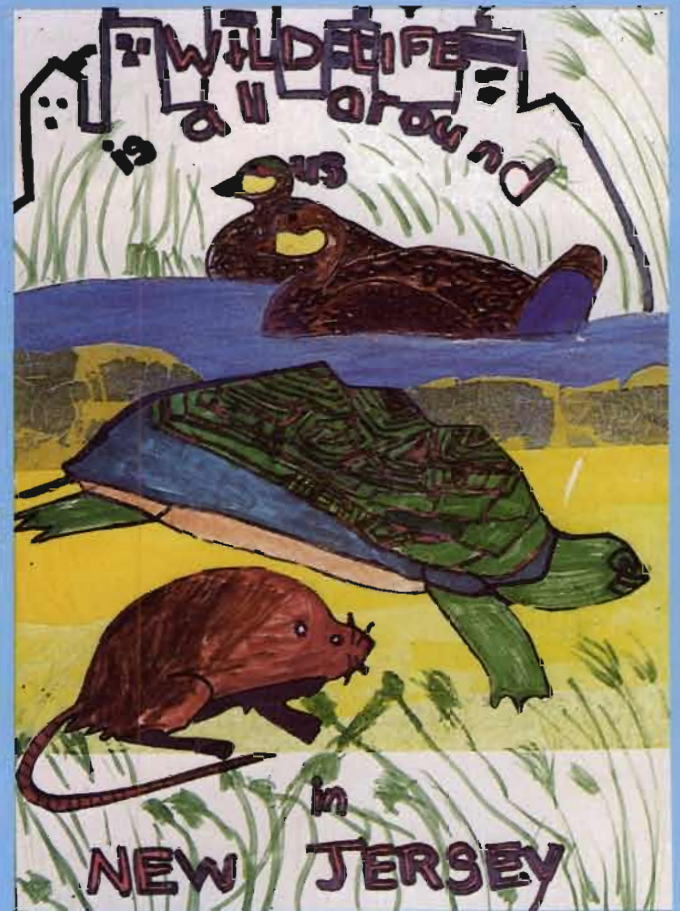
D



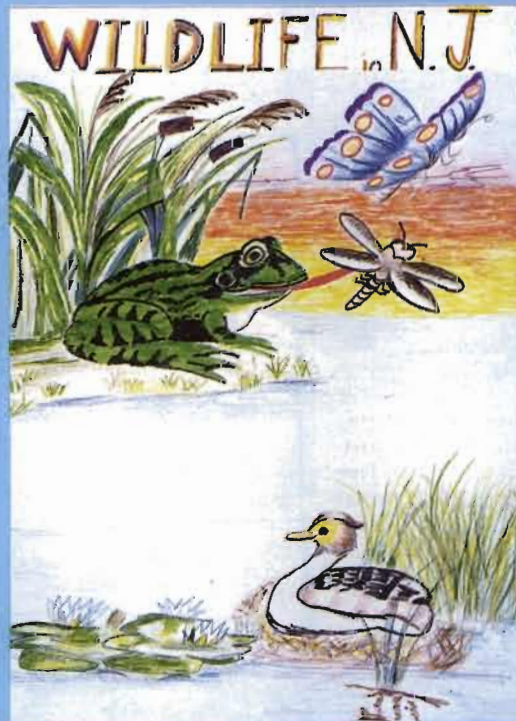
A



C



E



B

- A. First Place—Primary Division
Theme—"I like wildlife"
Kristine Genutts
Tinc Road School
Flanders, NJ
- B. First Place—Intermediate
Theme—"Wildlife and its habitat"
Ana Valdez
School #8
Paterson, NJ
- C. First Place—Junior High Division
Theme—"Wildlife is all around us"
Jennifer Kasny
Chancellor Avenue School
Irving, NJ
- D. First Place—High School
Theme—"Wildlife, habitat and me"
Jennifer Majeske
Millville Memorial High School
Millville, NJ
- E. First Place—Special Education
Theme—"Wildlife is all around us"
Damon Baeley, Richard Etgelow and Joseph Klose
Special Education Students
Watchung School
Montclair, NJ



Scary, isn't it?



Storyteller Jim Albertson spins his tales of terror.

The 2nd Annual

Whitesbog Halloween Party

An Evening of Ghostly Tales and songs around the Campfire Featuring the tales and songs of

Jim Albertson • Tom Clapham • Robin Moore • Dave Orleans



According to legend, the mysterious woman in white endlessly searches for her lost lover along Pinelands roads.

PHOTOGRAPHS BY RAY FISK

Later in the evening, when the moon is high, there will be hayrides and moonlight hikes in search of the Jersey Devil and the mysterious woman in white.

The evening's activities, sponsored by the West Jersey Sierra Club, will take place at Elizabeth White Hall in Historic Whitesbog Village, Browns Mills, N.J. Because of last year's overwhelming response, the party will be held on two nights—Friday, October 25th and Saturday, October 26th, from 7:30 p.m. to midnight.

Tickets are \$7.00 and space is limited. Please send checks, payable to West Jersey Sierra Club, and a stamped, self-addressed envelope to West Jersey Sierra Club, c/o Sarah Orleans, 120-26 Whitesbog Road, Browns Mills, N.J. 08015. For more information call (609) 893-4438.

***Please take note: The ghostly tales are truly chilling and are not recommended for children under 12 years old.**

Look—it's the Jersey Devil!



Dear Editor

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.

A Hit . . .

I commend your magazine for reaching out and educating the public about the beauty, splendor and wonder of N.J. The preservation of a diverse and delicate ecosystem such as ours must have top priority.

As the saying goes, "Take pictures . . . leave footprints."

Mary Ann Gronkowski
Jersey City

* * *

And a Miss . . .

Congratulations on your July/August issue! Other than some interesting articles, fine photography and Carol Decker's usual excellent illustration, *N.J. Outdoors* has succeeded in doing what the U.S. Congress, N.J. Legislature, U.S. Army Corps of Engineers and even George Meade have failed to do.

You triumphed over Mother Nature, and turned Barnegat Inlet *inside out!* Perhaps you have inadvertently come across the true Bunyonesque solution to the "Nasty Inlet." Surely you can hire Paul and his Blue Ox Babe to accomplish ever so inexpensively that in which all others have suffered absolute ignominy.

Please see page 23, *NJO* Vol. 12, No. 4. You could not have done it better with mirrors. Poor Ms. Halsey!

S. Whitney Downer
Beachwood

You're so right. Another 50 or so sharp-eyed readers spotted this mixup as well as one on page 8 of the same issue. Please see "From the Editor" on page 1 of this issue for further comment.

* * *

What Are the Rules for Open Fires?

I was pleased to see the photographs of open fires in "The Garden State Is Camping Country" (May/June '85). It carried me back to the days of my youth before the term "environmental protection" was heard. You could gather wood for a fire and actually burn it (conditions permitting) without some red tape expert from the state asking you to fill out a form, pay a fee and beg for permission. I have 15 acres of land, am willing to burn my wood when the ground is wet

or snow-covered, but I'm under the impression I can't, without the red tape.

My question is: are the innocent campers callous lawbreakers or has the law been changed?

Donald A. Pattison
Frenchtown

The campers are not breaking the law and the law hasn't been changed. Open burning is restricted in N.J. for very good reasons. The law is one of several measures designed to protect the quality of the air we breathe and to prevent forest fires.

Two kinds of permits relate to burning. Both are administered by DEP's Division of Parks and Forestry's Forest Fire Service. Fire Permits are issued for campfires, ceremonial bonfires, warming fires and prescribed burning in forested areas. Open Burning Permits are issued to commercial farming and/or related agricultural operations to burn infested plant life, hedgerows, orchard prunings and agricultural land clearing. Fees, special conditions and time limitations apply according to particular circumstances. For further information contact the N.J. Forest Fire Service serving your area.

North: 201-827-6100
Central: 609-726-9010
South: 609-625-1121

* * *

Another Country Heard From

I have been lucky enough to receive copies of your excellent magazine via a N.J. friend who worked in Scotland for two years. Knowing my interest in deer and my practical involvement with deer management, she has kept me informed of all aspects of N.J. wildlife.

The differences between our two countries with regard to shooting deer for sport, for timber protection, and legislation, marketing and conservation are in some instances great. I myself stalk the two main species in our country, red deer and roe deer—red deer for sport and roe deer for damage control on young conifer plantations.

Alex Allison
Scottish Deer Group
Perthshire, Scotland

* * *

More Information Would Help

Enjoyed "N.J.'s Wild West Frontier" in the May/June issue. I found it to be well-written and did have the opportunity to visit the rodeo and enjoyed every minute of it. In the future it would be nice to print the phone

number so people can call for further information and/or directions. I had to call the information operator, the Woodstown police, and finally the rodeo.

Alexander MacDonald
Jersey City

Persistence pays. Thanks for the suggestion.

* * *

Pequest Fish Hatchery Opens

Last year in an article on the new fish hatchery at Pequest, (May/June '84) it was stated that further information would be forthcoming on when there would be open house ceremonies. What can you tell me?

G.K.M.
Moorestown

DEP's Pequest Fish Hatchery and Natural Resource Education Center is now open Wednesday through Sundays from 10 a.m. to 4 p.m., offering hatchery tours and educational programs for school groups, civic and conservation organizations. The Division of Fish, Game and Wildlife produces 600,000 brook, brown and rainbow trout at Pequest and stocks them in lakes and streams open to public fishing. To obtain further information and to schedule tours and educational programs, please contact Pequest Programs, Division of Fish, Game and Wildlife, RD 1, Box 389, Oxford, N.J. 07863, telephone 201-637-4173.

Calling all Rockhounds

Interested in increasing or expanding your rock collection? A N.J. Rock Set contains samples of nine rocks and six sediments, collected by DEP's N.J. Geological Survey and includes specimens of the bog iron ore mined in colonial Burlington County (limonite), marble quarried in Sussex County, greensand dug in Gloucester County to improve soil and soften water and diabase, the rock of the Palisades.

A geologic map and a 19-page booklet defining N.J.'s major rock types and describing the samples are also included.

To obtain a N.J. Rock set, send a check for \$3.50 payable to Treasurer, State of N.J. to:

Department of Environmental Protection
Bureau of Collections
CN 402
Trenton, N.J. 08625

Monarch Butterfly

BY MOLLY MONICA AND MIMI DUNNE

Catching and marveling in the beauty of butterflies is an age-old past-time of both youngsters and adults, and monarchs provide much of that opportunity in the Garden State. The monarch is probably the one butterfly that most people can readily identify by its orange and black markings. Its beauty, however, reveals little of its interesting life history and remarkable endurance needed for migrating up to 3000 miles one way.

1985 is predicted by some to be the "Year of the Monarch." Monarchs are always visibly abundant during the fall migration, especially in the Cape May region and this year promises to be a banner year. From mid-August through October, the coastal area comes alive with butterflies. Some people may even be fortunate enough to see a "butterfly tree" in which hundreds of monarchs stage. Monarchs funnel into the Cape en route over Delaware Bay. Higbee Beach Wildlife Management Area, purchased for the protection of endangered wildlife, is an exceptional place to view many monarchs.

Migration among butterflies is an uncommon way of avoiding the rigors of winter. Some butterfly species spend the winter in a pupal state, protectively sealed in a chrysalis and ready to emerge as an adult when the weather warms up. Other hearty butterflies spend the winter as winged adults with only a covering of leaf litter to protect them from the elements. Monarchs are unique in that the same individuals will migrate south and live through the winter to make the return trip.

The monarch is one member of a tropical family of butterflies which prefer to winter in southern climates. Monarchs are not able to tolerate winters in Northern latitudes since they are not equipped with physiological "anti-freeze." New Jersey monarchs and all monarchs east of the Rockies migrate to Florida, the Gulf of Mexico and to the country of Mexico. They'll pass the winter in a state of semi-hibernation before migrating back north in spring.

Monarchs disperse north and begin egg-laying as their food source, the milkweed, begins its growth. The life cycle takes about one month to complete. Adults lay eggs which hatch into caterpillars. The caterpillars then metamorphose into the winged adult. Monarchs found in New Jersey in the summer may have

been hatched from eggs laid in Virginia or farther south. Since monarchs stage such spectacular migrations traveling long distances, one might assume that the individuals are long-lived. Just the opposite is true. No monarch will live through more than one winter, though succeeding generations may use the same trees and sites for hibernating.

The orange and black coloration so well known to people is also known to vertebrate predators who would prey on monarchs. In fact, monarchs "advertise" that they are unpalatable by their coloration. As caterpillars, monarchs feed exclusively on milkweed. There are at least 12 different species of milkweed in New Jersey that provide forage for the developing caterpillar. The poisons in milkweed don't kill the caterpillar, but instead confer protection to it. Any predator that eats the butterfly becomes ill—ill enough to remember to leave the insect alone in the next encounter.

The coloration that protects monarchs from predators is copied in the insect world by mimics—butterflies who are not poisonous but are marked by warning coloration. The viceroy butterfly is one such species that gains protection from predators by resembling a monarch. As long as the predator population in the area has experienced a monarch meal, viceroys, and other mimics, won't be preyed upon.

Though both sexes of monarchs have the tell-tale orange and black coloration, there are subtle differences between males and females. The black veins on the hind wing of the female are uniformly thick. The male, by contrast, has veins which are thinner. Male monarchs also have an enlarged spot on the vein of the hind wing, which is absent in the females. This gland may serve the butterfly during courtship.

People who are interested in enjoying the monarch around their home need do little more than encourage milkweed. The plant is an abundant "volunteer," colonizing rural and urban areas alike. Milkweed is readily found along roadsides and waste areas, and will frequently come up as a "weed" in disturbed areas. Infrequent mowing of parts of your lawn may encourage the plant. Favor the monarch by sparing the milkweed, and enjoy this remarkable creature in your garden.

FRONT COVER

At Liberty State Park, naturalist Debbie Campbell shows students from the Stevens Cooperative School in Hoboken some plants that grow in the marsh. Photograph by Virginia Rolston Parrott. See article on page 2.

INSIDE BACK COVER

Monarch butterflies. Illustration by Carol Decker.

BACK COVER

Fall's glorious colors on the Palisades, viewed from the Alpine boat basin. Photograph by John Serrao. See article on page 18.



