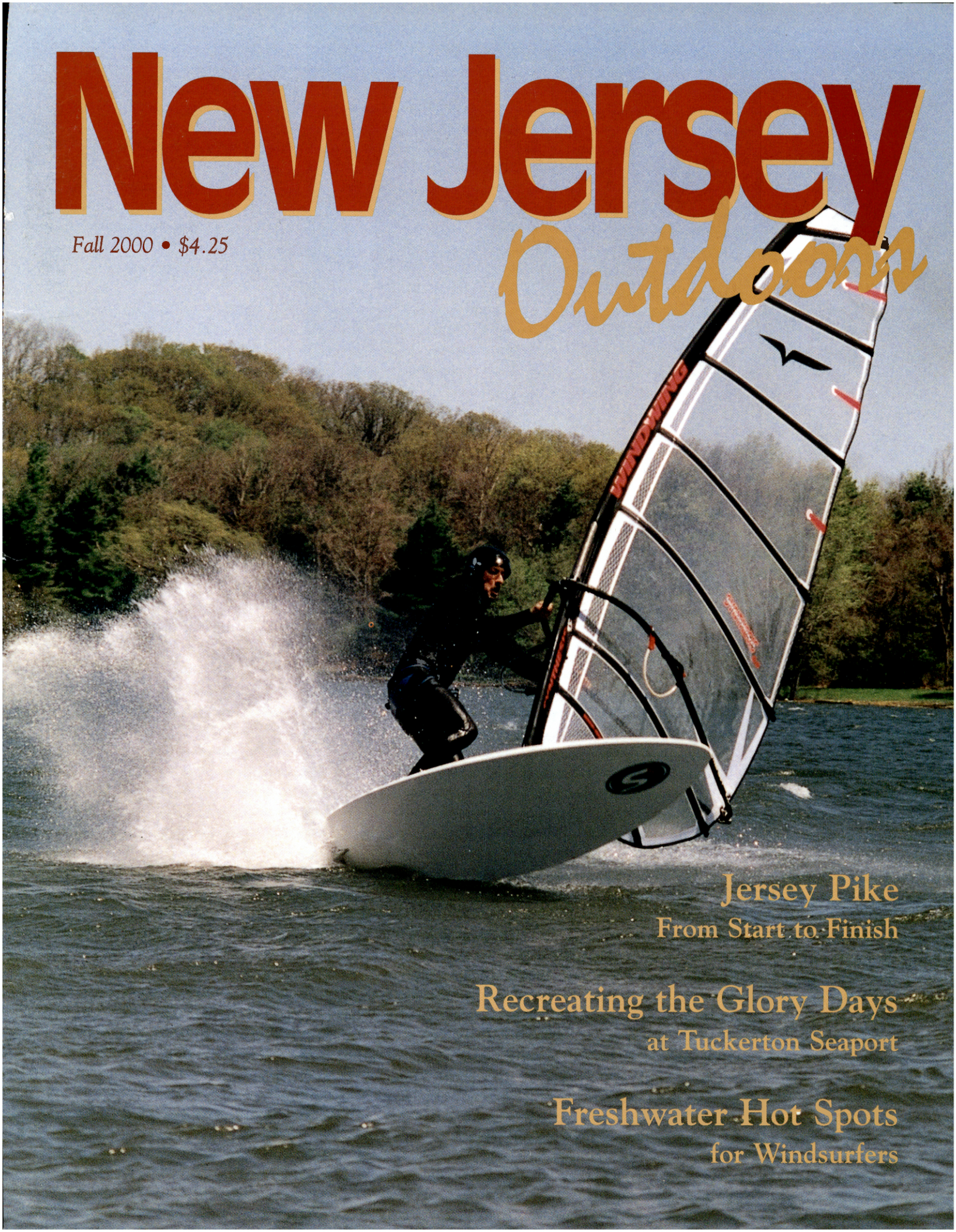
New Jersey Outdoors

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Jersey Pike
From Start to Finish

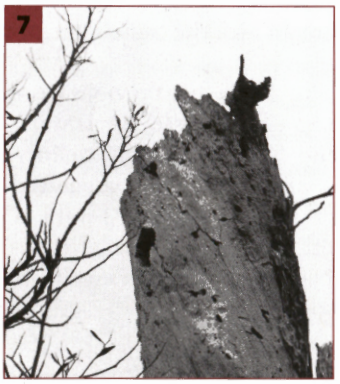
Recreating the Glory Days
at Tuckerton Seaport

Freshwater Hot Spots
for Windsurfers



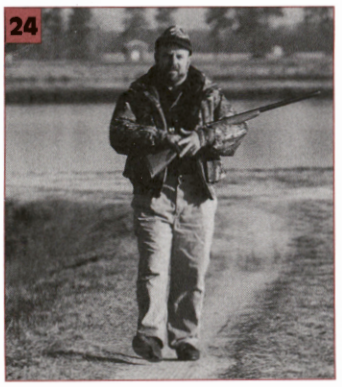
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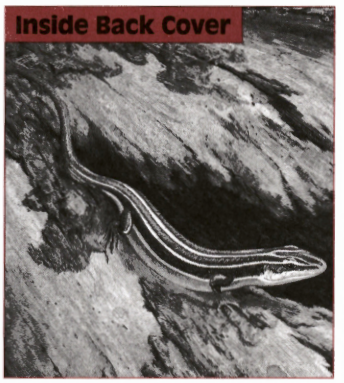


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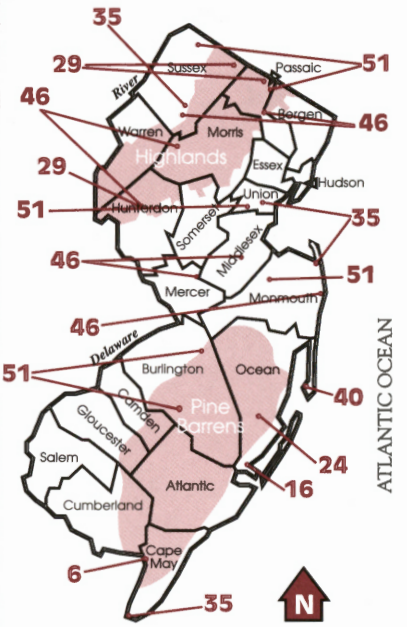
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Front Cover
Michael Zeugin, author of **Skimming the Surface of Inland Waters** (page 29), rails the tail of his AVS (anti-ventilation-skirt) board into a power jibe (a pivoting downwind turn) on Spruce Run Reservoir. © *Margaret Conroy*

Inside Front Cover
Thanks to the N.J. Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP), sighting young eagles such as these is not the rarity it once was. **In New Jersey**, on page 24, conveys the thrill of such a sighting.
Photo by ENSP chief Larry Niles; courtesy of DEP's Division of Fish and Wildlife

Inside Back Cover
The young **Five-lined Skink** uses its brilliant blue tail as a defense mechanism. © *2000 Beatrice Bork*

Back Cover
A skyward glance at Double Trouble State Park provides a different perspective of fall foliage. © *Dotty Waxman*

New Jersey State Library

From the Governor



Christine Todd Whitman,
Governor

Last spring, my administration proposed a new policy to further protect our state's drinking water.

We wrote this proposal because we face a challenge: as the state continues to develop, we have to make sure we grow smartly. We have to make sure we leave enough open land to preserve the character of our state and protect the environment that is so important to our health and quality of life.

One of the ways we can do that is to protect our water supply by directing development toward areas where the infrastructure is already in place, since that doesn't unduly stress the land or the water supply.

The proposal requires any community that wants to change its current plan for building sewer systems—or any community that wants to increase the amount of waste that goes through sewers or septic systems—to analyze the environmental impact of such a change and report it to the State. Just as important, we will require communities to coordinate and integrate these plans with the State Development and Redevelopment Plan—unless that development is in an area the State Plan has already targeted for growth.

Hand in hand with that effort, we can look to redevelop lands that previous generations may have contaminated and that today lie abandoned or unused. Reclaiming sites is not only going to help revitalize our cities but also enable us to grow smartly throughout the state. We need to invest in our water supply to keep it clean and abundant. Just as we are investing in open space and farmland to preserve 1 million more acres, we also need to invest in brownfields and other means of smart growth.

I am confident that making these investments will make New Jersey an even better place in which to live, work, and raise a family.



From the Commissioner



Robert C. Shinn, Jr.,
Commissioner

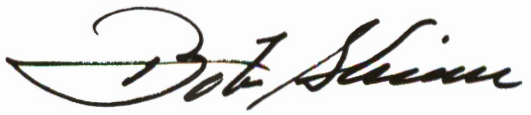
All that human beings have ever built or accomplished stems from the availability of three fundamental resources: air, water and land. For most of human history people took these resources for granted, secure in the belief that they were too vast to ever be disturbed by our activities.

Nearly two centuries ago humans learned to burn coal to release the energy it contained. That set in motion the Industrial Revolution and set the stage for the environmental problems, such as air and water pollution and global warming, we face today.

As many of these problems have a common origin, we now are finding they also have common solutions. One of these is watershed management.

A watershed is an area where all water drains to the same lake or stream. New Jersey is now divided into 20 watershed management areas, each of which contains many individual watersheds. Under the direction of Governor Whitman, and with a recent infusion of $3 million from the Legislature, watershed management planning will be underway is all 20 management areas by the end of this year.

The goal of the recent watershed management rule published by DEP is to protect water quality in areas where it meets or exceeds standards and restore it where it does not. To accomplish this the department, with the cooperation of citizens, municipalities and other stakeholders within individual watersheds, will inventory all sources of pollution and establish plans to protect and enhance water quality. Strategies to guard against pollution and improve water quality and quantity include changes to municipal land use ordinances, open space acquisition, stream bank restoration, permitting changes, and homeowner education programs. The solutions are in our hands; it's up to each of us to implement them.



Gift Gallery

Fish and Wildlife Products

Most of the following items may be purchased by mail or at the division's Trenton office (501 East State St.), the Pequest Trout Hatchery and Natural Resource Education Center (Rte. 46, Oxford), or the Southern Regional Office (220 Blue Anchor Rd., Sicklerville). Please note that a shipping and handling fee will be added to mail orders. For details, call 609/292-9450.

Holiday Special

Buy One Wildlife Profiles Get One Free! This full-color, 112-page, hard cover book features more than 50 paintings of New Jersey wildlife by artist Carol Decker, accompanied by a detailed species information and statewide distribution map. $23.95



***New Jersey's Wild Places & Open Spaces**: A Wildlife Enthusiast's Guide to Finding and Using Public Open Space in the Garden State*
This publication offers a wealth of information on locating and exploring New Jersey's open spaces in a compact and easy-to-read format. It not only contains valuable information on division wildlife management areas and the variety of wildlife present, but also includes state parks, forests and much more. It showcases a full-color map of New Jersey on one side; public areas are highlighted, with an accompanying wildlife and activity grid for each, on the other. $3



New Jersey Wildlife Viewing Guide
Experience the amazing diversity of New Jersey's wildlife and habitats at 87 of the state's best Wildlife Viewing Areas. This 165-page guide is full of color photos and illustrations and provides directions to each site, with information on facilities, viewing seasons and animals and habitats that can be seen. It also offers 20 wildlife diversity tour sites. In each of four regions, expanded information is provided on five sites that, when experienced through a 2- to 3-day trip, provide a deeper understanding and appreciation of the ecosystems and wildlife found in each region. $10.95

Pine Barrens Treefrog Sculpture
This limited edition bronze sculpture comes with a certificate of origin and a display card containing natural history notes. $130 of the $325 purchase price benefits the Endangered and Nongame Species Program. Call 609/292-1244 for additional information.

Habitat 2000 Landmark Series New Jersey Waterfowl Stamp

Canvasbacks and the Statue of Liberty
The 2000 New Jersey waterfowl stamps, designed by noted wildlife artist Joe Hautman, are available at license agents. Cost is $5 for a resident stamp and $10 for a non-resident stamp.

New Jersey Waterfowl Prints and Souvenir Cards — Framed or unframed, prints and souvenir stamp cards featuring the 2000 waterfowl stamp design, as well as prints and stamps featuring prior years' designs, are available. Call 609/292-7349 for information or 800/382-5723 to find an art dealer near you.

Centennial Osprey Print — This limited edition print of a nesting osprey commemorates 100 years of fish and wildlife conservation in New Jersey. For more information, call 609/748-2050. $78

Commemorative Deer Classic Poster
This limited edition poster of wildlife artist Carol Decker's Legend Maker, a white-tailed buck, commemorates the First Garden State Deer Classic. $2.50

New Jersey's Deer Hunter
The closed size of this second edition knife—the NJ430T Pocket Beast—is 3 7/8". Its features include a dual edge, etched, rust resistant stainless steel blade, non-slip handle, lockable design, easy one hand opening, pocket clip and limited lifetime guarantee. $24.95 Call 908/654-5159; Visa and MasterCard accepted.

Adopt-A-Species
Adopt shorebirds, bobcats, ospreys or herptiles (reptiles and amphibians) for only $15 per species. Just send your (or, if a gift, the recipient's) name, address and species preference, with a check or money order for $15, to Adopt-A-Species, Endangered and Nongame Species Program, PO Box 400, Trenton, NJ 08625-0400. In return, the program will send information about its efforts to help protect the species and a handsome color decal featuring the selected species.

State of New Jersey
Christine Todd Whitman
Governor

Department of Environmental Protection
Robert C. Shinn, Jr.
Commissioner

Peter Page
Director of Communications

Sandy Huber
Chief, Office of Publications

New Jersey Outdoors

Fall 2000, Vol. 27, No. 4

This publication is dedicated to promoting and encouraging the wise management and conservation of our natural, cultural and recreational resources by fostering a greater appreciation of those resources, and providing our residents with the information necessary to help the Department protect, preserve and enhance them.

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Gift Gallery

Artificial Reef Association Products

Funds generated through the sale of ARA products are earmarked for the Division of Fish and Wildlife's Artificial Reef Program and have helped enable the division to build dozens of ocean reef sites from old ships and other structures. Make checks payable to the ARA and mail to: Artificial Reef Association, P.O. Box 16, Oceanville, NJ 08231. For more information call 609/748-2020.

Limited Edition Prints

The following works of art are archive-quality and printed on acid-free stock copies of all four are limited to 500 prints, numbered and signed. The mail-in cost for each is $65.

***Yellowfins in the Canyon* by William Hopkins**

This underwater scene depicts a school of yellowfin tuna attacking squid in the crystal-clear blue waters of New Jersey's offshore canyons. 16" X 20 7/16"

***Blues on the Beach* by Diane Peebles**

This brilliant underwater scene depicts a marauding band of bluefish pursuing anchovies into the surf. 18" X 24"**1996**

***Stripers on the Rocks* by Diane Peebles**

This underwater scene features striped bass attacking a school of bait fish on a rocky outcropping of the New Jersey sea floor. 18" X 24"

***Marine Life* by Kathy Johnson**

This beautiful, full-color scene of a New Jersey wreck, is the perfect investment in New Jersey's marine environment. 18" X 24" with a white border for matting.

Reef Charts — $5 (plus $1.50 S/H)

Available for Atlantic City, Barnegat, Cape May, Garden State North, Garden State South, Great Egg, Little Egg, Ocean City, Sandy Hook, Shark River, Sea Girt and Wildwood.

A Guide to Fishing and Diving New Jersey's Reefs

This ultimate reef book is available by mail and at bait and tackle shops statewide. A cooperative effort between the Division of Fish and Wildlife, the Artificial Reef Association and *The Fisherman* magazine, the guide is an invaluable aid to anyone who fishes or dives on New Jersey's reefs. The 64-page book is made of waterproof and tear-proof plastic pages, designed specifically for use on small boats, in bad weather and at sea. Priced at $17.95, it contains:

- LORAN C and DGPS charts of New Jersey's 14 ocean reef sites, depicting the locations of more than 1,200 reefs for use by anglers and divers.
- LORAN C and DGPS coordinates of all named reefs.
- Information on how reefs are colonized by marine life.
- Details on how to sponsor a reef.
- Additional sources of reef information.

Reef T-shirts

High quality, 100% cotton T-shirts featuring full-color fish and shellfish artwork by Kathy Johnston are available in a variety of colors, designs and adult sizes. Great gifts for anglers, crabbers, divers and all those who love New Jersey's marine environment, they're available only at the Division of Fish & Wildlife's Trenton and Nacote Creek offices. $14 to $16

Parks & Forestry Products

Most of the following items may be purchased at State Park Service field offices. For ordering information, please call 609/984-0370 or 800/843-6420. Please note that a shipping and handling fee will be added to mail orders.

New Jersey's State Parks, Forests, Recreation Areas & Historic Sites *The Guide to New Jersey's Special Places* — Individual descriptions provide information about each site's facilities and activities. $2

Barnegat Lighthouse Poster — $5

Beach Towel — This all-cotton beach towel features forest green trees on a white background. $14

Teddy Bear — This 10"-high plush black bear sports a gold T-shirt with the Park Service logo. $14

State Park Pass — Affixed to your vehicle, the pass provides entrance to State Park Service facilities that charge walk-in or parking fees. Pass holders may visit as often as they like for the entire calendar year. $35 for first pass; $25 for second (for a vehicle registered to the same address)

To purchase the following books, send your request with a check or money order made payable to **NJ Forest Service**, to: Forest Resource Education Center, 370 East Veterans Highway, Jackson, NJ 08527.

New Jersey's Big Trees — Forty pages of color photos, species facts, details on measuring and more. $6

Trees of New Jersey and the Mid-Atlantic States — An illustrated 112-page field guide describing 146 frequently encountered species; maps and related information included. $10

New Jersey & You *Perfect Together* Gear

All items (except tote bag) are white; all sport the logo at left in blue.

Price does not include tax (applicable to mug, tote bag and towel) or S&H. To order, call 1-888-316-5273.

Sweatshirt — 50% cotton/50% polyester; M, L, XL; $19.95
T-shirt — 100% cotton; M, L, XL; $9.95
Multilingual T-shirt — 100% cotton; features slogan in nine languages; M, L, XL; $9.95
Coffee Mug — Oversized china mug; $5.95
Baseball Hat — Canvas cap with adjustable strap; $10.95
Boater Tote Bag — Natural canvas with outside pocket; blue handles and trim; $14.95
Golf Towel — 100% cotton velour with ring to attach to bag; $6.95

Special License Plates



These designs support the preservation of New Jersey's natural or historic resources.

Treasure Our Trees helps communities nurture, protect and manage their local tree resource. *Pinelands* helps acquire land for the Pinelands National Reserve. ***Discover New Jersey History*** helps preserve historic structures, documents and artifacts. ***USS New Jersey*** helps turn the famous battleship home into a floating educational museum. ***Baymen's Heritage*** helps preserve the legacy of the Jersey Shore baymen. ***Shore to Please*** helps clean our beaches and improve water quality. ***Conserve Wildlife*** helps restore endangered wildlife and create a statewide network of wildlife viewing areas.

Special license plates are available at any Motor Vehicle agency, or you can call 888/486-3339 toll-free in New Jersey (609/292-6500 from out of state) for a mail-in application. The initial purchase price is $50; the annual renewal fee is $10 ($15 for *USS New Jersey*). You also can personalize your plates with up to five characters for an initial fee of $100.

New Jersey Outdoors

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The Branch of Dennis Creek



Text and images by Brion Babbitt

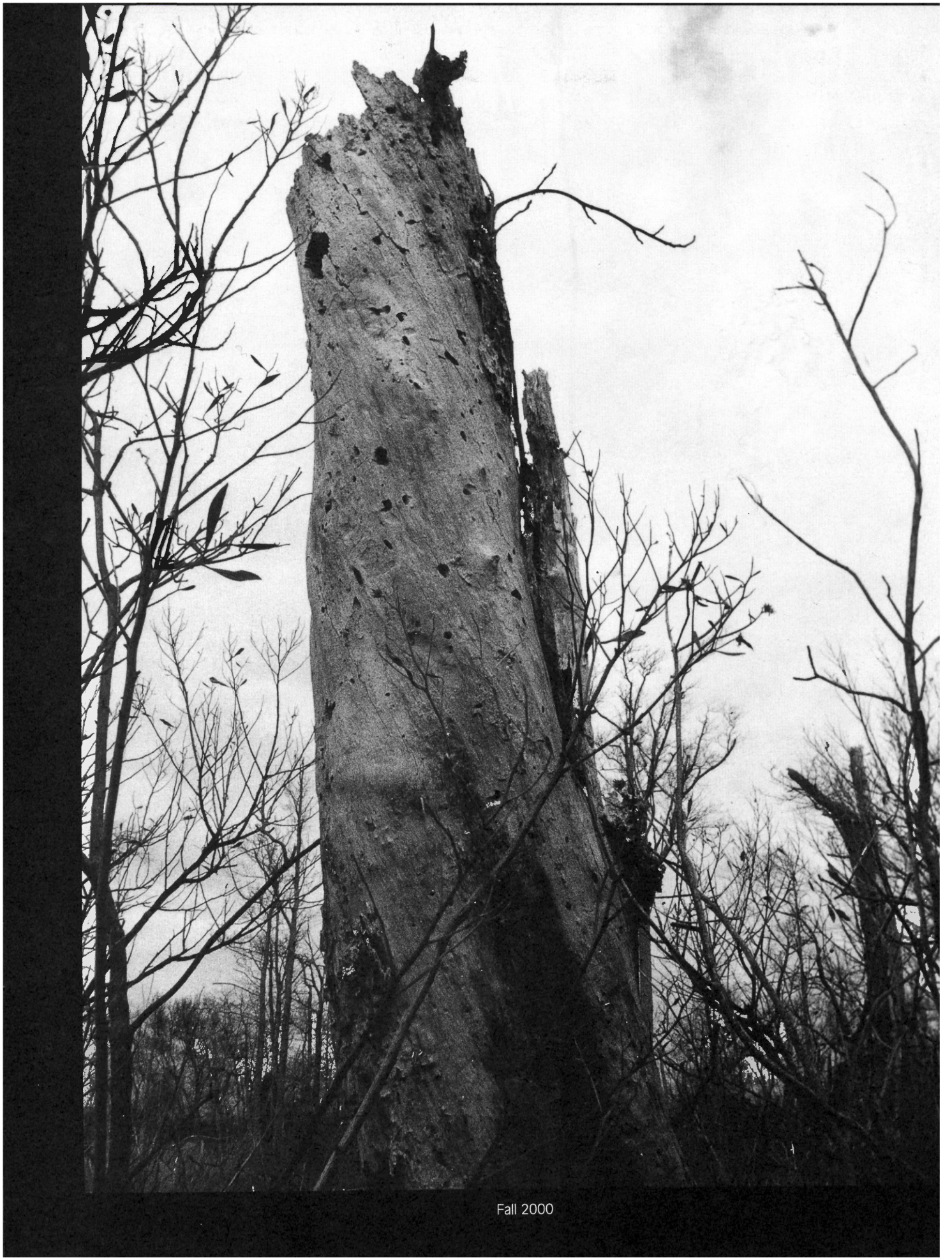
The Branch of the Dennis Creek mixes the freshwater outflow of the Dennisville Lake with the brackish tidal water of Dennis Creek, which flows into Delaware Bay. The Dennisville Lake and the headwaters of the Branch of the Dennis Creek are located at Route 47 in Dennisville, Cape May County.

This quiet creek, whose water depth varies almost continuously throughout the day, is home to muskrats, green-winged teal, minnows, eels, green crabs and white-tailed deer; to black ducks, raccoon, mink, gray fox, kingfisher and even an occasional great blue heron; and to me.

Thirty-five years of wading its waters have taught me there is much that most people will never see, but is so near. Its water surface rising and falling twice each day—a rhythmic slave to the gravitational pull of our moon—the Branch of the Dennis Creek is at the interface of freshwater and salt, upland animal and waterfowl, forest hardwood and salt-marsh reed, gravel bottom and meadow mud.

The Branch of the Dennis Creek flows at the boundary of different worlds.

Dennisville's Brion Babbitt is a lifelong resident of New Jersey, and a freelance writer, photographer and sportfishing charter boat captain in Cape May. His work has appeared previously in ***New Jersey Outdoors****.*



Fall 2000



New Jersey Outdoors

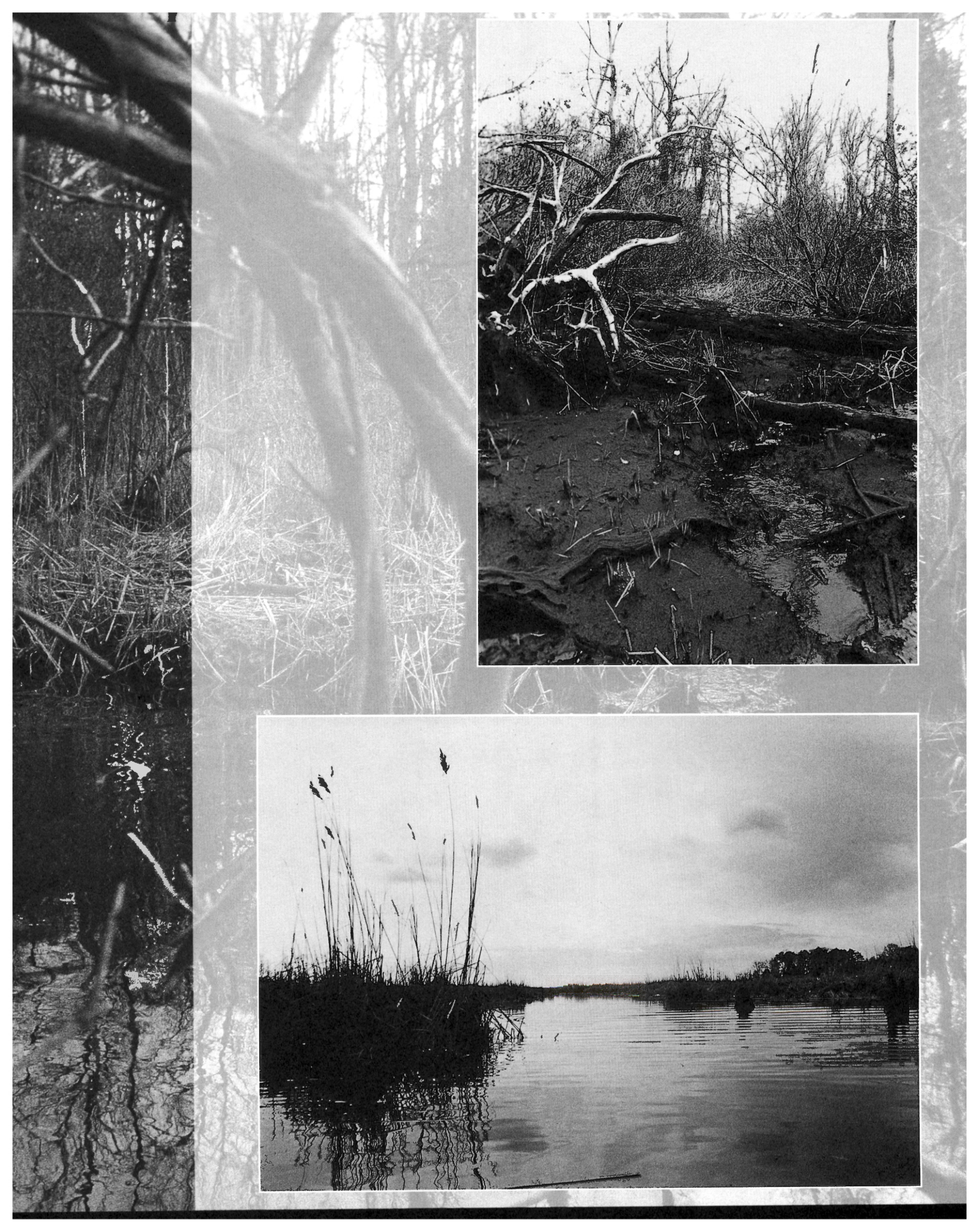




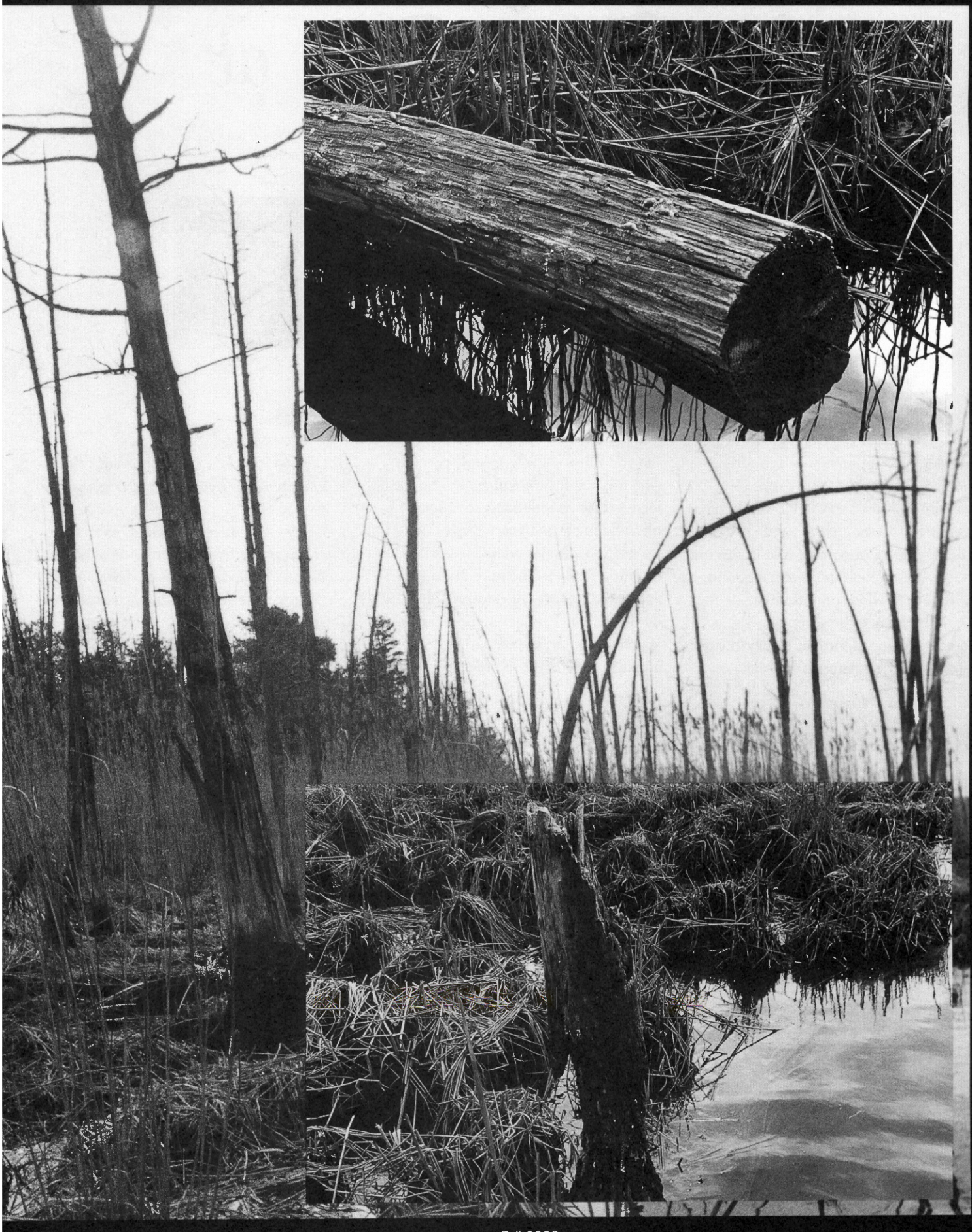
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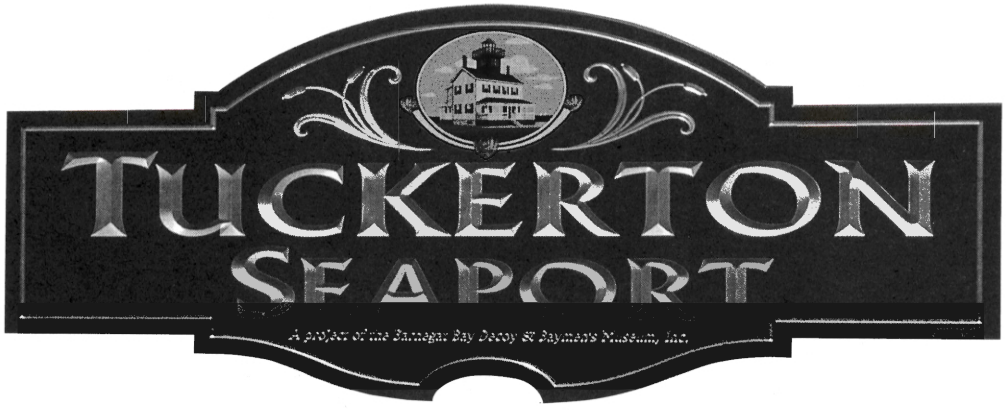








It's High Tide at



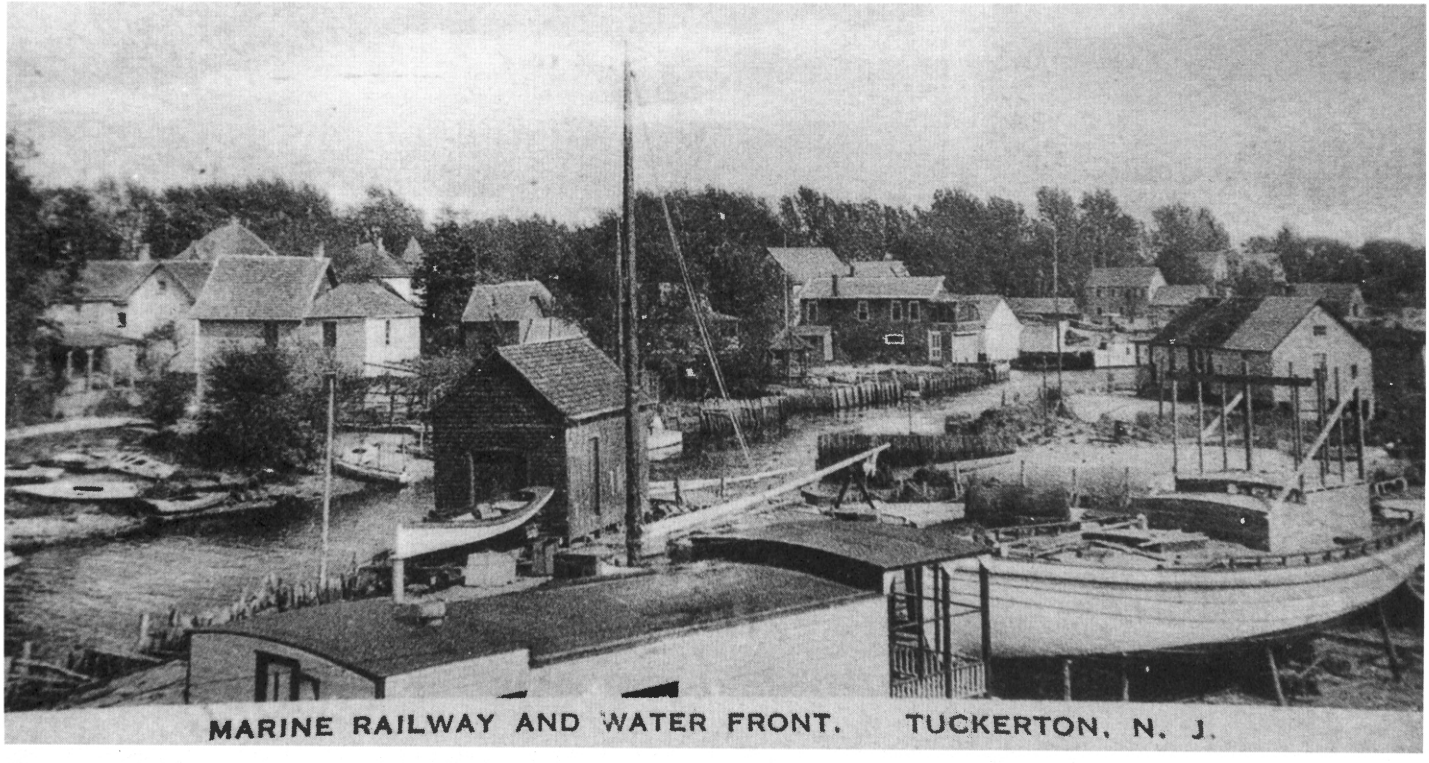
© Tom McDonough

by J. Wandres

George Washington, America's first president, would have loved to attend the grand opening of the Tuckerton Seaport on May 6, 2000. He would have been proud to see that the village was still playing an important role in serving the people, though in quite a different fashion than when he was alive.

Where once the seaport was a hotbed of colonial intrigue supporting the cause of the new nation, its re-creation is a living museum campus that depicts the life and times of New Jersey's baymen. The original fishing village was an ideal location for coastal boats to offload supplies. So impressed was Congress with its location, it was designated a federal Port of Entry in 1791; Ebenezer Tucker was appointed its first collector of port. His duties included collecting port tariffs, keeping the port's vital statistics and administering oaths of office.

Since the late 18th century, Tuckerton has played an important role as a shipbuilding center, launching small boats and coastal schooners up to 200 tons down the ways. Its waters have been the horn of plenty as generations of baymen pulled food from the sea. For example, during one year, Parsons' Clam and Oyster House situated on Tuckerton Creek, shipped 9,000,000 clams to Campbell Soup for clam chowder.



Courtesy of Baymen's Museum

Opposite page, bottom: This historic photograph captured the essence of Tuckerton in earlier times.

However, culture and commerce changed. The Garden State Parkway diverted much of the town's life-sustaining economic traffic away from Route 9. And while the highway was not so noisy, most folks seemed not to notice the town's slow decline. So what if the fish processing plant out on Crab Island closed in the 1970s? Clammers, oystermen and lobstermen continued to pull seafood from Great Bay and the increasingly polluted Barnegat Bay. They made a living.

The Gormley boys, Tommy and John, grew up in Tuckerton, located in the southern corner of Ocean County, a half hour north of glitzy Atlantic City. Like most of the guys, they enjoyed sneakbox gunning on the bay. What set them apart from the rest of their crowd was a vision that the quality of life they knew and enjoyed might very well disappear, just as the Little Egg Harbor Light (a.k.a. Tucker's Island Light) on Tucker's Island suddenly washed away during the storm of '27.

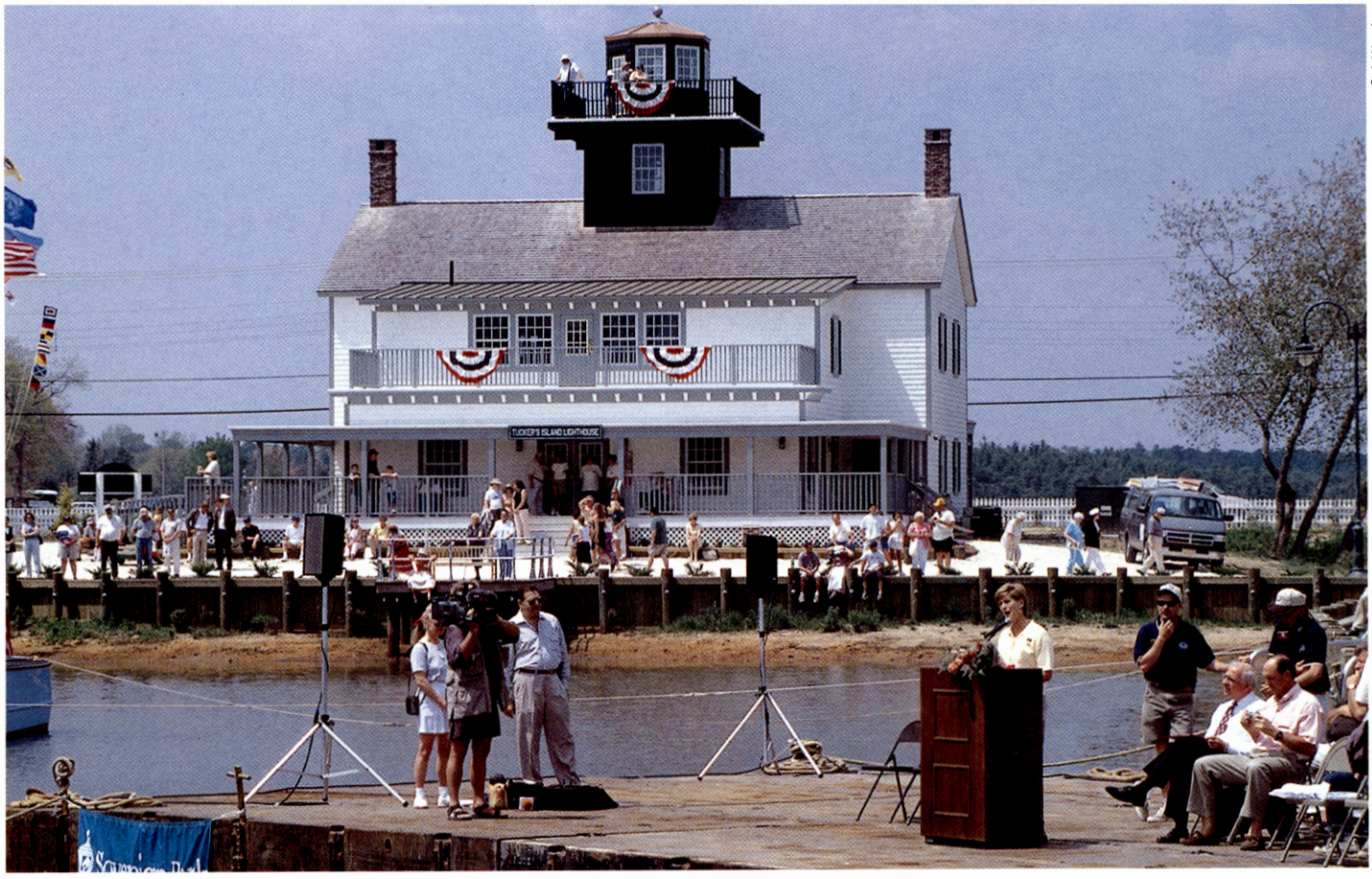
Around 1985 the Gormleys and some friends, including Terry O'Leary, one of their high school teachers, decided to gather and preserve artifacts of the bayman's life. At the time, the decoys, fishing tools, and small boats of the bayman's life were scattered all over the place. The group garnered the interest of many folks, including New Jersey politicians, and eventually built the Barnegat Bay Decoy and Baymen's Museum, a corporation that is now the parent of Tuckerton Seaport. For the next 10 years this building, known as The Hunting Shanty, sat on the west side of Route 9 at the head of Great Bay Boulevard. It was moved in January 2000 to its new location at the Seaport.

Buildings Built and Borrowed

The night before the grand opening, John Gormley strolled the boardwalks along the bulkheaded creek, just to make sure every detail was in place. Even he admitted it was hard to believe that less than three years before, the site was nothing more than a silt-filled creek ringed with rotting pilings.

"Back then, people would say to me: 'John, give it up. It ain't gonna happen.'" But he and his brother and hundreds of other volunteers to the cause had a vision, and they never gave it up. John is now executive director of the Tuckerton Seaport.

Below: At the grand opening ceremonies, Governor Whitman paid tribute to the thousands of supporters and volunteers whose pledges and time made Tuckerton Seaport a reality.



© J. Wandres

Right: Master carver Gary Giberson uses a drawknife to rough shape a decoy's body.

Below: The rough-shaped decoy in the foreground will soon be finished and painted as beautifully as the others on display in Jay C. Parker's Decoy Carving Shop.



© J. Wandres



© Burton Lipman

The first building visitors see, right on Route 9 at the head of the creek, is the recreated Tucker's Island Light. At least that's what it's called now. It has also been called Tucker's Beach Light and Little Egg Harbor Beacon.

Displays inside the lighthouse museum include the history of New Jersey's many lighthouses and that of the U.S. Lifesaving Service. Long before today's Coast Guard used powerful, surf-scaling boats to rescue those in distress, crews at shore-based life saving stations used special guns to shoot ropes out to foundering ships. The crews hauled survivors to shore using a decked-over, boat-like contraption called a *life car* or a *breeches buoy*—a canvas bucket with holes cut in the bottom for the person's legs to hang through. The buoy was attached to a thick rope and hauled to shore, not infrequently dunking the survivor in the surf. (See **The Saga of Tucker's Island** in the Summer 1998 issue of ***New Jersey Outdoors***.)

The Seaport's Hunting Shanty now houses the visitor center and gift shop. Displayed inside are photos and artifacts of baymen at work, and examples of decoys from such notable area carvers as Dan Lake Leeds, Rhodes Truex, Nathan R. Horner and the renowned H.V. Shourds. Before he died in 1920, Harry Vinuckson Shourds carved more than 3,500 shorebird decoys. He initially sold them for $6 a dozen. One of only two "confidence" seagull decoys carved by Shourds was auctioned for $200,500 last January by Sotheby's in New York.

Soon to open is Joe Dayton's Sawmill. Like other lumbermen during the early 1900s, Dayton moved his operations to wherever the stands of Atlantic white cedar grew. The dense, straight-grained wood was the local shipwrights' favorite material, and the stump "butt ends" were used by decoy carvers. The replica of the original building that stood in Parkertown will turn out timbers using machines and methods from the 1930s.

Next to the mill is the Perrine Boat Works. Now, if Howard Perrine were around today he would be the first to say

In the Perrine Boat Works, Gus Heinrich shows how a Barnegat Bay Sneakbox is built. The shallow-draft duck-hunting skiff, with its spoon-shaped bow and melon-shaped hull, was perfectly suited for sailing in the shallow tidal creeks and bays along the Jersey Shore.



© Tom McDonough

that he did not invent the Barnegat Bay Sneakbox. That honor goes to Hazelton H. "Tip" Seaman who, back in 1836, designed a low sided, decked over skiff that could be camouflaged with sedge grass and rowed quietly through shallow waters so the gunner could sneak up on the sitting ducks lured by the decoys. What Perrine *did* design was an improved, 15-foot, gaff-rigged sneakbox that, in 1922, was accepted as a sailing class by the Barnegat Bay Racing Association. The Perrine Boat Works will display various styles of sneakboxes, catboats and garveys, and conduct workshops in sneakbox construction and restoration. (See **The Boats of Barnegat Bay** in the Summer 1998 issue of ***New Jersey Outdoors***.)

Another not-to-be-missed structure almost didn't make it to Tuckerton Seaport. The Skinner/Donnelly Houseboat now sits high and dry next to a sedge marsh by Tuckerton Creek. Until the fall of 1999 it had lain at anchor off a sedge west of Island Beach State Park. The New Jersey Division of Fish and Wildlife had no use for the creaky structure, built in the 1930s. Rather than see it destroyed, owners Nancy and Ted Skinner donated the houseboat to the Seaport.

"When we found it, it was a museum to a Jersey shore lifestyle that has disappeared," recalls program director Terry O'Leary. "The coffee pot was still on the stove. A deck of cards was still on the table." Although the houseboat is not open to the public, visitors can peer in through windows to see what houseboat living was like.

Phase Two Is on the Drawing Board

There will be 30 structures when the Tuckerton Seaport is complete. Some will have been moved from other locations. Others will be re-creations based on original designs. At the north edge of the Seaport's clamshell-paved parking lot will be the Tuckerton Yacht Club. Back in the 1920s several local fishing boat captains formed the club as a place to hang out during rough weather or the off-season. The club had a restaurant downstairs and a bunk room on the second floor. The private club operated all during the years of Prohibition, when the selling of alcoholic beverages was a federal crime. It is likely, however, that club members enjoyed liberal quantities of "medicinal spirits" to ease their travails. The club eventually opened to the

One of the displays in the Tucker's Island Lighthouse Interpretive Center features a life car, a device used to rescue shipwreck survivors.

public, added a bar, and was popular in the 1940s and 1950s for its big bands and swing dances. The building burned to the ground in January 1973.

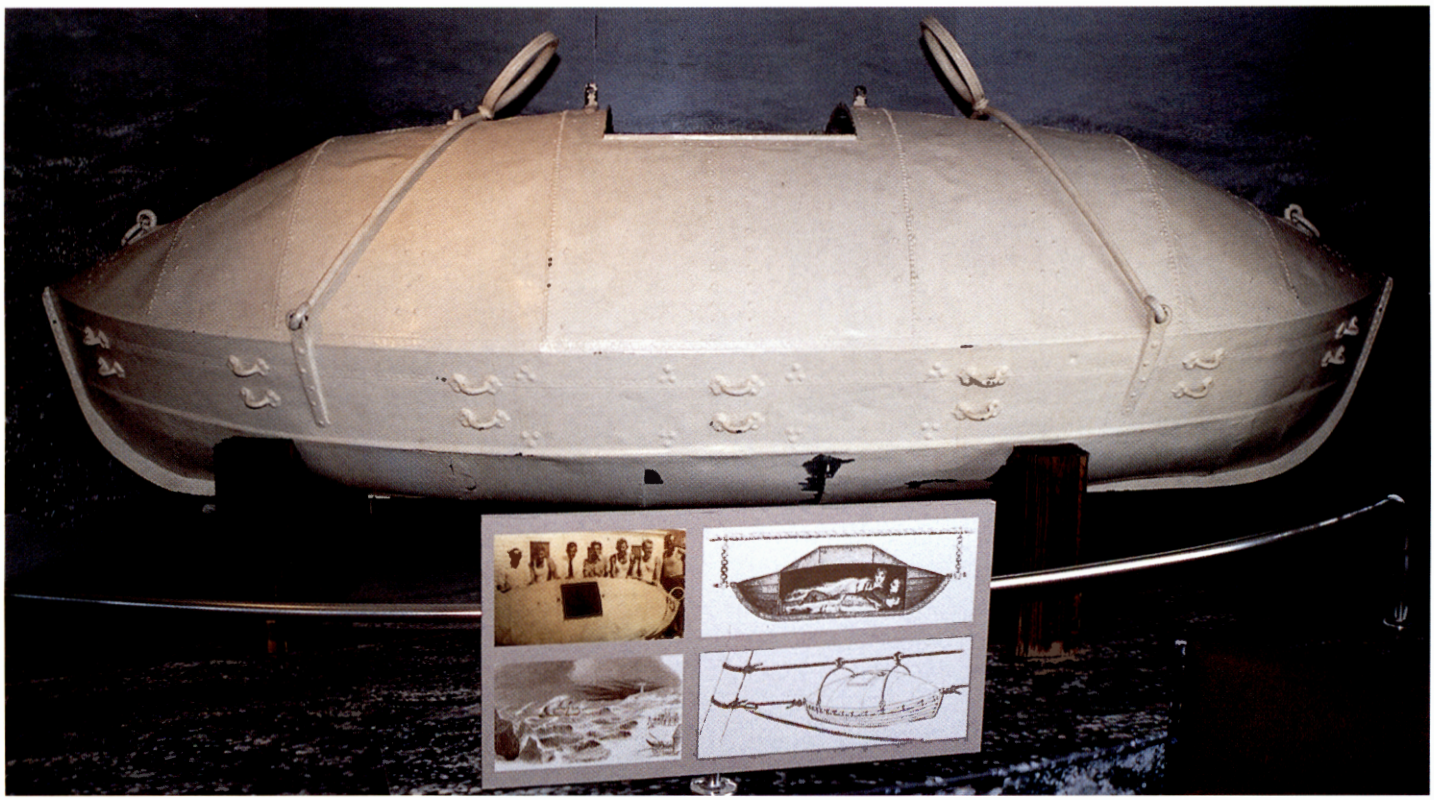
One of the Seaport's buildings will serve as headquarters for the New Jersey Regional Folklife Center, whose mission includes connecting past traditions with the present as a bridge to the future. It will offer workshops and classes for teachers, students and interested groups. The Center is partnering with the Rutgers University Marine Field Station and is hosting the Earth Steward program at Pineland Regional High School. The program will teach students and community members how to protect fish and wildlife in their natural habitat.

A "Gamble" That Will Pay Off

John and Tom Gormley's initial concept for a simple museum to showcase the baymen's life and time caught the fancy of several influential people who had a similar vision, and the vision grew in scope. The reality of the concept was that it would take a huge investment of capital, whose return could only be speculated. However, the original group pointed to the phenomenal successes of Connecticut's Mystic Seaport and Baltimore's Inner Harbor as models for their ambitious project.

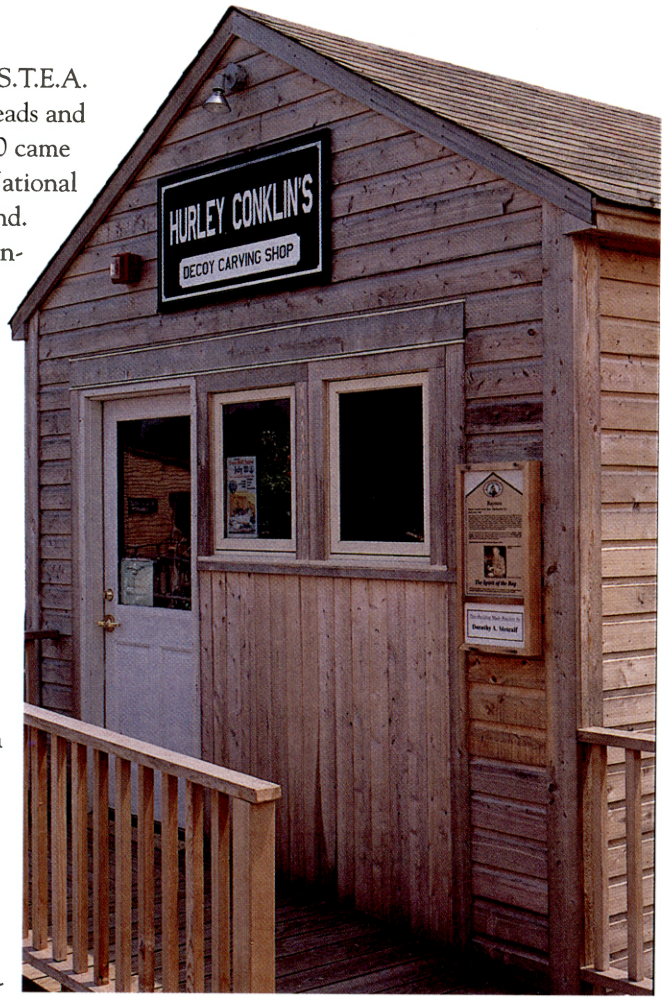
Using over $1 million seed money raised mostly from supporters, the Baymen's Museum called on a Seattle, Washington-based company called LOGIC. The firm assessed the potential of environmental and historical interpretation within the mushrooming ecotourism market. Howard Lovering, LOGIC's founder, recommended expanding the concept to include maritime heritage, cultural history, and environmental interpretations, along with meetings and facilities for special events. The Baymen's Museum selected Robert Bodnar Design of Omaha, Nebraska, to execute the plans. Early benefactors included the state's Casino Reinvestment Development Authority, which okayed a $1.7 million grant.

"The CRDA told us that what they liked about our proposal was that not only will the Seaport bring visitors to the region, it will educate the public about the history of the area," said Tom Gormley, then the Seaport's director of development. Other grants followed: the New Jersey Legislature voted a $1.25 million, 20-year, interest-free loan. The towns of Tuckerton and Little Egg Harbor, and the Ocean County government each put up $62,500 toward matching a $557,000 Green Acres grant to purchase the 40-acre tract that includes a mature maritime forest. The New Jersey Department of Transportation authorized a $661,000



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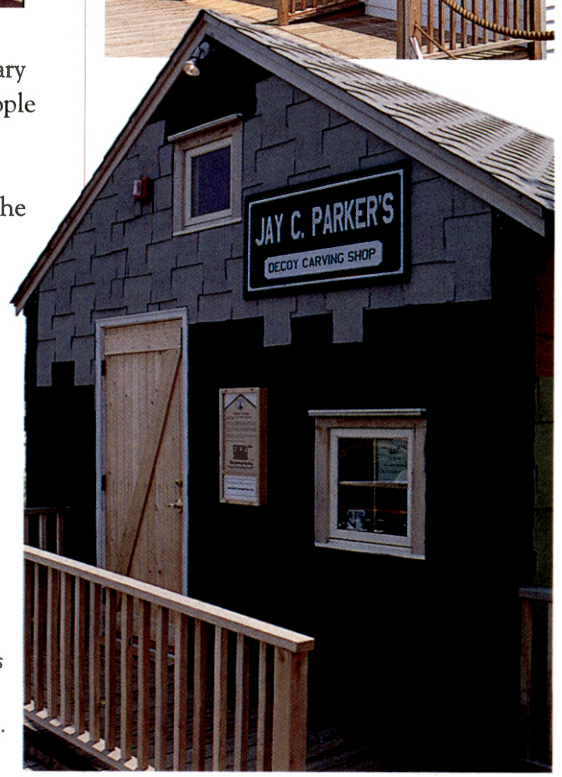
Baymen's lifestyle facts and artifacts permeate the Seaport's original and recreated structures. Clockwise from the center are: Hurley Conklin's Decoy Carving Shop, Parson's Clam and Oyster House, the Skinner-Donnelly Houseboat, Napoleon Kelly's Oyster House, and Jay C. Parker's Decoy Carving Shop. *All images on this page © Tom McDonough*











grant using federal I.S.T.E.A. funds to build bulkheads and boardwalks. $500,000 came from the Cousteau National Estuarine Reserve fund. Perhaps the largest single chunk of money came from a U.S. Department of Agriculture guarantee of a $4.2 million loan from Sovereign Bank, under the USDA's Community Facilities program.

The Seaport's own "Spirit of the Bay" capital campaign had raised in excess of $4.5 million for Stage One by April 2000, more than half of its $8.6 million goal. The Seaport's newsletter, *Seaport Sentinel*, is packed with acknowledgements of in-kind services donated by scores of its 2,800 charter members and supporters.

Typical is the one relating to the Skinner-Donnelly houseboat: "The crew at Caldwell Diving . . . and Rick's Marina donated services to raise the houseboat onto a trailer donated by Mainland Towing . . ." Another reads, "Peter Lumber Company donated lumber for the decks around Parson's Clam House." An example of the hundreds of private pledges was: "Mr. and Mrs. Elkenny Pullen donated $5,000 to be a benefactor for Parson's Clam House. Mr. Pullen's father worked for over 40 years at Parson's . . . "

There are probably a few people in the area who still wish that Tuckerton could have stayed the way it was 40 years ago, but far more have really climbed on board the project. Decoy carver Gary Giberson probably put it best: "People are willingly giving to this project because they want to be part of it. That's why they're saying: 'realize the dream. Be a part of it.'"

Regular contributor J. Wandres, a Tuckerton Seaport charter member, has been following this story since 1997. His last article for **NJO**, *with Michael Miller's pictures, was about winter photography. His next article will be about snowshoeing.*

Tuckerton Seaport

More than a dozen structures have been restored or reconstructed as of this writing. The Hunting Shanty serves as a visitor center and gift shop. Tucker's Island Lighthouse, the Seaport's focal point, houses artifacts and exhibits relating its history and that of lifesaving. Decoys—an integral part of the Barnegat Bay lifestyle—are crafted and displayed in two shops, while two other buildings acquaint visitors with the area's shellfish harvest, oystering, and clamming techniques. There's also a working 1930s sawmill and the Perrine Boat Works, where sneakbox construction and repair are demonstrated. Two buildings provide office space and another—the Skinner/Donnelly Houseboat—offers a glimpse of the houseboating way of life. The palates of hungry visitors are tempted at Skeeters, the seaport village's seafood cafe and snack bar.

And, though Tuckerton Seaport is well worth a visit now, there's even more to come. Several yacht and gun clubs, a blacksmith shop, lifesaving station, fishery, garvey shop, Ebenezer Tucker's Customs House, and the Edge Cove Railway Station (where visitors will be able to see the famous *Clamtown*) will open to the public next year. Visitors will also be able to see the Surf City Pavilion, Hotel De Crab, Horner's Clam House, Heinrichs' Boat Works, and the Andrews Bartlett Homestead (the oldest existing house in Ocean County). Some of the exhibits planned for these buildings will focus on pound fishing, waterfowling, whaling, Jersey Shore rumrunners, coastal storms, baymen's tools, and garvey building and racing.



Illustration by Carla Miners

Ladies of the 'Port Honored

The opening of Tuckerton Seaport was a fitting occasion to draw attention not only to the structures and artifacts of the port's past, but also to the offices and titles entrusted to its citizens of yesteryear. And the latter was accomplished nicely by honoring four women whose lives are integrally entwined with the historic seaport and its noted families. The four— Edna Walton Marshall, Marjorie Heinrichs Holloway, Marjorie Rider-Currie, and Anna Burd—were named as the Seaport's honorary collector of port, deputy collector of port, lighthouse keeper and assistant lighthouse keeper, respectively, for the year 2000.

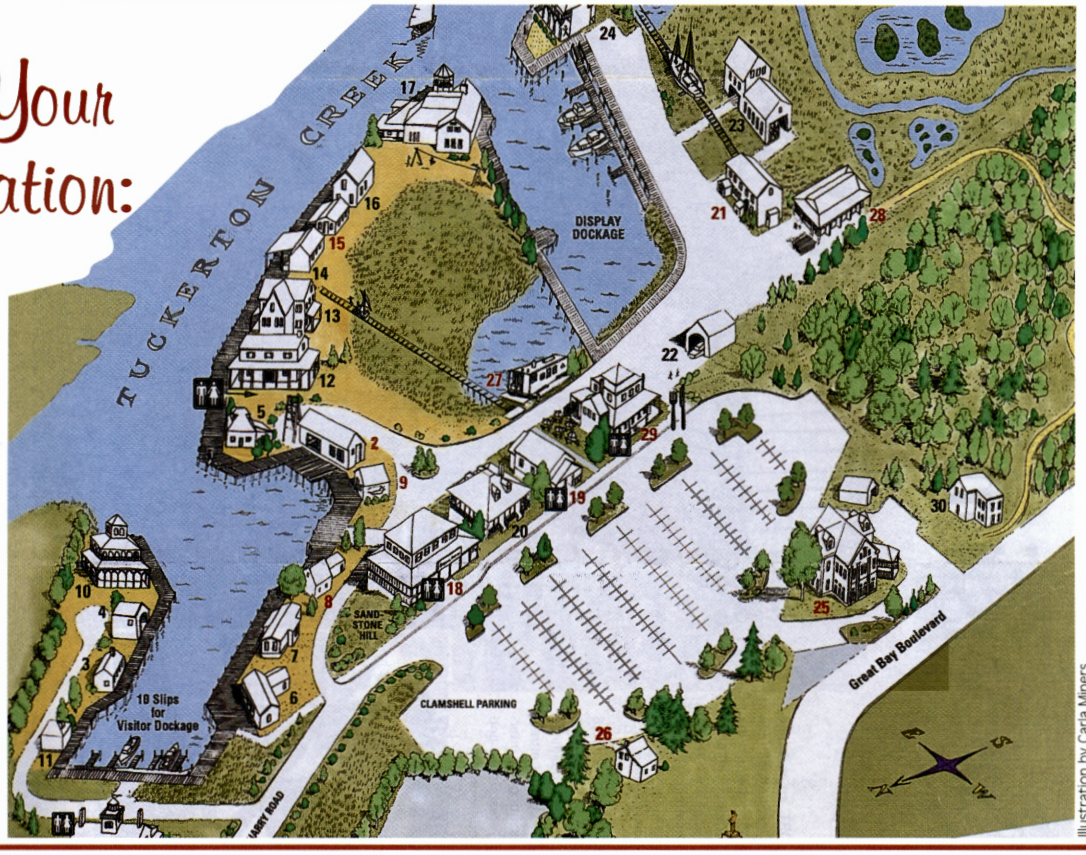
From the front porch of her home on South Green Street, Edna Marshall has watched the Seaport take shape. One of Tuckerton's oldest residents, her childhood memories include watching her father, a retired sea captain, help build the famous Tuckerton Wireless Tower. Erected in 1912, it was one of the first and most powerful of the transatlantic communications stations. Reaching 820 feet into the sky, it was the second tallest structure in the world at the time—surpassed only by France's Eiffel Tower. One of a group known as Rocking Chair Ladies, from time to time Edna Marshall will share her mind pictures of the past with visitors to the Tuckerton Historical Society's museum. Among the escapades of yesteryear that she brings to life is one of her driving down the street (sans license) to watch her husband paint the Tuckerton Yacht Club.

Marge Holloway, whose family lived on Tuckerton's North Green Street when she was born in 1916, resides just a short distance from that today. Another Rocking Chair Lady, she holds her audience's rapt attention as she regales them with tales of playing at her father's boat works, Heinrichs Marine Railway on Tuckerton Creek, and waitressing as a teenager at the Tuckerton Yacht Club. (Gus Heinrichs, one of her four brothers and a champion sneakbox builder, talked about local boat building at the Seaport's grand opening.) Painting is among the interests that keep her busy; called the Grandma Moses of Tuckerton by her daughter, she recently had her first showing.

Marge Currie, a descendent of Eber Rider, first keeper of the Tucker's Island Lighthouse, was born and raised in Tuckerton. Although she now lives in Toms River, she is a charter member of the Tuckerton Seaport. Her recollections of Saturday matinees (which then cost a quarter) at the Palace Theater, the ruby red depression glass items given out by the theater to attract patrons on slow evenings, and swimming in Tuckerton "Crik" are vivid. But some of her fondest memories bring back summer vacations on Tucker's Island where her father, camera always in hand, would spend his free time with his uncle Arth, who served as lightkeeper. It was her father who snapped the now famous photos of the lighthouse falling into the sea in 1927; Currie donated these photos to the Seaport.

Another Tuckerton native, Anna Burd comes from a family that has included many baymen, from clammers and fishermen to fishing boat captains. Her husband, Malcolm, was one of Eber Rider's great-grandsons. In addition to raising three children, Anna Burd has been active in a variety of community organizations, including the West Tuckerton Fire Department Auxiliary, Tuckerton Library Association, Tuckerton Historical Society and the Barnegat Baymen's Seaport.

For Your Information:



Stage 1 structures are identified in red; Stage 2, in black.

1. Tucker's Island Lighthouse
2. Napoleon Kelly's Oyster House
3. Leon Headley's Blacksmith Shop
4. Taylor Johnson's Decoy Carving Shop
5. Hester Sedge Gun Club
6. Crest Fishery
7. Sandy Island Gun Club
8. Jay C. Parker's Decoy Carving Shop
9. Hurley Conklin's Decoy Shop
10. Surf City Pavilion
11. Eno's Ice House
12. Hotel De Crab
13. Ebenezer Tucker's Customs House
14. Edge Cove Railway Station
15. Parsons' Clam and Oyster House
16. Horner's Clam House
17. Ship Bottom Lifesaving Station
18. Tuckerton Yacht Club
19. Hunting Shanty
20. Corinthian Yacht & Gun Club
21. Perrine Boat Works
22. Joe Reid's Garvey Shop
23. Heinrichs' Boat Works
24. Beach Haven Yacht Club
25. Sea Captain's House
26. Sunny Brae Salt Box House
27. Skinner/Donnelly Houseboat
28. Joe Dayton's Sawmill
29. Skeeters
30. Andrews Bartlett Homestead

Directions

- From the **Garden State Parkway** take Exit 58, Route 539 and head south for 3.5 miles. Turn right onto Route 9 and go 1/4 mile past Lake Pohatcong to the Seaport.
- From **Route 72** take Route 9 south into Tuckerton, past Route 539 and Lake Pohatcong, to the Seaport.

Hours/Admission

- **Hours** Daily, 10 a.m. to 5 p.m.
- **Admission** Charter members and children under 6: free; Adults: $8; Seniors 62+ $6; Children, 6-17, $4. Call 609/296-8868 for special group rates.

Parking/Boat Slips

- **Cars** There are 185 spaces plus an area for buses. Parking is free.
- **Boats** Tuckerton Seaport has 10 short-stay slips, but fuel and showers are not available. Several local marinas have transient slips with facilities. Tuckerton Creek depth: 5 feet MLW; 7 feet at high tide.

Activities and Events

- The Seaport hosts a classic boat show every July.
- Free narrated cruises of the Tuckerton Creek are offered daily (weather permitting) on the Seaport's restored 1953 charter boat, *The Melody*.

In New Jersey

by Kevin C. Shelly

Last day of fall. Shortest day of the year. The thermometer read 28 degrees. The wind-chill was minus four. But numbers didn't matter. After all, I was off from work just days before the madness that is Christmas with a 2-year-old in the house.

The objective was ducks. That's not what I came away with, but then I got more than I'd bargained for.

I was still just getting a feel for the cranberry farm, Haines & Haines and Pine Island on corporate paperwork, but better known aggregately as Hog Wallow by the folks who live there—Pineys, the locals who inhabit this beautiful, empty and surprisingly wild region of southern New Jersey. Whatever it was labeled, I wanted to see it and its ducks swathed in snow and crusted by ice.

I'd toured the farm once before the bird season, in early fall, with Bett McCoy, a newspaper reporter who grew up there—an honest to goodness Piney—who had recently returned home after years in the South. Cultivated cranberries grow on manmade bogs contained by small dikes that also serve as roads. Those dike roads were built over the past century by her adoptive father's family, the Haines, and their employees. Her biological father, a welder, had worked the farm for the Haines family until he was killed in an accident. Bett and her family are as much a part of the ecology of the region as a Pine Barrens treefrog.

On that scouting trip, a pair of woodies shot straight up from a marshy pond. Sign enough for me.

I jumped a lone teal, the tastiest of ducks, on opening day. My dog, Murphy, happily swam out 50 feet and brought it back to hand. Later, I missed an overhead going-away shot—don't I always?—at a pair of wood ducks before the skies opened up, prematurely ending the hunt with a deluge.

A few weeks later, Bett's husband, Aldo, unmistakably Georgian by birth and unquestionably a hunter by nature and nurture—he was the camp cook and all-around handyman for a Florida quail plantation—and I spent an afternoon unsuccessfully flaring ducks off the bogs



Ears flying, an eager Murphy takes the lead as the author sets out on the day's hunt.

© Vern Ogrodnek

Pine Barrens treefrog



© Arthur Panzer

An immature American eagle



Elaine Giberson photo; courtesy of DEP's Division of Fish & Wildlife

and impoundments. They were well out of range even for his autoloading Browning humpback, acquired in the most uneven barter deal ever freely negotiated. But Aldo, who tends to call the folks he likes Bubba—a high compliment since that's the name of his rottweiler—offered me, his Bubba of the moment, a venison ham from his overstuffed freezer. And a beer. I accepted both with speed and a smile, so I didn't go home empty-handed.

Go with the Flow

I knew the cold that final fall day meant ice—and no ducks—in most places, but I was hopeful that the flowing ground water channeled through a complex series of ditches and flood gates rimming the dikes and bogs would mean several open spots where waterfowl could congregate.

I headed to the entrance on the far northwest corner of the farm, where I knew a fast-moving stream filled a marshy impoundment used to feed a main water ditch. The yellow metal gate was open. I turned in and headed along a snow-covered sand road scratched through the pines. But I stopped the car at the fork in the road. Reluctantly, I turned around. I opted for discretion because the Honda Civic has about the same ground clearance as a chipmunk. I parked on the shoulder of the plowed county road, well away from promising water, and started pulling on gear.

There had been a coating of snow on the ground where I lived, about 10 miles inland from where the Atlantic Ocean smacks up against the New Jersey coast. The ocean stays warmer than the land during the winter, softening the season along the coast. The puissant storm was more serious here, 30 miles from the relatively warm waters of the coast. A slick coating of dangerous ice, covered with a fine layer of snow, coated the entire landscape.

What a landscape it is.

You may have read about it: The farm is the central location described in John McPhee's seminal book, *The Pine Barrens*. By McPhee's reckoning, the farm is the epicenter of the New Jersey pinelands he helped make famous. Ironically, it is also the equicenter of the East Coast's unseen megalopolis.

I tugged on a sheath of neoprene—waders, jacket and gloves—snugged a woolen helmet down over my ears and mouth, strapped on a fanny pack stuffed with shells, twisted it around so it rode low on my belly, loosed the dog and loaded the gun.

The first 300 yards was a lovely walk in the silent winter woods, not duck hunting. The farm, after all, consists of 10,000 acres, 9,000 of them still heavily wooded. The forest is necessary to protect streams that provide water to grow and harvest the tart crimson berries, one of North America's few native fruits. Bett's father devised the machinery—called beaters, knockers or harvesters, depending on whom you ask—that makes wet harvesting the berries possible.

Once a strictly seasonal item, cranberries are now a year-round phenomenon, thanks to the creation of offbeat new products—I've yet to try cranberry-flavored beer, but undoubtedly someone is drinking it. Smart, aggressive marketing and the new products are initiatives of Ocean Spray, the cranberry cooperative that turned many of the 40 or so "piney" families who make up its membership in New Jersey into millionaires. Bett's father and brother have both served as chairman of the cooperative, which holds its annual meetings in places such as Hawaii, even though its members hail from New Jersey, Massachusetts, Michigan and Wisconsin.

Three bluebirds, startlingly blue atop with reddish brown bellies, flitted across the road and into the pines. Indeed, the farm overflows with birds. I'd seen dozens of sparrow hawks on my first visit. These tiny falcons—birders insist on calling the little beauties kestrels, but where is the poetry in that?—like to perch on brass sprinkler heads, scanning a sweep of bogs for vulnerable meadow voles. I'd also seen a mature Cooper's hawk, marsh hawks (northern harriers in the annoying lexicon of ornithology), several red-tails, a few



© Vern Ogrodnek

broadwings and rafts of black ducks, teal, mallards, woodies and grebes. Bett told me there were also bald eagles loafing on the property, but I'd yet to see any.

A Promising Site

I broke into the open, whistled Murphy in close and surveyed the horizon, looking for open water.

There I stood on the periphery of 1,000 cleared acres in the heart of New Jersey, the most densely populated state in the union, and not a soul in site.

A thousand acres is difficult to quantify, but imagine the largest mall you've ever seen: remove the building; eliminate the parking lot; raze the landscaping; take away the paved roads—you're on the right track.

Sturdy, squat buildings painted barn red dotted the otherwise empty landscape. Pump houses mostly, used to keep the bogs filled with water. Unlike most agricultural irrigation, cranberry farmers return nearly all of the water they use back to earth. The pumped water perks down through the loamy soil. There it recharges underground aquifers that underlay the sandy soil like so many gigantic swimming pools, layer upon layer, hundreds, even thousands, of feet deep.

In the distance, I could see the McCoy house with its proud American flag snapping in the stiff December wind. Despite the distance, the house was easy to pick out because it lined up nicely with the only major modern blot on the horizon—a cellular telephone tower. It rose from what amounts to a hill in relentlessly flat South Jersey—a rise 67 feet above sea level, according to the topographic map. Trees blocked my view of Mr. Haines' house, abutted by a weedy pond that beckons mallards, according to Aldo.

I don't have independent verification of this, but my reporter's instinct told me I was looking at the only cleared 1,000 acres in the entire state of New Jersey without at least one convenience store sprouting from it. Still, Bett swears a store in Green Bank, 10 miles west along Burlington County's Mullica River border, delivers pizza to Hog Wallow in the summer. I wasn't sure what to make of that information, but I'm certain it is not a sign of progress.

The first small bog we came to was locked solid in ice, but the distinctive trail of a fox dotted the surface. Gray foxes are more common than red foxes in the pines, though I've seen both over the years. Murphy sniffed the trail for a few yards, but turned around quickly. She knew birds were on the agenda. I like bird-hunting; finding, flushing and fetching birds is what Murphy was born for and it shows.

As I suspected, there was a liquid opening down the center of the otherwise icebound impoundment we were heading toward. The marshy lake was surrounded by a thin border of quaking sphagnum moss and wild-growing cranberries, with a dense tangle of catbrier, pitch pine and mixed-oaks shielding most of the reservoir from view. Through a narrow opening, I noticed about 30 mute swans off to one side of the channel. The swans tear up the bogs as they root for food. They can't be hunted in New Jersey, but they sometimes share space with ducks.

A good sign.

I checked my shotgun and momentarily thumbed the safety off and then back on again. It's a superstitious act I follow religiously when approaching a promising spot. It doesn't help my shooting, but it doesn't hurt and it's an integral part of my personal doxology, like the Catholic kids who make a hurried sign of the cross before attempting a free throw.

Al's Spot

A dark Ford pickup truck with a dog—either an oversized chocolate Lab or the rangiest Chessie I've ever seen—

Opposite page: A Pine Barrens cranberry bog

Below: A red fox

broke the spell.

The mustached driver waved as he went by. He pulled in behind a stand of water-loving Atlantic white cedars densely packed together like so many green toothpicks standing on end. I came around the screen of trees and saw him standing there.

My heart sank.

He was wearing waders and cradling an autoloader. And clearly waiting to talk with me.

For once, Murphy acted her size and didn't attempt to pick a fight with a dog that easily weighed double her 42 pounds. I introduced myself, explaining the relationship that afforded me access to the posted property. Said he didn't know Bett, which surprised me. But then she'd been living in the south for years.

Said his name was Al and he lived in nearby Chatsworth, the biggest "town" in the pines with perhaps a few hundred people. Said he'd worked the farm from the time he was 20 until he was 25. Looked to be in his early 30s now. Said the shooting was good this fall until the weather "tightened up" two days ago.

He also said this was his spot.

Al was matter-of-fact about it, not threatening, but I could tell he'd waited here to wave me away before I mucked up "his spot."

I cursed the lightweight Civic sitting on the shoulder of the county road.

Al suggested I stick to the ditches flowing near marshy edges of the bogs. He even allowed that he'd killed a pintail—a relatively uncommon bird in our part of New Jersey—in a nearby ditch, as though that information, imparted with a slightly conspiratorial tone, would be enough to lure me away from his spot.

He needn't have tried so hard.

I was glad to be away from work and in no mood for a confrontation. I wished him luck and told him I would hunt around him and his dog.



© Simon Leventhal

I swung away and headed down the next dirt road, bordered by a small ditch that was mostly free of ice. Murphy tested the first solid-looking piece we came to and promptly fell in as the ice gave way. She couldn't haul herself out up the steep slippery bank.

I placed the $1,200 SKB side-by-side on the ice-covered road topping the berm and eased myself down the bank, unsure how deep it would be. Aldo had recently told me of going in up to his neck while crossing a ditch. Luckily, it was just knee deep at the edge. I hauled Murphy up by her collar and gave her rump a boost, silently thanking the inventor of neoprene. I watched helplessly as she shook off while straddling the shotgun.

Hauling myself out was another matter.

I'd come to the farm, rather than jump-shooting the salt marshes nearer my home, because it promised to be easier on my hip. I'd recently learned it was painful because of osteoarthritis. "You have 70-year-old hips," the orthopedic surgeon said. This is not good news when you are an impatient 40-year-old patient. Hip replacement surgery would certainly be needed, the doctor explained, the only question being when. "Depends on how stoic you are," he'd responded. He also suggested that crawling through salt marshes was not the best exercise for a middle-aged man with decrepit hips.

I clambered up the vertical 4-foot bank, pumping my legs hard, trying to make purchase. I must have looked as though I was a wildly flailing camouflage-colored sausage, the flattering shape neoprene waders afford short, potbellied men.

Spikes of ice crystals sprouted from Murphy's fur. She seemed fine, despite the brief dunking.

Nature's Consolation

We'd just set off again when I heard the unmistakable blast of shotgun. A single report from Al's spot. About 10 seconds later I saw the prehistoric shape of great blue heron clear the tree line, lumbering off like a modern-day pterodactyl. Then I saw a flight of ducks, between 10 and 15, buzzing away from the same area. They circled the tree line in a figure eight, came across headed toward me but

500 feet away. Murphy was oblivious to the high-flying birds, but wild because of the blast. I held her tight as the birds—puddlers for sure, black ducks most likely—shot by.

Then they swung around. Where did they head? His spot, again, of course.

No wonder Al was proprietary. These birds had 1,000 acres of cleared land laced with waterways to choose from and they wanted to light again in the small slot in front of him. The birds worked back and forth, sometimes disappearing below the tree line, then bobbing up above. Finally, after another smaller circle, they gathered tightly and headed northwest, toward the Lee brother's neighboring bogs. There was no way for me to tell if Al could see the ducks' frustrated attempts to return, but he never fired again.

Troopers, Murphy and I trudged on, hoping occasional open water would harbor more birds.

It wasn't to be.

But it was a beautiful day. The sky was the color of bluebirds, filled with puffy, fast-moving cumulus clouds. A soft *splat* drew my attention to the ditch we were patrolling. Nothing visible but a ripple. Probably a muskrat, something Murphy and I see now and then on the salt marsh. Then up ahead came a V-wake moving at us fast as a man can walk. A small brown form—a mammalian face—broke the surface. About 20 feet from us it slowly submerged. Probably a muskrat. I'd seen a beaver carrying wood for a dam when I was out with Aldo, but the splat was much too soft for a beaver's tail-propelled dive and the form I'd just seen was too trim for a chunky beaver.

I turned around, dejected, when we reached the woods behind the farm's main garage. Not a single bird, except for those that got up when Al took his shot. We tried again on the way back, but the delicious tension that comes with scouting new water subsided and my mind drifted toward lunch and my annual pre-Christmas cigar—an expensive one in a tube—waiting for me back in the car.

So I wasn't entirely focused when I neared Al's spot again and saw a dark form moving across the ice 100 yards away from me. A cat? Its back was arched, but it was far too long. Then the critter flattened itself and went sledding across the snow. That was no muskrat. I was watching an otter!

I swear I could see it smiling. I know I was grinning.

The otter was heading toward the opening in the ice, still another 200 feet away. There, popping in and out of the water, were two more otters, waiting for the Johnny-come-lately to join them. Probably parents, waiting for last spring's pup.

Then I noticed the other rare animal.

On a small tree growing from an island 30 feet from the open water where the otters were cavorting was an immature bald eagle, shifting its dark bulk as it worked at eating something it held in its huge talons. The immense bird, barely visible above the horizon formed by the tree line, would never have caught my eye if I had not been watching the otters.

I stepped into the lee of a pump house and watched silently as the eagle ate and the otters played. Murphy didn't know what to make of me standing there, but I tried to explain it to her. Since no birds she could hunt were involved, she was ambivalent. I was thrilled.

But it was time to go home.

Back in the Civic I tipped back a Thermos of turkey soup, inhaled a sandwich, drained a soda and ate a pear down to the seeds.

I fired up a $5 cigar and headed back home—in New Jersey.

__NJO__ welcomes Kevin Shelly, a widely published outdoor writer, to its ranks of contributors. The Absecon resident is the environmental coordinator and assistant city editor for __The Press of Atlantic City__.

An otter



Courtesy of DEP's Division of Parks and Forestry

Skimming the Surface of Inland Waters

by Michael Zeugin



© Margaret Conroy

On many a morning from spring through fall, you'll see windsurfers headed for the shore, boards strapped to racks or trailers. But not all are eager to hit the Parkway to fight their way south for a blast of wind. Fortunately for these enthusiasts, New Jersey has no shortage of lakes.

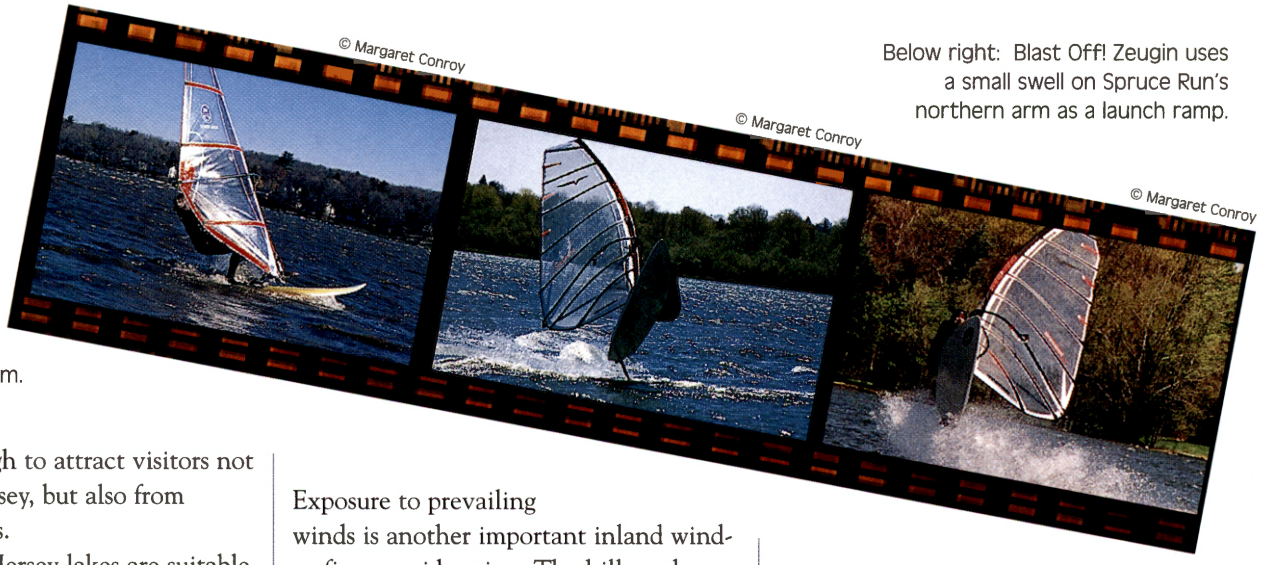
Recent improvements in the sport's gear have increased the performance sailing potential of windsurfers in the less buoyant fresh water of New Jersey's lakes. New wider boards plane (skim) off earlier with less effort, especially when propelled with bigger, lighter, more powerful sails and specialized long carbon or Kevlar race fins.

The better handling of the latest sail designs is augmented by the new dominance of super-light carbon fiber masts and booms (the wishbone-like cross member onto which windsurfers hold). These technological advances combine to create higher levels of speed and fun in the light winds and gusty conditions often found on New Jersey's inland waters.

Although some windsurfers fall into the trap of becoming "salt water snobs," a fair number of the sport's participants flock to hot spots just minutes from home. Some of these sites

Previous page and right: Speed blur—the author raises a rooster tail in a sweeping jibe on Spruce Run.

Center: Flight AVS-62 on final approach—cleared for landing, Zeugin touches down on Spruce Run's NW arm.



Below right: Blast Off! Zeugin uses a small swell on Spruce Run's northern arm as a launch ramp.

are alluring enough to attract visitors not just from New Jersey, but also from neighboring states.

Not all New Jersey lakes are suitable for windsurfing. Some are closed communities surrounded by private residences, making access difficult. Others are watershed lands not open to sailing recreation. In addition, those that allow the use of motorboats and personal watercraft (e.g., Wetbikes, Jet Skis) are less attractive to windsurfers—noise and engine smells being something most windsurfers eschew.

Among the freshwater resources New Jersey offers, a handful are coveted by inland windsurfers as little bits of heaven on Earth. Those who enjoy watching the sport while immersed in idyllic scenery also appreciate these spots. They are magical places that meet a series of criteria that make for maximum fun with minimum road time.

The Essentials

The first is public access. It's hard to windsurf if you can't get the rig from the car to the water. Access requires parking. Although rabid windsurfers will make do with a road shoulder for the car, it helps to have some space for loading, unloading and rigging. The ideal is a cozy parking lot next to what windsurfers view as perfection, a grassy rigging area. Though windsurfing gear is built for lightness and strength, it is meant for use in water and wind. Modern designs use materials that suffer from constant exposure to sand and rocks. Grass helps limit wear and tear on windsurfing gear while rigging.

Exposure to prevailing winds is another important inland windsurfing consideration. The hills and mountains of New Jersey act as blocks and funnels to winds. Primary inland wind directions in New Jersey are southwesterly and northwesterly flows. Coastal storms can bring northeasterly or southeasterly winds. Summer months can also bring westerly winds inland. These seem most prevalent during long hot dry spells. Westerlies often blow steadily inland when there is little wind at coastal windsurfing venues.

When positive factors combine, an inland windsurfing hot spot is born. And despite their diverse backgrounds, local windsurfers band together, working for improvements or to support the sport's growth.

North Jersey Hot Spots

Brown's Point (southern end of Greenwood Lake, West Milford Township, Passaic County)

When the wind blows from the north, Greenwood Lake's 8-mile gorge generates the closest thing to ocean sailing in Northwestern New Jersey. Beyond the lake's northern tip the gorge extends all the way out to Monroe, New York—a 14-mile-long wind tunnel. The result is the best freshwater windsurfing conditions in New Jersey during hurricanes that follow a coastal track. Hurricanes Bob, in August 1991, and Floyd, in September 1999, brought 30- to 50-mph N/NE winds to Greenwood Lake's southern end, at a time when saltwater venues were unsailable due to flooding and too much wind.

North winds are more frequent in October through December. When big nor'easters park off the Atlantic Coast, Greenwood Lake can see 20- to 30-mph wind days regularly. Windsurfers have reveled at Brown's Point in snow squalls and even on Christmas Eve.

North winds can also be very cold. Full heavy wetsuits with booties and mittens are a must for late season sailing. December blasts can be outrageously strong, and call for layering polypropylene long johns under the wet suit to add warmth retention. Wearing a wetsuit hood is also a must in frosty conditions since about 75 percent of the body's warmth escapes from the top of the head. Another warmth retaining technique is wearing an unlined nylon windbreaker over the wetsuit. Hot beverages from a Thermos help counteract mild hypothermia symptoms.

Greenwood Lake is aligned directly north to south. The only public windsurfing access is a West Milford town park, Brown's Point, at the south end of the lake. There is a sign posted that says: "Absolutely no launch of any water craft." After the sign was posted years ago, local windsurfers lobbied West Milford parks and recreation head Louise Hoar to allow launching the environmentally friendly craft there (apparently park neighbors had com-

Frequent Monksville windsurfer Mike Martini gives novice Valerie Cohen some rigging guidance.



© Michael Zeugin

A handful of "regulars" bask in the autumn afterglow at Monksville Reservoir.



© Michael Zeugin

plained to the town about Wetbikes being launched). After consideration, Ms. Hoar deemed this a use consistent with the park's mission.

Brown's Point has wide grassy areas, a children's playground (recently upgraded), picnic benches, garbage cans and a grove of large trees on the lake's sloping, grassy shoreline. There are no toilet or other facilities. The park is also used for public recreation and by a Frisbee golf organization, so windsurfers keep their rigs clear of the Frisbee golfer paths.

In some years, weeds have been so thick on Greenwood Lake's south end that they created car sized floating weed pies. Solid enough to stop a board dead, they can hurl a windsurfer through the air and into the weed pie. Splat. Yech! Becoming enmeshed in a weed pie can also be dangerous, entangling legs and causing premature exodus from the windsurfing world.

Specialized weed fins are a must in the summer months; autumn and spring are usually less weedy. Lakeshore residents and boaters have complained enough about the weeds to prompt weed harvesting. The harvester, a floating machine that cuts and collects aquatic vegetation, does reduce weeds, but local newspaper reports indicate public clamoring for dredging of the silty shallow south end of Greenwood Lake. This muddy water is also not very clean. Windsurfers using the Brown's Point launch try not to swallow any water and keep it out of other orifices (if possible), ears, nose, eyeballs, etc. Many also use a cleansing anti-bacterial ear rinse after a Brown's Point dip. This is a good idea in many waters; ask your doctor for recommendations.

A yearly power boat race is held on Greenwood Lake around Memorial Day. A race gathering point and carnival takes place on the grounds of Brown's Point. The site is not useable at that time. Regular powerboat traffic and Wetbike users can create a less than ideal windsurfing experience in the summer, especially on weekends.

Monksville Reservoir (in Long Pond Ironworks State Park, straddling

The author lofts some Wawayanda autumn "air time" on what is now archiac gear.

Ringwood Borough and West Milford Township, Passaic County)

When Monksville Reservoir's 2,200-foot-long, 100-foot-high dam went into place as a back up reservoir for the Wanaque watershed, the creators probably had little idea they opening a windsurfing playground. Almost immediately on first filling in 1988, Monksville's west facing waters attracted flocks of wind birds.

Surrounding mountainous terrain gives Monksville's 7-billion-gallon liquid playground wildly variable wind speeds, and notoriously gusty conditions. A popular local slogan, ruefully uttered, is: "If you can windsurf at Monksville, you can windsurf anywhere." Bursts of wind can peel a less experienced windsurfer off the deck of his board, tossing the pilot over the nose of the craft like a wet dishrag. Great fun for spectators, less fun in practice. Using hand-held wind meters, windsurfers have measured gusts to 60 mph at the south end of the Monksville dam.

Then there's the dam itself. Its 200-foot-wide spillway spans the valley, doubling as a road surface to Stonetown Road in Ringwood. A pedestrian walkway, accessible from the north end of the dam, makes for great spectator access. But what's fun for gawkers can be frightening to beginning windsurfers. Monksville is a place for those who can handle tricky inland conditions and know how to return to their point of launch.

Spruce Run Reservoir (Union Township, Hunterdon County)

It's hard to find inland windsurfing launch sites more attractive than Spruce Run State Recreation Area. Positioned on a large, open, grassy peninsula, with easy access to two arms of the large lake, it offers opportunities in a wide range of winds. Northwest, north, west, southeast, south—almost all points of the wind compass can be sailed here.




© Margaret Conroy

The relatively small surrounding hills to the north and west keep wind levels strong and hill interference effects to a minimum. The convenience of a bathroom directly adjacent to the rigging area, with handy beverage vending machines for those who rushed out of the house in a wind frenzy, makes this spot even more pleasant.

The north arm of Spruce Run can build some nice chop in a strong blow. These little swells make for nice jump ramps for windsurfers who like to get into the air. Jumping adeptly requires pulling up your feet, like retracting a plane's landing gear, and folding the sail windward to maximize float, using the sail's wing-like performance. A skilled windsurfer can turn a small swell of about 12 inches into a 3- to 5-foot flight. Aside from turning at speed (*transitions* in windsurfing parlance), *air time* is one of windsurfing's ultimate thrills. A good day at Spruce Run can deliver air time galore, not to mention long blazing speed runs. Straight-line board speeds of 30 to 35 mph are easily attainable in moderately windy conditions.

Spruce Run's somewhat west central New Jersey location makes it attractive not only to local windsurfers, but also to aficionados from just across the border in Pennsylvania. Despite the ease of access to Jersey Shore windsurfing locations, Spruce Run continues to attract large crowds of windsurfers—more than any other inland location, including Monksville Reservoir, which ranks a close second only on its most trafficked days.

Wawayanda Lake (Wawayanda State Park, Vernon Township, Sussex County)

Wind blowing from the south across Wawayanda Lake's 1,140-foot-altitude makes for steadier and higher southerlies than any other Northwest Jersey windsurfing access point. With the surrounding hills only 60 to 80 feet higher, there is little interference to breeze flow. But the wind direction must be right.

Wawayanda faces directly southwest, reading 225 degrees magnetic on the compass. It is best on a south and southwesterly flow and useable on a southeasterly flow. When south winds are puffy or weak on Monksville Reservoir, Wawayanda is often blowing 10 mph harder. If a southwesterly wind begins to clock to the west, a quick jaunt down the mountain to Monksville can continue the sailing session.

Some of the best southerly or southeasterly wind blasts on Wawayanda have occurred when hurricane remnants track up Interstate 81 from the Gulf of Mexico, or from even further inland up the Ohio Valley. On occasion, windsurfers have measured 35 to 40 mph winds at Wawayanda and were forced to tie gear to picnic benches during rest periods to keep it in place. Generally Wawayanda is good for balmy SW flows in the 10 to 20 mph range, with wind blowing directly on shore at the main beach. With a mile-and-a-quarter fetch (the distance of open water in a given direction), the lake develops nice 8- to 16-inch swells for chop hopping in a steady blow.

Recent improvements to Wawayanda's facilities, including a new bathhouse with new outdoor rinse-off facilities, make this a more convenience oriented windsurfing site.

Michael Zeugin is a freelance writer/photographer whose work on naturally powered watersports appears regularly in the ***New England Windsurfing Journal****. Surfing since age 15, he took up windsurfing in 1983. Zeugin is working on his first novel and is a part-time English lecturer at Rutgers University.*

Seniors Walk on Water

Most local windsurfers just know him as *that cool old guy who always wears a hat*. He emerges around May, when the water warms to his liking, and goes into windsurfing hibernation sometime in late September. An Emerson resident, his real name is John Moorhead. He's 81 and an active windsurfer.

A long time ago Moorhead had a sailboat, but when it got stolen he didn't replace it. Twenty years later he saw a windsurfer gliding across the water. "I thought, wow, that thing really gets going," he says. He realized he missed sailing. He also like the reduced storage space required (compared to a boat's needs).

So sometime in the early 1980s, John Moorhead bought a windsurfer and took a beginner lesson in East Chester on the Long Island Sound. He was hooked. Now he windsurfs about once a week, although he says he'd like to go more. "I'm older but I still keep improving at windsurfing," Moorhead says, "and you can still hold your own with the younger folks." He finds the sport is good exercise without being boring or tedious. And the bursts of sometimes Herculean effort have their rewards, "When the wind's good, you can really fly," he enthuses.

Moorhead windsurfs primarily at Monksville Reservoir, sometimes venturing to Greenwood Lake or Wawayanda Lake when the wind direction warrants it. He's occasionally windsurfed on the Hudson River, but prefers the clean clearness of Monksville's waters.

He has even taught his daughters. And he's done all this in the face of a 10-year intermittent battle with skin cancers (now you know why he always wears a hat). His first basal cell carcinomas were removed when he was in his 70s. Not long ago he had a more serious squamous cell cancer surgically removed from his ear. He doesn't see it getting in the way of his outdoor activities—he also does volunteer garden work—he simply wears protection that no one talked about in his younger years.

John Moorhead is only one of many seniors who are addicted to the magic of "walking on water." Semi-retired math professor Fred Stopplekampf is another.

A 12-year windsurfing veteran, Stopplekampf is up at 6 a.m., making decisions about where to windsurf. Sometimes he zips down the Parkway to Sandy Hook for a morning session. Just as often he heads to Monksville Reservoir or Greenwood Lake, both only minutes from his Ringwood home.

Like Moorhead, Stopplekampf says he windsurfs for the vigorous exercise. He also shares Moorhead's history, having sailed regular sailboats before windsurfing. He credits windsurfing for his wellbeing, saying, "I feel better now at 57 than when I was 30 or 32." Like most, he combines the exercise with the relaxed social camaraderie found at launch sites. To him, having fun in the outdoors with friends and acquaintances is the real lure.

Stopplekampf's retired freedom has him traveling the state in search of windsurfing fun. From Lakes Bay in Pleasantville to Budd Lake in Warren County—where he uses his Snurfer (precursor of the snowboard) in the winter—Stopplekampf's known by so many he's almost an icon.

"Oh, yeah," windsurfers who don't recognize him by name will say, identifying him by his smoking preference, "the guy with the little cigars." While he's passionate about getting his share of the wind, he also loves the instant camaraderie that comes with the sport and enjoys hanging out after a wind session to share a great crash or successful maneuver or talk about the latest gear.

Where John Moorhead is happy to buy and use older used windsurfing gear, Stopplekampf updates his gear yearly with the latest in technology. Recently he modified a new mini-van, adapting it to his windsurfing needs. He removed all the seats but one—the driver's. This allows him to stow all his gear, safe from theft and the elements, inside the van. Fred Stopplekampf is a full-fledged example of an ardent windsurfing senior.

Senior surfer John Morehead tacks his rig (an upwind turn) on Monksville Reservoir.



© Piotr Hetel

Raptors

Article and images by Sherry Meyer

They're fierce, powerful, and often elusive. Some are common, while others are quite rare. Some breed within New Jersey, while others are migratory transients or winter residents. They occur in a variety of shapes, sizes and plumage, but all have one thing in common—they're skilled, efficient, and well-adapted predators. They are *raptors*!

Located along the Atlantic flyway, New Jersey boasts some of the largest raptor concentrations in the United States. Cape May Point, which acts as a geographic funnel for many southbound migrants, holds record counts for many species, including osprey, northern harrier, sharp-shinned hawk, American kestrel, merlin, and peregrine falcon. Migrating raptors can also be seen at Sandy Hook and other coastal sites, as well as along inland ridges, such as the Kittatinny Mountains and the Watchung Range. The state's coastal marshes, grasslands, and forests also provide habitat for raptors and their prey—birds, small mammals, reptiles, amphibians, and insects.

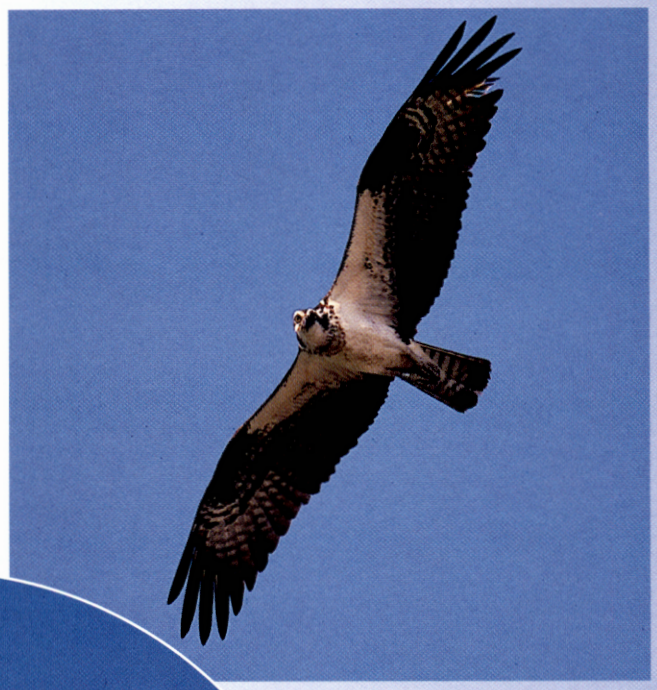


Adult female Northern harrier (*Circus cyaneus*)

Golden eagle (*Aquila chrysaetos*)



Osprey (*Pandion haliaetus*)



Eagles, Ospreys and Harriers

Two eagle species, the golden eagle (*Aquila chrysaetos*) and the bald eagle (*Haliaeetus leucocephalus*), are found in New Jersey. The golden eagle is a migrant and winter resident that occurs in small numbers. A year-round resident, the bald eagle's Garden State population had been reduced by pesticide contamination to only one pair of breeding eagles throughout much of the 1970s and 1980s. Thanks to intensive management and monitoring efforts by the Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP), the bald eagle population has soared to 25 pairs in 2000. New Jersey also experiences an influx of migrating and wintering bald eagles.



Northern goshawk (*Accipiter gentilis*)

In the early 1900s, the osprey (*Pandion haliaetus*), or fish hawk, was a common species that nested in dead trees along the Jersey Shore. As coastal development increased throughout the 20th century, the osprey's nesting trees gave way to summer cottages and resort towns. The pesticide DDT, which was widely used from the mid-1940s to the 1960s, further threatened the osprey. Birds that were contaminated with DDT laid abnormally thin-shelled eggs that subsequently cracked under the weight of the incubating adult. With the ban of DDT in the early 1970s, productivity gradually began to improve. Through the efforts of the ENSP and many dedicated volunteers, artificial nesting platforms were erected throughout the Atlantic and Delaware Bay

coasts. Ospreys readily took to the platforms and their breeding population in New Jersey, which numbered only 68 pairs in 1975, now exceeds 200 pairs.

The northern harrier (*Circus cyaneus*), or marsh hawk, nests on the ground in high portions of coastal marshes as well as at inland grasslands and fallow fields. Due to population declines resulting from habitat loss, the harrier is currently listed as an endangered species in the state. Although breeding harriers are uncommon, the species is a common migrant and winter resident.

Accipiters

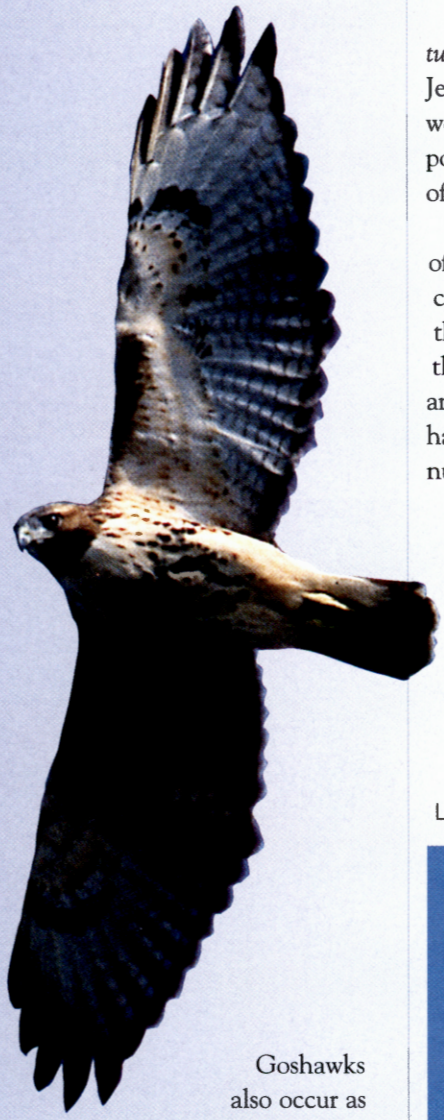
Three accipiter species occur in New Jersey: the sharp-shinned hawk (*Accipiter striatus*), Cooper's hawk (*A. cooperii*), and northern goshawk (*A. gentilis*). Accipiters have short wings and long tails that enable them to maneuver through the trees in a forest. The sharp-shinned hawk is a rare breeder, yet a common migrant and winter resident. This species feeds predominately on small birds and often hunts at backyard feeders.

The Cooper's hawk is an uncommon breeding species, yet a common migrant and winter resident. The status of the Cooper's hawk was recently upgraded from endangered to threatened in New Jersey, as recent surveys (including the New Jersey Breeding Bird Atlas conducted by New Jersey Audubon Society), have revealed additional nesting pairs. However, the loss and fragmentation of forests continues to threaten resident Cooper's hawks.

A secretive raptor, the endangered northern goshawk nests in vast, remote forests of northern New Jersey and, to a lesser extent, southern New Jersey.

Sharp-skinned hawk (*Accipiter striatus*)





Goshawks also occur as migrants and winter residents, particularly in years when food is scarce in New England and Canadian forests.

Buteos

New Jersey has several species of buteos, or soaring hawks, whose broad wings enable them to ride updrafts and thermals. The red-tailed hawk (*Buteo jamaicensis*), a common year-round resident, is often seen soaring over open fields or perched alongside highways. It is an opportunistic predator and will pursue mammalian as well as avian prey.

The red-shouldered hawk (*B. lineatus*), an endangered species in New Jersey, nests in riparian forests and wooded swamps. This striking raptor's population has declined due to the loss of these swamps and surrounding forests.

The high-pitched two-note whistle of the broad-winged hawk (*B. platypterus*) can be heard from New Jersey's forests in the spring and summer months. Nesting throughout the eastern United States and southern Canada, broad-winged hawks pass through the state in large numbers en route to their South American wintering grounds.

While the broad-winged hawk leaves New Jersey for the winter, the rough-legged hawk (*B. lagopus*), travels south from its Canadian breeding grounds to spend the winter in the milder climates of the continental United States. Rough-legged hawks, which winter in small numbers, can be seen hovering over coastal marshes in search of small mammalian prey.

Falcons and Vultures

The narrow wings of New Jersey's falcon species facilitate swift flight and precipitous dives. A tiny falcon of open countryside, the American kestrel (*Falco sparverius*) hunts for insects, small mammals, and songbirds. Although it's a common migrant and winter resident here, the loss of fallow farm fields and nesting cavities has reduced the breeding population of this colorful falcon.

The merlin (*F. columbarius*), a small yet feisty falcon, will readily engage in aerial disputes with larger raptors. Its prey—shorebirds and songbirds—often equal it in size. Merlins breed in Alaska, Canada, and the western United States

Left: Red-tailed hawk (*Buteo jamaicensis*)

Below: Turkey vulture (*Cathartes aura*)



and travel through New Jersey on their way to wintering grounds in the southern United States, Central America, and northern South America.

The peregrine falcon (*F. peregrinus*), a state-listed endangered species, is quick and agile, capable of capturing prey such as waterfowl, shorebirds, jays, crows, and pigeons. Peregrines nest on ledges of tall city buildings and large bridges as well as atop manmade nesting structures erected in coastal marshes.

Although recent taxonomic studies show that vultures are more closely related to storks than birds of prey, they are included here because of their superficial similarity to raptors. Two vulture species occur in New Jersey: the turkey vulture (*Cathartes aura*) and the black vulture (*Coragyps atratus*). Although its diet may be unappealing, the vulture's preference for carrion makes it a fundamental component of any terrestrial ecosystem. Vultures are well adapted to feeding on dead prey—their stomachs contain strong acids that enable them to safely consume rotting carcasses and their heads are unfeathered to maintain cleanliness and prevent the attachment of ectoparasites. The turkey vulture is a common species here throughout the year. The less common black vulture is a southern species that nears its northern breeding limit in New Jersey.

As unique as each raptor species is, all are magnificent predators. Each is thrilling to watch, be it a kestrel hovering over an overgrown field, a harrier low over a marsh, a goshawk zipping through the trees, an aggressive merlin diving on an eagle, a red-tail in a stoop with its sights on a mouse, or a kettle of vultures soaring effortlessly against a blue sky.

Editor's Note: In addition to the diurnal raptors mentioned in the article, who call New Jersey home for all or part of the year, eight owl species breed and/or winter here. They are: the common barn owl (*Tyto alba*); eastern screech owl (*Otus asio*); great horned owl (*Bubo virginianus*); snowy owl (*Nyctea scandiaca*); barred owl (*Strix varia*); long-eared owl (*Asio otus*); short-eared owl (*Asio flammeus*); and northern saw-whet owl (*Aegolius acadicus*). (For more information, see **On the Prowl for Owls**, *New Jersey Outdoors*, Winter 1997.)

The American swallowtail kite (Elanoides forficodus) and Mississippi kite (Ictinia mississippiensis)—raptors that are strictly migrants and therefore not mentioned in the article—can be spotted as they fly over New Jersey.



Peregrine falcon (*Falco peregrinus*)

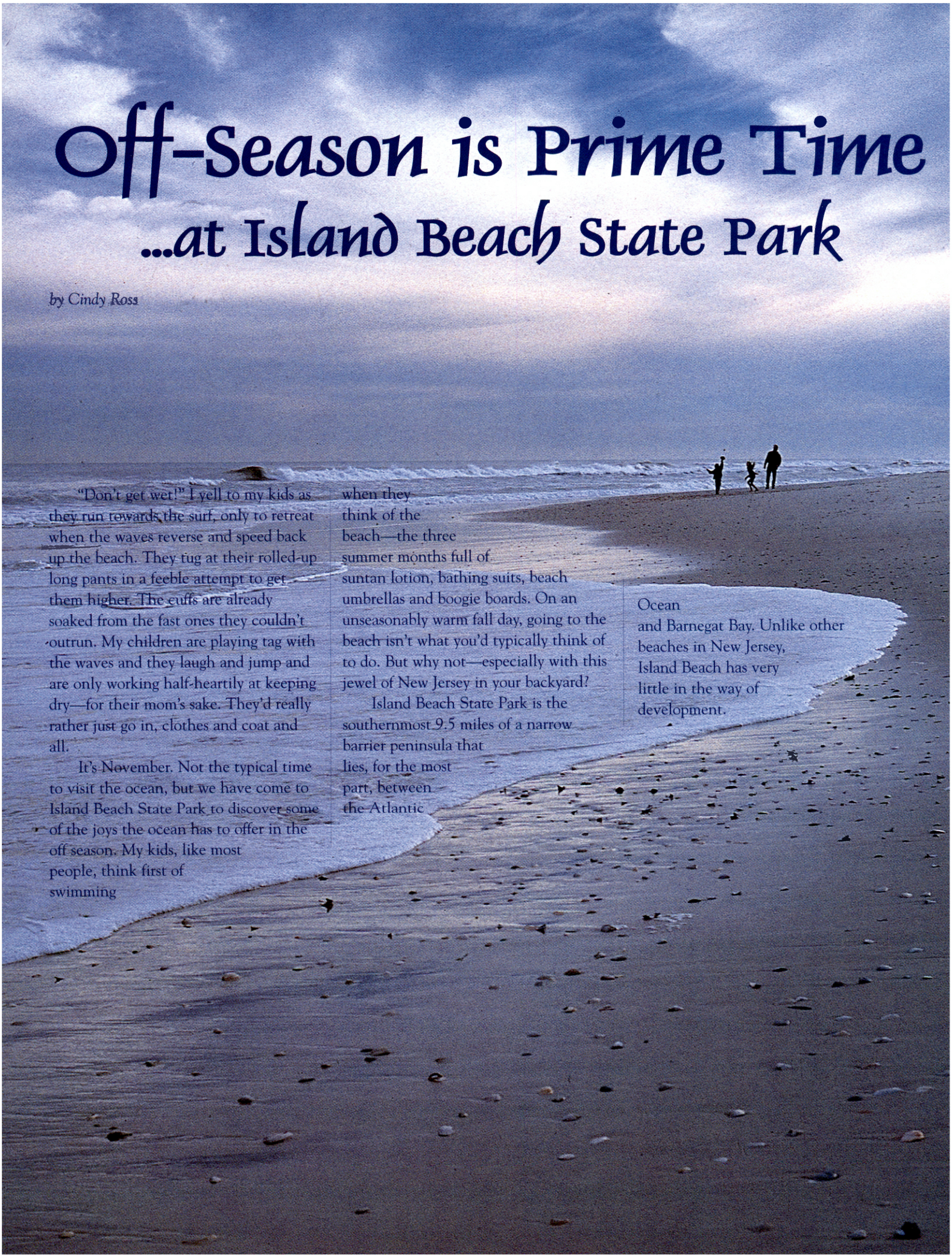
American kestrel (*Falco sparverius*)



Freelance photographer Sherry Meyer, whose work has appeared in previous issues of ***New Jersey Outdoors****, works as a wildlife biologist for the Conserve Wildlife Foundation. She also has worked for the New Jersey Division of Fish and Wildlife's Endangered and Nongame Species Program.*

Off-Season is Prime Time ...at Island Beach State Park

by Cindy Ross



"Don't get wet!" I yell to my kids as they run towards the surf, only to retreat when the waves reverse and speed back up the beach. They tug at their rolled-up long pants in a feeble attempt to get them higher. The cuffs are already soaked from the fast ones they couldn't outrun. My children are playing tag with the waves and they laugh and jump and are only working half-heartily at keeping dry—for their mom's sake. They'd really rather just go in, clothes and coat and all.

It's November. Not the typical time to visit the ocean, but we have come to Island Beach State Park to discover some of the joys the ocean has to offer in the off season. My kids, like most people, think first of swimming when they think of the beach—the three summer months full of suntan lotion, bathing suits, beach umbrellas and boogie boards. On an unseasonably warm fall day, going to the beach isn't what you'd typically think of to do. But why not—especially with this jewel of New Jersey in your backyard?

Island Beach State Park is the southernmost 9.5 miles of a narrow barrier peninsula that lies, for the most part, between the Atlantic Ocean and Barnegat Bay. Unlike other beaches in New Jersey, Island Beach has very little in the way of development.

In fact, there is only a smattering of buildings, and they are in the lines of a nature and an interpretive center and a few bathhouse pavilions. There is, however, an overabundance of wild, open beach with unobstructed views of the surf and the dunes—not a motel or a high rise in sight. When you add a maritime forest, tidal marshes, and a dozen islands, what you have is a 3,000+ acre outdoor playground.

A Bit of History

The Lenape Indians were the first to use the island, as they journeyed from the mainland every summer to reap the island's natural harvest. They hunted waterfowl and shorebirds, fished, crabbed, collected and produced wampum (small polished beads made from shells, strung on beads), gathered eggs, and trapped turtles and muskrats.

Then, in 1638, the first Earl of Sterling was granted this parcel of land by King Charles I and the Lenape migrated to Pennsylvania and beyond, eventually reaching reservation lands as far away as Oklahoma, Wisconsin and Canada. Until the turn of the century, little settlement took place in the region, although men of the sea—whalers, fishers and even pirates—visited its shores. The area's population grew as natural resources, such as fish, shellfish, salt hay and cedar, provided the basis for a variety of industries. More ships plied the coastal waters, transporting the products of local businesses as well as increasing numbers of immigrants seeking a new life in the New World. But severe storms and shifting shoals caused more than a few shipwrecks, resulting in heavy losses of both lives and cargo. Early in the 19th century, the government erected coastal refuges and equipped them to rescue and shelter survivors of shipwrecks. The refuges later became known as life saving stations and, in 1915, as U. S. Coast Guard stations. Two Coast Guard stations, erected in 1901 and 1938, still stand in the park today.

Island Beach's unique wildness was only threatened once. Henry Phipps, the well-known steel magnate and partner of Andrew Carnegie, bought it in 1926 with the high hopes of turning the island into an exclusive resort with large expensive homes. Luckily for us, the stock market crashed before this development could become a reality. The State of New Jersey purchased the Phipps Estate in 1953 to preserve the natural beauty of the island and to provide recreational facilities for swimmers, hikers, anglers, and other outdoor enthusiasts.

I feel grateful for this as I walk along the beach. This kind of coastal experience is so rare, for that wide strip of urban development stretches practically unbroken up the entire eastern seaboard. I gaze at the sand and the water and the sky, noticing how it all seems to melt together in one dreamy blue color. It's the kind of open space that pulls at you to walk along the water's edge, where the sand is hard and supportive. Sandpipers run from the foamy waves on little stick legs, moving so quickly that they look as though they are spring-loaded, wind-up toys. Sea gulls fly over, squawking and flapping their wide white wings. There are only a handful of human beings visiting the beach on this fine November day. I turn back to see my husband and children playing ball in the distance, now only tiny dark figures. Ahead, a four-wheel drive vehicle sits with its rear end to the ocean, supplying the surf fisherman with a place to sit while he watches his rods. I stroll over to talk and to find out what draws him to Island Beach State Park in the off season.

The Angler

Jeff Zuber, who lives in Magnolia, doesn't care if the sun isn't a blazing 90 degrees and it's not the middle of the summer. The fish are migrating south



Above and below: Jeff Zuber and his sons enjoy fall fishing.
Photos on these 2 pages © Cindy Ross




© Cindy Ross

The author's children tread a sandy trail on a sunny autumn day.

Janet's Garden is one of Island Beach State Park's new attractions.


© Burton Lipman

now and fishing is good. He is surf fishing for stripers and bluefish. He has three long rods shoved into the sand and he watches them for movement—shaking and jiggling, bending over. He sits here from 5 a.m. to 7 p.m., happily. In between fishing, he watches the waves and the clouds, clears his mind, takes some refreshment, has a smoke.

His two sons, 9-year-old Carl and 6-year-old Justin, are with him too. In between their fishing, they build sandcastles, play ball, eat lunch and sit on the tailgate of their truck with their dad, heads resting affectionately on his shoulder.

Zuber found this spot by driving up and down the beach at low tide, looking for holes—where the land goes out, makes a point and then juts back in. These points are changing all the time but it's often where you find the fish.

Last year he had 57 "keepers"—all striped bass. The largest he ever caught with a rod and a reel was 78 pounds. He took his love of the ocean and fishing and turned it into an occupation; he now runs a guide service. When I ask if he ever finds it boring, he says, "Anyone that can sit and relax would love it."

I wonder if surf fishing takes a certain kind of personality as I head back to my family, who can't seem to ever sit still. They beach-combed for shells while I was gone, wrote messages and drew pictures in the sand and flew a kite. Now they're ready to check out some of the hiking trails that Island Beach State Park has to offer.

The Explorers

There are about a half dozen walking trails in the park. None are longer than a mile round trip; many are only a few tenths. Some are wheelchair accessible (boardwalks); some are bayside, others oceanside; all have very interesting interpretive signs along the way.

After visiting the interpretive center, we first walk the Johnny Allen Cove Trail on the ocean side. It leads us through a breakthrough or blowout in the primary dunes for a tenth of a mile and back. The park naturalist, Trish Schuster, points out red fox tracks in the sand to my children. They make their dens in the dunes where the plants are low to the ground and form natural roofs. "They are so bold," she says, "They love to steal the fishermen's filets, right in front of them!"

There is seaside goldenrod on this trail and in October, they attract monarch butterflies migrating to South America. "You can see 600 in an hour," Schuster tells us. The crack willow, a soft-wooded tree that thrives in moist soil, is also a favorite resting spot for these winged beauties, as they fly by day and roost communally at night. I make a mental note to return earlier next fall for that special event.

The sand dunes on Island Beach State Park are one of the park's most precious resources, for they protect the park and mainland from storm-driven waves and tides. The salt spray, propelled off the ocean by the wind, is very hard on the trees. It is deflected upwards at an angle of about 15 degrees by the dunes and "prunes" the trees, rounding them off so they are lower in the front than in the back. New growth is severely stunted and what looks like a relatively young tree or shrub is really very old. But because they are bent over with branches dragging on or near the ground, they provide excellent cover for wildlife and birds and make getting a meal handy.

On the bay side of the park, we hike the half-mile Spizzle Creek Bird Blind Trail, which leads us out to Barnegat Bay. The tall, buff-colored common reed, phragmite, swishes at our side as we walk. The kids open up a stalk to investigate. They find that it's hollow and has a skin sheath like a snakeskin. This non-native plant is very invasive but it works on Island Beach State Park for it pre-

vents shore erosion.

Dogs are not permitted on the trail because of the bird blind and because they might disturb the ospreys which are the park's most prized inhabitants. Island Beach is the home of New Jersey's largest nesting osprey colony which—at about 30 strong—is very healthy. Although April to September is the best time to see them, our guide points out a high pitched chirping sound and we scan the sky for the large whitish birds.

Once we reach the bird blind by the bay, we are ready for a break. We peer out through the narrow openings in the wood building and spot all sorts of wading birds. A great blue heron flaps its large wings and moves its prehistoric-looking body over the water, looking for a fish to snag. Under the steps of the blind, Schuster points out little half-inch holes in the sand. By the holes tiny balls are piled up. They are the work of the fiddler crab, a 2-inch crab with inch-long claws.

Perhaps our favorite hiking trail is Reed's Road on the northern end of the island, for it leads through one of the best and last remaining maritime forests. A 100-year-old American holly tree is located here, brightening up the woods with its brilliant red berries. These are very slow growing trees—only 1 1/2 inches every 10 years. The female berry-producing trees must have a male tree nearby in order to produce fruit. We walk through red maple, red cedar, pitch pine and black cherry, the predominant trees of the forest. Shadbush or serviceberry also grows readily throughout this thicket. It is the first shrub to flower in the spring, appearing in late March/early April. It derives its name from the shad, which leave the ocean to spawn in the coastal waters at the same time the pretty white flowers bloom.

Bay Life Beckons

At Barnegat Bay, we pause to con-



© Cindy Ross

The author's husband checks out a trail sign on Reed's Road.

Hikers can see American holly as they walk the Reed's Road trail.



© Cindy Ross

template a very interesting interpretive sign about the history of the baymen. They supported themselves entirely from the bay—trapping muskrats, hunting shorebirds and waterfowl, collecting mosses, fishing for striped bass and bluefish, tonging for clams and oysters, tending lobster and eel pots, catching snapping turtles and blue crabs, carving decoys, building boats and acting as guides to visiting sportsmen.

Decoy carving is one of the most famous bay industries, dating back to the early 1900s. Decoys that were made out of locally harvested white cedar are highly collectible. The early carvings by famed area craftsmen have recently sold for over $200,000. A quote reads, "As they say around here, just carve away anything that doesn't look like a duck."

A bayman's whole life centers on the waters, marshes, and islands of the bay. As one anonymous bayman beautifully put it, "You got to be on the bay to see a day born. Back on the mainland, you just see the sun come up."

But for us, the sun is sinking lower on the horizon. We want to witness the close of our day on Island Beach State Park in a memorable way. Trish Schuster tells us to drive to the southern end of the island, to parking area #21, for a front row seat to watch the sun go down. There's also a grand view of the sedge islands from the canoe launch site; park staff and volunteers lead free canoe tours to more than a dozen of these islands throughout the summer. The stately red and white Barnegat Light is also visible across the inlet. We cheer as the big orange ball slips below the bay's horizon line.

"Can we make one more visit to the ocean?" my kids beg when the show is over. It's hard to say no, as I love the rosy pink glow the beach takes on after the sun goes down.

I watch them leap and dance like sprites on the shore. They can no longer resist the pull of the waves and in a matter of minutes, they are soaked to their chests, coats and all. Children have such a difficult time holding themselves back when they're overwhelmed with joy—and Island Beach State Park has a way of infusing joy in us, especially in the off-season!

Freelancer Cindy Ross has written numerous articles and authored several books about hiking and outdoor recreation for families. Her most recent contribution to ***New Jersey Outdoors****—"Gourmet Grub for the Trail" —appeared in the Summer 2000 issue.*

Bryce and Sierra watch the sun set on a perfect fall day at Island Beach



© Cindy Ross

If You Go . . .

Park Information

Reach Island Beach State Park from the north, by traveling the NJ Garden State Parkway to Exit 98; from the south, Exit 88. Route 35 travels the island through Point Pleasant and Bay Head. Train service is available to Bay Head on New Jersey Transit's North Jersey Coast Line.

Island Beach State Park is open all year 8 a.m. to dusk. For information on sport fishing, vehicles on the beach, applications and permits, contact the park office. A map of the island and hiking trails are also available. Call, write or visit:

Island Beach State Park
PO Box 37
Seaside Park, NJ 08752
732/793-0506

Accommodations

There are no accommodations in Island Beach State Park, though there are motels in nearby Seaside. One must travel a few miles further north, to Bay Head, to find bed & breakfast inns, but it is definitely worth it.

We stayed at Bay Head Gables, rated as Ocean's County's finest. This elaborate Georgian style home, with its front pillars and 150-foot wrap-around porch, was built in 1914 and has served as a guesthouse and inn for the past half century. Each of its 11 rooms is decorated in a completely different theme. All have in-room telephones and feather beds. We enjoyed a marvelous full breakfast in the bright and airy atrium room, which gave us the feeling of being outdoors despite the morning chill of the "off season."

Bay Head Gables
200 Main St.
Bay Head, NJ 08742
732/892-9844
www.bayheadgables.com

Following are a few other B&Bs in Bay Head; check for their opening and closing dates in relation to off-season.

- **Bay Head Sands**
  732/899-7016
- **Conover's Bay Head Inn**
  732/892-4664
- **Bay Head Harbor Inn**
  732/899-0767
- **Bentley Inn**
  732/892-9589

For additional information, call the Ocean County Chamber of Commerce's tourism department at 732/929-2000.



Ice frames this prime example of *Esox lucius*. © Oliver Shapiro

Hatchery Turns Out Pike

by Oliver Shapiro

"Don't worry; we'll try not to swamp you. And even if we do, there are plenty of reporters to go around."

Such were the flip words, accompanied by a chuckle, that reached my ears. It was the middle of March, a typically cold and windy day for this transitional month. I had joined a crew of biologists from the Division of Fish and Wildlife on Budd Lake in Morris County, where they were about to check their net traps for one of the Garden State's biggest and most exciting freshwater imports, the northern pike.

The goal? To collect sufficient numbers of this highly-prized predator game fish for transport back to the newly-renovated Charles O. Hayford State Fish Hatchery (commonly referred to as the Hackettstown Hatchery) and process them to ensure a good stock for the next generation of pike.

I had been planning on observing them from my own small fishing boat—a stripling 12-foot jonboat powered by a modest electric trolling motor—while they were able to zoom about in a significantly larger craft pushed by a real outboard with some real horsepower. Realizing that I would never be able to keep up with them, they had attached a length of rope from my bow to their stern so that I could be taken in tow.

Despite the light-hearted quip from the crew leader, the means of transportation was refreshingly efficient and comfortable, and we began our travels around the lake. Traps had been set up in four separate locations around the 376-acre body of water, flagged by orange marker buoys. We traveled from one to another, and at each location the knowledgeable fisheries experts retrieved the fish that had unwittingly been trapped within. *Esox lucius* (northern pike) were in great abundance, accompanied by other denizens of the water: catfish, bass, suckers, and panfish. Excess and unwanted individuals were gently returned to the still-frigid waters of the lake, while worthwhile candidates were carefully placed in the boat's livewell.

Occasional trips to the launch site were necessary to transfer the prizes from the boat to the waiting truck. After about an hour and a half of this activity, the piscine cargo was transported back to the hatchery.

New Jersey's pike program, in its current form, was initiated in 1981. This followed a few years during which techniques and methodology for best handling the species were developed using tiger muskies (sterile hybrids of northern pike and muskellunge).

"We experimented with pike in the late 1960s, using fish from Nebraska," says Bob Papson, a principal fisheries biologist with the division. During that and the next decade, the division and some sportsmen's groups introduced pike on a very limited basis into lakes such as Spruce Run Reservoir, where the state record fish (30 lb., 2 oz.) was caught in 1977.

Clockwise from bottom right: Northern pike await the in-vitro fertilization process; milt is extracted from a male pike; eggs are stripped from a female pike and added to the milt; the mixture is gently stirred prior to further treatment and placement in an incubation apparatus.

All images on this page © Oliver Shapiro

Mixin' Up a Batch of Pike

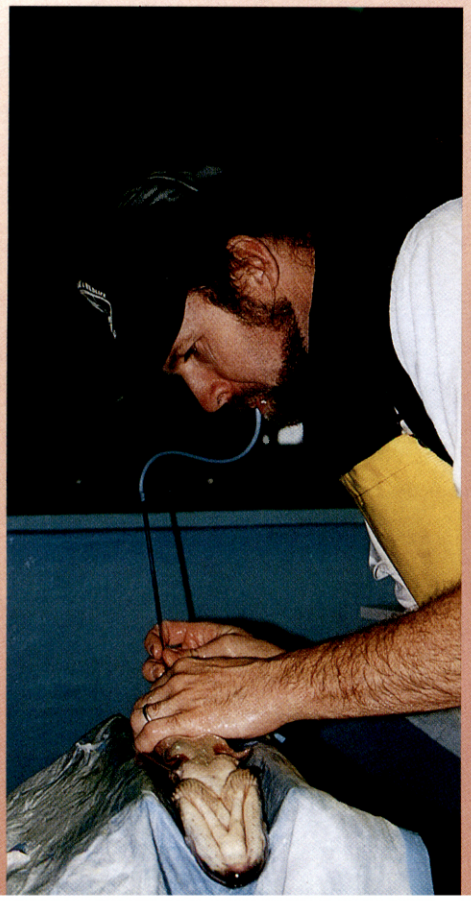
Meanwhile, back at the hatchery, the fish were being sorted by sex into separate holding tanks and given time to recover from the stress of transportation. Then the fertilization process was begun in earnest.

Male northerns were selected and placed in moistened holding cribs. Skilled biologists carefully extracted some of their milt (fluid containing sperm cells). The milky fluid was transferred to clean metal bowls, and eggs were added to the mix. To accomplish this, female pike were brought to the bowl, and cradled gently while they were massaged in such a manner to cause their roe to be expelled directly into the vessel.

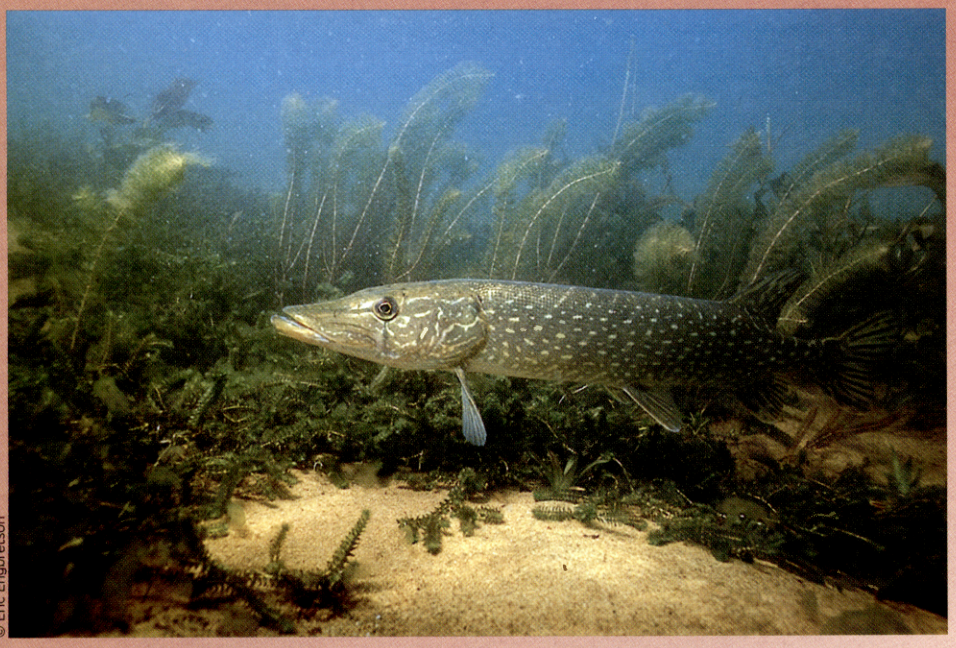
As the milt-and-egg mixture filled the bowl, another biologist kept the material stirring gently with what appeared to be a goose quill. Finally, a cornstarch emulsion was mixed in.



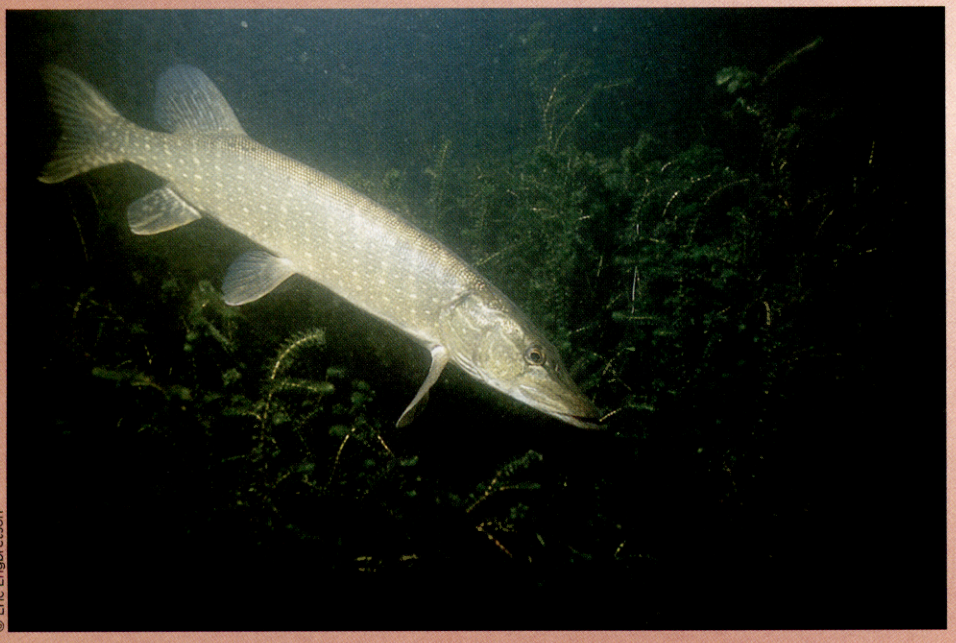








© Eric Engbretson



© Eric Engbretson

The cornstarch adds a thin coating to the eggs and keeps them from adhering to each other. This in turn keeps them situated properly in the incubators, where they stay in constant gentle motion for the duration of their development period.

After a few days' worth of fish capture and fertilizations, they were pretty much set for the season. Bob Olsen, overseer of the operation, estimated that they'd collected about a million eggs. Most of those would hatch in a few weeks' time, and after rearing to a stockable size of about six inches each, would be slated for introduction to one of the designated New Jersey water bodies.

I glanced around for one last look, my gaze lingering on the large streamlined fish finning calmly in the huge water tanks, waiting for their eventual return to their Budd Lake home. Based on conversations I had held with the people involved in the process, it seemed likely that 99 percent or more would find their way back to their starting point.

Why all this for northern pike? Certainly, freshwater species like trout and bass have a more dedicated patronage. Is it worth the effort to have pike available as a sporting fish in the Garden State?

"The pike has a certain following," Papson told us, "although they're certainly not a bread-and-butter species. But we've developed a sport fishery for a species that anglers would otherwise have to travel out of state to catch. It provides a diversity of fishing opportunities, using a very game sport fish."

The Chosen Waters

Current efforts are confined to the northern half of the state, as the species is a coolwater fish and tends to do better in these more northern climes. There are currently 15 waters where pike have been introduced, eight of which have received repeat stockings. Although there's some evidence that the pike can propagate on their own in New Jersey, the fish is out of its native range and does not seem to reproduce nearly as effectively as it does where it's indigenous.

What water bodies are suitable for pike plantings? According to Papson, lakes with at least 100 surface acres are best. There should be an abundance of shallows—Budd Lake, with one of the best pike populations in the state, has an average depth of 6 feet—as well as plenty of weeds. "Pike and aquatic vegetation are practically synonymous," observes the biologist.

Papson also explained that the division makes it a point to avoid tributaries of the Delaware River, so as not to introduce this "water wolf" where existing

fisheries (including true-strain muskellunge) could be adversely affected.

The northern pike, a larger cousin of the chain pickerel, generally prefers water temperatures in the range of 67 to 72 degrees Fahrenheit. Spawning occurs in the springtime, significantly earlier than other fish varieties. As winter starts to relax its grip and the water temperatures reach the low 40s, pike begin to move into shallow areas, typically a foot or two deep. Marshy areas flooded from the spring thaws are often the sites where eggs are deposited. After they adhere to the existing vegetation and hatch, the hatchlings emerge and attach to the plants via a sucker-like appendage on their snout.

Pike find and catch food using primarily sight and lateral line detection. The former is unusually well developed, and the latter is critical for the low-visibility waters in which the pike often finds itself. Although they do have a sense of smell and occasionally take a dead bait, research has shown that this sense is not as well developed as it is in other gamefish.

Baitfish make up a critical component of the Jersey pike's diet and, like black bass, pike seem to prefer longer and thinner fish with soft rays, such as suckers or chubs, rather than sunfish and other deeper-bodied, stiff-spined varieties. Yellow perch, if available, are often a preferred target.

In the end, however, local forage predominance is what governs their eating habits. Some enterprising anglers have even made it a point of catching sunfish and using them as bait in those waters where such species make up an important part of the forage base. Standard delicacies including crayfish, frogs, and newts round out the bill of fare.

Pike often grab their prey by the head or sideways, then simply hang on until the critter stops struggling. They will swim off at a fairly leisurely pace, finally stopping to turn the baitfish and swallow it headfirst.

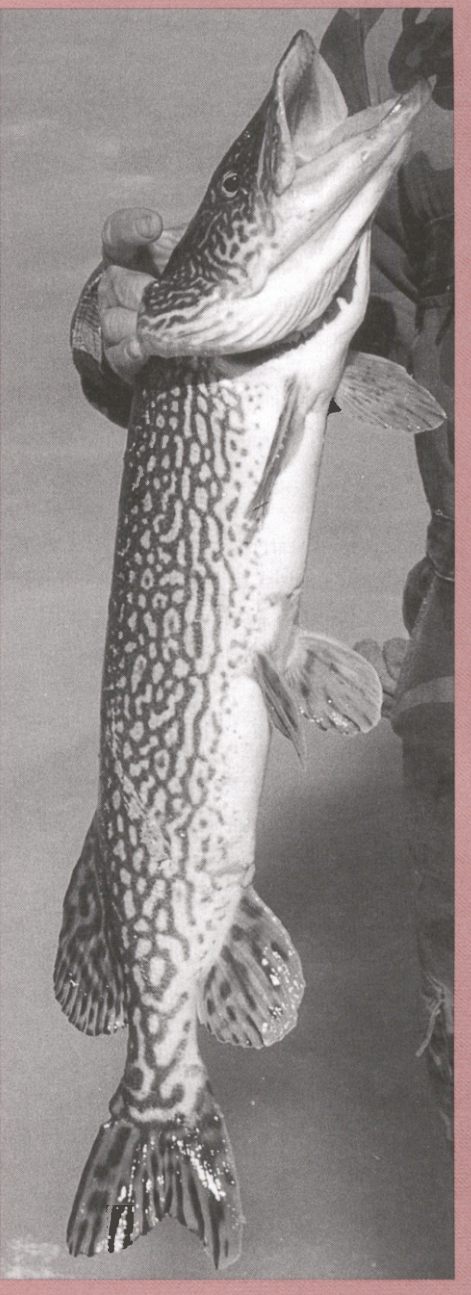
Those who have learned the pike's predilection for coolness would correctly guess that autumn through early spring are the prime times for these snakelike fish. The mid-point of this time range sees much of the hottest action for northern pike, many of which are caught through the ice. Even during the rest of the year, look for whatever factors might contribute to cool waters. Cold-water springs, weather fronts, stream or river inlets and the like can all contribute to a spot with greater promise of pike activity.

Tackle and Tactics

If you're gearing up for pike for the first time, you can get along comfortably in most situations with one or two outfits. Look for rods in the 6 1/2- to 7 1/2-foot range, as these longer ones increase casting distance and accuracy, give more hook-setting leverage, and provide more control on lure retrieves and playing a hooked fish. Medium-heavy is the weight of choice. Many anglers prefer baitcasting reels for these kinds of setups, especially since most offerings will be on the heavy side. But solid, good quality spinning reels will serve nearly as well, and will actually be preferable if you decide to switch to lighter baits occasionally.

You'll definitely need substantial line, and there are differing opinions on the type and weight to use. Anything of good quality in the 15- to 20-pound range should be fine, although some prefer braided line because of its abrasion resistance and limited stretch.

Leaders are *de rigueur* for the majority of pike angling, as anybody who has seen any Esocid's mouth can attest. Twenty- to thirty-pound strength is good, and the minimum length should be around 12 inches. If you use lures with self-contained action (such as spoons or spinners), make sure the leader has a smoothly operating swivel.



Kevin Wicki caught this nice pike through the ice at Budd Lake.

There's a whole universe of pike lures out there, and some that have been shown to have reliability in New Jersey

include spoons and crankbaits. Spinners and spinnerbaits have also accounted for their share of the catch. Among the names worth trying are Mepps, Northland, Daredevle, Rapala, and Rebel.

Color is always a topic of some controversy among anglers, but most agree that bright is best for pike fishing. Silver and gold finishes add a good amount of flash to the profile and usually score high on successful pike anglers' lists. Non-metallic finishes of choice generally include chartreuse, red, white, and orange.

Many lure retrieve styles have been shown to be effective through the years, but most success in hooking New Jersey pike comes from comparatively non-aggressive techniques. Don't move those lures too quickly. More often than not, the pike's strike will occur as the spoon is fluttering gently into an opening in the weeds, when the spinnerbait is allowed to falter, or just after a crankbait has been subtly twitched.

Most pike hooked in our state's fair waters have been taken on natural baits, and small fish are far and away the bait of choice. If you're constrained to bait store fare, go for the largest shiners or herring you can. If necessary, oversee the bait selection process yourself; don't depend on the tackle shop person to get you the biggest and healthiest ones available.

A better option is to procure your own baitfish from New Jersey's waters. Good choices include chubs, suckers and herring. Other baits that have proven effective are the ever-popular nightcrawler (responsible for the first northern I ever netted in New Jersey), frogs, and salamanders.

When using natural bait in open water, use an appropriate bobber. Clip-ons are fine for anything less than 2 feet; use a slip model for deeper applications. If you use just a single hook when rigging the bait, you will likely have to wait for the proper moment to set the hook after the bobber goes under. Remember the pike's attack protocol. Don't set the hook too quickly or you're likely to either tear it loose from the baitfish or pop it away from the pike altogether. This leaves two options.

The first is to restrain yourself when you see the float's distinctive dive. Let line out, and follow the fish's progress closely. When it stops again, wait a second or two and then strike.

The second is to avoid the situation altogether, and rig it with a quick-strike setup. Using two treble hooks, tie the second one to the first, leaving a few inches between them. Insert the upper one into the baitfish between the dorsal fin and tail, and the trailer hook near its pectoral fin. This way, when the pike grabs the fish it's likely to have covered at least one of the hooks, and you can set it immediately. This also has the advantage of avoiding gut-hookings.

What's Next?

Where does the pike go from here? Papson indicates that the management program will continue, helping to bring about the goal of providing Garden State anglers with more diversified angling opportunities, as well as more chances for some real trophies. A lake or two may be added to the existing pike repertoire; one such candidate is Lake Musconetcong, near Netcong and Stanhope.

"In most lakes (where they've been established) they're doing pretty well," affirms Papson. "The average size is pretty nice; in Farrington Lake, Spruce Run and Budd Lake we're seeing 15-pounders pretty routinely."

"I don't know if we'll see another 30-pounder like the state record," he concludes. "That was caught at a time when there were very few pike and there was very little competition. But you never know."

Oliver Shapiro, an avid outdoorsman who makes his home in Livingston, is a frequent contributor to ***New Jersey Outdoors****. Topics he has previously covered include trapping, bowfishing, competition turkey-calling, Ken Lockwood Gorge, taxidermy, guided fishing tours and, most recently, professional bass anglers.*

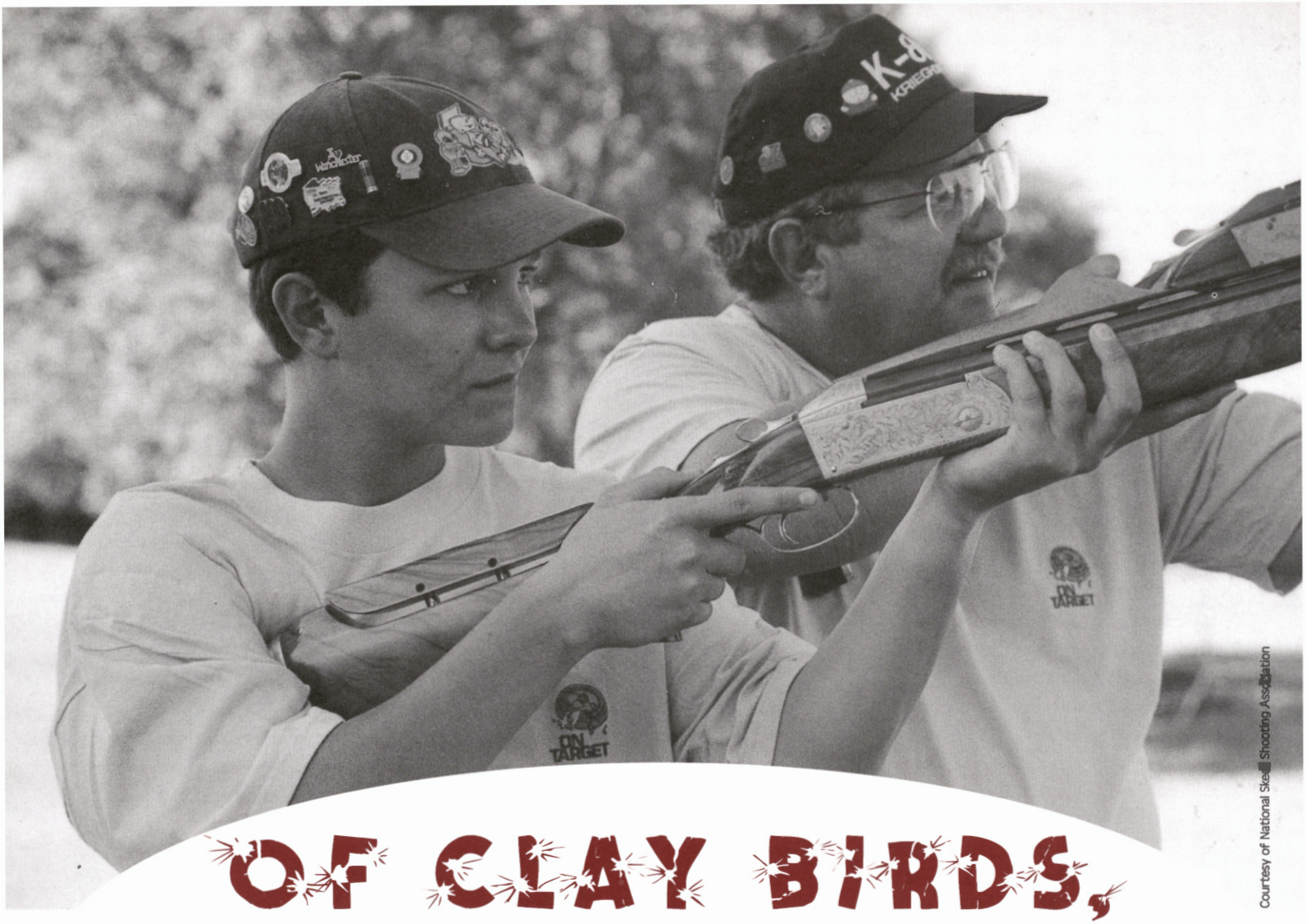
Pikes Peak in...

The eight waters stocked with northern pike on a repeat basis by the Division of Fish and Wildlife are:

- Budd Lake, Morris County
- Cranberry Lake, Sussex County
- Deal Lake, Monmouth County
- Farrington Lake, Middlesex County
- Millstone River, Middlesex and Somerset counties
- Pompton Lake, Passaic County
- Pompton River, Passaic County
- Spruce Run Reservoir, Hunterdon County

Pike also turn up in water bodies, such as the Passaic River near Paterson, that connect with stocked waters.

Remember that the minimum size for "keepers" is 24 inches; the daily limit is two.



Courtesy of National Skeet Shooting Association

OF CLAY BIRDS, CHICKENS, AND A GAME CALLED SKEET

by Robert Brunisholz

The chicken made us do it.

Well, to be grammatically correct, let's use the plural. The *chickens* made us do it.

If you know someone who shoots skeet, in all probability you also know these folks tend to allow the lawn to grow knee-high. Taking care of a house in dire need of repainting is out of the question. Too much time away from the skeet range. You understand.

So what does shooting at a clay disk in a game called skeet have to do with chickens? And for that matter, what is skeet and how does it apply to one of the nation's most popular scattergun games? You'll have to allow a moment for me to tie the pieces together.

If you're old enough to remember Flip Wilson, you'll also recall his characterization of *Geraldine*. Whenever Geraldine's foibles and frailties were called into question, Wilson, assuming his famous character's voice, would say: "The devil made me do it." The audience loved it.

Well, something similar—*The chickens made us do it*—could loosely be called an excuse for skeet shooters, most of whom would rather spend the weekend using a shotgun to try busting clay disks than rake leaves, cut lawns, pull weeds or paint the porch. In fact, according to the National Skeet Shooting Association, more than 20,000 skeet shooters compete nationwide on any given weekend.

So, how do chickens play a role in skeet shooting? Actually they don't—now. But a barn full of chickens could be blamed for the genesis of skeet shooting.

Though very little exists today that offers precise dates for the sport's origins, the most widely accepted story concerns three men who, at the turn of the last century, designed the first skeet field. Remarkably, they had no direct intention of doing so, nor had they ever heard of shooting *skeet*, and therein lies the story

Previous page: A pair of skeet shooting buddies prepare to call for a bird. Note that both shooters are using over/under shotguns, and the shooter in the foreground is using a stock with an adjustable comb.

of the chickens, for an irate chicken farmer also played a role.

Raining Birdshot

C. E. Davies was the proprietor of Glen Rock Kennels in Andover, Massachusetts. The business focused upon working breeds, or bird dogs. Davies' son, Henry, and William Foster, also of Andover, were fond of shooting at clay birds to practice for the coming bird seasons when they would be shooting over pointing dogs. The three men built a rather informal practice range at the kennel sometime around 1910 to 1915.

Formal trapshooting already had established rules and regulations, but the range at the kennel was far from formal. In an effort to achieve what they felt would be conditions that simulated shooting in the field, the trio designed a shotgun shooting game that they called *shooting 'round the clock*. The range was laid out in the general configuration of the face of a clock, and shooting positions were placed around the circle at about the same locations of a clock's hour markings. None of these men intended to develop a new shooting game, especially one that would gain worldwide acceptance. They were merely having fun while preparing for the coming bird season.

Enter the chickens and a rather disgruntled chicken farmer.

When the men or their guests shot at certain posts while the farmer was feeding his flock, some birdshot would rain down upon him. Although the farmer was never endangered by being in the direct line of fire, he took offense.

The shooters decided that moving the traphouse from which the birds were thrown would rectify the problem. But instead of moving it, they built another. Then they divided the circle in half, eliminating the 7 through 11 o'clock shooting positions, and designed the layout so the traps, placed at 6 and 12 o'clock, would throw the clay targets toward each other. Thus, they removed from the field of fire—or more appropriately, a downpour of pellets—the area frequented by the chicken farmer when tending his birds.

As time went by, the small group of shooters was joined by others who liked the design of the shotgun range. The word began to spread. Although the shooting game based on the semi-circular design was never intended to garner worldwide attention—or to become an Olympic event—that's precisely what happened.

A Popular Alternative

Foster, one of the men who helped design *shooting 'round the clock*, was an associate editor at *National Sportsman*, a magazine devoted entirely to hunting, fishing and the shooting sports. Around 1920, he noticed that the kennel range was becoming somewhat crowded, so popular was the game with local hunters and clay bird shooters. He also began receiving letters from readers unhappy with the strict and rigid rules of trapshooting. Trapshooting was, after all, a game designed strictly for competition, as opposed to a fun, relaxed game in which shooters could improve their skills, sans all of the formal scorekeeping and averages classifications.

The letters did not advocate replacing trapshooting; avid trapshooters loved their game, and understood it required regimentation because it was highly competitive. But they seemed to want a second option—one that would allow a more lax and leisurely manner to shoot clay birds, while still offering a challenge to even the best wingshots.

Consequently, Foster published a layout of *shooting 'round the clock* in his magazine. Readers loved the concept, and wrote to him accordingly.

Foster, Davies, and Davies' son refined the semi-circular range, elevating the second traphouse. The standard traphouse threw a clay bird at a height of about 3 1/2 feet, while the second house tossed a bird from a slot approximately 10 feet above ground level. They also changed the format of the shoot—at least as compared to standard trapshooting, in which a bird emerges from the traphouse when called for (except, of course, for doubles shot in contemporary trap). The group from the kennel wanted to add a shooting style that would be accepted nationally as a form of competition while still allowing shooters to practice for the kind of wing shooting they'd experience in the field.

Voila! Skeet shooting was born.

At least the game was the closest they came to contemporary skeet shooting in which a high house and a low house are utilized, but Foster and his group made several additional modifications, including the introduction of *four sets of doubles*, or a bird flying out of each house at the same time. Today, in skeet shooting, these doubles are often called *crossing pairs*. Birds fly from the high house, usually on the left, and the low house on the right. The birds then cross in front of the shooter. Though there are minor variations of those original wing shooting games, skeet shooting today is not much different than what Foster and the family Davies had conjured up nearly a century ago. That leaves us with one nagging question.

Why *Skeet*?

Time had passed and *shooting 'round the clock* had received accolades from wing shooters and clay target shooters nationwide. In 1926, *National Sportsman*, in conjunction with a publication called *Hunting and Fishing*, conducted a contest. They offered a $100 cash prize—which, in those days, wasn't exactly chicken feed (no pun intended)—to the person who suggested a name that the editors deemed appropriate for this new scattergun sport.

Skeet—an old Scandinavian word

As shown here, the correct method of getting into the gun is to put your head down on stock (where it must remain as the shot is fired), and lean into the gun, as opposed to standing too erect or bending backwards.



Courtesy of National Skeet Shooting Association

for *shoot*—won the contest for its suggester, Gertrude Hurlbutt of Montana. But the two magazines that cooperated in the contest became embroiled in a dispute that focused on the game they now called skeet. *Hunting and Fishing* thought it was getting the proverbial short end of the stick since it was not receiving any royalties or benefits, real or imagined, by continuing to tout the new game.

In a move that in today's corporate world would be considered acquiescing, the publications decided to allow skeet shooters to form their own group. Thus neither magazine would gain financially, or through publicity, from skeet.

Skeet shooters across the country had, by this time, formed loose organizations and individual clubs. Those clubs sent representatives to an October 1946 meeting in Texas where the National Skeet Shooting Association was born and its first president, Henry Ahlin, was named.

Today formal skeet shooting has rules and regulations, but they are not nearly as non-forgiving as in trapshooting. Skeet shooters wanted to, and did, maintain an attitude of formal competition while continuing to promote a sport that requires skill but remains fun.

Differences and Similarities

Skeet shooting also deviates from trapshooting by allowing the use of four gauges of shotguns: 12, 20, 28 and .410, although technically the .410 is not a gauge since its bore is measured in calibers. Nevertheless, most folks refer to it as the four-ten gauge. In competition trapshooting, only 12-gauge scatterguns are allowed.

Unlike trapshooting (unless one shoots doubles) skeet guns must be capable of firing two shots, primarily because four sets of doubles, or crossing pairs, are always included in the standard 25 rounds shot by skeet shooters.

Again unlike trap—in which most shooters prefer single-shot shotguns for singles, or the expensive over-and-under, commonly called a stack-barrel—most skeet shooters prefer the auto-loader, or semi-automatic shotgun. The auto-loading shotgun cycles a second round into the chamber after the initial shot, without any help from the shooter.

Though trapshooters do use auto-loaders, the semi-automatic is a definite minority on trap fields. Conversely, the semi-automatic is nearly always the gun of choice among skeet shooters, though you'll also find stack-barrels or side-by-side double barrels at skeet ranges.

The choice of gauge also offers skeet shooters an opportunity to compete against others in the same bore class. For instance, a round of formal skeet will often be advertised as "for 20-gauge only." Conversely, trapshooters are saddled with the 12-bore, like it or not.

The scores of skeet shooters are maintained by NSSA, and shooters compete against those within their own score class. Unless it's merely a fun day at the skeet range, you won't find a 100-straight skeet shooter competing against someone with an average, of say, 87.

Though contemporary skeet ranges differ little from the original design, there have been some subtle changes. At today's skeet range, squads of five shooters fire from each of eight positions arranged around the semicircle. Beginners should not be intimidated, since there is no guesswork concerning the house (high or low) from which the target will come, and the target always takes the same flight path—barring, of course, a good, stiff wind.

The standard target sequence starts with stations 1 and 2, the former being located closest to the left-hand (high) house. Shooters on stations 1 and 2 will receive a high-house single, a low house single, and a high house/low house pair. On stations 3, 4 and 5, shooters will get a high house single and a low house single. On stations 6 and 7, shooters will get a high house single, a low house single, and a low house/high house pair. On station 8, the shooter gets a low house single and a high house single, for a total of 24 shots.

Twenty-four shots? But shotgun shells come boxed in containers of 25, and trap shooters always fire 25 rounds

New Jersey State Library

at each of four traphouses. What about the 25th shot?

The so-called 25th shot is one of several factors that distinguishes the more relaxed sport of skeet shooting from the more rigid one of trapshooting. A skeet shooter can take the 25th shot at the time of the first miss, or any subsequent miss, during the 24-round event. It's unimaginable to even think of a trapshooter asking for an extra bird to make up for a miss. He or she would be laughed—or kicked—off the firing line. In the event a shooter breaks all 24 targets, the 25th and final round is taken at station 8.

Although skeet shooting has its fun aspects, readers should not harbor any illusions that participants are not serious about their sport. Don't forget that NSSA keeps formal records of shoots, just as the Amateur Trapshooting Association does for its members. A round of skeet can be fun, but there is a time for some extremely stiff competition, and contenders are dead serious about how well they shoot.

Why Skeet?

Madelyn Picone, of Cedar Knolls, is a member of New Jersey's Fish and Game Council, and an avid skeet shooter. Here's her view on skeet shooting and what the game offers.

"I shoot both trap and skeet, but it is skeet that by far gives me more technical problems (with the method of shooting). Though undoubtedly some will disagree, I think skeet is the most challenging of all the three shotgun-shooting games (skeet, trap and sporting clays). On some days I do really well on my skeet scores, and there are other days I go home wishing I never showed up at the range."

But what keeps her coming back is the camaraderie, and the relaxed atmosphere.

"Please don't misunderstand. Skeet shooters, myself included, take their shooting and scores very seriously. But on some days at the skeet range, we will have what we call a 'party day'—when the shooters enjoy a meal together, and there's lots of banter . . . we also use these informal shooting days to introduce new shooters to the game of skeet," Picone says. She explains that a day at the skeet range is also a day spent socializing with friends and people who are, in general, "just a great group of folks."

There is, admittedly, some friendly competition and banter between skeet shooters and sporting clays or trap enthusiasts. Though most shoot all three disciplines, many shooters focus on one of the three and consider it their "primary" sport. Within the ranks of sporting clays and trap devotees, I've heard it said that skeet is too mechanical.

"Once you get the targets down pat, it's no big deal to shoot a good score," some of these aficionados say.

When I hear that statement, I usually have one question for the shooters who consider skeet somewhat easy. To them I say, "Oh really? When was the last time you shot 100-straight at skeet?" They usually walk away shaking their heads.

Perhaps I shouldn't be so glib with the shooters who claim skeet is too mechanical or too predictable, but sometimes I just can't help myself. Let's just say the devil made . . . no, change that . . . the chickens made me do it!

Califon resident Robert Brunisholz is a noted sportswriter and periodic contributor to **New Jersey Outdoors**. *This article completes his three-part series on the shooting sports; the first two articles were "A Shooter's Lesson in Humility" (Fall 1998) and "Nothin' But Dust" (Fall 1999), which focused on sporting clays and trapshooting, respectively.*

The skeet shooter trains his shotgun on a bird at a typical skeet field. Although the low house (in the background) and the high house are still called trap houses, the structures are much more complex than the original versions.



Courtesy of National Skeet Shooting Association

Beginners, Take Note:

Following are some skeet shooting rules with which the beginner should be familiar:

- At any range—trap, sporting clays or skeet—shooters will need hearing protectors in the form of either shooter's earmuffs, or the type that plugs into the ear.
- Shatterproof eye protection is also a requirement.
- New skeet shooters should understand that doubles—crossing pairs—of clay birds are an integral part of a skeet-shooting program, whereas in trapshooting, doubles are optional. Shooters must have a shotgun capable of firing two shots in rapid succession.
- Ammunition: Shotguns in 12, 20, and 28 gauges as well as a .410 may be used for skeet, but shotgun shells must be "target loads" as opposed to heavy hunting loads. In addition, only shot in sizes 7 1/2, 8, 8 1/2, and 9 may be used.

For additional information about rules, official shoots, or joining NSSA, write to the National Skeet Shooting Association, S5931 Roft Road, San Antonio, Texas 78257, send an e-mail to nssa@nssa-nsca.com, or call the organization at 210/688-3371.

Places to Shoot Skeet in New Jersey

Englishtown Gun Club
Englishtown
732/446-9825
Sat. 9 a.m. to 4 p.m.
Sun. 9 a.m. to 4 p.m.
Mon. 1 p.m. to 8 p.m.
Tues. 1 p.m. to 4 p.m.

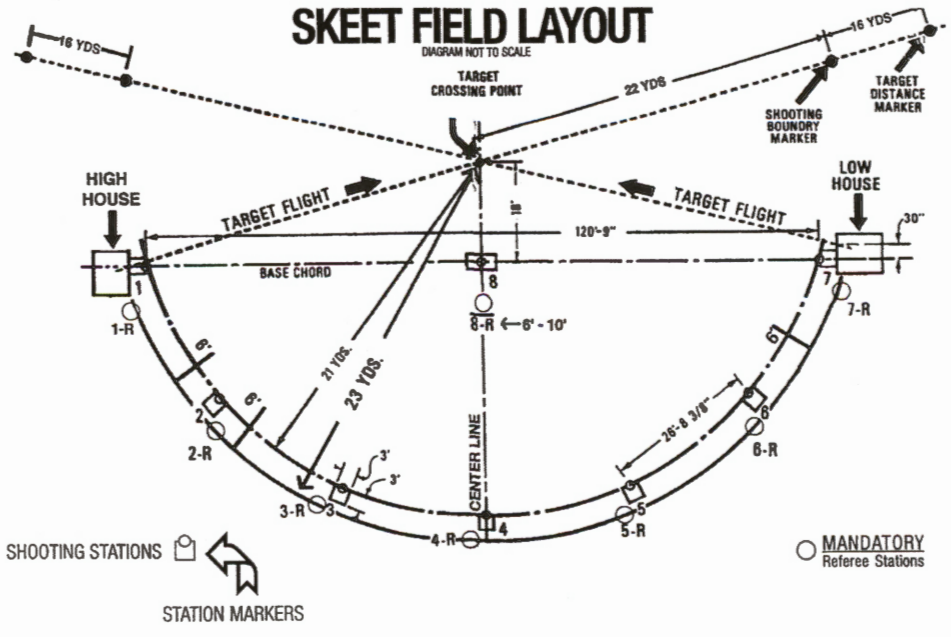
Fox Ridge Range
Wantage
973/875-5791
Sat. 1 p.m. to 4:30 p.m.
Sun. 1 p.m. to 4:30 p.m.
Weds. 1 to 4 p.m.; 6 to 9 p.m.
Fri. 6 p.m. to 9 p.m.

Fort Dix Shooting Range — Range 14
Fort Dix
609/562-4676
Sat. 9:30 a.m. to 4:30 p.m.
Sun. 9:30 a.m. to 4:30 p.m.
Weds. 3 p.m. to 9 p.m.

Pine Belt Sportsmen's Club
Shamong Township
609/859-2631
Sun. 9 a.m. to dark
Weds. 11 a.m. to dark

Thunder Mountain Trap & Skeet Club
Ringwood
973/962-6377
Sat. 9 a.m. to 6 p.m.
Sun. 9 a.m. to 6 p.m.
Weds. 1 p.m. to 10 p.m.
Thurs. 1 p.m. to 10 p.m.
Fri. 1 p.m. to 10 p.m.

Union County Trap and Skeet Club
Cranford
908/276-0225
Sat. Noon to 5 p.m.
Sun. Noon to 5 p.m.



Courtesy of National Skeet Shooting Association

NJO News & Notes

Ecotourism Brochure Available

The N.J. Marine Sciences Consortium, through its N.J. Sea Grant College program, has developed the first comprehensive ecotourism brochure for Central Jersey. A rectangle measuring almost 2 by 3 feet when opened out, the publication folds to a compact 8 1/2 x 3 7/8 inches.

It contains a wealth of information about the Coastal Heritage Trail and activities such as bicycling, birding, canoeing/kayaking, fishing, hiking, and hunting. Descriptions of 58 specific natural and cultural ecotourism destinations—parks, wildlife refuges, museums, fishing areas and more—are provided, along with details regarding location, contacts, facilities and amenities. And that's all on one side!

The reverse features a map (on which the destinations are indicated) surrounded by gorgeous images of flora, fauna, landmarks and landscapes. There's also a listing of some of the area's most popular annual events.

For a copy of this great guide, call 732-506-5050.

Fish and Wildlife Employees Honored

Four division staff members—Dave Chanda, Rob Winkel, Mark Leonard and Tim Cussen—were recently honored for their exceptional service and commitment related to wildlife conservation in New Jersey.

Chanda, former chief of the division's Office of Information and Education, was presented with the 1999 **Conservation Communicator of the Year** award by the Northeast Conservation Information & Education Association. He was selected from all wildlife agency communicators in the northeastern section of the United States and Canada. A certified wildlife biologist with a Masters in Public Administration, he has been working in the field of wildlife education for nearly 25 years. In addition to managing the division's public education, Chanda was instrumental in bringing the popular *Becoming an Outdoors Woman* program to New Jersey. He served as a technical advisor for the division's documentary about striped bass, entitled *Jersey Gold*, as well as two Emmy award-winning documentaries, *Bear Country - New Jersey* and *Deer Crossing*. An accomplished writer, Chanda has authored thousands of wildlife-related new releases and articles. He was recently promoted to assistant director and now is responsible for the bureaus of Wildlife Management, Fisheries Management, Law Enforcement, and Land Management.

Leonard was presented with the New Jersey 1999 **Conservation Officer of the Year** award by the Shikar Safari Club International (SSCI) in recognition of his dedicated service and exemplary performance in protecting wildlife, enforcing game laws and implementing New Jersey's conservation programs. Throughout his 11-year career, he has investigated cases involving fraud, license theft, deer hunting at night, illegal collecting of nongame and endangered species, pollution, and other violations of fish and wildlife laws, some of which have resulted in criminal charges. Leonard also established a well-respected working relationship with the sportsmen and agricultural community of Burlington County.

The Atlantic States Marine Fisheries Commission (ASMFC) presented its 2000 **Award of Excellence** in the area of law enforcement to Rob Winkel, chief of the Bureau of Law Enforcement. The award recognized his commitment to protecting Atlantic coastal marine resources for future generations by ensuring that fisheries regulations remain workable, enforceable and understandable to the public. Winkel, who has been involved in marine law enforcement for more than 20 years, was instrumental in the development of regulations for such species as summer flounder, scup, black sea bass, tautog and horseshoe crab.

Fish and Wildlife's Bureau of Law Enforcement presented Cussen with the **Command Citation Award** from for his outstanding performance, initiative and superb judgement as a member of the division's Special Investigation Unit (SIU). The three-person SIU was formed in July 1995 to handle undercover investigation of commercial wildlife crime. During Cussen's three-year assignment with the Special Investigations Unit, more than 53 individuals were charged with 355 violations. The charges filed resulted in more than $140,000 in assessed penalties.

Wildcat Ridge WMA Expanded

Thanks to a public-private land conservation partnership unprecedented in New Jersey, 295 acres of open space have been added to the Wildcat Ridge Wildlife Management Area in Rockaway Township. The Trust for Public Land secured $7 million in funding and negotiated the purchase. The additional acreage will expand the recreational opportunities available in the WMA and allow the development of trail connections to the Farny Highlands Trail Network, a 37-mile trail system linking public lands in northern Morris County.

Black Bear Education Program Receives National Award

The Association for Conservation Information (ACI) awarded the Division of Fish and Wildlife's black bear education program second place in the education category at the association's national conference held in July in Reno, Nevada. ACI is an international network of professional natural resource conservation communicators from the U.S. and Canada; it includes representatives from state and federal agencies as well as private organizations. Founded in 1938, it is the oldest and largest association of its kind in the country.

In response to a growing bear population and increasing conflict with humans, the division began a formal educational campaign in 1997 to inform residents about the state's growing black bear population and how to minimize negative bear-human interactions. Working with the Division of Parks and Forestry, the division developed a variety of educational materials, including brochures for homeowners (*Living in Bear Country*) and campers (*You Are in Bear Country*) to provide information about bears and ways to reduce negative encounters with these animals.

Plastic signs urging visitors to secure food and dispose of trash properly were developed and posted on state park picnic tables. Other signs warning against approaching or feeding bears were posted throughout campgrounds. Brochures and signs were also distributed to private campgrounds and local Boy Scout troops.

In addition, the division produced and distributed bumper stickers, book covers and bookmarks to campers, schools, municipalities, libraries, parks and environmental education centers in northern New Jersey. In 1999, six public service announcements providing information on preventing conflicts with bears were recorded on compact disks and distributed to area radio stations. Other educational activities included presentations on living with black bears for various schools, municipalities, service organizations, parks, camps and clubs.

The division is no stranger to national awards. With New Jersey Network (NJN), it won an Emmy in 1997 for the documentary *Bear Country, New Jersey*. The film, which has been broadcast nationally and internationally, explains the nature and history of black bears in the Garden State and follows division biologists through their annual research cycle.

To schedule a bear education program or obtain relevant literature, call division biologist Al Ivany at the Pequest Natural Resource Education Center (908/637-4125).

Ocean County Trails First to Join State Trails System

Sixteen miles of trails at Ocean County's Wells Mills Park have been designated as part of the State Trails System—the only county trails included in the initial designation of 10. The other nine are administered by the state alone or in cooperation with the federal government.

The Wells Mills trail system, which took about eight years to develop, offers unique paths for hikers, mountain bikers, and the visually impaired. Michael Mangum, recreation manager for the county parks department, noted that one trail goes through some unique Pine Barren habitats, while another was specifically crafted for the visually impaired, who can use audio devices to help them navigate the trail. Mangum was involved in the design, construction and maintenance of trail system.

Wells Mills, which includes nearly 900 acres of Pinelands and is Ocean County's largest park is located off Route 532. In addition to its trails, it boasts a 3-story nature center that offers a scenic view of the 34-acre Wells Mills Lake.

Check Them Out

The *NJ Party and Charter Boat Directory 2000* and *Reef News 2000* are now available in .pdf format on the Division of Fish and Wildlife's Web site at www.state.nj.us/dep/fgw.

The Friends of Island Beach State Park site (http://community.nj.com/cc/friendsofibsp) offers, among other things, a photo gallery full of beachscapes, park features, fauna and fun-in-the-making.

Help Preserve the Past for the Future

Preservation New Jersey, founded in 1978 and located in Trenton, is looking for volunteers to assist with promoting and protecting our state's historic resources, communities and landscapes. Among other things, the organization provides educational tours and training, addresses relevant legislation, and maintains a resource library.

So if you'd like to share time and your talents in the areas of public relations, office and reference room assistance, advocacy, technical assistance, or planning and implementing conferences, workshops and fundraising events, visit www.preservationnj.org or call 609/392-6409.

Events

General information is provided here for frequently mentioned event sponsors. In most cases, the bold-faced name is all that will appear in an events description.

Albert–Albert Music Hall, 125 Wells Mill Rd (Rte 532), 1/4 mile west of Rte. 9, Waretown; www.alberthall.org; 609/971-1593; ♿; $
Allaire–Allaire State Park/Historic Village/Nature Center/Pine Creek Railroad, Farmingdale; www.AllaireVillage.org; 732/938-2253 (park and village), 732/938-2003 (nature center), or 732/938-5524 (railroad)
Cape May–Mid-Atlantic Center for the Arts (MAC) sponsors cultural and historical tours and events in Cape May throughout the year; www.capemaymac.org; 609/884-5404 or 800/275-4278
Cold Spring–Historic Cold Spring Village, 720 Rte 9, Cape May; 10 a.m. to 4:30 p.m. on weekends in Sept., then closed for the season (except for scheduled events); http://hcsv.org/; 609/898-2300; $
Craftsman–Craftsman Farms, 2352 Rte 10 W at Manor Lane, Parsippany; www.parsippany.net/craftsmanfarms.html; 973/540-1165
Flat Rock–Flat Rock Brook Nature Center, 443 Van Nostrand Ave, Englewood; (www.flatrockbrook.org/registration.html); 201/567-1265; $ (nonmembers); ✎
Fosterfields–Fosterfields Living Historical Farm, 73 Kahdena Rd (just off County Rte 510, 1.25 miles west of the Morristown Green, Morristown; 973/326-7645 (TTY: 800/852-7899); $ Thurs. through Sun.
Hermitage–The Hermitage Education & Conference Center and Museum, 335 North Franklin Turnpike, Ho-Ho-Kus; www.thehermitage.org; 201/445-8311; ♿; $
HMDC–Hackensack Meadowlands Development Commission Environment Center, 2 DeKorte Park Plaza, Lyndhurst; DeKorte Park trails open daily, weather permitting; 201/460-8300; ♿; $ and ✎. for most programs
Horse Park–Horse Park of New Jersey, Route 524, Stone Tavern (Millstone Twp, Monmouth County); open to spectators for equine events only; http://njhorsepark.com/; 609/259-0170; ♿
Howell–Howell Living History Farm, Valley Rd (just off Rte 29, 2 mi. south of Lambertville), Hopewell Township (Mercer Cnty); 10 a.m. to 4 p.m., unless otherwise specified; 609/737-3299; ♿
Indian King–Indian King Tavern Museum, 233 Kings Highway East, Haddonfield; 856/429-6792
Noyes–The Noyes Museum of Art, Lily Lake Rd, Oceanville; open Weds. through Sun., 11 a.m. to 4 p.m.; www.noyesmuseum.org; 609/652-8848; $ (ages 12 and up)
Pequest–The Pequest Trout Hatchery and Natural Resource Education Center, Rte 46, Oxford (9 mi. west of Hackettstown); 10 a.m. to 4 p.m. daily; www.state.nj.us/dep/fgw/pequest.htm; 908/637-4125
Pinelands–Pinelands Preservation Alliance, 114 Hanover St, Pemberton; sponsors Pinelands Adventures (educational programs) in the Pinelands; www.pinelandsalliance.org; 609/894-8000; $; ✎
Skylands–Skylands Manor and NJ State Botanical Garden, Morris Rd, Ringwood State Park, Ringwood; www.njbg.org/; 973/962-9534; $ to enter manor house
Smithville–The Towne of Historic Smithville, Route 9 & Moss Mill Rd, Smithville; 609/652-7777, 609/748-6160
TNC–The Nature Conservancy; www.tnc.org/infield/State/NewJersey/newjersey.htm; Delaware Bayshores Ofc, 2350 Rte 47, Delmont, 609/861-0600; NJ Field Office, 200 Pottersville Rd, Chester, 908/879-7262
Trailside–Trailside Nature & Science Center, 452 New Providence Rd., Mountainside; 908/789-3670
Tuckerton Seaport—Tuckerton Seaport, 120 West Main St, Tuckerton; open daily 10 a.m. to 5 p.m.; 609/296-8868; $ (ages 6 and over)
Waterloo–The Historic Village of Waterloo, 525 Waterloo Road, Stanhope; 973/347-0900 (unless otherwise noted); open 10 a.m. to 5 p.m. Wed. to Sun. from mid-Apr. through mid-Nov.; $

Events
Ongoing • October

Wells Mills–Wells Mills County Park, 905 Wells Mills Rd (Rte 532), Waretown; home of Wells Mills Nature Center, which provides a variety of educational programs; 732/971-3085
Wheaton–Wheaton Village, 1501 Glasstown Rd., Millville; closed on New Year's, Easter, Thanksgiving and Christmas, and on Mondays and Tuesdays from January through March; 10 a.m. to 5 p.m.; 856/825-6800 or 800/998-4552; ♿; $

Notes: Before traveling to an event, readers are advised to call the number listed to confirm the information provided and obtain any additional information desired.

Where the sponsor has provided such information, symbols have been used to indicate that the event is handicapped accessible (♿), that an entrance or participation fee will be charged or a donation will be requested ($), and that preregistration is required (✎). Lack of the indicative symbol may mean either that the opposite is true or that the sponsor did not provide the information. Please call the contact number for any event about which you have questions.

Ongoing

Pequest Trout Hatchery and Natural Resource Education Center Visitors can learn how (and see where) trout are raised for stocking NJ's public waters, and visit the exhibit hall; hiking trails, picnic areas and a year-round schedule of weekend programs; **Pequest**

Sun. except Christmas, New Year's and Easter
Planetarium Show **Trailside**; $

Sun., Jan. through May and Sept. through Dec.
Family Nature Program **Trailside**

First Sat. of the Month except Dec. through Feb.
Trailwork Day Volunteers needed; **Trailside**; ✎

October

Fall Harvest Celebration Alstede Farm, Pleasant Hill Road, Chester; 908/879-7189

Fall Forestry & 4-H Festival Demos, tour, arts & crafts, hay rides, craft &, pet shows, pumpkin decorating contest and more; 10 a.m. to 3 p.m., Forest Resource Education Center, Rt. 527 (E. Veterans Hwy), Jackson; 732/349-1227 for shows/contest details, 732/928-0029 for all else

Wednesdays
Cape May Mornings Learn about the migratorybirds that visit the refuge each fall; bring water; 10 a.m. to noon; Lower Twp; **TNC**; 609/861-0600

Through 22
***20th Century Glass* Annual Exhibition** Museum of American Glass at **Wheaton**

Sat. through Mon., through Nov. (weather permitting)
Fall Hawkwatch See trained volunteers monitor the annual migration of raptors; State Line Lookout, Alpine; www.njpalisades.org/; 201/768-0379

Through November 19
LBI Surf Fishing Tournament Daily, weekly and grand prizes; Long Beach Island beaches; 609/494-7211, 800/292-6372; $ (participants); ✎

Through Feb. 4, 2001
***Fred Returns:* Selected Works of Fred Noyes from the Permanent Collection** **Noyes**

14
Willow Grove Lake by Boat Ply the waters in a canoe or kayak and see the tranquil beauty nestled along the fringe of the Pine Barrens; 10 a.m. to 12 noon; bring water; Pittsgrove Twp; **TNC**; 609/861-0600

Nature/Bird Walk at Harrier Meadow Explore for birds; 8:30 a.m.; **HMDC**

Striped Bass Tournament Brick; 732/840-1999

Autumn Harvest Craft Show 10 a.m. to 4 p.m.; Veterans Park, Berkeley; 732/818-7694

Fall Nature Walk 10 a.m.; Haddon Lake Park; 856/767-PARK; ✎

Pennsauken Fishing Club Tournament 8 a.m.; N Wildwood; 609/486-9180

Antiques by the Shore Glass, furniture, jewelry and vintage clothing; The Thompson Baker House, 3008 Pacific Ave, Wildwood; 10 a.m. to 4 p.m.; 609/729-4515

Fall Flea Market 8 a.m. to 3 p.m.; **Allaire**; $

Celtic Heritage Festival **Smithville**

Surf Fishing Clinic Learn the basics of surfcasting; 9 a.m. to 1 p.m.; Southern Ocean County Chamber of Commerce, 265 W 9th St, Ship Bottom; 609/494-7211, 800/292-6372

Civil War Reenactment 10 a.m. to 4 p.m.; **Hermitage**

14 and 15
Fall Harvest Festival Noon to 5 p.m.; Alba Vineyard, Finesville; 908/474-4460 or 800/524-0043

Haunted Train Ride **Smithville**

Events

October

15
Fungus Fest 2000 11 a.m. to 4 p.m.; Environmental Education Center, Basking Ridge; 908/647-5740; $

18
Fall Stroll A 1-mile, nature-oriented guided ramble; 10 a.m.; **Flat Rock**

19
Tour of Lighthouses in Southern Ocean County Narrated tour of lighthouses at Hereford Inlet, Tuckerton Seaport (with lunch at Skeeters Seafood Café) and Barnegat; www.oceancountyhistory.org; 732/341-1880; $; ✎

Skylands Manor and N.J. Botanical Gardens Tour Ringwood State Park; www.preservationnj.org; 609/392-6409; $; ✎

20
Dinner Auction To benefit Tuckerton Seaport; cocktails at 6 p.m., dinner at 7 p.m.; Wida's Restaurant, Brant Beach; 609/296-8868; $; ✎

20 through 22
Wildwoods National Saltwater Fly Fishing Tournament & Expo "Catch & Release" fishing tournament, seminars and exhibits; www.gwcoc.com/Fishing/tourney.html; 609/729-4000; $

Hayride & Campfire Entertainment & refreshments; **Trailside**; $; ✎

Haunted Seaport Spooky entertainment, ghostly local lore, boat ride and refreshments; 7 to 9 p.m.; **Tuckerton Seaport**; $; ✎

21
Estuary Excursion Explore trails, observation platforms, the boardwalk and an extensive dike system as you learn about the importance of estuary habitat; 9 a.m. to 12 noon; bring water and dress for cool, windy conditions; Commercial Twp; **TNC**; 609/861-0600

Pumpkin/Halloween Festival Ocean City; 609/399-1412, 800/232-2465

Pumpkin Festival Rain date: 10/22; Halloween parade, games, craft show, food, pumpkin painting; **Cold Spring**

Autumn Lantern Tours of the Historic Village 90-minute tours starting every 15 minutes; 6 to 8:30 p.m.; **Allaire**; $; ✎

Fall Trees & Shrubs **Skylands**

21 and 22
Haunted Trail Ride **Smithville**

21 through Nov. 18
Classic Creations Craft Boutique A multitude of gifts; 10 a.m. to 9 p.m. Mon. and Thurs., 1 to 5 p.m. Sun., 10 a.m. to 5 p.m. all other days; **Hermitage**

22
Weekend Meadowlands Safari Guided walk along DeKorte Park trails with author-naturalist John Quinn; **HMDC**

27
Beauty of the Pines Walk trails and learn about the Pine Barrens' plants, animals and unique hydrology; Whitesbog; 11 a.m. to 3 p.m.; bring water; 908/879-7262; $; ✎

Hayride & Campfire Entertainment & refreshments; **Trailside**; $; ✎

Readings of Edgar Allan Poe 7 and 9 p.m.; limited to 100 people per show; **Allaire**; $; ✎

27 through 29
NJ Audubon Autumn Weekend/ *The Bird Show* Cape May; 609/884-2736

Haunted Seaport Spooky entertainment, ghostly local lore, boat ride and refreshments; 7 to 9 p.m.; Tuckerton Seaport; $; ✎

28
South Jersey Surfcasting Fishing Club Tournament North Wildwood; 609/886-6314

Halloween Show & Costume Contest 7:30 to 11:30 p.m.; **Albert**

Harbor Seal 5K Run/Walk Competitive event for runners and walkers over the age of 12 to benefit the Marine Mammal Stranding Center; 9 a.m.; Island Beach State Park, Berkeley Township; 609/266-0539; ♿; $; ✎

Singles Piney Canoe Trip **Pinelands**

Boo at the Cohanzick Zoo Bridgeton City Park; 856/451-9208

Bats, Bats, Bats and More Extravaganza about bats and other Halloween spooks; 11 a.m.; **HMDC**

Make Room for Mushrooms! Hike at Lizard Tail Swamp Preserve and learn about the different types of mushrooms that grow in its wetlands; 10 a.m. to noon; Middle Township; **TNC**; 609/861-0600

Old Tyme Harvest Festival Rides, games, craft show, music, food and more; 10 a.m. to 5 p.m.; Downtown, Cape May Court House; 609/465-8748

Grave Matters Death and gravestone stories; 1 to 4 p.m.; **Hermitage**

28 and 29
Corvette Show **Smithville**

Harvest Festival Hayrides **Tuckerton Seaport**

29
Oyster Sail with Oyster Raw Bar Aboard NJ's tall ship, the schooner *A. J. Meerwald*; 856/785-2060

All Hallow's Eve in the 1830s Noon to 3 p.m.; **Allaire**; $

Haunted Train Ride **Smithville**

November

November

Through 12
LBI Surf Fishing Tournament Beaches of Long Beach Island; 609/494-7211, 800/292-6372

Through 18
Classic Creations Craft Boutique A multitude of gifts; 10 a.m. to 9 p.m. Mon. and Thurs., 1 to 5 p.m. Sun., 10 a.m. to 5 p.m. all other days; **Hermitage**

Through Nov., weather permitting (Sat. through Mon.)
Fall Hawkwatch Observe trained volunteers as they monitor the annual migration of raptors; State Line Lookout, Alpine; www.njpalisades.org/; 201/768-0379

1
The Great Pumpkin Sail Rain date: 11/2; jack-o-lantern sailing, entertainment and refreshments; 6 to 9:30 p.m.; Echo Lake Park, Mountain Ave & Rte 22, Mountainside; 908/527-4900; $;

3
Hayride & Campfire Entertainment & refreshments; **Trailside**; $;

Night Hike & Family Campfire 8 p.m.; Environmental Studies Center, Berlin Park; 856/767-PARK;

3 and 4
E.S.C.A.P.A.D.E. 2000 Collectible 20th century American-made pottery, china and dinnerware show and sale; 6 to 10 p.m. Fri., 10:30 a.m. to 3:30 p.m. Sat.; Laurence Harbor; 732/738-5677; $

3 through 5
Doll Days 2000 **Indian King**

Victorian Holmes Weekend **Cape May**

Stocking Stuffer Sale 10 a.m. to 3 p.m. Fri. & Sat., noon til 3 p.m. Sun.; **Allaire**

4
November Arts and Craft Festival Convention Hall, **Cape May**

Exploring the World of Nocturnal Animals 10 a.m. and 12:30 p.m.; **Great Swamp**

***Legend of the Jersey Devil* Show** 7:30 to 11:30 p.m.; **Albert**

***Take a Kid Hunting* Pheasant Hunt** Youths can hunt pheasant in a setting that encourages responsible and safe hunting practices without the competition of adult hunters; Assunpink, Colliers Mills, Peaslee, Millville, Black River, Whittingham, Clinton, Flatbrook & Glassboro WMAs; 908/735-6826;

Fall Watchable Wildlife Walk 10 a.m.; Greenwald Park; 856/767-PARK;

Trail of Two Cities Run/walk over the 9th St bridge from Somers Point to Ocean City, 8 a.m.; 525-9300

4 and 5
Overnight Canoe Trip Paddle the Mullica River; canoes available for rent; **Pinelands**

Children's Gingerbread Workshops Learn how to make gingerbread painted decoy cookies; 9 a.m.; **Tuckerton Seaport**; $;

8
Fall Stroll A 1-mile, nature-oriented guided ramble; 10 a.m.; **Flat Rock**

Adults' Gingerbread Workshops Learn how to make and decorate a gingerbread house; 3 to 5 p.m.; **Tuckerton Seaport**; $;

9
The Battle of Monmouth and the Court Martial of General Charles Lee Lecture; 7:30 p.m.; **Hermitage**

10 through 12
Cape May Jazz Festival **Cape May**; 609/884-7277; ♿

Batona Trail Hike Begin the 50-mile trek at 8 a.m. Friday near Bass River State Park and end Sunday evening at Ong's Hat; **Pinelands**

11
Turkey Trot 5K race and 1-mile fun run open to runners and non-runners; Colonial Park, Franklin Twp; 908/722-1200, ext. 226

Discover Cape May Houses Tour Self-guided walking tour; noon to 3 p.m.; Cape May; $

Antiques in Greenwich Greenwich; 856/455-4055

Allaire Village's Fall Invitational Antiques Show and Sale 9 a.m. to 4 p.m.; South Wall Fire Co. Station #1, Atlantic Ave & Rte 34; **Allaire**; $

11 and 12
Children's Gingerbread Workshops Learn how to make gingerbread painted decoy cookies; 9 a.m.; **Tuckerton Seaport**; $;

12
Trail Volunteer Project Turkey Swamp Park, Freehold; 732/842-4000, ext. 4283

Weekend Meadowlands Safari Guided walk along DeKorte Park trails with author-naturalist John Quinn; **HMDC**

15
Adults' Gingerbread Workshops Learn how to make and decorate a gingerbread house; 3 to 5 p.m.; **Tuckerton Seaport**; $;

16 through 18
A Festival of Trees, Wreaths and Topiaries Van Vleck House and Gardens, Montclair; 973/744-4752

Events
November-December

17 through 19
Holiday Preview Weekend Cape May

18
Homeplace Festival 7:30 to 11:30 p.m.; Albert

Canoeing the Piney Rivers A day-long naturalist tour; canoes available for rent; Pinelands

Newark's Grand Public Spaces Tour Newark; www.preservationnj.org; 609/392-6409; $;

***Don't Tread on Me* Timber Rattlesnake Program** Learn how human interference and loss of habitat has endangered this species in New Jersey; 11 a.m.; HMDC

Thanksgiving Lantern Tours 90-minute tours starting every 15 minutes; 6 to 8:30 p.m.; Allaire; $;

Wreath Making Workshop Skylands

19
A 19th Century Thanksgiving Noon to 3 p.m.; Allaire

24 through January 6, 2001
The Holidays at Wheaton Village Wheaton

25
Seaport Tree Lighting Ceremony and Lighthouse Candlelight Tour 7:30 p.m.; Tuckerton Seaport

26
Weekend Meadowlands Safari Guided walk along DeKorte Park trails with author-naturalist John Quinn; HMDC

Celebration of Lights Smithville

December

1
Annual Dickens Festival Carolers, horse and carriage rides, Victorian trolleys and more; 6:30 to 9:30 p.m.; Main St (Rte 541), Medford Village; 609/714-8811, ext. 2

1 and 2
Walk of Lights Dutch Neck Village, Hopewell Twp (Cumberland Cnty); 856/451-2188

1 through 10
Festival of Trees See more than 50 trees decorated by community groups and individuals; Somerset Cnty Env. Ed. Cntr., Basking Ridge; 908/766-2489; ♿; $

2
Wild Safari Meet and learn about a python, alligator, eagle and snapping turtle; 11 a.m.; HMDC

Bridgeton Open House Tour Bridgeton; 856/451-9208

Magic Lantern Show America's only authentic 1890s big screen extravaganza, with a live showman and singer to create a mixture of boisterous good humor, moving stories and stirring music; audience participation with musical instruments and singalongs; shows at 11 a.m., 2 p.m. 5 p.m. and 8 p.m.; Hermitage

2 and 3
Wilderness Survival Overnight 8 a.m. Sat. to approximately 3 p.m. Sun.; prerequisite: Basic Wilderness Survival; Pinelands

Train Show Music Pier, Moorlyn Terrace and the boardwalk, Ocean City; 609/525-9300

Joys of Christmas Past 10 a.m. to 4 p.m.; Allaire; $

Holiday Happenings Train rides, candlelight walking tours, puppet shows and more; Smithville

Christmas at Craftsman Farms Historic house museum tours, music, refreshments and seasonal activities; 10 a.m. to 3 p.m.; Craftsman; $

3
Nature Boutique Trailside; ♿

Tours by Candlelight Church Landing Farmhouse Museum, Pennsville; 856/678-4453 or 856/678-5994; $

Christmas in Greenwich Greenwich; 856/455-4055

3 through 30
Display of Seaport Gingerbread Contest Entries Tuckerton Seaport

6 through 10
'Twas the Night Before Christmas A Victorian Christmas house museum tour; 6 to 9 p.m., except noon to 3 p.m. on Dec. 9; Kuser Farm Mansion, Hamilton (Mercer County); www.hamiltonnj.com; 609/890-3630

7 through 10
Dickens' *A Christmas Carol* Mr. Dickens will read his most famous tale, joined by a cast of characters from the pages of this seasonal story; shows at 8 p.m. each night as well as at 11 a.m. and 3 p.m.. Sat. and 3 p.m. Sun.; Hermitage

8
Mauricetown Christmas House Tour Mauricetown; 856/785-0497

9
The Music of Christmas Indian King

Christmas Candlelight House Tour 5:30 to 8:30 p.m.; tours limited, so reserve early; Cape May; $

Christmas Candlelight Home and Town Tour Carolers, concert, refreshments and carriage rides; 3 to 9 p.m.; Historic Rancocas Village, Westampton Twp; www.geocities.com/rancocasvillage; 609/267-2641; $

Navigating the Pinelands 8 a.m. to 4:30 p.m.; Pinelands

Events December 2001

Christmas Lantern Tours 90-minute tours starting every 15 minutes; 5 to 8:30 p.m.; **Allaire**; $

9 and 10
Holiday Happenings Train rides, candlelight walking tours, puppet shows and more; **Smithville**

Christmas at Craftsman Farms Historic house museum tours, music, refreshments and seasonal activities; 10 a.m. to 3 p.m.; **Craftsman**; $

10
Trail Volunteer Project Turkey Swamp Park, Freehold; 732/842-4000, ext. 4283

Tours by Candlelight Church Landing Farmhouse Museum, Pennsville; 856/678-4453 or 856/678-5994; $

Weekend Meadowlands Safari Guided walk along DeKorte Park trails with author-naturalist John Quinn; **HMDC**

House Tour and Sindia Day Noon to 4 p.m.; Historical Museum, 1735 Simpson Ave, Ocean City; 609/399-1801

Jingle Bells 5K Run Washington St, Toms River; 732/349-0220

13
Make a Nautical Holiday Wreath Workshop 10:00 a.m.; Skeeters; **Tuckerton Seaport**; $

16
Christmas Candlelight House Tour 5:30 to 8:30 p.m.; tours limited, so reserve early; **Cape May**; $

Historic Christmas House Tour More than 15 early 1800s homes and churches decorated in period holiday style; 5 to 9 p.m.; Dennisville; 609/861-1338; $

Carol Fest 7:30 p.m.; Music Pier, Moorlyn Terrace and the boardwalk, Ocean City; 609/525-9300

Christmas Lantern Tours 90-minute tours starting every 15 minutes; 5 to 8:30 p.m.; **Allaire**; $

16 and 17
Holiday Happenings Train rides, candlelight walking tours, puppet shows and more; **Smithville**

Christmas at Craftsman Farms Historic house museum tours, music, refreshments and seasonal activities; 10 a.m. to 3 p.m.; **Craftsman**; $

Children's Saturday Special **Skylands**

17
Tours by Candlelight Church Landing Farmhouse Museum, Pennsville; 856/678-4453 or 856/678-5994; $

23 and 24
Holiday Happenings Train rides, candlelight walking tours, puppet shows and more; **Smithville**

27
Christmas Candlelight House Tour 5:30 to 8:30 p.m.; tours limited, so reserve early; **Cape May**; $

31
First Night Ocean City; 609/399-1412

January 2001

Through January 6
The Holidays at Wheaton Village **Wheaton**

18 through 21
Sail Expo New Convention Center, Atlantic City; 401/841-0900

20
Lilacs **Skylands**

February

3 and 6
Great Environmental Magic Show Somerset Cnty. Env. Ed. Ctr., Basking Ridge; 908/766-2489, ext. 0; ♿; $;

8
The Education of Children in the United States and at the Hermitage in Late Victorian America Lecture; 7:30 p.m.; **Hermitage**

March

31 and April 1
Pequest Open House Tour the state's trout hatchery; enjoy exhibits and a living history encampment, cast a line, shoot a bow or BB-gun, feed the fish, and meet Smokey Bear; 10 a.m. to 4 p.m. **Pequest**

April

7
Trout Season Opens at 8 A.M. More than 500,000 freshly stocked trout await anglers in public waters; license and trout stamp required except for those under 16 & NJ residents age 70 and older; www.state.nj.us/dep/fgw; 908/637-4125

19
The Architectural History of Bergen County Lecture; 7:30 p.m.; **Hermitage**

20 through 22
Cape May Jazz Festival Cape May; www.capemayjazz.com; 609/884-7277; ♿

May

10
A Social History of Selected Clothing from the Hermitage Collection Lecture; 7:30 p.m.; **Hermitage**

June

2 and 3
NJ Free Fishing Days Anyone may fish the state's public waters without a license or trout stamp (all other regulations apply); www.state.nj.us/dep/fgw; 908/637-4125

Five-lined Skink

by Eric Stiles

The five-lined skink (*Eumeces fasciatus*), a small 5- to 8-inch reptile, is one of New Jersey's three lizard species. The others are the ground skink (*Scincella lateralis*) and northern fence lizard (*Sceloporus undulatus hyacinthinus*).

Named for the distinct yellow lines running the length of its body over a green-brown background, the five-lined skink can be found statewide, from Cape May to the ridges of northern New Jersey.

A young five-lined skink has a brilliant blue tail, which is used as a defense mechanism against predators. Skinks are able to lose and re-grow their tails easily and the bright coloration is thought to distract predators from the body; the tail is used as a sacrificial limb so the skink can avoid being eaten.

Adults lose this bright coloration. The female's tail becomes green-brown and retains the five yellow lines, while the male may lose much of the striping and develop a bright orange throat patch during breeding season. This bright visual patch is used for territorial displays and to attract potential mates.

While this skink is found statewide, its distribution may be patchy as it is found mostly in moist forested areas. The five-lined skink spends winters underground, individually or in small groups, sheltering from freezing temperatures. They also hibernate in rotting logs, stumps, mammal burrows, rock fissures and under forest floor debris.

In New Jersey, this skink emerges from winter hibernation in April and May, and can be seen basking on logs, stumps or rocks to collect solar heat. Courtship and mating occur shortly after it emerges.

In May and June, the male may actively defend a small area from other males. He will attempt to court any receptive female in his territory. Courtship, which is brief, includes body and chin rubbing.

One month after mating, usually in June through July, the female will excavate a small nest under leaves or in rotting logs or stumps and lay up to 18 small eggs in a tight cluster. She guards the eggs until they hatch. Female five-lined skinks are also known to roll the eggs—a level of parental care rare among lizards and snakes. The female leaves the young—which may take up to three years to reach sexual maturity—when they hatch from their leathery eggs.

The five-lined skink is a secretive lizard, spending much of its time under rotting logs or other debris. It actively feeds during the daytime when it moves about the forest floor. An excellent climber, it easily scales trees and scurries across cliff faces.

When small, the five-lined skink feeds mostly on insects and worms. However, as it grows, it may feed on larger prey, including small mammals, lizards and frogs.

While lizards rely largely on visual cues for communication, the five-lined skink can also detect pheromones (chemical scents) left behind by other skinks. This chemical cue can be important in finding mates, identifying potential competitors (other male skinks), and locating winter den sites.

If you live in or near a forested area, you might be lucky enough to find one near your house. Five-lined skinks can be found under landscaping ties and bricks, where they feed on insects and are afforded protection from predators. When encountered in the forest, they often quickly seek shelter under logs or leaves.

Like most reptiles, these lizards are being threatened by habitat loss, habitat alteration and human collection. Please enjoy them only through observation, as your handling may cause injury or tail loss.

To help conserve this species and other reptiles and amphibians, you can join the New Jersey Herp Atlas, a project of the Division of Fish & Wildlife's Endangered & Nongame Species Program. Volunteers that participate in the Herp Atlas record how many reptile and amphibian species occur in a mapped block of the state. Free training is provided—and looking for reptiles and amphibians is fun! (See **In Search of Herps** in the Winter 1999 issue of *New Jersey Outdoors*.)

For more information, write to:

NJ Herp Atlas
2201 County Route 631
Woodbine, NJ 08270

or e-mail us at nongame@nwip.net.

Eric Stiles, who co-authored the article referenced above, has been with the Division of Fish & Wildlife's Endangered and Nongame Species Program since 1993. He currently works on various herpetofauna and avian conservation projects in conjunction with the Landscape Project.


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