New Jersey Outdoors

Summer 1999 • $4.25

Jellies and Friends:
Beauties of the Deep

Community Farming:
From Peppers to People

Ocean City's Lifeguard Legacy

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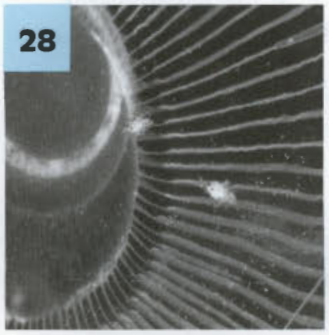

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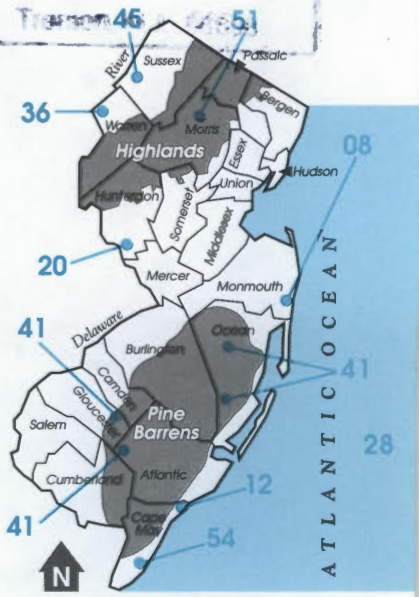

Departments

Front Cover
This purple jellyfish (*Pelagia noctiluca*) strayed from deep waters into the range of underwater photographer Herb Segars' camera. For a fascinating glimpse of life beneath the blue, turn to **Drifting in a Jellyfish Sea** on page 28. © Herb Segars

Inside Front Cover
Islander peppers, decorative and delicious, are among the crops grown in Lambertville by organic farmers Mike Rassweiler and Julia Ritter. Read **Community Comes First at North Slope Farm** on page 20 to find out how their vocation and the environment are inextricably linked. © Mary O'Connor

Inside Back Cover
A black-crowned night heron makes a striking picture silhouetted against the full moon. © 1999 Beatrice Bork

Back Cover
The Eastern goldfinch, also known as the American goldfinch, is New Jersey's state bird. © Joseph Prusky

From the Governor

Christine Todd Whitman,
Governor

New Jersey is poised on an enormous endeavor to purchase one million acres of open space — half of the remaining undeveloped land in the Garden State. There are many reasons for preserving land in its natural state. One of the best is the inspiration we get from enjoying unspoiled countryside. It's the sort of inspiration that drove Boy Scout Evan Whalen to revitalize the Lake Nummy Interpretive Trails as his Eagle Rank project so that disabled Americans, too, can draw inspiration from nature.

Belleplain State Forest's 1999 celebration of National Trails Day, held on June 5, featured the opening of the first interpretive trail system in the New Jersey state park system that offers people with visual impairments, as well as those with mobility challenges, the opportunity to experience the wonderful natural highlights and features found along trails.

These trails are distinctive not only because of their accessibility to all, but also because they are the result of a public-private partnership. Such partnerships are critical for the successful preservation of open space for the benefit and enjoyment of all.

With the guidance and assistance of Belleplain Superintendent Tom Keck, a National Recreational Trails Act grant and resources provided by fellow scouts, local businesses, government and nonprofit organizations, the Marmora resident made more than a mile of the trails accessible to handicapped persons. Now surfaced with a wheelchair-friendly material, the trails offer visitors 32 natural feature stations that display text, graphics and raised relief lettering, and professionally taped audiocassettes with players.

From the Commissioner

Robert C. Shinn, Jr.,
Commissioner

The number of nesting pairs of bald eagles in New Jersey is soaring like . . . well, like an eagle. As a result of an avian "baby boom" four years ago, the count in our state forests jumped from 14 last year to 22 this year. That represents a tremendous comeback from the early 1970s, when there was only one nesting pair in the entire state.

Not all nesting pairs will be successful in producing hatchlings when they first reach sexual maturity, as the "baby boomers" are doing this year. But eagles typically produce two young at a time, so New Jersey's population should show a healthy growth in the future.

Although DDT, which contributed greatly to the earlier decline in population, is now banned, the species' reproductive ability still can suffer from the effects of development and contaminants such as PCBs, which have been found in fish in the lower Delaware River and upper Delaware Bay.

Biologists with our Endangered and Nongame Species Program work to ensure the nests are adequately protected against disturbances — not an easy task when the nesting pair decides to move to a densely populated area. Volunteers also help locate the nests and check them weekly.

Successes such as New Jersey's increasing bald eagle population affirm for future generations the value of environmental protection and the cooperative efforts of dedicated professionals and volunteers.

NJO Mailbox

Among the Missing

I just read Arline Zatz's "Everything's Coming Up Roses . . . " in the Spring 1999 issue. The article provides a highlight tour through many New Jersey Gardens. Deep Cut Gardens in Middletown Township is missing.

Deep Cut features a rockery with several Sargent's weeping hemlocks of a width rarely seen on the East Coast. The hemlocks form an umbrella-like cover over three cascading pools surrounded by many ericaceous species. Additionally, Deep Cut features a butterfly hummingbird walk of native trees and wildflowers. The area is in its growing phase and will be magnificent in a few years.

Laura Kirkpatrick
Public Information Officer
Monmouth County Park System

Editor's Note: *Deep Cut may not have been highlighted in the main article, which focused on single species gardens, but this lovely park was recognized for its tulips in the page 39 sidebar to the article. Space simply did not permit a "highlight tour" of every one of New Jersey's many spectacular gardens — after all, author Arline Zatz's beautiful new book,* ***New Jersey's Great Gardens****, takes 240 pages to cover 125 of them!*

Correction

I want to thank you and your staff for all the wonderful articles in *New Jersey Outdoors*.

I feel I must call your attention to two errors in bird identification in the Spring 1999 issue. On page 26 (**The Birds of Brigantine**), the barn swallow, I am quite certain, is a tree swallow, and on page 30, the yellow crowned night heron is definitely a black crowned night heron.

My apologies to Mr. Walt Marz if I am wrong.

Harry E. Jackson
Somerset

Editor's Note: *You're not wrong; thanks for your letter.*

Saltwater Fishing License Needed

As a sports fisherman, I feel that New Jersey should have a saltwater fishing license — and not just nickels and dimes. Let's start with $100; people will pay it. Look at what they pay for their boats and fishing equipment. Look at what they pay to go to sporting events.

$100 a year to fish is nothing, and with this money, New Jersey could hire more conservation officers to go out and enforce the laws. Just last week I heard a so-called sportsman bragging about keeping undersized fish. Would you believe that a person would actually brag about this?

After all, the commercial fishermen who are working hard to earn a living and supply the public with fresh fish have to have a license. Why shouldn't sportsmen?

Al Duffield
Hatboro, Pennsylvania

From the Editor

The year was 1985; the *New Jersey Outdoors* issue, May/June. For the first time, the design of the magazine was attributed to a young graphic artist named Paul Kraml. For the next 14 years, he played a major role in the evolving look of this publication. As editors came and went, he also became its institutional memory.

Upon completion of the design of the Spring 1999 issue, Paul accepted an opportunity to refocus his design talents and further his career by becoming the Webmaster for another state agency. As editor, I will miss the knowledge, skills and abilities he brought to the job; as colleague, I will miss his dedication, team spirit and unfailing sense of humor; as friend, I will miss him.

On behalf of the entire *New Jersey Outdoors* family, I thank you, Paul, and wish you the best.

State of New Jersey
Christine Todd Whitman
Governor

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

Peter Page
Director of Communications

Hope Gruzlovic
Chief, Office of Publications

New Jersey Outdoors

Summer 1999, Vol. 26, No. 3

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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Design and Production: Dilip Kane

Circulation: Loree Segal

New Jersey Outdoors (USPS 380-520) is a subscriber-supported magazine published by the New Jersey Department of Environmental Protection on a quarterly basis (Spring, Summer, Fall, Winter). Periodical postage is paid at Trenton, N.J. Subscriptions are $15 for one year and $26 for two years (plus $3/annum for subscriptions mailed to foreign addresses) payable by check or money order to: *New Jersey Outdoors*, Bureau of Revenue, PO Box 417, Trenton, NJ 08625-0417. Single issues, if available, cost $4.25.

New Jersey Outdoors welcomes photographs and articles but will not be responsible for loss or damage. Direct submissions to The Editor, *New Jersey Outdoors*, PO Box 402, Trenton, NJ 08625-0402. No part of the contents of this magazine may be reproduced by any means without the consent of *New Jersey Outdoors*. Telephone: Circulation and Editorial: 609-984-0364; Subscriptions: 1-800-645-0038.

POSTMASTER: Send address changes to Editorial Office, *New Jersey Outdoors*, PO Box 402, Trenton, NJ 08625-0402. Send old and new addresses and the zip code numbers. The Post Office will not forward copies unless forwarding postage is provided by the subscriber. Allow eight weeks for new subscriptions and change of address to take effect.

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Showcasing "The Little Guy"

"We are trying to showcase how the farmer, the little guy, made his living," says Walter Spradley, as he explains his family's goal of preserving the history of rural life in Monmouth County. The effort has been underway for more than 20 years, and accomplishments to date include an activities building at Tatum Park, autobiographical coloring books, and exhibits and a memorial garden at the Moses D. Heath Farm, *For Land Sake*.

The farm is the largest remaining tract of the acreage purchased by Clinton Heath, a former slave who fled North Carolina after the Civil War and settled in Middletown. He established a prosperous farming community there and, with his brother Calvin, founded the African Methodist Episcopal Zion Church on Red Hill Road.

Clinton and his wife had 13 children. The ambition and industry that characterized Clinton and Mary were nurtured in their offspring, the youngest of whom — Bertha — spearheaded the family's historic preservation effort.

Bertha graduated from the Harlem Hospital School of Nursing in 1930. She earned a Bachelor of Science degree in public health from New York University and a master's from Columbia University. Active in a variety of organizations, she frequently was recognized for her outstanding community service and humanitarian work.

Determined to memorialize her parents' contributions to society, she asked her nephew Walter to design a cultural and activities center on the site of the family farmhouse, which had been destroyed by fire. He did, and she donated the Heath Activity Center at Tatum Park to the Monmouth County Parks Department.

Walter Spradley and his wife Susie then worked with Bertha to develop *For Land Sake*, designing and constructing the Heath Memorial Garden with its 12-columned gazebo. Named for Bertha's sibling, Mary Susan, the garden was dedicated in 1993. It celebrates the land and provides a meditative setting for visitors.

Existing buildings are being remodeled, acres of fruit trees and grape arbors are being revitalized and evergreens have been planted for future harvest. In July 1997, a portion of Heath Farm was dedicated as an open air exhibit of antique farm equipment, an event that was recognized by Governor Whitman through a proclamation that paid "special tribute to Heath Farm and the Heath Family for their efforts to increase the knowledge, awareness, and understanding of rural life in African American history and culture in New Jersey."

In July 1998 the Spradleys, who now serve as directors of Heath Farm, were entrusted with the artifacts from the discontinued Spy House Museum in Port Monmouth. Today, the farm features a fully stocked honey bee exhibit, a model of the Clinton and Mary Heath farm, a flower shop and a children's garden in addition to the displays of antique farmhouse furnishings, farm equipment and family artifacts.

For Land Sake is open to visitors during the summer months. Call 732/671-0566 for an appointment.

Great Balls of Fish

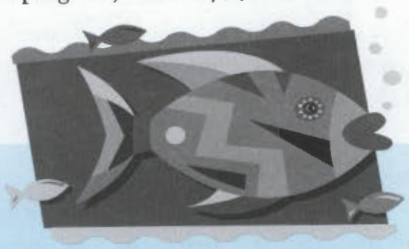
They're bigger than a tackle box, but smaller than a barge. They're full of holes, yet provide plenty of protection. What are they? Reef balls.

Designed by a Florida firm, these concrete fish habitats are being used to build artificial reefs in oceans around the world. And soon, aquatic inhabitants of the Atlantic Ocean off New Jersey will be able to call them home, too.

Thanks to a joint venture involving New Jersey's Environmental Protection and Corrections departments, inmates at Southern State Correctional Facility will make more than 600 of the large — they measure 4 feet in diameter and 3 feet high, and weigh 1,400 pounds — igloo-shaped reef balls.

The hollow concrete habitats will be stockpiled until early summer, when they'll be barged offshore for placement on reef sites. Once in place, they'll offer juvenile fish and species such as tautog and sea bass protection from larger ocean predators.

For more information about the Division of Fish, Game and Wildlife's reef program, call 609/748-2020.



Ocean Life Center Opens

New Jersey's newest family attraction — the Ocean Life Center — is now open at Historic Gardner's Basin in Atlantic City. Located on New Hampshire Avenue by the Absecon Inlet, the 15,000-square-foot building features eight tanks holding 30,000 gallons of water in which you'll find fish from a variety of marine environments.

The Touch Tank lets young folks handle marine specimens and the Computer Center has 16 individual stations where you can learn more about the marine environment. Other attractions include sea sights and sounds, a ship's bridge where you can steer a giant ship's wheel, a model of the Mullica River estuary and a live radar display. And the top floor observation deck offers the best view at the shore of the Absecon Inlet, the Intercoastal Waterway and the Atlantic Ocean.

The Ocean Life Center is open every day from 10 a.m. to 5 p.m. For directions and admission fee information or to find out about other Historic Gardner's Basin features, call 609/348-2880.

It Missed the Lists, But Gets TLC

Thanks to the cooperative efforts of Franklin Township's Open Space Advisory Committee and Pittstown arborist Lou Spanner, the Hunterdon Hackberry is getting some tender, loving care.

The tree is 19.5 feet around and 85 feet tall. A few years ago, it was the largest known hackberry in the United States, but it never made the American Forest Association's list of champions. (It was discovered after the publication of one of the association's biennial lists and surpassed by another tree discovered prior to the publication of the next list of champions.)

It's not on New Jersey's Big Tree List, for which the measurement criteria recently changed, either. David Johnson, the state forester who compiles the list, acknowledges that the Hunterdon Hackberry has the largest circumference of any hackberry in the state. New Jersey's Big Tree List is issued every five years and was last published in 1998.

Located on private property in Franklin, the tree was identified in 1993 as Hunterdon's largest. It has since lost several large limbs, but will now get ongoing complimentary maintenance from Spanner Tree and Shrub Care. Spanner already has cleared away a mass of briars and removed poison ivy vines from the tree.

"I first saw this tree about 10 years ago," says Spanner, "and I'm pleased to be a part of this project to recognize it. We'll do what we can to keep it going, but it appears to be around 300 years old. We won't have it forever."

The hackberry (*Celtis occidentalis*) is deciduous and resembles an elm in foliage. Its pea-sized fruit — which looks like a cherry, tastes like a date and is a favorite winter food for birds — ripens to a dark purple in September and remains on the branches. Hackberry trees can withstand harsh weather and frequently are planted to replace lost elms.

As the symbol of the history, beauty and natural resources that the township's open space advisory committee seeks to preserve, the Hunterdon Hackberry will star in an art exhibition from July 25 through September 5. Artists are painting, sketching and photographing the tree, and wood turners are making bowls out of one downed limb. The public is invited to the exhibition opening on July 25, from 2 to 4 p.m., at the Hunterdon Museum of Art in Clinton.

To prevent problems of trespassing on private property, landowner Robert Hekemian Jr. is allowing township representatives to conduct tours. For additional information, call the municipal office at 908/735-5215.

D&R Greenway Marks 10 Years

Central New Jersey's regional land conservancy celebrated a decade of land preservation success with a special reception on May 2 at the historic Prallsville Mills in Stockton. Since its inception in 1989, the Delaware and Raritan Greenway has preserved more than 2,800 acres of open space along the D&R Canal and the streams in the surrounding 1,000-square-mile region. More than $22 million in public and private funds has been raised to protect land along Stony Brook, Woolsey Brook, Moore's Creek, Simonson's Brook, Shipetaukin Creek, Beden's Brook, the D&R Canal and at the Hamilton/Trenton Marsh — lands valued at more than $40 million.

Governor Christie Whitman was honored for her commitment to open space and her leadership in securing a stable source of funding for land preservation in New Jersey. Maureen Ogden, chair of the Governor's Council on New Jersey Outdoors and long-standing land preservation proponent who chaired the Environmental Committee of the New Jersey State Assembly for eight years, accepted the Donald B. Jones Conservation Award on the governor's behalf.

Also recognized during the reception were landowners who have preserved their land as part of the D&R Greenway. Griggstown resident Paul Muldoon, a published poet and chair of Princeton University's creative writing program, contributed to the special occasion with a poetry reading.

Unique House Museum Restored

In 1837, when a Caldwell minister and his wife welcomed their newborn son, the possibility that the vicarage in which they lived would one day be a state and national historic site undoubtedly never entered their minds. Yet, the newly restored Grover Cleveland Birthplace, included on both the state and national historic site lists, now boasts the distinction of being the only house museum in the nation dedicated to the interpretation of this twice-elected president's life.

Also known as the Caldwell Presbyterian Church Manse, the building is located at 207 Bloomfield Avenue in Caldwell. Although the future president lived there only as a child, the site will serve as the nation's leading repository of Cleveland artifacts and political memorabilia. It has just undergone extensive restoration and a new exhibit gallery has been completed in the front parlor and foyer.

Trained as a lawyer, Steven Grover Cleveland later served as mayor of Buffalo, New York, where he became known as "the veto mayor" thanks to his determination to eliminate city government corruption. His accomplishments at the local level spurred him on to a successful run in the New York gubernatorial race.

Word of his achievements spread nationwide and, in 1884, he was chosen as the Democratic Party's presidential

candidate. He won the election that year but, although he polled a majority of popular votes when he ran for reelection in 1888, Benjamin Harrison garnered more Electoral College votes. Cleveland resumed his New York law practice, but ran again for — and won — the presidency in 1892. Four years later his political career came to an end as national economic problems cost him his chance to run for a third term. He died in 1908.

For more information about the museum and when it is open to the public, please call 973/226-0001.

(Editor's Note: The following true story was submitted by Parker Space, of Space Farms Zoo and Museum in Beemerville, Sussex County. If you've had an interesting outdoors experience that you'd like to share, please e-mail it to njo@dep.state.nj.us or mail it to ***New Jersey Outdoors****, PO Box 402, Trenton, NJ 08625.)*

The Bear-ly There Turkey

I would like to relate one of my most memorable hunting experiences: I had been working a monster turkey for several days. Each day I would set up and call to him, only to be outwitted by this monster tom. After the third day, I knew where to be the next morning.

The next day I was in a barway in an old stone wall fence by 4:30 a.m. At 5:05 a.m., I started calling. Each time I'd call like a hen, the turkey would rattle the woods to life with a huge gobble. By 5:30 a.m., I heard him depart his roost and fly to the ground. Though I patiently awaited his arrival, calling occasionally, I never heard another word from him. Apparently I was skunked again.

By 6 a.m., I could hardly keep my eyes open, for I am a volunteer fireman and was out on a call for three hours the night before. Since I was in a comfortable spot, I ended up dozing off.

At 6:30 a.m., I was awakened by a *crunch, crunch, crunch*, in the dry spring leaves. As I looked up the 30 feet to the top of the hill, my first thought was *another hunter.*

Wow! To my surprise, over the hill came a bear . . . then another . . . then two more. It was a mother bear and three cubs that weighed about 80 pounds each. Soon the four bears stood, 25 feet distant, looking to come my way.

Now don't forget I'm in full camo with gloves and a face net. My first reaction was to stand up and expose my face so they might see that I was there. When I stood up, they stopped at about 20 feet. That's when I realized they wanted to come through the barway.

Then, almost before I knew it, two of the cubs came running towards me, only to stop and smell my boots. With one eye on mama standing on her hind feet and the other eye on the two cubs at my feet, I wondered, *what's going on?*

After a moment, it all came together. My family business is a zoo, so I'm constantly working with all types of animals such as bears and deer. The *last* thing I smelled like was a person!

Now my main concern was not letting the cubs put me between them and their mother, so I gave one of the cubs a gentle push with my gun barrel. Then the cub reached up and whacked it back. *Oh, great, they want to play!*

While this is going on, the third cub was by its mother who was still standing up. I sorta had the feeling she was saying, "You can play with my kids, just don't hurt them."

Finally I figured it was all or nothing, so I let out a holler and kicked the leaves. At that point they knew I did not want to play. The two disappointed cubs rejoined their mother and other sibling and wandered out on the ridge.

Even though I did not get that turkey, I had a once-in-a-lifetime experience I will never forget.

Morrell's Efforts Recognized

Round-the-clock conservationist Brian Morrell has been named by the Canal Society of New Jersey as one of the New Jersey Division of Parks and Forestry's volunteers of the year. Director of Foundation and Corporate Giving for the New Jersey Conservation Foundation (NJCF) during the day, Morrell moonlights at night and on weekends as a volunteer in the fight to preserve Furnace Pond and create the Morris Canal Greenway.

Furnace Pond lies in a strikingly beautiful setting. The 4-acre pond, created by a dam on the Musconetcong River, straddles the border of Netcong (Morris County) and Stanhope (Sussex County). Surrounded by approximately 20 acres of open space, it is the only wooded land remaining along the Musconetcong River in Netcong, and is one of the last two parcels of open space within the municipality.

"Preservation of the natural open space around Furnace Pond is critical both to maintain water quality in the river and pond and wildlife habitat," says Morrell, a Stanhope resident. "The pond is also a major fishing area and is a prime site for outdoor recreation."

Furnace Pond is a small but critical link within a proposed greenway along the Musconetcong River connecting Hopatcong State Park and Allamuchy Mountain State Park.

As "flabbergasted" as he was at the recognition accorded him, Morrell insists that the award really is for all those working to create a Morris Canal Greenway.

Crossing a River of Corn?

Washington Crossing the Delaware River is the design and theme of the cornfield maze that will open at the Howell Living History Farm on August 5. The third one The American Maze Company has designed for Howell Farm (see **The Amazing Barn Raising Maze**, Spring 1998), this year's Amazing Maize Maze again features a 3-D interactive puzzle that's sure to challenge competitive adventurers.

The maze opens on August 5. For details, call 609/397-2555 or 609/737-3299.

Volunteers Honored

As part of the New Jersey Division of Parks and Forestry's Volunteer Recognition Program, each organization or group of volunteers nominates an annual recipient for a *Volunteer of the Year* award.

"The contributions of our volunteers and friends groups play an integral role in the overall success and fulfillment of the division's mission," said Gregory Marshall, director of the New Jersey Division of Parks and Forestry. "Their dedication and hands-on support help us provide more diverse programs and overall greater success in the protection and promotion of NJ's natural and historic resources."

Recent honorees and those who nominated them are: **Ed and Jan Carpenter**, Friends of Hancock House; **Lisa Burgess**, Parvin State Park Appreciation Committee; **Malcolm Dalrymple**, Allaire Village; **Edwin Scheckler**, Garden State REACT Team; **Carl Goosch**, N.J. Museum of Transportation; **Jim Gregory**, N.J. Cycling Conservation Club; **Jack Hesley**, N.J. Beach Buggy Association; **Ralph Phillips**, Deep Search Metal Detecting Club; **Kathleen Doherty**, Friends of Monmouth Battlefield State Park; **Ernest Creamer, Daryl Henson, Dora Hill, Carrie McIntosh, Stanley McIntosh** and **Clifford Wood**, Friends of Fort Mott State Park; **Malcolm Teare**, Swartswood Lakes and Watershed Association, Inc.; **William Cavanaugh**, Friends of High Point State Park; **Nancy and John Bristow**, New Jersey Botanical Garden/Skylands Association; **Gordon Bond**, United Astronomy Clubs of N. J., **Beth Timsal**, The Friends of Long Pond Ironworks; **Marie Marshall**, Friends of Ringwood Manor; **Paul DeCoste**, N.Y./N.J. Trail Conference; **Dawn Fairchild**, Rockingham Association; **Irene Gibbons**, Grover Cleveland Birthplace Memorial Association; **Meg Imbriale**, Waterloo Foundation of the Arts; **Marilyn Garrity**, Lake Hopatcong Historical Museum; **Brian Morrell**, Canal Society of N.J.; **Louise Wilkins**, Friends of Six Mile Run, **Carol Weiss**; Drumthwacket Foundation; **Joan Leach**, Friends of the Wallace House and Old Dutch Parsonage; **Nina Kostinas**, Washington Crossing Association of N.J. Congratulations to all!

Chalk Up One for the "Good Guys" and $600,000 for the Birds

"They were the good guys and they deserved to win," said Pete Dunne, who founded the World Series of Birding competition 16 years ago, of the winners of this year's event. The 223 species recorded by the Nikon/Delaware Valley Ornithological Club's *Lagerhead Shrikes* was the third highest on record.

The team — Paul Guris, Mike Fritz, Bill Stocku and Adrian Binns — "exemplifies the very finest qualities in birding and the event," said Dunne. "They scouted diligently and shared their staked-out birds generously with other teams."

The World Series of Birding, organized by the New Jersey Audubon Society, is intended to focus attention on New Jersey's strategic importance to migrating birds. (See **The New Jersey Audubon Society: The First 100 Years** and **The World Series of Birding — 1996**, both in the Spring 1997 issue of New Jersey Outdoors, for additional information.)

Located on the Atlantic Flyway, the state's natural areas constitute a critical wayside habitat for northbound birds. A total of 260 species — one third of all the species to be found in North America — were tallied in New Jersey on May 15.

The event also is a fundraiser and New Jersey Audubon's president, Tom Gilmore, estimates that a record $600,000 was raised by this year's participants. The Swarovski Optik/Cornell Laboratory of Ornithology team, which recorded 220 species to capture second place and win top "out of region" honors, raised more than $115,000.

Last, But Not Least

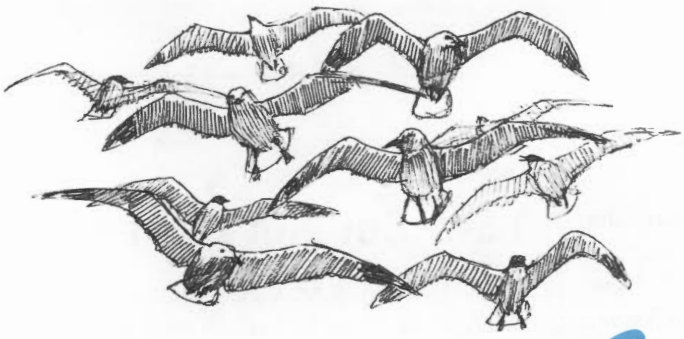
The *New Jersey Atlas and Gazetteer* — the final one in DeLorme's award-winning series of all 50 states — has hit the street (oops; we mean *trail*). It's an invaluable guide for residents and visitors alike. The Atlas contains highly detailed topographic maps with approximately one inch equaling 1.2 miles.

The maps feature extensive coverage of roads, rail lines and trails. Remote rivers, streams and creeks, with potential fishing spots indicated right on the map, are included. National and state lands, as well as woodlands, wetlands and agricultural use areas, are highlighted with different color shades. Symbols depict the location of campgrounds, historic sites, wildlife viewing areas, hunting areas, boat access sites, golf courses, ski areas and more.

City maps — scaled so that approximately one inch equals a half-mile — are included for Atlantic City, Camden, Newark and vicinity and Trenton. A grid system along the margins of the maps indicates latitude and longitude measurements, enabling people to use the Atlas with global positioning system (GPS) receivers.

The Gazetteer section complements the maps, listing interesting places to visit and activities to enjoy in New Jersey. Recreation areas are described; paddling trips are classified by difficulty; and unique natural features and a variety of attractions are described.

You may purchase the *New Jersey Atlas and Gazetteer* wherever books, maps or sporting goods are sold or order a copy by calling 1-800-452-5931.



Jersey Sketchbook: Shark River Inlet

Story and illustrations © by John R. Quinn

Shark River — a prominent landmark of the North Jersey Shore (Sandy Hook to Bay Head) — is quite unique among seaside habitats. I first came to know this little estuary back in 1984, when I got a job with a Neptune City publisher and moved my family "downa shaw" from North Jersey to fast-growing Monmouth County.

The inlet, crowded in summer with recreational boat traffic, sun worshippers and surfers, separates the shore towns of Avon-by-the-Sea and Belmar. An inveterate diver, snorkeler, angler and fish collector (for aquarium purposes), I quickly discovered that it constituted nothing more than a small slice of the wild, untamed oceanic environment plunked down in the midst of suburbia. The world below the water's surface was a place of eternal silences and a wonderful profusion of aquatic life — in spite of the relentless proliferation of boat traffic and the 120 storm drains that empty suburban runoff into it.

Terns fishing at high tide

Looking upriver, toward the public park

As I am an artist and naturalist, Shark River occupies a prominent place in my "eco-psyche," but its contact with *Homo sapiens* extends a lot further back in time than my own lifeline. In the 1700s (and for many centuries before that) the resident Lenape Indians knew the river, then very swift and deep and more than 100 yards wide, as Nolletquesset. To these first Americans, the river and estuary were an indispensable source of life and they fished them extensively and effectively. To the early English settlers, Shark River was known as the Hogs Pond River because of the extensive pig farms then situated along its wooded banks. The present name was adopted in the mid 1800s after a large shark was reportedly swept upriver and into the Hogs Pond, where it perished. It was hauled up on the beach and then duly immortalized by the local citizenry in the name change for their local waterway.

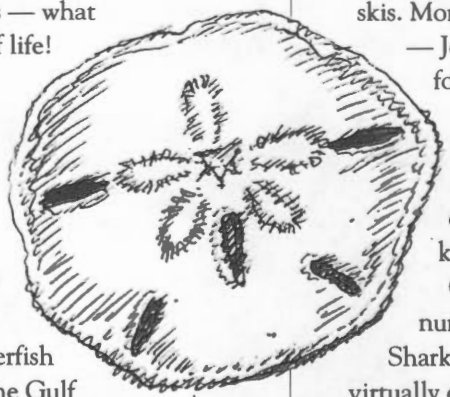
Shark River was first dredged and opened to commercial traffic in the early 1800s. Only once — in the fall of 1877, when a great sandbar sealed off the harbor's entrance during a powerful storm — was the inlet ever closed completely to boats. People must have been made of tougher stuff in those times; it took only four days for a couple of hundred local volunteers to remove the bar — by hand no less — and re-open the passage. The inlet was dredged and widened again in 1881 and has since remained a safe ingress and snug harbor for boaters.

Just a bit over two square miles in area, the Shark River estuary nonetheless offers a wealth of subjects for the artist. An urban estuary, it does not have the untrammeled look of the broad, sun-sparkled bays and luxuriant green salt marshes of the southern part of the state. Still, it presents a vibrant natural portrait of "life among the ruins" of our urbanized coasts. Extensive and intact salt marsh is present only in Musquash Cove (north of the East End Avenue bridge) and at the estuary's west

Starfish often are fabulously abundant in the main channel.

end, where the river itself enters the tidal bay. In most other areas the shoreline consists of marina docks, steel bulkheads and fill-and-rubble banking.

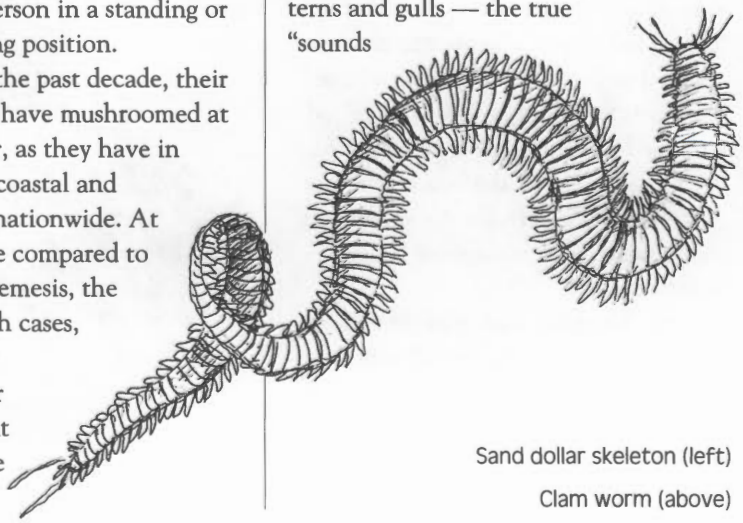
But in spite of this unpromising physical attribute, I have observed a wealth of wildlife here. Brant (sea geese) throng the estuary in their noisy thousands in winter; terns and shorebirds grace the summer and autumn skies, and harbor seals have turned up now and then, blissfully sunning themselves on marina docks. And below the waves — what an abundance of life! Bluefish, especially the voracious little snappers, crowd the estuary in August; tropical butterfly fish, angels and triggerfish arrive here on the Gulf Stream, animated scraps of Caribbean color moving sedately among the pilings of the main channel and the Belmar Marina. All of these creatures, as well as the people of the river and their works, have served as grist for my pen and pad. There is a beauty and vitality to be found in all of them, an appeal typical of the coastal environment where humans have come to the sea equipped with attitudes of both utility and spirituality.



When I visited the estuary on a bright but muggy summer day recently, I found that it had changed little since I had left the area three years before. The "already built-up" nature of the shoreline had precluded any further development there and gulls, terns and the occasional cormorant still jockeyed for position among the pleasure boaters and, rather unfortunately, a new phenomenon: jet-skis. More properly known as PWCs — Jet Ski is a proprietary name for the line sold by Kawasaki — these are personal watercraft without a seat, designed to be ridden by one person in a standing or kneeling position.

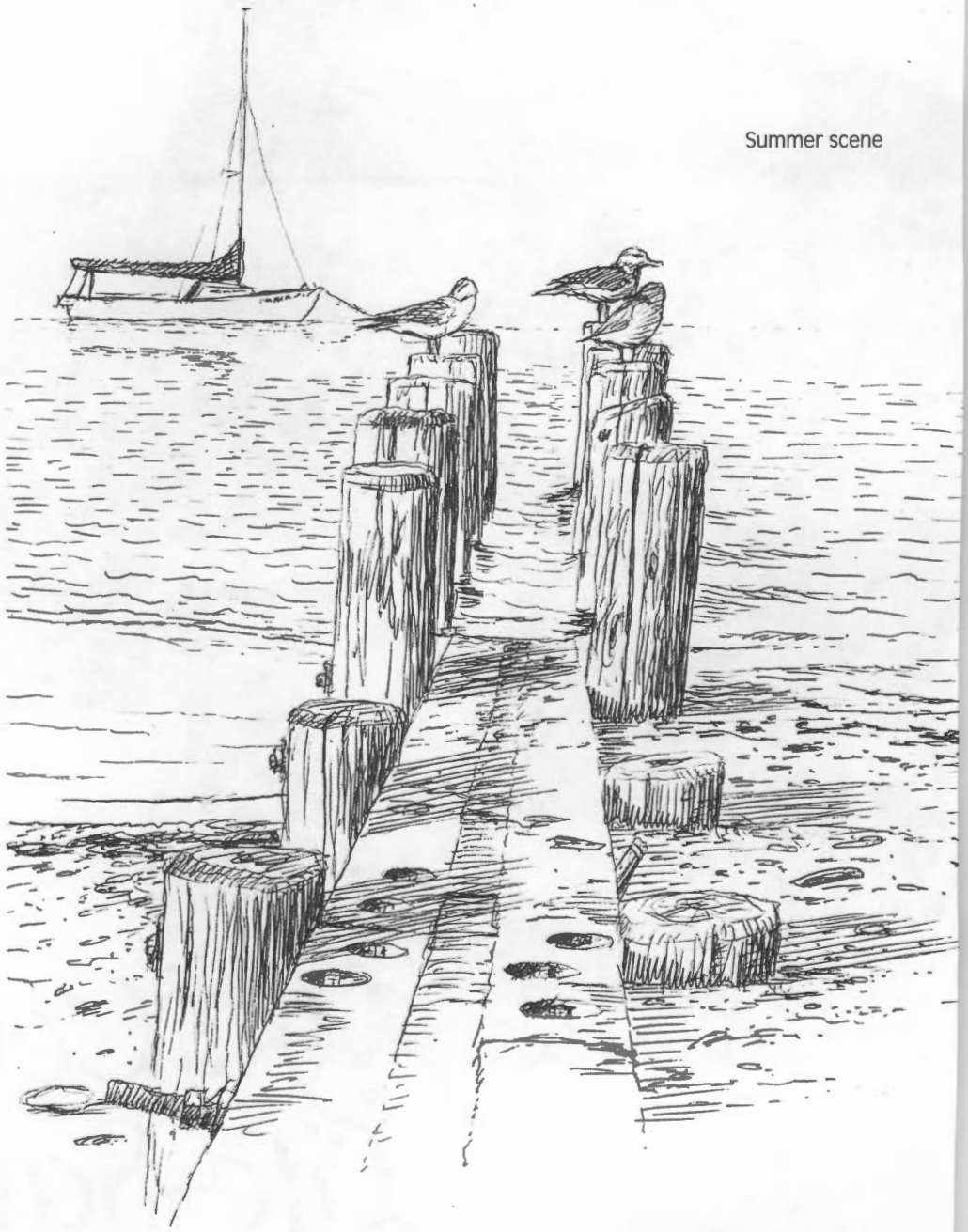
Over the past decade, their numbers have mushroomed at Shark River, as they have in virtually every coastal and lakeshore habitat nationwide. At best, they might be compared to that other social nemesis, the leaf blower. In both cases, while the operator exercises his or her constitutional right to use the machine (often wearing earplugs), everyone else within earshot must endure the din. At worst, irresponsibly operated personal watercraft have been accused of damaging fragile shallow water habitats, harassing wildlife and being the source of a growing number of accident-related injuries and fatalities. At Shark River I have seen kids who looked no older than 12 operating these fast and powerful vessels.

In an estuary as small as the Shark River, the presence of personal watercraft quickly determines and defines the shoreside experience. On a recent weekday visit only four or five of them were zipping back and forth over the bay, but the sound was always in the background and the cries of nearby terns and gulls — the true "sounds



Sand dollar skeleton (left)

Clam worm (above)



Summer scene

of the shore" — were drowned out by the relentless whine of machinery. On busy summer weekends their noise, augmented by the roar of the occasional cigarette boat, is constant and overwhelming. It has become the new siren song of the seashore, replacing the sounds of surf, seagulls and small children playing in the sand.

My recent sketching excursion to Shark River showed me that there are few, if any, places today where the machine has not entered the garden and made it its own. The sheer number of these small craft and the kind of boating behavior they appear to encourage clearly present a problem for the Shark River littoral and for resident bird life. It is likely that New Jersey will soon be forced to regulate and restrict these noisy little vessels, as several Western states have already done. Although zipping about on a personal watercraft can surely be an adventurous and exhilarating experience, too much of this kind of thing may not be very good for "Planet Ocean."

Despite the intrusion of man and his machines, the Shark River Inlet remains, to this naturalist and other devotees, a very special segment of the 127 miles of world-famous Jersey Shore.

Artist-naturalist John R. Quinn, who now works with the HMDC Environment Center, has published many books on nature and science. He regularly portrays segments of New Jersey's environment in words and sketches for ***New Jersey Outdoors****.*

A Century of Life-Saving in Ocean City

by Fred Miller

Professional lifeguard protection along the New Jersey coastline is taken for granted today, but a century ago few municipalities paid men to watch over bathers. If there was any protection at all, it was provided by employees of local hotels, guesthouses or bathhouses, or by men working for donations. Ocean City is a good example of how the present system of bather protection evolved.

Ocean City was founded in 1879 by four Methodist ministers as "a moral seaside resort." The city, located on an 8-mile-long barrier island, grew rapidly because the founding fathers made sure folks from Pennsylvania and New York could get to it by train. By 1893, ocean bathing was a popular activity, especially in front of the bathhouses between 8th Street and 11th Street.

The historic postcard at top depicts the flag raising ceremony at Music Hall on the Ocean City boardwalk.

The start of the 1931 Ocean City Beach Patrol doubles rowing race, ultimately won by Charles Kieffer and Bert Loeper, is captured on the middle postcard. Kieffer won an Olympic gold medal for rowing the following summer, and Loeper was national lifeguard rowing champion in 1933, 1934 and 1935.

The bottom photo postcard, from 1935, shows the famous Flanders Hotel and its pools, used on summer weekend evenings for water shows and competitions that often involved Ocean City's lifeguards.

ALL POSTCARD IMAGES, AS WELL AS LOGO BELOW, COURTESY OF THE OCBP ARCHIVES

The Ocean City Beach Patrol centennial logo was seen all over town during the summer of 1998.

Joseph Krauss, a good swimmer and strong rower, saw the need for bather protection and — although already in his late forties — began acting as a volunteer lifeguard. "Life Guard Krauss to the rescue!" was the shout as a foundering bather struggled with the waves in the Gay Nineties. Newspaper headlines of the day would read "Rescued by the Life Guard at the Last Extremity" or "Saved from a Watery Grave," and the hero was always Life Guard Krauss.

Professional bather protection was first discussed during the summer of 1895 after three men came close to drowning attempting to rescue another man. In 1896, the *Ocean City Sentinel* led the demand for beach safety. "The Life Guard Question" was the headline of an editorial in the July 30 issue. It began, "Two sad drownings within four days should cause something to be done immediately toward establishing life-boats along the beach." It ended, "What we need are life-guards and boats, and now let some of our public-spirited citizens take the matter in hand, and see that they are immediately established. It will not only protect those who are here now, but will be an inducement to have many strangers visit us and bathe in our surf."

The following summer, George Lee — a younger man who later became a fireman — joined Krauss in patrolling the surf. Their only financial reward for their lifesaving work came from donations and end-of-the-summer benefits held by hotels.

"The life guards on the beach did a great deal of useful and necessary work, for which they received nothing but the casual contributions of bathers," noted city council president Harry Headley at a meeting held in August 1897. Although the other councilmen agreed that life guards were needed, the discussion ended with no one making a motion to pay them.

Have No Fear

The summer of 1898 was the busiest thus far in the city's history, and with the big crowds came the drownings and near drownings needed to convince the city council the time had come to employ lifeguards. At a meeting held on August 3, city councilmen voted to "appoint three life guards to patrol the surf to render assistance when it might be required."

Thus Ocean City became the first municipality in Cape May County — and one of the few in the country — to pay for bather protection. The pay was to be $40 a month for working every day from 9 a.m. to 3 p.m.

The historic decision was reported in the following day's *Ocean City Daily Reporter* under the headline, "Ample Protection; Bathers To Have No Fear." The front page article said:

The sea will be robbed of its terrors by the appointment of three life guards by city council last night. The peerless beach here has long been a temptation to bathers to indulge in reckless behavior in the surf, and while there have been marvelously few drownings since the foundation of the resort, yet a number of narrow escapes have occurred, through the imprudence of bathers who have gone to extremes in trifling with the waves. It was therefore decided last night to appoint life guards, whose duties should be as much a police nature as otherwise, in order to prevent reckless conduct in the surf, and to rescue any who might be foolhardy enough to disregard the warnings given them.

The men appointed are Joseph P. Krauss, George W. Lee and William Scull. The first named will be chief of the force, and will have the authority to decide where each guard is to perform duty. He was sworn in by City Clerk Champion last night, and the others took the oath this morning, the entire force at once entering on their duties. The guards are by their appointment

made conservators of the peace, with the functions of special policemen, and will have the power to arrest a fractious bather who persists in violating the warnings. Under the circumstances, it will be seen that the most inexperienced bather need have no fear whatever as the entire bathing territory will be patrolled by experienced and efficient life guards, who will be on the constant lookout for imprudence and accidents.

Krauss served as captain of the Ocean City lifeguards until 1910. During that period, the patrol — and the lifeguards' good reputation — grew as the town grew.

Krauss hired more lifeguards, bought more lifeboats, built high lookout platforms, put up a first aid tent, and experimented with can rescue buoys. In 1901 he designed a lifesaving buoy and reported, "With our buoy, the victim has three chances to be rescued. He can throw his arm over it, take hold of one of the loops around it, or grab the line attached to it and six people can be brought in with one of them."

Professional bather protection has always contributed to the popularity of Ocean City. A 1906 publicity booklet bragged about the city's safe bathing beaches saying, "Efficient beach guards are always on hand to aid any who may need help."

In 1910, Mayor Lewis Cresse named Krauss to fill the newly created position of superintendent of lifeboats, then appointed Alfred Smith as captain of the lifeguards. The two men guided the lifeguards until 1920. In the spring of 1920, Ocean City's commissioners made two decisions that still influence the resort—they chose the motto *America's Greatest Family Resort*, which still is used today, and appointed Jack Jernee as captain of the lifeguards.

New Captain; New Name; New Era

Previously, the men who protected the bathers were called Ocean City Life Guards, and old lifeguard photos show these men proudly wearing their uniforms lettered O.C.L.G. The new captain changed the name to Ocean City Beach Patrol (OCBP).

Jernee used the experience he had gained in the U.S. Life Saving Service and the U.S. Coast Guard to build the patrol into one of the finest lifesaving squads in the country. He began testing applicants to determine their qualifications for the job, rather than simply appointing them, and mandated training for members of the beach patrol.

During his tenure, which ended in 1942, members of the Ocean City Beach Patrol received national attention for their lifesaving skills, their athletic prowess and the giant water shows in the Flanders Hotel swimming pool. The water shows, held on weekend evenings during July and August, attracted crowds as large as 8,000 people and featured comedy acts, high diving and swimming races that sometimes pitted the lifeguards against guest competitors such as Johnny Weismuller.

In 1940, although the United States was not yet embroiled in the war in Europe, Jernee instigated a campaign to raise funds to buy a flagpole. It was installed in front of the Music Pier at 9th Street and lifeguards would march in uniform from the OCBP headquarters on 10th Street to raise the flag each summer morning, reversing the process each evening. This ceremonial display of patriotism also garnered national attention.

It was during the summer of 1927 that John Kelly Sr. began his association — one that would have great impact — with the Ocean City Beach Patrol. A gold medalist in the 1920 Olympic Games in both the single and double sculls events and again in the double sculls event in the 1924 Olympics, Kelly had rented a house in Ocean City for the summer. He frequently talked to lifeguards Bill Stevens and Glenn Allen

COURTESY OF THE OCEAN CITY HISTORICAL MUSEUM

The three Ocean City lifeguards on duty during the summer of 1899 were (l-r) Joseph Krauss, Alfred Smith and George Lee.

COURTESY OF THE OCBP ARCHIVES

John Kelly Sr. presents the 1944 South Jersey Lifeguard Rowing Championship rowing trophies to Jack Kelly Jr. and Joe Regan.

after their morning workout in the lifeboat. Having retired from competition two years earlier, Kelly was interested in staying in good condition, and rowing the lifeboat seemed like an enjoyable way to do it.

After checking with Jernee, Stevens and Allen gave lifeboat rowing instructions to a man considered by many to be the world's greatest oarsman. Kelly quickly learned how to propel the large, heavy boat through the waves, and could be found many mornings rowing near the Morningside Road beach. He, in turn, gave conditioning instructions to Stevens and Allen, and they won the 1927 OCBP doubles rowing championship.

From then on, Kelly, his wife Margaret, and their children — Peggy, Jack, Grace and Lizanne — became very involved with the Ocean City Beach Patrol. The Kelly family's support continues through Lizanne, who still attends OCBP reunions.

When money was tight in the 1930s, Kelly (a millionaire) bought lifeboats and surf boards, and supported the lifeguard intra-mural and inter-city rowing and swimming competitions. The lifeguards responded by winning almost every tournament they entered, including the 1933, 1934 and 1935 National Lifeguard Championships.

In 1932, with Kelly's support, lifeguard Charles Kieffer won a gold medal for rowing in the Olympic Games' Pair with Coxswain event. His team's time was 8:25:8.

The Ocean City Beach Patrol received more national attention in 1941 when lifeguard Archie Harris, competing for Indiana University, won the NCAA championship in the discus with a world record throw of 174 feet, 8+ inches. While a student at Ocean City High School in the late 1930s, Harris captured state championships in discus, shot put and javelin throwing.

The summer of 1942, the first summer America was fighting in World War II, was a time of change for the Ocean City Beach Patrol. Captain Jernee left his beloved beach patrol to join the Navy and Thomas A. Williams, a lifeguard since 1922, became the group's fourth captain.

Many of the lifeguards from the 1941 squad also joined the armed forces, leaving openings on the patrol. John Kelly's son, Jack, was one of the rookie lifeguards on the 1942 beach patrol.

A Family Tradition

Jack Kelly was following in his father's wake and developing his rowing prowess. In 1943, he teamed with Sims Drain to win the OCBP doubles rowing championship. The following summer, rowing with Joe Regan, he repeated the feat.

Although Kelly also had won the 1944 national schoolboy singles sculling championship on the Schuylkill River, he wanted more lifeguard competition and he persuaded his father to sponsor a South Jersey doubles rowing race.

Beach patrols from Atlantic and Cape May counties had competed against each other before 1944, but not regularly. The previous competitions were held in 1924, 1925, 1926, 1936 and 1937. The Atlantic City Beach Patrol won the first two; Wildwood took the next two; and Ocean City captured the 1937 title.

Ocean City hosted the sixth South Jersey Lifeguard Championship on September 1, 1944, on the 10th Street beach. The rough ocean and strong winds made the trip to the half-mile flag buoys very difficult for the 10 competing crews. A couple of lifeboats capsized on the way out, including Ocean City's second team of Jim Sharkey and Chick Bramble.

Kelly and Regan had a difficult time getting through the surf and were the third boat to reach the half-way point. But they stepped up their stroke on the inward journey and forged to the front. They crossed the finish line timed at 11 minutes and 58 seconds, 17 seconds ahead of the Atlantic City crew of Tom Detweiler and Joe Broome Jr. Wildwood's Bob Cresse and Chuck Benner placed third, timed at 12:24.

Now hosted by the previous year's winning team, The South Jersey

COURTESY OF SENIOR STUDIO

During the summer of 1928, the Ocean City lifeguards practiced their resuscitation skills on the Tenth Street beach. Techniques have changed since then, but not the commitment to saving lives.

Lifeguard Championship has been held every year but one since 1944. The exception was 1948, when the event was not scheduled because the national championships were held in Atlantic City. The South Jersey Lifeguard Championship is considered to be the most prestigious of all the lifeguard tournaments held in Atlantic and Cape May counties. It is now a three-event race — the half-mile swim and the quarter-mile singles rowing race were added in 1945 and 1973, respectively. The Ocean City Beach Patrol has dominated the event, winning the team title 29 times. Atlantic City and Ventnor have each won the South Jersey championship 9 times.

Jack Kelly Jr. was considered the best oarsman in the world after he won the prestigious Henley Regatta's Diamond Sculls at Henley, England, in 1947. He won many more awards, including a bronze medal in the single sculls in the 1956 Olympics.

Grace Kelly also brought national attention to the Ocean City Beach Patrol. Although a famous movie star and, later, Princess of Monaco, she always would return to the 26th Street beach and swim near the lifeguards.

Captain Thomas A. Williams retired in 1962, and George T. Lafferty became the fifth captain of the lifeguards. He had been an Ocean City lifeguard in the late 1930s, but left for a career in the Navy.

Record Wins Marked Lafferty Term

During the Lafferty years, 1962 to 1983, the Ocean City Beach Patrol was the athletic power in South Jersey. The lifeguards won 15 South Jersey Lifeguard Championships, including a record 11 straight, and 17 South Jersey Lifeguard Swim Meets, including a record 13 straight.

One of the fastest swimmers on the patrol during the Lafferty years was Tom Aretz, who competed — albeit for West Germany! — in the 1968 and 1972 Olympic Games.

In 1976, Lafferty hired the patrol's first female lifeguard, Judy Lichtner, after she scored high in "rookie school." The qualifications of OCBP lifeguard applicants are assessed in this three-day test of their rowing, swimming and rescue skills. Lichtner served with the patrol for two years, and there have been female lifeguards every year since. Twelve women were OCBP members in 1998.

The year he retired, the Ocean City Beach Patrol yearbook was dedicated to Captain Lafferty. It applauded the service he had given, saying, "He has worked tirelessly to insure that the lifeguards he produced served the public with dedication, skill and professionalism."

In 1983, Oliver Muzslay was appointed the sixth and present captain. His first year on the beach patrol was 1957; from 1962 to 1983 he served as a lieutenant. Muzslay has maintained the patrol's tradition of excellence in bather protection and athletic competition.

In 1988, John Pescatore became the fifth member — John Kelly Sr., one of the OCBP Hall of Famers, is considered an honorary member because of his tremendous contributions — of the patrol to participate in the Olympic Games. Pescatore won a bronze medal in the men's eight. He also rowed in the 1992 Olympics.

Ocean City lifeguard Pete Wright swam in the 1996 Olympic Games. Although he did well, he was not among the medalists.

During the summer of 1998, the City of Ocean City celebrated the 100th anniversary of city-paid lifeguards. The highlights of the centennial summer

COURTESY OF THE OCBP ARCHIVES

were the inter-city lifeguard competition and the lifeguard reunion, which was held at the Flanders Hotel on July 24 and attended by 350 people.

Much has changed since Joseph Krauss left his footprints in the sand, but not the lifeguards' dedication to bather protection.

Until his recent retirement from lifeguarding, Fred Miller was a lieutenant with the Ocean City Beach Patrol. A former educator — he taught physical education and driver's education, and coached wrestling, at Pennsauken High School for 33 years — he served as director of the Ocean City Lifeguard Centennial Committee and currently is writing a book about the Ocean City Beach Patrol.

The Kelly family had an enormous influence on the Ocean City Beach Patrol. In 1947, they posed for this picture in front of their house on the 26th Street beach. Standing (from left) are daughters Peggy and Grace, mother Margaret and daughter Lizanne; "rowing" (l-r) are Jack Jr. and John Sr.

COURTESY OF THE OCBP ARCHIVES

As long as there have been lifeguards on the beach in Ocean City, there have been mascots. Though not officially designated, these youngsters (usually residents) hang around the lifeguards and act as "go-fers" for them, picking up lunches and helping to set up or put away equipment. The guards buy them "mascot" shirts. This 1975 photo captures mascot Gus Egnor helping Lt. Angelo Psaltis set up the lifesaving equipment on the 34th Street beach. Psaltis himself was a mascot in the late 1940s and early 1950s.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COURTESY OF ROD BOLTON, SPORT SHOTS UNLIMITED

The 1998 Ocean City Beach Patrol

Community Comes First at North Slope Farm

Story © by Kenneth Wajda; photos © by Mary O'Connor

Picture this. You're a Princeton kid. It's nearing the end of the millennium. The age of business, computers and technology is soaring into the 21st century. Wall Street is only a short drive away. The opportunities for success in medicine and law are enormous.

So what do you want to be? Doctor? Lawyer? Engineer? Investment analyst? Computer programmer?

A farmer.

Huh?

That's the dream that's come true for Mike Rassweiler, an organic farmer in Lambertville. He and his wife, Julia Ritter, are entering their fifth growing season as providers of fresh, organically produced vegetables to their community.

And they're excited.

"We're a small business and there's nothing guaranteed about the future of the business. The one guarantee that we have is that we'll always have to work very hard every year. And the profit margin is always going to be very small. So it's incumbent on us to get people excited about what we do," Rassweiler explains with a grin.

Michael Rassweiler and Julia Ritter pose on the "tepee" at their North Slope Farm (top). In the inset they strike a posture for the *American Organic* version of Grant Woods' famous painting.

Rassweiler and farm employee Jennifer Ruff (top) cover salad mix seeds with a protective layer of special soil to encourage germination.

An assortment of organic seeds (bottom)

North Slope Farm sits on a 55-acre tract of land on the edge of this central New Jersey river town. It's a Community Supported Farm, which often is called Community Supported Agriculture. But, as Rassweiler notes, "You can't go to an *agriculture*." And *community* is what it's all about.

Community Needs

The needs of the community come first.

"We're trying to focus on what the product is we're producing, what community we're serving and what the community's wants and needs are," Rassweiler explained from a sunroom inside the restored farmhouse that sits on the corner of the property.

"We have a direct contact, and the thing that's unique about us is we really want that direct contact with the consumer," he said. "For me, personally, it's rewarding to talk to them."

Those consumer needs are met with more than 40 different kinds of vegetables ranging from the staples, like corn, tomatoes, broccoli, onions and potatoes, to specialty varieties, including daikon radishes (a Japanese radish) and tomatillos (small, green and husk-covered, they're used in fresh salsa).

It's a satisfying feeling introducing a new vegetable to a consumer.

"Because they trust us, they'll try it. And because we care about them eating something exciting and new, we take the time to explain it," Rassweiler says. "It's something unexpected. It's something they may have never seen before, but there are recipes right at the farm to make things easy."

The specialty crops are like the salt to the main meal. That makes North Slope Farm different from your average grocery store's veggie counter.

"I feel so connected to the food that I grow that it's of high value to me to see that the food is well used," Rassweiler said. "It's a proud feeling to have the very best crop on the table when the consumer comes to the farm."

Farming Families

There are two ways to get into

farming. One way is to grow up in a farm family, learn the ropes while growing up and then take over the farm as it's passed on down the line.

Then there are the first generation farmers.

Neither Rassweiler nor Ritter had any experience coming into this venture. But their families have pitched in, like John Rassweiler, Mike's father, who is the farm's business manager. Retired from a career as a small businessman and consultant, he's perfect for the farm.

"A successful farm is a big business. It's a small business in the sense of the dollar value, but all the specialties are still there," John Rassweiler says. "You've got your financial managers, bookkeepers, marketing people, salespeople and retail sales specialists — and someone to farm, too. Maybe incidental to the whole thing, someone's got to produce the crops," he adds with a laugh.

Rassweiler's brother and sister-in-law maintain all the farm's computers. At times, friends even come by and lend a hand with the fieldwork.

It's all in the spirit of family — the farm family that they've created.

Anything's Possible

"We never questioned we could do it," Rassweiler explains. "We've always had the awareness that people do fantastic things all around the world. And anything that can be done will be done. We said we should set a goal and it should be a very high goal, and then we should work to obtain it."

It wasn't an easy task without any experience in the field.

"I've always had a very idealized vision of village life and have always felt a real spiritual connection to the land," Rassweiler says.

In his junior year of high school at the

Rassweiler hoes weeds from a bed of broccoli rabe (right).

Ruff fertilizes lettuce plants with compost tea (far right).

Rassweiler throws unused vegetables onto a compost pile.

> **"... The biggest thing I could do is not be part of the problem."**
>
> - Mike Rassweiler

Lawrenceville School, he spent a semester with a Sioux Indian tribe on the Pine Ridge Reservation in South Dakota's Black Hills. It was a semester that had long-lasting effects on him.

"It was then that I got my first awareness that you can communicate with the land. The land is speaking to us all the time. It's just a question of whether we're going to listen or not," Rassweiler says. He saw how the Sioux were conscious of the land. Being a nomadic people, their society was dictated by the land and the environment. Their religion was based on communicating with the spirits that control the weather and land. Their tradition was about asking favors of the land.

"The biggest thing was they considered it at all," Rassweiler points out. "They treated the land very respectfully."

The environment had become a main concern for him.

Making a Difference

"It really started then, being very conscious of all the environmental problem we have in the world," he says. "I came to the conclusion that the biggest thing I could do is not be part of the problem. And that could be accomplished by living very simply."

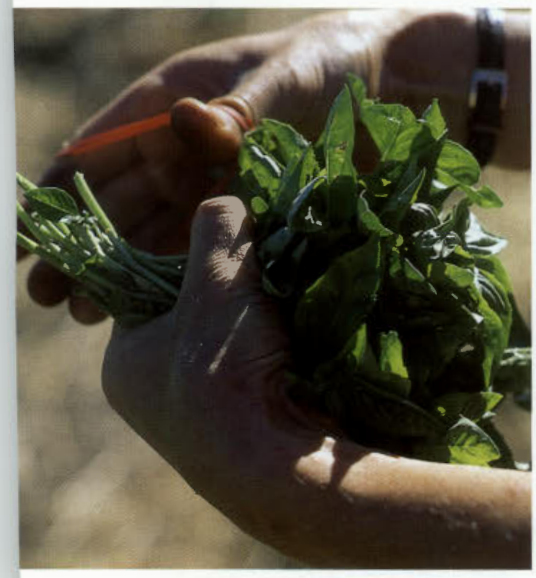
For Rassweiler, living simply meant getting food without all the packaging and waste.

"The best way to do that would be to grow your own. Then you're not involved with trucking things, so you're not involved with using petroleum products. And you're not involved with wrapping things and you're not involved with cooling things in display cases," he adds. "And of course there's the waste."

Not so on the farm.

The farm is always recycling. Everything gets used and reused, from scrap metal for equipment repairs to manure for fertilizer. It resembles the old American Indian philosophy of using everything and wasting nothing.

Other simple things: They heat their house with wood that the farm produces. "Ideally that might take us away from using a lot of municipal-produced



Rassweiler and Ruff plant spring broccoli from a moving tractor (top).

Tying up a bunch of basil (bottom) for market

power which is very inefficient," Rassweiler said. It certainly helps cut down on waste.

All those things helped put it all together. It made sense to live on a farm, to live an agricultural life.

The main goal was to live harmoniously with the earth. Very idealistic. Not realistic. Rassweiler was determined to do it.

Healthy Balance

"We're not purists. We eat take-out pizza," Ritter adds with a laugh.

But it is a struggle as they try to spread the word on the eve of the third millennium. We do seem to be a society that embraces disposable goods for convenience, from cameras and contact lenses to fast food.

To many, going to a farm for produce seems like a step back in time. Rassweiler, however, disagrees.

"I don't think we're moving backwards and I don't think the community is either," he says. "Because of advances in science, people are really conscious of their health and what affects it."

"These may be old ideas, but they're applicable now," Ritter says. "It's not that we're stepping back, but we've forgotten these ideas. They're reminders that this is really the way our body is set up to be healthy."

If anything, the organic farm customer is not a throwback at all, but rather progressive.

Field Studies

So, the seed of the idea was planted by the time Rassweiler went to college. As part of a project at Rutgers' Cook College in New Brunswick, he wrote to several local farms and offered to work in exchange for information about their farm operations. It was a successful effort that resulted in a job for two more seasons.

"It's a very different way to become a farmer," Ritter notes. "You could grow up on granddaddy's farm and farm granddaddy's way. Or you could go to five different farms and gather information from all those farmers and gather a career for yourself." Very 20th century, this way — bringing together the best elements of each of the farms.

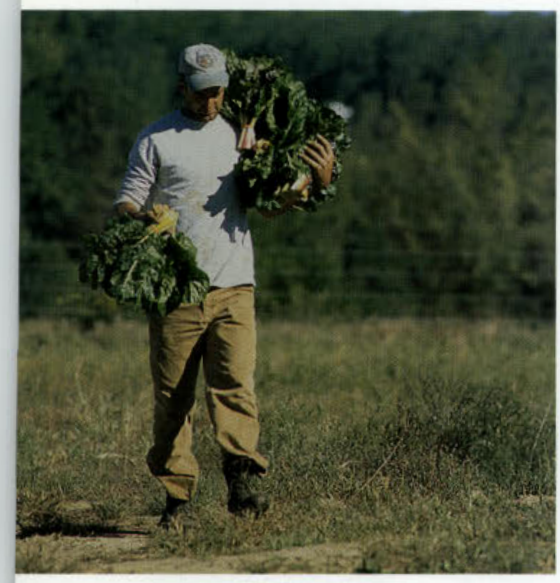
In the four seasons they've been in business, Rassweiler and Ritter have undergone tremendous changes. Relying on their diverse backgrounds and research, they believe they have the ability to continue changing and to use those changes to create success.

Focus on the Future

Their focus is long-term for the farm. "I envision creating a farm that'll last as long as the farms started a hundred years ago that are still operating today," Rassweiler explains.

For Rassweiler and Ritter, success means a community excited about and supportive of the farm. If their mission were simply to turn a profit, they'd never be able to generate the low-cost or free help they've needed to get the farm up and growing.

They still have a long uphill road to climb. Unlike people in California and



Rassweiler (top) plants basil, one of the many herbs he grows.

Matt Conver (bottom), another North Slope Farm employee, carries bunches of Swiss chard from the field for market.

Europe, where buying fresh vegetables and fruits locally is a way of life, New Jerseyans don't automatically think to buy outside the supermarket.

"Right now, we have to spend so much time and energy getting people excited, teaching them the value of what we do, as opposed to being able to focus on just producing the best crop," Rassweiler says.

It's tough when the community you're trying to serve is very active and very used to — spoiled, even — by the constant availability of vegetables at the grocery store. The supermarket's business is structured toward easy, one-stop shopping.

A farm stand is a special trip and a special trip is often the first thing to get knocked off a busy schedule. Rassweiler and Ritter are working to change that reality and make their produce one of the community's priorities. Because, quite simply, it's vital.

Healthy Lifestyle

There are very few things that are vitally important to life. Working in agriculture, they're connected to three of the biggies: air, water and, of course, food.

At North Slope, deciding to grow organic had a lot to do with the management of the farm and the health and safety of the workers. "We don't want to be working with chemicals, mixing them and storing them," Ritter says. "And we don't want our workers to have to deal with them."

There are certainly conclusive studies on the hazards of chemicals in farming. No one will dispute that.

For Rassweiler, though, it even goes beyond health reasons. He wants to farm naturally because it makes for a healthier earth. It protects the soil and fosters good crops in the future.

But that's not enough. He wants to give something back to the earth now.

Land Reclamation Project

While working to make North Slope a viable commercial enterprise, the farm's owners also are working to protect the land. They've begun a five-year project (under the parameters set forth by the

An autumn-leafed sunflower (top)

Rassweiler prepares fresh flowers for market (right).

Natural Resources Conservation Service) to bring part of the farm back to wetlands. They've set aside a part of the land for reclamation by wildlife and native plants.

"Ten acres is managed open space. We see it as an investment not only in the quality of the farm, but also in the community. We're trying to enhance the quality of the environment in our community," Rassweiler says.

This isn't land that's simply abandoned and left to revert to its previous state. For decades, the land had been farmed right up to the streams. Now they're digging ditches to expand the buffer zone between waterways and around forests to allow a diversity of habitats.

It's hard work and it costs a significant amount of money, but it's worth it. As Rassweiler puts it, it's paying respect to the earth. It's certainly a grand undertaking.

But Wait, There's More

Ritter is an artist first. She has a master's degree in dance from Temple University in Philadelphia and teaches dance at Rutgers and Rowan University. Her goal was set: To bring dance and the arts to the farm in various capacities.

She needed a venue — an organization. Wide Open Arts is a non-profit corporation, based at the farm, that provides arts education and programming for individuals of the community. Four acres of the open space on the property is being maintained and managed for Wide Open Arts programs. Ritter's hope is to use the farm as a strong source of inspiration for these arts.

"Part of our philosophy of open space is that it should be used for something. It shouldn't just be a big open space that's left alone," Ritter says. "I see it being used for dance, music, theatre, whatever.

Members of Community Supported Agriculture, Princetonians Fran McManus and her 4-year-old son, Ian, cut their own fresh flowers at North Slope Farm.

"Wide Open Arts is a way for me to contribute to this county and my community," Ritter says.

Farming and gardening are arts as well. The skills involved with farming are very similar to that of the craftsman or artisan. If you go back to the early societies, art and agriculture were never separated. People would take the gourd they'd grown, eat the insides and make the gourd into a musical instrument. That's a lineage that's historical in terms of the link between agriculture and art.

"The harvest festival was just a big party, really," Ritter explains. "The ancient people celebrated the fertility of the soil and created a performance for the gods in thanks."

New Harvest

So by now, the new harvest is well underway. The summer ideally is warm and wet. These are the staples of a successful crop. And soon, we'll be biting into the silver queen corn and the heirloom tomatoes we all enjoy so much.

As you read this, Rassweiler's out in the field, working hard. He's been there since 5:30 a.m. and probably will be working until sunset. Things are in full swing. There's hardly time for a break. (Now if he were in banking, he'd get a full hour — or more.)

Ritter's working on the farm as well, along with the other key players: the helpers, the workers and the family members. His dad's punching numbers. They're all working together to be good stewards of the land and to provide a quality product for their community.

For theirs is a community that's growing together.

Kenneth Wajda is a photojournalist whose story "The Amazing Barn Raising Maze" appeared in the Spring 1998 issue of **New Jersey Outdoors.** *He and his wife, photographer Mary O'Connor, live in Lambertville.*

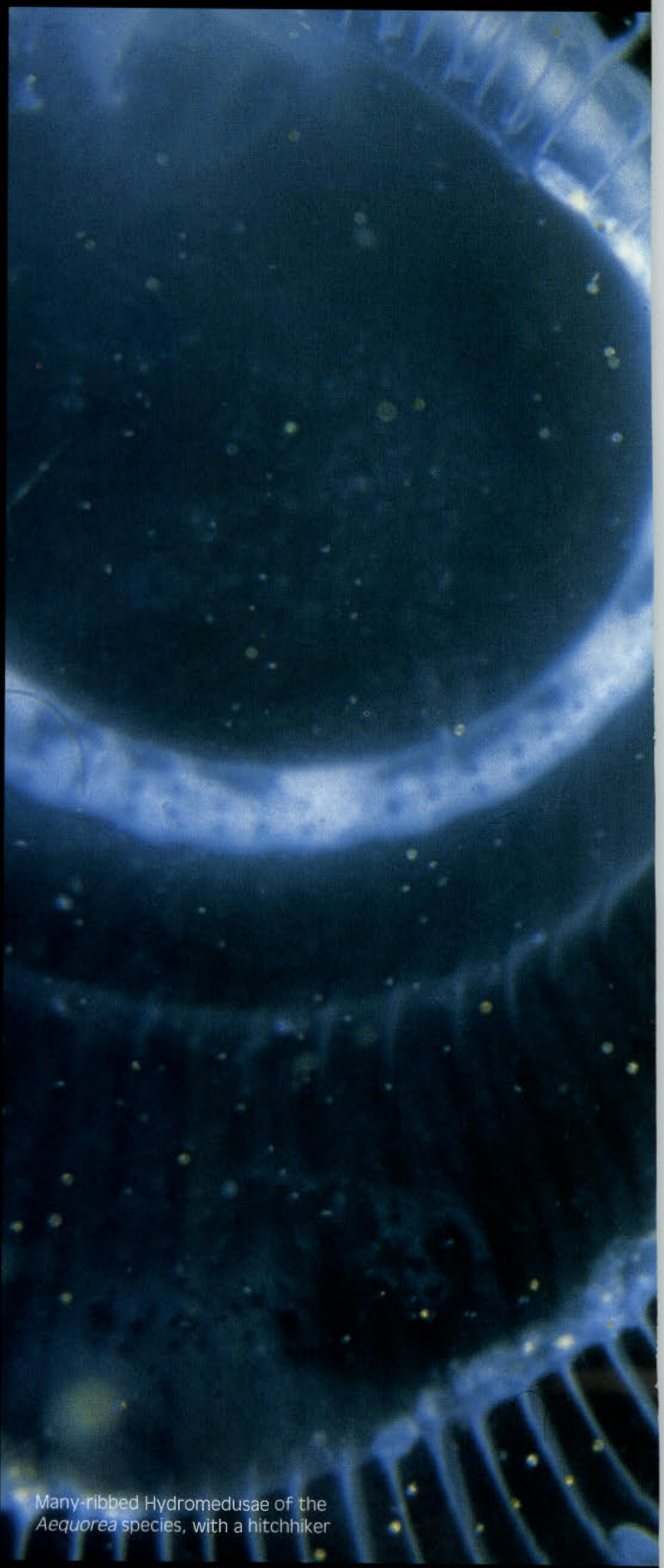
Drifting in a Jellyfish Sea

Text and images © by Herb Segars

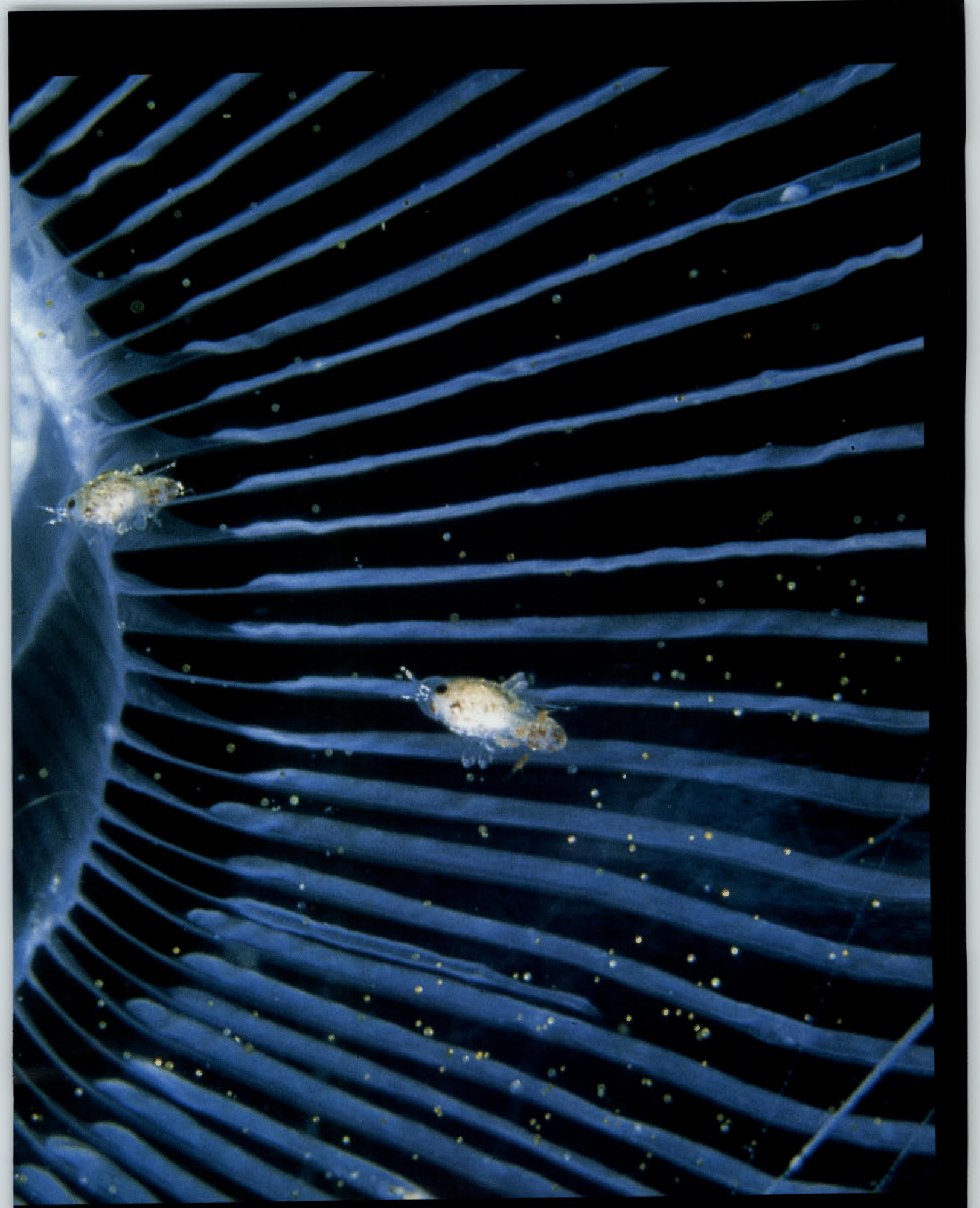
It's late summer and I am 20 feet below the surface of the Atlantic Ocean off New Jersey. I am wearing long underwear, a waterproof (and leakproof, I hope) rubber suit, 40 pounds of dive gear and a 30-pound weight belt to keep me from bobbing to the surface. A slight current forces me to grip the anchor line with one hand and take photographs with the other. I see a possible subject 6 feet away and watch as it drifts closer.

In the blink of an eye, I have set my focus and triggered the camera. The two underwater flashes attached to the camera fire and I hope that the results look as good as I envision. Between frames, I monitor my air supply and my time underwater. Thousands of planktonic subjects float by in the hour that I am below. Today turns out to be a good day — I run out of film before my time or air expires. Back on the boat, I dry off, change film and wait the required 1+ hours before making my next underwater photographic journey.

Capturing the underwater realm on film is a long and painstaking process. All my underwater work off New Jersey happens in the spring, summer and fall. In a good year, I am able to make 70 dives and shoot 70 rolls of film. When strong winds and rough seas bring a season of bad weather, the number of dives and rolls of film taken drop to fewer than 20. In comparison, on a typical topside nature photography trip, I can shoot 70 rolls of film in a week.



Many-ribbed Hydromedusae of the *Aequorea* species, with a hitchhiker

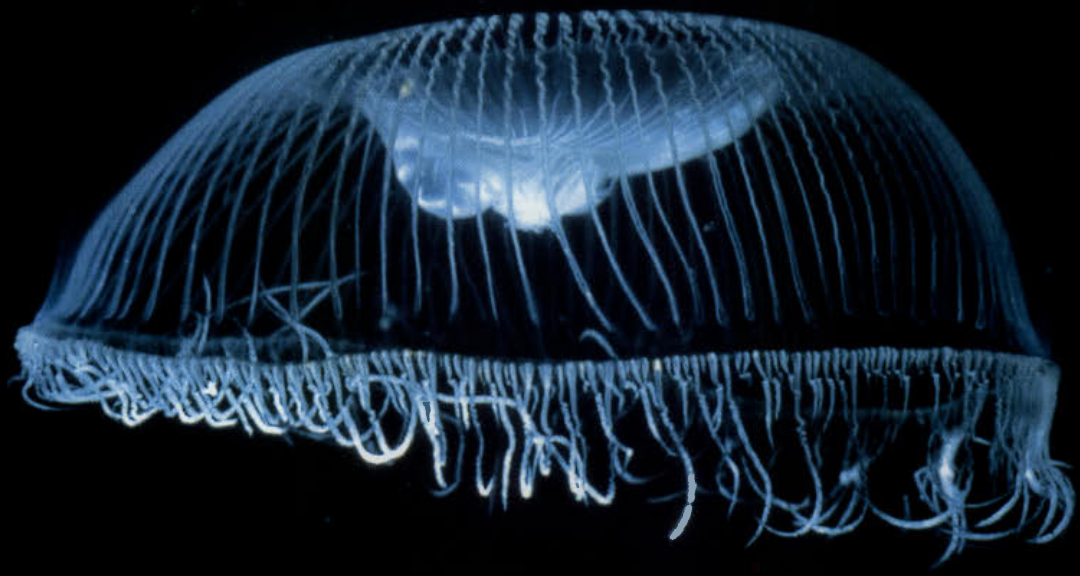


Ovate comb jelly (*Beroe ovata*)

Lion's mane jelly (*Cyanea capillata*) being eaten by a cunner (*Tautogolabrus adspersu*).

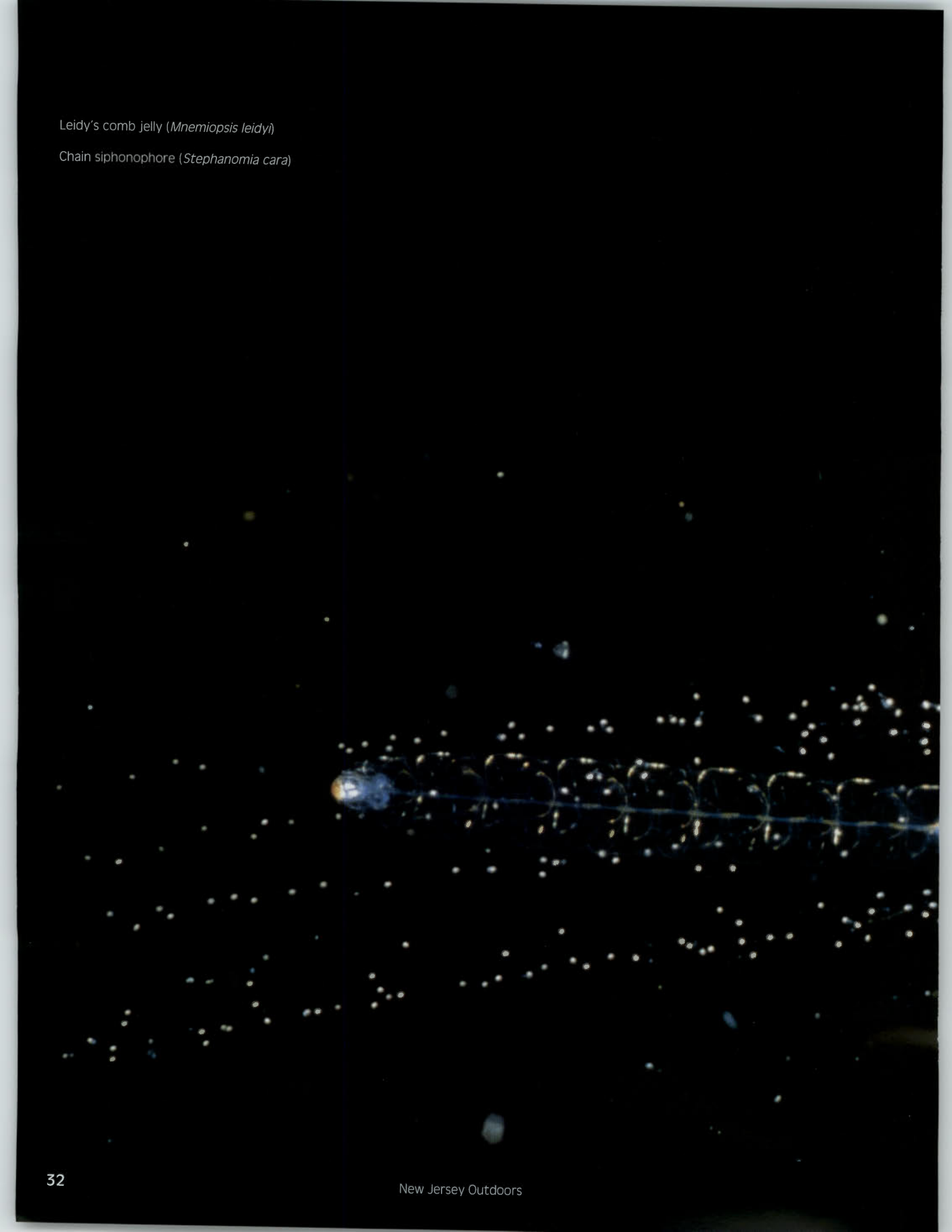
White cross (*Staurophora mertensi*)

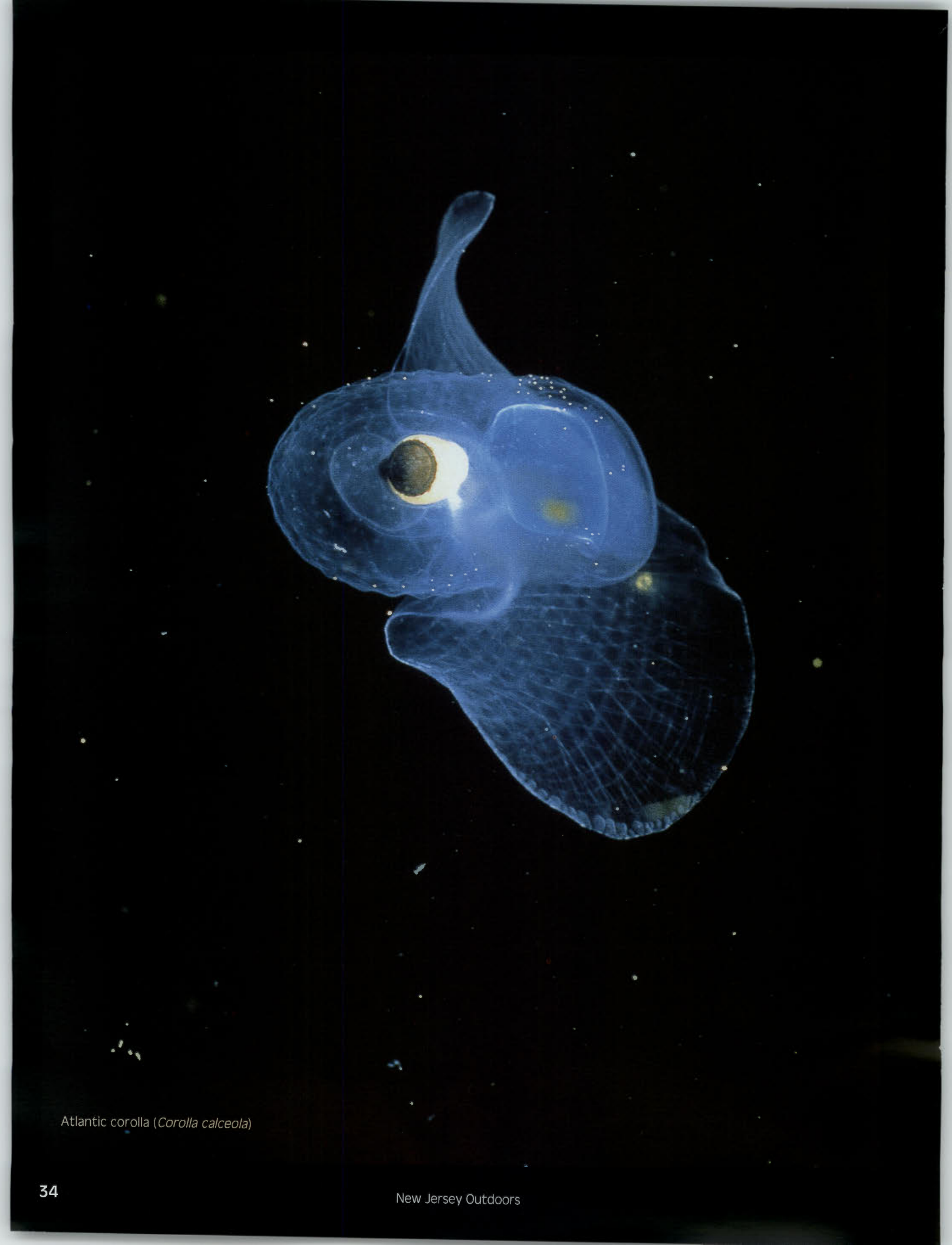
Many-ribbed Hydromedusae of the *Aequorea* species



Leidy's comb jelly (*Mnemiopsis leidyi*)

Chain siphonophore (*Stephanomia cara*)

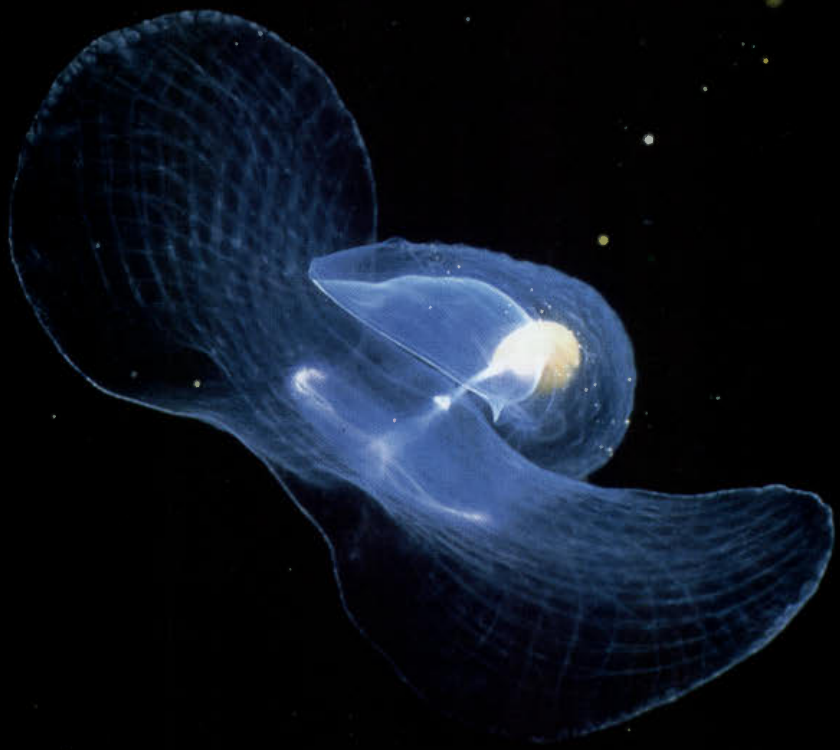




Atlantic corolla (*Corolla calceola*)

Ovate comb jelly (*Beroe ovata*)

Atlantic corolla (*Corolla calceola*)



The trail running alongside this creek was severely eroded.

TRAIL MAINTENANCE BY COMMITTEE . . . AND COMMUNITY

Story and photos © by Frank DiMaria

At 8 a.m., only six cars are in the parking lot as small groups of serious hikers, casual strollers and Boy Scouts gather to plan their daily jaunts. By noon on this sparkling summer day, the 40-space lot will be filled to capacity.

In Worthington State Forest, in the Delaware Water Gap, hikers gain access to New Jersey's most scenic section of the Appalachian Trail. Just a few steps from the pavement, a lush hemlock ravine, icy Dunnfield Creek and Sunfish Pond (a true glacial pond and a National Natural Landmark) make this 5-mile stretch of the trail a favorite.

"In the Mid-Atlantic Region this is acknowledged as being the highest use area there is," says John Wright, assistant regional representative for the Appalachian Trail Conference, as a pair of early morning hikers passes by. And Jim Palmer, a volunteer overseer for the New York/New Jersey Trail Conference who is responsible for 22.5 of New Jersey's 73 miles of the Appalachian Trail, notes that thousands of hikers move through this glen each year.

The tree being cut down by this volunteer will be used with other natural materials to discourage hikers from sliding down the bank to cool their feet in the creek's refreshing waters.

Unfortunately, the staggering amount of foot traffic has taken its toll on the surrounding area and has begun to erode the trail. For this reason, Wright, the Mid-Atlantic Volunteer Work Crew, Palmer and local volunteers will spend the next two weeks camping in this forest and constructing a 44-foot-long, 3-foot-high rock crib wall along the side of the trail and a stone stairway leading to the creek.

The Appalachian National Scenic Trail's 2,152 miles cross state forests, state parks, national forests, national parks and private property from Maine to Georgia. The National Park Service provides overall administration, coordination, and oversight of the trail as directed by Congress, but it is the local hiking clubs that make the trail a pleasure to hike and keep it safe and enjoyable for all. Using cooperative management, the trail is maintained almost exclusively by about 4,500 volunteers who devote an average of 173,000 hours annually to the task.

Worn by Weather and Weary Feet

The section of trail that is eroding in Worthington State Forest lies at the base of a 75-foot incline and at the top of the creek's 30-foot bank. When rainwater washes down the incline, across the trail and down to the creek, it takes with it the trail's precious soil. With each rainfall and each passing year the trail grows narrower.

But it is Dunnfield Creek's beauty that exacerbates the problem. Few individuals hiking through this ravine on sweltering summer days can resist the opportunity to rest upon a moss-covered rock and bathe their feet in the cool, clear water of the stream. But, as hikers heed the call of the creek and slide down the bank, they too take the soil with them and destroy the lush vegetation that holds the earth in place and absorbs the excess water.

"Dunnfield Creek is a beautiful place. I remember coming here in the late '60s

Workers use a highline to move rocks from one side of Dunnfield Creek to the other.

and early '70s. There were ferns growing on both sides of the creek. Now the ferns are mostly on the other side of the creek where people can't get to," says Palmer. "The impact of people walking in here has been really, really intense over the years."

Cynthia Crotwell, Mid-Atlantic crew leader for the Appalachian Trial Conference, explains that the wall is an attempt to keep the environment and hikers safe.

"If we weren't doing this, the state would have a continuing erosion problem, silting with the creek, and danger for people going up and down to the creek," she says.

Crotwell is one of the two individuals working on the project who are paid employees of the Appalachian Trail Conference; the other is Josh Adams, her camp coordinator. The rest of the 20 workers are unpaid volunteers who simply enjoy camping and working in the woods.

To construct the wall, Crotwell, Adams, Palmer and other volunteers will use pickaxes, shovels and muscle to remove earth from the bank to form a 2-foot-wide dirt bench. The bench will slope at a 20 percent grade into the bank 3 feet below the trail. On the bench, the crew will pile large flat rocks, one on top of the other, to the top of the bank. The slope of the bench will cause the wall to lean into the bank, giving it stability.

"Dry stone masonry, when done right, can last for centuries," says Crotwell, leaning on her pickaxe.

All Natural Ingredients

But stability is not the only concern. Palmer says the objective is to erect a wall that appears natural, blending into the landscape as though it has been there for generations. That is the reason they have chosen to work with stone.

To obtain the 300 to 400 rocks needed for the wall, volunteers are quarrying them at two locations. One site is directly across the creek from the work site; the other is a quarter of a mile

Volunteers use pickaxes, shovels and muscle to remove earth from the bank to form a sloping dirt bench on which large flat rocks will be piled in order to stabilize the bank.

away, just off an auxiliary trail. The volunteers search for rocks that one person can lift (a "two-hander") and that are roughly a foot-and-a-half square and flat on the top and bottom. The rocks they gather weigh about 100 to 120 pounds per cubic foot.

"We like to get as many two-handers as we can, great big ones," says Carol Niedzialek, a tiny, grandmotherly woman who is a volunteer with the Potomac Appalachian Trail Club in Washington, DC, and the Appalachian Trail Conference's Mid-Atlantic work crew.

To transport the rocks from the quarry site across the creek to the work site, volunteers have strung a 3/8-inch steel cable called a highline between two trees on opposite sides of the creek. The tree to which the highline is attached on the far side of the creek is further up that bank than the tree to which it is attached on the near side of the creek, making the highline about 30 feet higher on the far side.

The highline runs through a Griphoist on the near side. As volunteers gather rocks, they place them in a mortar pan attached to a pulley wheel hung from the highline. When the Griphoist is tightened, the steel cable becomes taut and lifts the mortar pan off the ground, allowing the pulley wheel to roll down the highline and cross the creek to the work site.

To freight the rocks from the second quarry site, Crotwell enlists the services of Blanca Chevrestt, a seasonal employee of the State Park Service. Chevrestt drives an all terrain vehicle with a trailer between the quarry site and the work site, bringing a load of rocks with each trip.

Well-Organized Labor

By the end of the first week (the Appalachian Trail Conference's Mid-Atlantic crew works Thursday through Monday), volunteers had finished the 44-foot long dirt bench and began laying the wall's first course, for which they had gathered enough rocks. With that done, Crotwell's volunteers headed back to Carlisle, Pennsylvania, to re–supply for week two.

When the crew arrived back at the work site for the second week, some volunteers continued laying rocks to form the wall while others dug a 30-foot path from the end of the wall down to the creek. When the path was complete, they laid flat rocks in the path to create a stone stairway.

With the wall in place and the stairway laid, Crotwell and the volunteers placed the remaining odd-shaped rocks and logs from downed trees behind the wall, making it virtually impossible for hikers to get to the creek without using the stone stairway.

"We wanted to create a situation where people are going to be discouraged from going directly down the slope to the stream," says Palmer. "We can really mess up an area in a natural looking way to discourage people from walking down there. The pathway was our effort in directing people."

Volunteers: Keepers of the Trail

Palmer is one of four trail overseers in New Jersey. The 22.5 miles he patrols is divided into eight 2- to 3-mile sections, each maintained by a different volunteer. Volunteer maintainers are responsible for ensuring the freshness of the trail blazes, cutting back brush and reporting tree blowdowns and other severe problems to their overseers.

Jim Dodge, a Pennsylvania resident, brings his son's Webelos troop (Cub Scouts) to Palmer's section of the trail rather frequently.

"We come here because New Jersey trails are actually maintained better than the trails over in Pennsylvania," says Dodge, attempting to keep some troops from the edge of the bank.

With the wall finished and the stairway in place, Crotwell, Adams, Wright, and the Mid-Atlantic work crew break down the campsite and head for their next assignment. Palmer heads for his home in Hackettstown but will visit the wall frequently to see if it is doing its job.

Although this section of wall is complete, the Mid-Atlantic crew will no doubt return, perhaps this fall, to add yet another portion of the wall keeping the Appalachian Trail erosion free and safe for all to enjoy.

Frank DiMaria is a freelance writer who lives in Clifton. This is his first contribution to ***New Jersey Outdoors.***

To Learn More . . .

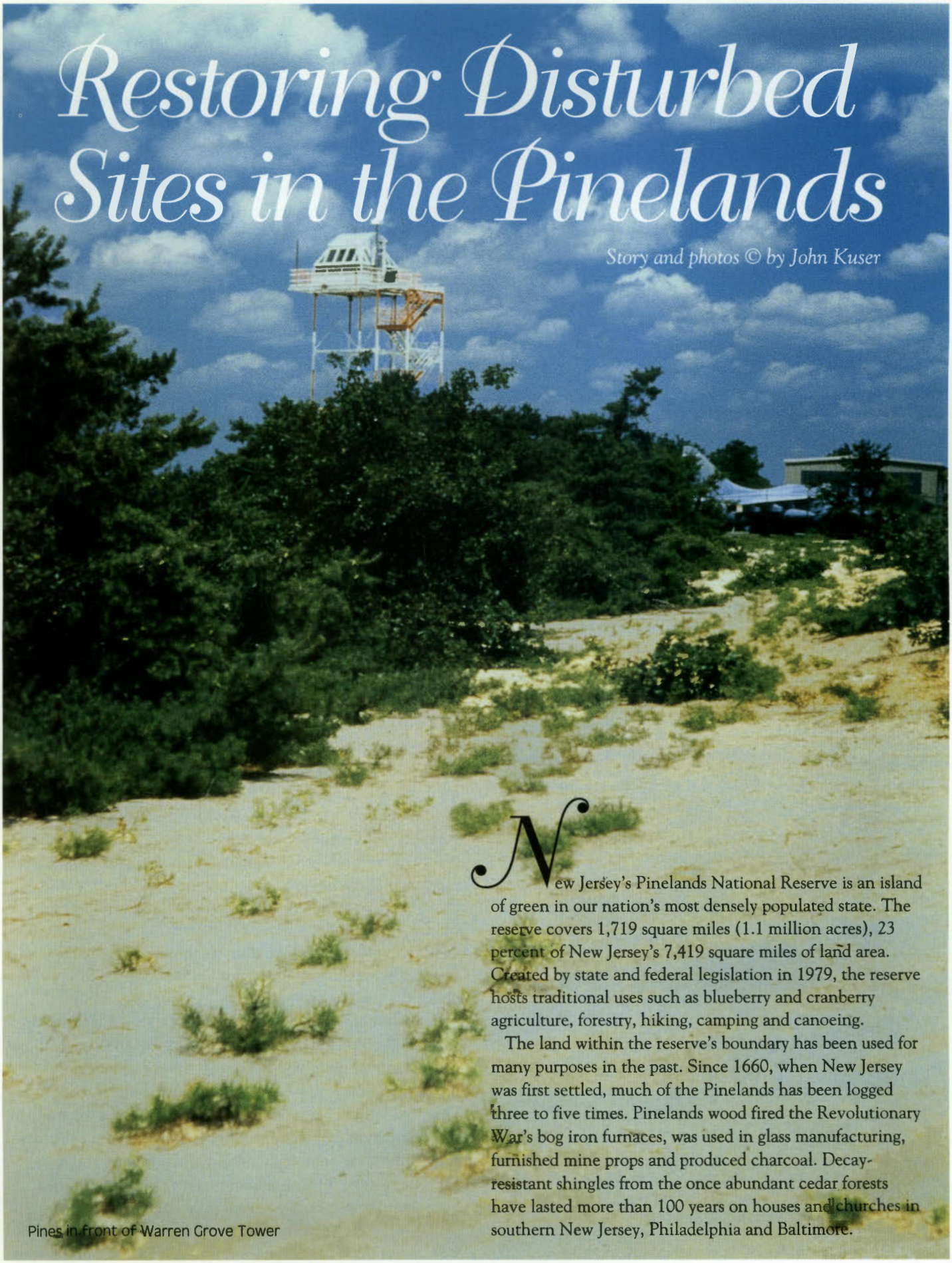
Additional information about maintaining hiking trails is available from:

- **New York/New Jersey Trail Conference**
  www.nynjtc.org/
  212/685-9699
- **Appalachian Trail Conference**
  www.atconf.org/
  717/258-5771

A section of the 44-foot-long, 3-foot-high rock crib wall constructed along the side of the trail

Restoring Disturbed Sites in the Pinelands

Story and photos © by John Kuser



Pines in front of Warren Grove Tower

New Jersey's Pinelands National Reserve is an island of green in our nation's most densely populated state. The reserve covers 1,719 square miles (1.1 million acres), 23 percent of New Jersey's 7,419 square miles of land area. Created by state and federal legislation in 1979, the reserve hosts traditional uses such as blueberry and cranberry agriculture, forestry, hiking, camping and canoeing.

The land within the reserve's boundary has been used for many purposes in the past. Since 1660, when New Jersey was first settled, much of the Pinelands has been logged three to five times. Pinelands wood fired the Revolutionary War's bog iron furnaces, was used in glass manufacturing, furnished mine props and produced charcoal. Decay-resistant shingles from the once abundant cedar forests have lasted more than 100 years on houses and churches in southern New Jersey, Philadelphia and Baltimore.

Ardent naturalists, Clayton Sand's Thorton Hartshorn and Tom Jameson (top) show off one of the purple martin houses they've put up near the largest lake at the company's Lakehurst plant.

The golden aster (inset) flourishes in open sandy areas.

Sand and other minerals were dug from the ground, with about 20,000 acres within the reserve now approved for continuing this use. By the middle of the 20th century, the land was showing signs of its hard use — worked-out sand and gravel pits pockmarked the reserve, cedar-swamp forests had dwindled to only 50,000 acres (mainly in the Pinelands), and much of the pine and oak regrowth was of poor quality.

Since its creation in 1979, the Pinelands Commission, which largely controls development within the reserve has worked with the New Jersey Forest Service, farmers and other landowners to restore the pristine quality of South Jersey's green oasis. In carrying out restoration of disturbed areas, landowners have re-graded worked-out sand and gravel pits, and planted pine, cedar, oak and bayberry on these and other sandy areas. Barren waste areas are on the way to becoming, once again, part of the region's oak-pine or cedar-swamp ecosystems.

Clayton Sand

One example is the Clayton Sand Company's sand and gravel mine near Lakehurst. Its story began in 1960, when the Glidden Company's mineral prospectors discovered a rich vein of ilmenite. This mineral produces titanium dioxide, the pigment used in white paint instead of lead after the latter's toxicity was recognized. Glidden bought 1,250 acres, built mine and plant facilities in 1961 and started commercial production in 1962, supplying ilmenite concentrate to the pigments division of the company's Baltimore chemical plant. In 1978, after most of the ilmenite had been extracted, huge sand piles and several large open lakes were left.

Clayton bought the worked-out site and converted it to a sand and gravel operation, using much of the same machinery and facilities; it now is one of New Jersey's leading sand and concrete suppliers. Since 1971, the company has restored 65 acres of pine forest at Lakehurst and 100 acres at Woodmansie.

At the Lakehurst plant, ardent naturalists Thorton Hartshorn and Tom Jameson have re-graded sand with redtop, weeping lovegrass and Blackwell switchgrass to hold it in place until trees grow. They've put up bluebirds nesting boxes and birdhouses for the purple martins that feed on the insects above the tract's largest lake.

Experiments by Rutgers scientists on establishing Atlantic white-cedar along the swampy edges of Clayton's lakes, which now fill mined-out pits, have shown that cedar can grow rapidly on these manmade sites if mulched and fertilized at planting. Other Rutgers scientists have unraveled the ecology of sickle-leaved golden aster, *Chrysopsis falcata*, a small endangered wildflower that seeds into open sandy areas and flourishes there until it is shaded out by taller vegetation. They have found that it can be moved from one sandy spot to another, thus ensuring its continued existence. It does quite well at seeding into sandy places by itself, too; I've discovered

Hundreds of young pitch pines grow on reclaimed land at the Unimin site.

it colonizing "sugar sand" patches in my pine research plot at Jackson, two or three miles downwind from Clayton.

Unimin Company

Another sand mining operation, Unimin Co.'s 550-acre Cedar Lakes tract near Buena, is the site of a 1987 Rutgers forestry experiment comparing growth of progeny of the state's finest pitch pines. These grew so well in the reclaimed, leveled soil of a former sandpit that they are now about 20 feet high. All around them in the reclaimed area are 50,000 more pines, planted under the supervision of Jim Zadorozny, Unimin's young and dynamic reclamation manager.

In the meantime, the Rutgers experiment has been evaluated, results have been published and the New Jersey Forest Service has planted the world's first improved pitch pine seed orchard to furnish faster-growing seedlings for future reforestation.

Arrowwood Nursery

A third sandpit site has been completely restored and is now Joe Arsenault's Arrowwood Nursery in Williamstown. (See **From Barren Landscape to Environmental Paradise** in the Winter 1996 issue of *New Jersey Outdoors*). This 73-acre tract, 55 acres of which was excavated for sand and gravel in the 1940s, now has a 30-acre lake in the middle of the former gravel pit. The lake's waters, once colored the pale, translucent blue typical of sandpit lakes, have become more tea-colored since Joe and his partners planted the banks with pines and oaks.

Today their lake is home to bluegills, pumpkinseeds, rainbow trout and largemouth bass. The rainbows survive here because the springfed lake draws its waters from the Cohansey aquifer, and its temperature does not rise above 70°F in summer. Joe likes to fish, and he stops talking to you for a moment as he casts a baleful glance at his competitors, a pair of endangered great blue herons which have taken up residence at Arrowwood along with an osprey which shares the fishing. Around the shores of the lake, Joe has 20-foot pitch pines, oaks of several kinds and black locusts.

The pines and oaks got Joe into the nursery business in the 1980s, when he couldn't obtain seedlings from the state nursery because they sold out months in advance. He collected pinecones and acorns and grew his own seedlings for restoration planting.

Today he grows pitch pine, both standard and pygmy Pine Plains types, for sale; he also grows white-cedar seedlings and a vast array of wetland shrubs, sedges and grasses for wetland and upland reclamation. His newest addition is a collection of perennials for butterfly and hummingbird gardens.

Warren Grove Range

A much different example of site restoration is the huge 9,416-acre Warren Grove Range, where New Jersey Air National Guard pilots practice bombing and strafing. This tract is in the middle of the Pine Plains, where trees are so short that you can see over the top of the forest. The local race of dwarf pitch pines has become so genetically adapted to frequent forest fires that the trees grow crooked and bushy from the start and they all have closed cones that need the heat of a fire to open them and release their seeds.

Built by the federal government in 1945, the Warren Grove facility originally was used to test torpedo fuses. In 1948, it became a weapons range, with targets in the middle and cleared "flight strips" of sand radiating outward like spokes of a wheel. Then, around 1986, the National Guard and the Pinelands Commission found that they shared a common goal to reforest these cleared strips: The Guard didn't want the

Rob Fimbel's pygmy pine plot at Warren Grove will help to regreen the area.

Targets loom behind pines planted at Warren Grove.

targets to be so obvious and the Commission wanted all the green it could get.

The National Guard's Col. Richard Masse and the Pinelands Commission worked out a restoration plan, and the Guard awarded Rutgers a three-year research grant to develop the best way to restore the pygmy pine forest. Graduate student Rob Fimbel collected cones from local pitch pines surrounding the flight strips, extracted seeds from them, grew the seeds into one-year seedlings at the State nursery, and tested various ways to establish them in the gravelly, droughty soil.

Along the way, Rob and his wife Cheryl, also a graduate student, experimented with different ways — hot air oven, boiling water dip and microwave oven — to get the tightly closed cones to open and release their seeds. This was good science, and they not only had fun doing it but also were able to publish the results.

Rob also grew blackjack oak, scrub oak and bayberry to plant on the bare areas and re-establish something like the native mix that grew on adjacent areas. One of his companion plots used a mulch combination that produced some healthy weeds, including one tomato plant — you never can tell what sort of seeds may be in mulch!

Rob's revegetation work was so successful that it earned him his doctorate. Andy Windisch, a graduate student who works for the Nature Conservancy and is based at the N. J. Department of Environmental Protection's Natural Lands Management office, has continued planting dwarf pitch pines and oaks at Warren Grove. He estimates that, in the last five years, he has planted 50,000 pygmy pitch pines.

Greening Continues

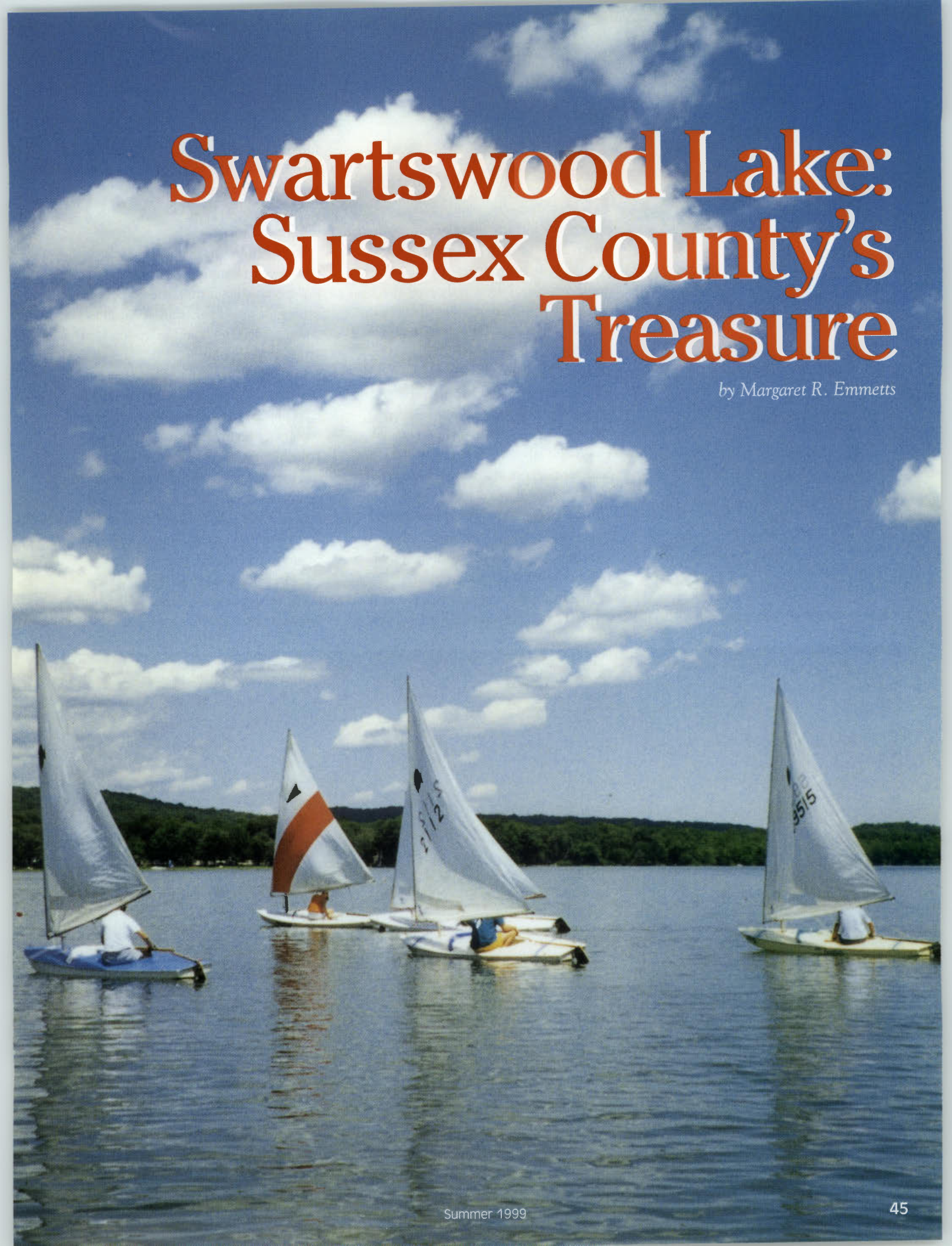
Clayton Sand, Unimin and Warren Grove Range have three things in common: All are in the Pinelands, all continue to operate and all have greened up their land by restoring areas not in active use.

Today, the Pinelands National Reserve is not only not paved over, but it's greener in many places that it was 10 years ago. For this, we can thank the Pinelands Commission and its many friends and cooperators such as the Nature Conservancy and the New Jersey Conservation Foundation. But in the long term, preserving the Pinelands is like preserving democracy — it requires constant vigilance. It is the current task of the Pinelands Commission and watchdog groups, such as the Pinelands Preservation Alliance and others, to see that this is done. With our help, it can be.

John E. Kuser, Ph.D., is an associate professor of forestry at Rutgers University's Cook College. He is credited with nominating more than a half dozen of New Jersey's "Big Tree" champions.

Swartswood Lake: Sussex County's Treasure

by Margaret R. Emmetts



Some ten thousand years ago, during the last ice age, glaciers covered much of the North American continent. These huge rivers of ice covered northern New Jersey, reshaping the land beneath them as they advanced. "V" shaped river valleys were broadened and deepened into the "U" shaped valleys characteristic of glaciers. As the climate warmed and the glaciers retreated, melt-water flowed through these widened valleys forming glacial rivers and streams. Where the glaciers had cut deepest, the water pooled to form glacial lakes.

Such was the history of Swartswood Lake, nestled in the hills of northwest New Jersey. Just as the glaciers reshaped the land over time, so has the character of the lake and its use changed over the years. Today, treasured for the beauty, habitat and recreational opportunities it provides, it is the focus of community protection efforts.

Changing Roles

Early history of the lake includes stories of Indian raids. During the American Revolution, the lake provided power for several gristmills as well as water for livestock and irrigation for the crops of nearby farms.

In the 1870s a railroad was constructed that linked the Pennsylvania coal fields and the New York metropolitan area, and opened the Swartswood Lake area, which was on the route of the railroad, to tourists. Families would camp around the lake in tents, many staying from July 1 through Labor Day. As the campsites were improved, tents began to give way to small cottages.

By the 1920s and '30s, the lake was home to speakeasies, dance halls, boxing training camps and, if local

A boat is docked on Swartswood Lake.

gossip is to be believed, to some "ladies of the evening." During World War II, both the numbers and sizes of the cottages grew until the summer community dominated the lake. As transportation to metropolitan areas became more readily available, some year-round homes began to appear.

A Tiny Treasure Blossoms

In 1914 George Emmans ceded 12.5 acres of land to the state for use as a public park. In return for this gift to the state, he and his heirs were awarded life rights as the only concessionaire at the park.

From this modest beginning, Swartswood State Park has grown to its present size of 1,400 acres. Open all year, the park has 70 campsites, hiking trails and picnic facilities. A sandy beach, boat rentals and a food concession are open from Memorial Day to Labor Day. A popular feature of the park is its series of entertaining and educational *Twilight at Swartswood* programs. Presented on weekends by local experts and artists, the programs are broad in scope and appeal to all ages. Live music, slide programs of local plants and animals, astronomy, Indian lore, maple sugaring, canoe trips, folklore and live lion cubs are just a sampling of the recent presentations.

In 1958 the Washington Rock Girl Scout Council opened Camp Lou Henry Hoover, named for the wife of former U.S. president Herbert Hoover. The year-round facility, covering 328 acres, stretches from high atop the hills overlooking the lake's west shore to its waterfront. During July and August, resident summer camps are held for girls in grades 2 through 12. The last week of August through Labor Day is traditionally reserved for family camping. Facilities range from a winterized building to platform tents and pitch-your-own areas. The camp also boasts a well-appointed beach area for swimming and boating.

In 1959, a group of sailing enthusiasts got together to form the Swartswood Yacht Club. Forty years later, it's still going strong. From the end of May through mid-October, Sunday afternoons will find skippers clustering around the club's pontoon boat eagerly awaiting the horn that signals the start of the day's races. The club sponsors both Sunfish class and mixed fleet races. Mixed fleet means that all types of boats can compete in a single race regardless of size or class. Scoring is accomplished by adjusting race times using the Portsmouth Handicap system.

The Swartswood Yacht Club also schedules a variety of social activities for non-sailors. Each fall, a Commodore's dinner is held to award trophies to the winning racers. In February, the members meet for brunch and an ice skating party. Active in the community,

Men and machines combat lake eutrophication.

A Sampling of *Twilight at Swartswood* Programs

July 3
- Lake Ecology Canoe Trip
- Stories and Demonstrations of Early Sussex County Frontier by the New Jersey Frontier Guard
- Live Animals and Museum Artifacts from Space Farms Zoo and Museum

July 4
- July 4th Parade of Boats

July 10
- Kids Panfish Derby
- Lake Ecology Canoe Trip
- Introduction to Flyfishing

July 17
- Lake Ecology Canoe Trip
- Habitat Hike
- Astronomy

July 24
- Youth Sailboat Regatta
- Lake Ecology Canoe Trip
- Great Horned Owl and American Crow

July 29
- Nature Program: How to Care for Injured Wildlife

July 31
- Lake Ecology Canoe Trip
- Beekeeping — How Honeybees Live

August 7
- Lake Ecology Canoe Trip
- North American Bats — Our Misunderstood Night Visitors

August 12
- Nature Program: Learn about the Swartswood Lake Restoration Program

August 14
- Lake Ecology Canoe Trip

August 21
- Lake Ecology Canoe Trip
- Night Hike for Owls

August 28
- Lake Ecology Canoe Trip

September 5 and 6
- Labor Day Sailboat Regatta

September 12
- Raptor Migration

Call 973/383-5949 for more information about the July 4th Parade of Boats, Youth Sailboat Regatta and Labor Day Sailboat Regatta and 973/993-1982 regarding the Kids Panfish Derby. For details on all other programs, call 973/383-5230.

Swartswood Yacht Club teaches sailing to local children in the town's summer recreation program, offers boat storage and assists the state with its water testing.

In 1960, the United Methodist Church opened Camp Aldersgate on the west shore of the lake. It currently maintains 23 acres of lakefront, which it shares with the Yacht Club, and an additional 200 acres nearby. The camp provides a wide variety of group camps — sailing, fishing, canoeing, woodworking, peer counseling, to name a few. Facilities range from a modern lodge, which sleeps 72, to tent platforms. The camp welcomes groups of all denominations.

In 1974, local anglers formed the Paradise Fishing Club to promote fishing on the lake while protecting the environment. Each year the club stocks the lake with 500 to 1,000 brown trout. It also sponsors an adult fishing derby and contests for children.

In the 1990s, the park's staff, local residents and members of the Paradise Fishing Club and Swartswood Yacht Club became concerned about the water quality and weed conditions in the lake. They banded together to create the Swartswood Lakes Watershed Association.

A Treasure in Peril

Most people readily recognize that living things such as plants and animals have life cycles. Less obvious is the fact that lakes also have a life cycle. Once created, the length of their life span depends on a number of factors including their size and how man uses or abuses them. The natural aging process is called eutrophication. This process can be hastened by chemicals and pollutants that enter a body of water from farms, roads and septic systems anywhere within the lake's watershed, and is called cultural eutrophication.

Shallow areas of a lake may become nutrient rich from the pollutants carried

Mixed Fleet and Sunfish Races

The Swartswood Yacht Club has scheduled a number of sailboat races for the remainder of 1999. Club members can participate in all series and guests (non-club members) are welcome to sail in up to two races. To confirm dates/times and obtain additional information, please call 973-383-5949.

◆ **Summer Series (Mixed Fleet and Sunfish Races)**
There will be a total of eight races for the series, which will be run on Sunday afternoons from July 11 through August 29. In the mixed fleet series races, which begin at 1:30 p.m., all sailboats can compete under a handicap system. The sunfish series is for Sunfish class sailboats; these races begin after the mixed fleet races (at approximately 3 p.m.).

◆ **Fall Series (Mixed Fleet)**
There will be a total of eight races for the series, which will be run on Sunday afternoons from September 5 through October 10. (The series includes the club's Labor Day Sailboat Regatta races.) All sailboats can compete under a handicap system in the mixed fleet series races, which begin at 2 p.m.

into the water from local run-off. These nutrients support nuisance vegetation and algae that die and fall to the bottom each year. The area becomes more and more shallow until there is no longer a depression to hold the water. The area becomes a wetland, then a meadow, home to grasses and, in time, soft wood trees such as cottonwoods. Given enough years, hardwood trees will displace the softwoods and the cycle will be complete.

The primary focus of the Swartswood Lakes and Watershed Association is to slow the cultural eutrophication of Swartswood Lake through proper watershed management. Nutrients of chemical origin that foster the growth of nuisance aquatic plants and algae may come from sources miles away from the lake itself. All chemicals placed in or on the soil within the lake's watershed will eventually find their way into the lake waters. (A watershed is the entire area whose run-off drains into a particular body of water. A rough estimation of a watershed's size can be determined by looking for the highest elevations in a 360-degree circle around the body of water. This can be a considerable area. For instance, the watershed of the Mississippi River extends from the crest of the Rocky Mountains in the west, to the crest of the Appalachians in the East.) Chemicals used to fertilize lawns, herbicides and insecticides used in agriculture, substances used on roads to control ice and seepage from septic systems all enter the ground water system. The ground water flows downhill, either as surface run-off from rain or snow, or in the flow of sub-surface ground water.

The increased growth spurt caused by these chemicals is similar to the effect of fertilizing your lawn. As a result, waters may become weed-choked. As each year's plants die off and decompose, these nutrients are re-released into the water and again become available for use. Over a period of years the nutrient level in the water can become significantly higher since nutrients are constantly being added and seldom removed. This constant influx speeds the eutrophication process.

Protecting the Treasure

At Swartswood Lake a harvesting project has been initiated. The harvester is a self-propelled floating barge that mows the underwater vegetation to a depth of about five feet. The cut aquatic vegetation is lifted by a conveyor belt into the harvester, where it is transported to the shore for removal. A season's mowing program can remove tons of biomass and the nutrients that would result from this biomass' decomposition. While this process will not solve a weed problem in one year, it will have a significant effect over the course of several years. Loss of nutrients will slow weed growth and reduce algae without the use of chemicals, which often carry harmful side effects.

Eurasian watermilfoil is a plant that is plaguing many lakes because of its rapid growth and the ease with which it can be transferred between bodies of water. Pieces of the plant may cling to the blades of an outboard motor as it is removed from a contaminated lake. When the boat is put into another body of water, the pieces drop off and the plant is introduced to a new location. Its rapid growth rate enables it to dominate a body of water in a relatively short time.

The State Park Service has installed large-scale aerators in the lake. They improve the fish habitat while controlling the negative chemical and algae conditions. Weekly monitoring results indicate that water quality not only is being maintained, but actually is improving.

Action Rewarded

Today, through the efforts of its residents and visitors, the third largest natural lake in New Jersey is a nature lover's paradise. Its predominantly forested shores are home to deer, beaver, mink, raccoons and an occasional bear. A rare wild population of lotus thrives in its waters. These elegant five-inch yellow-green blossoms stand on stalks a foot above the water.

Anglers find large- and smallmouth bass, trout, pickerel, walleye and catfish in abundance. Bird watchers find ospreys, eagles and dozens of small birds as well as waterfowl. Stately swans, great blue herons and diving cormorants all call Swartswood home. Situated along the Atlantic flyway, the lake is visited by loons, coots and grebes as they make their annual spring and fall migrations. A bird blind located along the state park's Duck Pond Multi-use Trail serves as an observation stage for bird watchers. The trail is handicapped accessible, as is the state park beach.

The people of the surrounding communities have formed a unique partnership with state and local agencies, which will result in their passing of Swartswood Lake and its surrounding watershed to the next generation in better condition than they found it.

Swartswood Lake is a year round delight. Visit in the summer for a cooling dip and stay to watch a spectacular sunset. Come on an autumn morning and experience the quiet of a lake wrapped in a blanket of fog and see the magnificent color display of the hills as the sun melts the fog away. In winter, iceboat, fish, skate or do some cross-country skiing. Spend an evening sipping hot cocoa and listen to the ice creak, groan and boom as it expands. Watch a spring storm whip the lake's surface to whitecaps with spume flying from their tops.

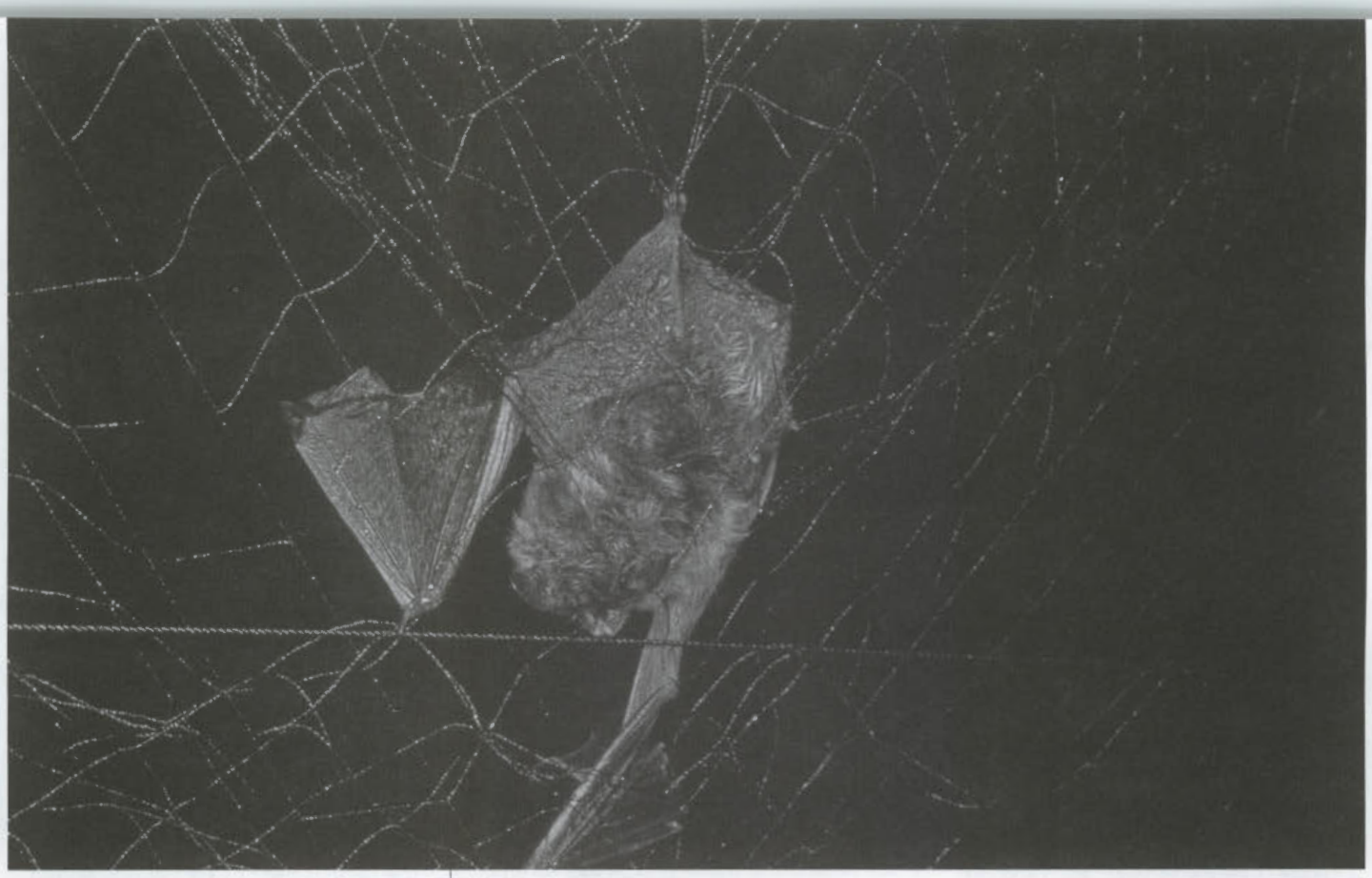
The glaciers have come and gone, but the beauty they created in Swartswood Lake is expected to last for the next 100,000 years. Come and share the beauty. Take away pictures and memories, and leave only your footprints.

Margaret R. Emmetts, B.A., M.Ed., is a science educator and resident of Swartswood Lake.

CONTACTS

For more information about the park or the organizations and activities mentioned in the article, call or write to:

- **Swartswood State Park**
  Steve Ellis, Superintendent
  973/383-5230
- **Washington Rock Girl Scout Council**
  908/232-3236
- **Swartswood Yacht Club**
  Margaret Emmetts, Secretary
  973/383-5949
- **Camp Aldersgate**
  Declan Thomas, Director
  973/383-5978
- **Paradise Fishing Club**
  Janet Costello, Secretary
  973/839-7259
- **Swartswood Lakes and Watershed Association**
  P. O. Box 44
  Swartswood, New Jersey 07877



Though it looks like it's web surfing, this bat is caught in a mist net.

Going BATTY

Story by Mike Valent; © photos by Dr. Peter J. Lekos

It was approaching 6:30 p.m. and daylight was waning fast. A slight wave of panic swept over me as I realized I had miscalculated the amount of time it would take to set up my equipment. This wasn't the kind of work I wanted to tackle alone in the dark and my volunteers weren't scheduled to arrive for another half-hour. The dry run had gone much easier on the lawn outside of my office. Now it seemed that every twig and leaf in the forest was finding its way into my mist nets, despite the tarp spread on the ground to prevent that very problem. As the last rays of sunlight faded, I finished tying off the guy lines with the aid of my headlamp.

The site I chose to survey this October evening was on an old woods road that passed near the entrance of a long abandoned iron mine in Morris County. The location seemed perfect as the double-stacked mist nets reached just below the bottom of the tree canopy and covered the full width of the road. Any bats coming out of or

Gates such as this one are installed to protect bat habitats.

going into the mine would have to maneuver past the nets or be caught.

Anticipation mounted as I waited for the first signs of bat activity. Using a bat detector, I panned the area to listen for bats. When feeding and navigating in the dark, bats emit high frequency sounds that cannot be heard by the human ear. The bat detector picks up these sounds and transforms them into an audible click on the speaker. The first clicks from my detector came at about 7:45. Intermittent at first, they increased to a constant rhythm in just a short time.

My volunteers arrived just in time to find me untangling from the mist net our first bat of the evening — a male little brown bat (*Myotis lucifugus*). I studied the animal closely to positively identify it before placing it into a holding sack to be measured and weighed later. The little brown bat is the state's most common bat and the one seen by most people during the spring and summer. However, it bears a very close resemblance to, and easily can be confused with, our primary quarry, the endangered Indiana bat (*Myotis sodalis*).

The Indiana bat was first listed as an endangered species in New Jersey in 1974. It was added to the Federal Endangered Species List in March 1977. The primary reasons cited for the species' decline are disturbance and vandalism by man during hibernation and the loss of preferred habitat throughout its range. The total population is estimated to be less than 400,000. Nearly 87 percent of the population hibernates in just seven caves and mines located in Kentucky, Indiana and Missouri.

Success!

As the minutes ticked by, bat activity increased to the point that we had to close the nets because we were catching more bats than we could handle. We captured more than 100 bats that evening in little more than an hour. Included in the sample were two male Indiana bats.

This wasn't the first time Indiana bats had been captured at the site. Two years prior, a team of consultants from Kentucky captured two specimens near the old mine. Since Indiana bats have been captured at this location on at least three occasions over the past several years, the New Jersey Division of Fish, Game and Wildlife's Endangered and Nongame Species Program now considers it only the second confirmed site in the state that supports a wintering population of Indiana bats. Unfortunately, an internal survey of the mine isn't possible because the entrance is a vertical shaft — approximately 150 feet deep — and is on private property. Since the mine can't be entered safely, external mine surveys must be conducted to determine its importance to bats.

In 1996, the Endangered and Nongame Species Program began a project to locate abandoned mines that provide critical winter habitat for six of the state's nine bat species. The mammals, which once relied entirely on caves, have been forced out of these natural habitats because of excessive human disturbance. They now rely almost entirely on abandoned mines and tunnels for their winter hibernacula (the habitat used by bats during winter hibernation).

The primary objective of the project is to identify important new hibernacula, especially sites that are being used by the Indiana bat. Bat conservation gates, which are designed to allow bats to pass freely while preventing people from entering the mine or cave, are installed at newly identified hibernacula sites. The Hibernia Mine, New Jersey's largest bat hibernacula and winter home to a small number of Indiana bats, was successfully gated in July 1994. Recent surveys suggest that the number of wintering bats has increased since the gate was constructed.

Although the bulk of the Indiana bat population occurs in just a few midwestern states, the species ranges over most of the eastern United States. They are found from Vermont west to southern Wisconsin, south to eastern Oklahoma, east through central Arkansas to the western panhandle of Florida, and north through Georgia and the western half of the Carolinas to western Connecticut and Massachusetts.

Kissin' Cousins

At first glance, Indiana bats look very much like the more common little brown bat. In fact, it takes a trained eye

to distinguish the two species. The Indiana bat has a pinkish cast to its fur that gives it a light purple-brown coloration. The little brown bat has a rich brown coat that almost appears bronze in color and has a glossy sheen. One of the main distinguishing features of the Indiana bat is its keeled calcar. The calcar is a small cartilaginous process (appendage), or spur, that projects from the foot towards the tail and helps to support the trailing end of the uropatagium (the membrane surrounding the tail). A little brown bat has no keel on its calcar.

Another distinguishing characteristic of the Indiana bat is its feet. The Indiana bat has either little or no hair on its feet. If present, the hair is short and does not extend beyond the nails of the toes. The little brown bat has long hair on its feet, extending to the tips of the toe claws or beyond.

Both species are approximately the same size, ranging from 2.9 to 3.7 inches in length, including the tail. Their wingspans are similar and range from 8.6 to 10.5 inches. Body weights for both species range from 0.18 to 0.35 ounce.

Home Is Where the Hibernacula Is

From late August to mid-September, Indiana bats leave their summer habitat and arrive at hibernation sites where they engage in swarming and mating activities. Although mating occurs in the fall, females store the male's sperm over the winter months and fertilization occurs in the spring. Swarming continues in the area around the mine or cave until late October or early November. This is an important time for the bats because they are feeding to build fat reserves that will carry them through the winter months. Research has suggested that moths are the primary food item of Indiana bats.

Indiana bats hibernate from November to April in this part of the country. They are often found in large dense clusters of 300 to 480 bats per square foot in caves and abandoned mines and tunnels. They typically seek out areas of the cave where temperatures are between 38 and 43 degrees and humidity ranges from 66 to 95 percent. In New Jersey, the largest number of Indiana bats ever counted at a single hibernation site was about 35 individuals.

The Indiana bat can be distinguished from the little brown bat by the hair on its feet. The hair on the Indiana bat's feet (right) is sparse and short (if present at all), while the hair on a little brown bat's feet (left) extends to or beyond the tips of its toe claws.

Female Indiana bats generally leave the hibernacula before males and arrive at summer nursery colonies by mid-May. Nursery colonies are usually found under the loose bark of a large diameter, standing, live or dead deciduous tree that is exposed to direct sunlight. Here they give birth to a single offspring in late June or early July. The pups are born naked, blind and helpless and are cared for by the female. The young are full grown and ready to fly in about four to six weeks. Only females and young inhabit nursery colonies, although males are often found roosting in nearby trees.

Research conducted in Michigan, Illinois, Indiana and Missouri has shown that floodplain and riparian forests are important summer habitats of the Indiana bat. Although little is known about the summer habitat and ecology of the Indiana bat in New Jersey, we do have evidence that they occur here. In the summer of 1995, researchers working at Picatinny Arsenal in Morris County captured a post-lactating female. A male Indiana bat was captured at Picatinny Arsenal during the summer of 1997. That bat, which was found roosting under the bark of a dead standing tree in the shallow water of a small pond on the site, was fitted with a miniature radio transmitter and tracked for several days. Since the species apparently occurs in very low numbers in New Jersey, research on its habitat use and ecology is extremely difficult.

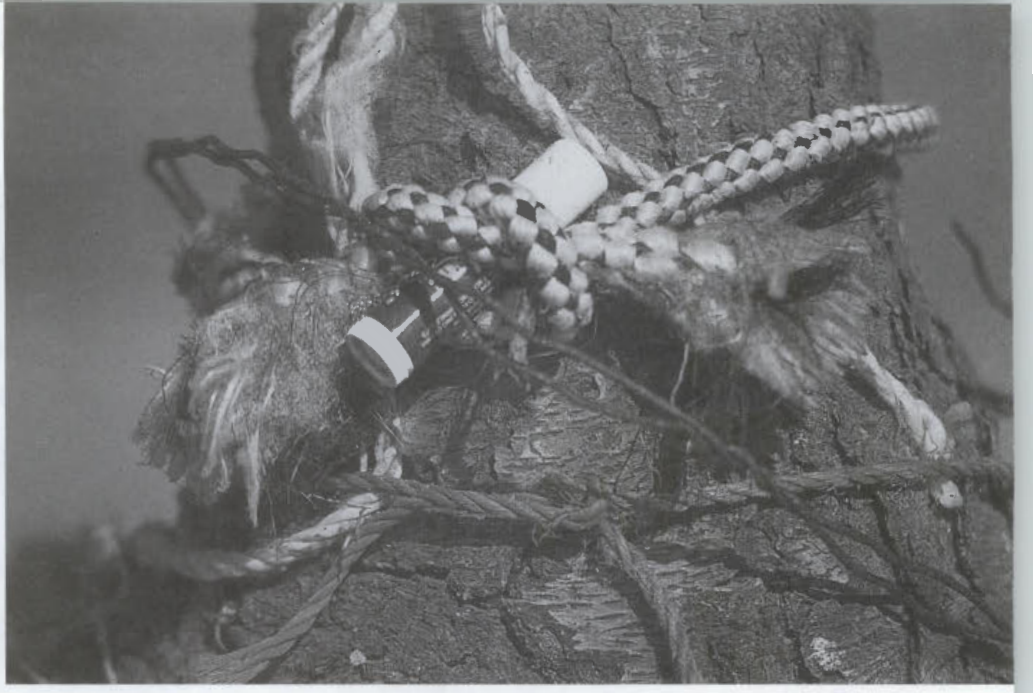
The Division of Fish, Game and Wildlife plans to continue its work to identify and protect important caves and mines for hibernating bats. Another bat conservation gate is slated for construction this summer near the Delaware Water Gap in Warren County. In addition, the program is planning to conduct summer surveys in suitable habitat near known winter roosts of the Indiana bat.

Editor's Note: For more information about bats and the nine species that call New Jersey home, read **Going to Bat for a Misunderstood Mammal** in the Fall 1993 issue of *New Jersey Outdoors*.

Mike Valent is a senior zoologist with the Division of Fish, Game and Wildlife's Endangered and Nongame Species Program.

THE MYSTERY OF THE TREE ARTIST

Story and photos © by Sue Tatem



Ropes and wires entwine *The Tree* (top), often securing jetsam to its trunk and limbs.

A rubber water shoe points its toes at the sky (bottom) as it dangles from a branch on *The Tree*.

The first time I saw *The Tree* was when we came to the beach in 1994. Its setting was unlikely, yet perfectly appropriate.

I had the habit of walking at low tide at Hereford Inlet. The beach here, at the south point of Stone Harbor, slopes up from the rippled mud flats to low dunes that are thick with green bushes. Where the hurricanes have washed the bushes and trees with salt water, the plants die. Their skeletons remain, wearing into bits of driftwood. It is here, along this dying edge, that I first found *The Tree*.

The Tree — and it was more of a tree than a bush — was about 25 feet tall, totally uprooted, devoid of leaves. Its trunk and main branches were weathered to gray and without bark; the finer twigs were all gone. I was attracted to it by a flock of tiny black birds that swept in and alit. I headed there intending to get a closer look, and maybe identify them.

Of course, just as I was focusing my binoculars, the flock took wing and was gone. But *The Tree* was not barren — it wore odd fruit.

Closer inspection revealed that it was decorated, like a Christmas tree, with all manner of beach detritus — red and green plastic shovels, gloves, tangles of filament, a piece of red rope, bottles and shoes. The latter were mostly beach shoes, made of gold and green and clear plastic jelly. But there were sneakers and sandals and those funny looking water shoes with black soles and pink day-glow uppers. A lost-and-found tree. A recycling tree. Old things to be rescued, to look at in a new way.

I returned to *The Tree* every possible low tide. I particularly liked to see it in early morning or late afternoon, when the light was golden and the decorations were backlit.

A Work of Art in Progress

New things were added daily. They were not randomly hung, but combined and arranged. They were art. I started looking for the artist and tried to catch him, or her, decorating. I began calling the creator the *artreest*, a combination of tree and artist.

As the years went by, the decorations seemed to become more ambitious and complex. I imagined many tree artists. There is a nature center in Stone Harbor — the Wetlands Institute — that gives tours, protects turtles and has a TV camera watching an osprey nest. I suspected that the naturalists and children in the institute's shore discovery program were collecting the jetsam to decorate the tree.

I picked no fruit from *The Tree*. That would have been too much like Eve plucking an apple. Nor did I add ornaments. That would have been tampering with someone else's art.

When I came to the beach in May 1997, I worried. Had the sea claimed

The Tree? I went to Hereford Inlet at the first low tide. Yes, it was there!

When I reached it, I was disappointed. It was almost denuded; only a couple of sad shoes remained. But it did have a fine rigging of clear plastic clothesline high in its branches. Perhaps the other ornaments had been swept away by winter storms.

The next day, *The Tree* had already acquired more shoes. A flag, waving from its high branch, turned out to be a red mesh bag marked "Onions."

As I looked toward the dunes, I made an exciting discovery that woke me from my musings about art. There was a second tree. The shoe tree had a twin. It was too late to inspect it, but I thought I had days to return.

Uncle Biff

My husband's uncle — I'll call him Biff, though that's not his real name — has a place in Stone Harbor. Biff invited us for a long walk on the beach. We met him and his yellow Labrador, Java, at the dead end of Third Avenue.

I was barely acquainted with this uncle, a birdy, bald, skinny old man of 90 with Coke-bottle bottom glasses. But he was a character. At a July Fourth family reunion, having forgotten his bathing suit, he emerged from the dressing closet in Peg's navy blue swimming suit and her white rubber bathing cap. Before a gaping crowd, Biff dove smartly into the brown cedar water of Lake Pine.

We took a path through poison ivy, which Biff said he was killing, that led to the tide flats. The path was inhabited by crabs. Each dark, dime-sized crab hole was surrounded by a spray of sand pellets.

"Have you seen *The Tree*? The decorated tree?" I asked Biff.

Biff knew all about *The Tree*. He led us onto the mud flats at the bay side. Before the walk was done, I knew that he was the *artreest*, or at least one of the tree artists. Biff preferred gloves — "You can make a statement with a glove" — and glasses and ladies' hair bands, but didn't like the bottles and the cans. I explained that I had been watching and photographing the tree for years. And I kept asking questions.

Had he put the sunglasses on the old mop head so that it looked like a face? Yes. Had he strung the high rigging? No. Was he also responsible for the underwear piling, ringed by tires at its base and encircled by elastic bands? Yes.

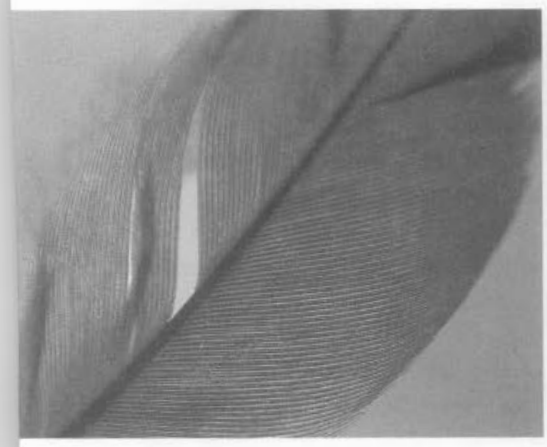
I helped him collect a few more things. Biff pointed out a tire in the shallows, and waited for it to drift closer. I found a plastic rabbit and part of a red shotgun cartridge. He told me what I had known for a long time, that the trees were art. He gave me a turquoise elastic hair tie to add.

Biff said the tree trunk, which was horizontal, was meant to be sat on. I showed him my notebook with the list I had made of things I had found on *The Tree*. Biff is a collector. He has a barn full of junk bought at flea markets and garage sales. I suspect that this junk is also carefully selected and arranged and is art too.

Learning the identity of the *artreest*

These birds are what first drew the author's eye to *The Tree*.

Feathers such as this one may adorn *The Tree* courtesy of the *artreest* — or a winged visitor.



Could this "bracelet" start a new trend?

took some of the magic out of the trees. But it brought security. The trees will be lovingly guarded, tended and renewed by their caretaker.

Tree Two

My plans to inspect the second tree were delayed.

One of those mini-hurricanes that thrust up the coast from the Gulf of Mexico threw rain all over the Northeast. The sky turned gray. The wind whipped the waves into a thick lace collar all along the coast. Wind gusts of 40 mph punished the American flag until it was lowered. It was impossible to visit the trees at Hereford Inlet.

Finally there was a break in the weather and, at about 8 a.m., I headed for the dead end. Wearing Levi's and sneakers, I looked in dismay at the path, which was puddled.

I peered into the distance but could not see *Tree Two* in the dunes.

I worried. Had someone denuded it? Had the *artreest*, discovered, undone his work?

I returned to the condo and donned shorts and my water shoes, then went back to the path and waded in. I expected only a few inches of water, but it was high tide and the storm had made it higher than usual. The water was up to my knees when I turned back, and icy enough to make my legs ache.

According to the tide tables, low tide was about 2:30 p.m. I had to leave in the morning, and there would not be another low tide in daylight before I departed. It was my last chance.

By 2:30, the weather had improved. The wind was still blowing, and the sky was still mostly cloudy, but it was above 50°F.

I drove again to the dead end. I entered the trail through the bushes, passing the yellow dandelion-like hawkweed, the silent pink trumpets of the bindweed and furry gray-pink rabbit's foot clover.

The tide was still out but the path was still puddled. I stepped into it. The water had warmed. I slopped my way to *Tree Two*. To my great relief, it still wore its finery.

The sun peeked in and out through the clouds. Waiting for the drops of sunlight, I snapped a couple of rolls of film. Green plastic shoe. Pair of jelly clear sandals. Pink thong. Stretched rigging of ivory linen pantleg. Purple rags, flapping in the wind. Pair of tires. Black rubber window wipers tied into a pretzel bow. Tangles of fishing line. The yellow-orange running light atop the pole with the blank white sign.

What should I do with the turquoise hair band? I knew the *artreest* would look for it with a critical eye. I hung it on twigs, but that didn't seem very imaginative. I wanted to make a ponytail of the mop strings, but the mop head was too high in the tree for me to reach. Finally I left it twisted in a figure eight around the black rubber wiper that was tied next to a bridal knot of white plastic mesh.

Then I walked to the first tree, the one on the beach. The path connecting the two ran a line to the south. I slopped through more water, slipped on a wet carpet of sea lettuce and crunched through eggshell drifts of half-inch clam shells. *The Tree* still waved its onion bag flag. The purple comb was moved, jammed in a crevice; I photographed the light coming through its teeth. The green bottle was gone, but there was a yellow plastic cup. The purple hair tie shared a twig with the red plastic building brick. A bouquet of faded red, white and blue printed ribbons fluttered.

Looking to *Tree Two*, I realized it was the neon green shoe that had attracted my eye.

I walked back, knowing it would be months before I might visit the two trees, and that I might never see them again. All I would have then would be my pictures, my little time-stopping attempts to capture life's seconds.

I thought about how the *artreest* would be adding women's hair things to the tree and subtracting bottles and cans. Would other artists flirt with him, engage in a dance, moving bits of color from here to there, adding and subtracting?

Still, the trees were there now — for a while, anyway. Before them, the sun will rise orange over a navy blue Atlantic, shining wet shells to gold sequins. Above them, airplanes will drag banners and sky writers will draw dashed letters. Behind them, the sun will set red over the bay and salt marshes with their veil of twittering gulls.

An unsolved mystery was solved.

Sue Binkley Tatem, Ph.D., authored three biology textbooks (as "Sue Binkley") while employed as a biology professor at Temple University in Philadelphia. Currently a resident of Aspen, Colorado, she often visits the Jersey Shore, where she and her husband still own property.

Events

General information is provided here for frequently mentioned event sponsors. The bold-faced name is all that will appear in an event's description.

Albert — Albert Music Hall, 125 Wells Mill Rd. (Rte. 532), 1/4 mile west of Rte. 9, Waretown; 609/971-1593
Batsto — Batsto Village, Wharton State Forest, Hammonton
Cold Spring — Historic Cold Spring Village, 720 Rte. 9, Cape May; 10 a.m. to 4:30 p.m. daily through Labor Day, then only on weekends in Sept.; donation requested; 609/898-2300
Cooper — Cooper Gristmill, County Rte. 513 (1.3 miles west of Rte. 206), Chester; 908/879-5463
Dey — Dey Mansion, 199 Totowa Road, Wayne; 973/696-1776
Great Swamp — Great Swamp Outdoor Education Center, 247 Southern Blvd., Chatham; weekend and evening nature hikes and other seasonal activities are available in addition to listed programs; 973/635-6629
Hermitage — The Hermitage, 335 North Franklin Turnpike, Ho-Ho-Kus; 201/445-8311
HMDC — Hackensack Meadowlands Development Commission Environment Center, 2 DeKorte Park Plaza, Lyndhurst; preregistration in person or by mail is required for all programs; 201/460-8300 unless otherwise noted
Kay — Kay Environmental Center, 200 Pottersville Road, Chester; 908/879-0566
Pequest — The Pequest Trout Hatchery and Natural Resource Education Center, Rt. 46, Oxford (nine miles west of Hackettstown); 10 a.m. to 4 p.m. daily; registration opens two weeks prior to program date; 908-637-4125
Skylands — Skylands Manor and N.J. State Botanical Garden, Morris Rd., Ringwood State Park, Ringwood; 973/962-9534; fee for park entrance on weekends from Memorial Day weekend through Labor Day weekend; fee for manor house admission
Trailside — Trailside Nature & Science Center, 452 New Providence Rd., Mountainside; 908/789-3670
Wetlands — Wetlands Institute, 1075 Stone Harbor Blvd., Stone Harbor (3 miles east of the Garden State Parkway exit 10B); 609/368-1211; fee
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.; 609/825-6800 or 800/998-4552; fee
Whitesbog — Whitesbog Village, mile marker 13 on Rte. 530, Browns Mills (Pemberton Township); 609/893-4646
Woodford — Woodford Cedar Run Wildlife Refuge, 6 Sawmill Road, Medford; 609/654-6179

Note: Information listed was accurate at the time it was submitted to *New Jersey Outdoors*. Before traveling to an event, readers are advised to call the number listed to confirm the information provided and obtain any additional information desired.

Events Symbol* Key:

♿ Handicapped accessible
$ Fee or donation
✎ Preregistration required

* *Symbols are shown where information was provided by event sponsor.*

Ongoing

Pequest Trout Hatchery Tour Closed on holidays; **Pequest**; ♿

Cape May County 64th Annual Fishing Tournament Cape May County waters; 800/227-2297

Nature Classes and Special Events PAWS Farm Nature Center, Mt. Laurel; 609/778-8795; $; ✎ for large groups

Saturdays and Sundays
Guided Walks Parvin State Park, Pittsgrove; 609/358-3105

Guided Nature Walk Cooper Environmental Center, Cattus Island Park, Toms River; 732/270-6960; ♿

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

Sundays, Sept. through Dec.
Family Nature Program **Trailside**

Sundays, through October
Guided Garden Walk Heavy rain cancels; Carriage House at **Skylands**

Sundays, Tuesdays and Thursdays, July 1 to August 31
Sedge Island Canoe Tours Island Beach State Park; 732-793-0506; ♿

Wednesdays
Governor's Mansion Tours at Drumthwacket Princeton; 609/683-0057

Wednesdays through Sundays
Environmental Interpretive Programs at State Parks and Forests Call for details: Cheesequake, Matawan, 732/566-3208; Island Beach, Seaside Park, 732/793-0506; Liberty, Jersey City, 201/915-3409; Parvin, Pittsgrove, 609/358-8616; Washington Crossing, Titusville, 609/737-0609; Wharton, Hammonton, 609/567-4559 or 609/561-0024

Through July 3
Plays-in-the Park: *The Secret Garden* Musical theater; Stephen J. Capestro Theater, Roosevelt Park, Edison Township; 732/548-2884; ♿; $

Through July 18
Artists of the Creative Glass Center of America Exhibition & Sale Gallery of American Craft; **Wheaton**

July 14 through 24 (except Sunday, July 18)
Plays-in-the Park: *Grease* Musical theater; Roosevelt Park, Edison Township; 732/548-2884; ♿; $

July 31 through August 29
Diversity in Glass: Technique, Form & Function Exhibition & Sale Gallery of American Craft; **Wheaton**

August 4 through 14 (except Sunday, August 8)
Plays-in-the Park: *Hello, Dolly!* Musical theater; Roosevelt Park, Edison Township; 732/548-2884; ♿; $

August 15 through Nov. 15
Fall Hawk Migration Count Mid-September is peak flight time; Wildcat Ridge Hawkwatch, Wildcat Ridge WMA, Rockaway Township; http://pw2.netcom.com/~billyg/; 973/335-0674

Aug. 25 through Sept. 4 (except Sunday, August 29)
Plays-in-the Park: *Forever Plaid* Musical theater; Stephen J. Capestro Theater, Roosevelt Park, Edison Township; 732/548-2884; ♿; $

Sept. 11 through October 17
Entertaining Crafts Exhibition & Sale Gallery of American Craft; **Wheaton**

Through October 24
Vanity Vessels: The Story of the American Perfume Bottle A Major Exhibition Museum of American Glass; **Wheaton**

Through October
Sail the Historic *A. J. Meerwald* Public sails & charters; 609/785-2060

July

3
Canoeing Crash Course Woodford; $

The Fabulous Greaseband Concert and Fireworks Veterans Park, Hamilton (Mercer County); 609/890-3684

3 and 4
Arts and Crafts Show Cold Spring

America's Birthday Bash Pro/Am Volleyball Tournament North Wildwood; 609-522-2955

61st Annual Greater Wildwood Yacht Club Regatta Sunset Lake, Wildwood Crest; 609/522-0969

3 through 5
12th Annual Gazebo-by-the-Sea Craft Show Wildwood Crest; 609/522-1669

4
Independence Day Parade North Wildwood; 800/882-7787

4th of July Fireworks Display The Wildwoods Boardwalk; 609/523-1602

6
Waldwick Band Outdoor Concert **Dey**

9
Music in the Mountains *Just a Bunch of Banjos* **Skylands**

Jersey Devil Hunt **Woodford**; $; ✎

10
Revolutionary War Reenactment **Hermitage**; $

Katmandu Swing Jazz Band Concert Sayen Gardens, Hamilton Township (Mercer County); 609/890-3684

Wiffle Up 3 on 3 Tournament Wildwood; 888/777-WIFF

10 and 11
Antique Show **Cold Spring**

Thrill of the Grill Cook-off, craft show, antique cars; Wildwood; 609/881-8062

11
Manor House Tours **Skylands**

Fred's Mobile Homes Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

13
Hackensack River Evening Cruise Rain date: July 20; adults only; sponsored by the HMDC Environment Center, but the cruise leaves from Carlstadt Golf Center and Marina; 201/460-4640; $

16
31st Annual Beschen-Callahan Memorial Lifeguard Races North Wildwood; 609/522-7500

16 and 17
5th Annual Doo Wop Music Festival Holly Beach Station Mall, Wildwood; 609/729-1618

16 through 18
Glass Weekend **Wheaton**

The Return to Beaver Creek Powwow Matarazzo Farms, Belvidere; 908/475-3671; ♿; $

17
Reptile Day **Kay**

Wildflowers and Wildlife of the Pinelands Hike **Batsto**; 609/567-4559; ✎

Canoeing Crash Course **Woodford**; $

3rd Annual Swim for the Dolphins Wildwood Crest; 609/266-0538; $

Acoustically Impaired Concert Sayen Gardens, Hamilton Township (Mercer County); 609/890-3684

Sidewalk Chalk Competition Rain date: July 18; North Wildwood; 800/882-7787

17 and 18
Railroad Days Displays; **Cold Spring**

Hereford Inlet Lighthouse Craft Show North Wildwood; 609/522-4520

24th Annual Toms River Wooden Boat Festival Huddy Park, Toms River; 732/349-9209

Handcraft Unlimited Summer Craft Show Convention Center, Wildwood; 717/656-3208; $

18
Daisy Jug Band Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

21 through 25
Monmouth County Fair East Freehold Park, Freehold; 732/842-4000, ext. 256; ♿; $

22
Welcome to Cape May Houses Tour Cape May; 800/275-4278

23
Music in the Mountains *Sussex High Point Harmonizers* **Skylands**

24
Outdoor Survival for All **Kay**

Antique Fair **Hermitage; $**

Whitesbog Landscape Volunteer Morning **Whitesbog;** ✎

Drop-in Whitesbog Village Tours **Whitesbog; $**

Full Moon Hike **Whitesbog; $;** ✎

Christmas in July Boat parade, etc.; The Wildwoods; 609/522-2955 or 609/729-5501

24 and 25
Farmfest '99 Rural music and dance festival; **Cold Spring**

Jersey Jazz & Wine Festival David's Yellow Brick Toad, Lambertville; 908/745-3671; ♿; **$**

25
Dolphin Watch Cruise Gardner's Basin, Atlantic City; 609/266-0538; **$;** ✎

Country All Stars Concert Sayen Gardens, Hamilton Township (Mercer County); 609/890-3684

27
Hackensack River Evening Cruise Rain date: Aug. 3; adults only; sponsored by the HMDC Environment Center, but the cruise leaves from Carlstadt Golf Center and Marina; 201/460-4640; **$**

27 through August 1
Festival of the Sea St. Francis Community Center, Brant Beach (Long Beach Island); 609/494-8861; ♿

30
Jersey Devil Hunt **Woodford; $;** ✎

30 through August 1
Morris County 4-H Fair Chubb Park, Chester; 973/285-8301

31
Canoeing Crash Course **Woodford; $**

4th Annual Sandblast Beach Run North Wildwood; 609/729-5572; **$**

31 and August 1
Mid-Summer Antiques & Collectibles Show & Sale **Wheaton**

Cape May County Days **Cold Spring**

Mid-Summer Craft Show Wildwood Crest; 609/522-1669

August

1
Horse Ride on the Paulinskill Valley Trail Bring your own horse; 908/725-9649

Mid-Summer Antiques & Collectibles Show & Sale **Wheaton**

Cape May County Days **Cold Spring**

Shot of Redemption Concert Sayen Gardens, Hamilton Township (Mercer County); 609/890-3684

6
Music in the Mountains *3-M Band* **Skylands**

6 through 15
Sussex County Farm and Horse Show Augusta; 201/948-5500

7
Woods Hollow Classic Mountain Bike Race Tatum Park, Middletown Township; 732/842-4000, ext. 237 or 239; **$;** ✎

Story Telling **Kay**

Manor House Tours **Skylands**

Star Watch at Wharton State Forest Batsto; 609/627-3043

Alexandria Athlete and Aviator Adventure Alexandria Field Airport, Pittstown; www.alexandriafield.com; 908/735-0870

7 and 8
Country Corn Festival and Harvest Days **Cold Spring**

Midori Pro/Am Volleyball Tournament Garfield Avenue and the beach, Wildwood; 800/609-2570; **$** for participants

Midori Pro/Am Volleyball Tournament Wildwood; 800/609-2570

8
First Class Act Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

10
Civil War Encampment **Hermitage; $**

13 and 14
5th Annual Blues Music Festival Holly Beach Station Mall, Wildwood; 609/729-6818

14
10-Mile Island Run 44th St. Beach, Sea Isle City; 609/263-3655

Bridgeton Zoo Ride 25-, 50- or 100-mile loop; Schalick High School, Centerton (Salem County); 609/848-6123; **$**

Frank Jackson Big Band Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

14 and 15
Antique Show **Cold Spring**

Hereford Inlet Craft Show North Wildwood; 609/522-4520

15
Antique Fire Apparatus Show & Muster **Wheaton**

Friends Bass Masters Tournament Manasquan Reservoir, Howell Township; 732/288-9402; **$;** ✎

20
Music in the Mountains *An Evening with John Sheehan* **Skylands**

21
The N. J. Highlands: Treasure at Risk **Kay**

Wildflowers and Wildlife of the Pinelands Hike **Batsto;** 609/567-4559;

Peter Nictakis Dixieland Band Concert Sayen Gardens, Hamilton Township (Mercer County); 609/890-3684

21 and 22
Jersey Fresh Food & Wine Festival Four Sisters Winery/Matarazzo Farms, Belvidere; 908/745-3671; ♿; **$**

Antique Auto Show **Cold Spring**

22
Friends/Jersey Shore Running Club Trail Run Hartshorne Woods Park, Middletown; 732/542-6090; **$**

Mountain Laurel Bluegrass Band Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

27 through 29
9th Annual Indian Pow-Wow & Western Festival Vasa Park, Budd Lake; 973/627-2591 or 717/733-0811; **$**

28
Whitesbog Landscape Volunteer Morning **Whitesbog;**

Drop-in Village Tours **Whitesbog; $**

Full Moon Hike **Whitesbog; $;**

28 and 29
Children's Games, Toys, Dolls and Crafts **Cold Spring**

Hobie Cat Races Ocean Avenue & Rambler Road, Wildwood Crest; 609/729-1910

2nd Annual Boardwalk Craft Show The Wildwoods Boardwalk; 609/523-1602

29
Dolphin Watch Cruise Gardner's Basin, Atlantic City; 609/266-0538; **$;**

Monday Blues Band Concert Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

September

1 through November 30
Cape May Bird Observatory Hawkwatch Hawkwatch platform, Cape May Point State Park; 609/884-2736 or 609/861-0700

4
Indian Ways **Great Swamp**

4 and 5
Labor Day Craft Show Gazebo, Wildwood Crest; 609/522-1669

Handcraft Unlimited Labor Day Craft Show Convention Center, Wildwood; 717/656-3208; **$**

4 through 6
Arts and Crafts Show **Cold Spring**

5
Annual Labor Day Parade North Wildwood; 800/882-7787

6
Labor Day Hike on the Paulinskill Valley Trail Beginning at Footbridge Park, Blairstown; 908/852-0597

9 and 10
Family Science on Sandy Hook New Jersey Marine Sciences Consortium, Sandy Hook, Fort Hancock; 732/872-1300, x39; ♿; **$;**

10 through 12
Surf Fishing Tournament On the beach at 3rd and JFK avenues, North Wildwood; 609/522-2955; **$**

5th Annual Oktoberfest-by-the-Sea Holly Beach Station Mall, Wildwood; 609/729-6818; **$**

Surf Fishing Tournament North Wildwood; 609/522-2955; **$**

11
Septemberfest Bike Race Hamilton (Mercer County); 609/890-3674

Concert under the Stars and Fireworks Veterans Park, Hamilton Township (Mercer County); 609/890-3684

11 and 12
Revolutionary War Encampment **Cold Spring**

Stringband Weekend North Wildwood; 800/882-7787

12
11th Ocean County Bluegrass Festival **Albert; $**

Corvette Show Rain date: Sept. 19; **Wheaton**

Sprint Triathlon Seven Presidents Oceanfront Park, Long Branch; 732/842-4000, ext. 237 or 239; **$;**

10th Red Bank Street Fair Rain date: Sept. 19; Red Bank; 908/996-3036

Septemberfest Veterans Park, Hamilton Township (Mercer County); 609/890-3684

15 through December 15
Cape May Bird Observatory Seawatch 7th Street and the beach, Avalon; 609/884-2736 or 609/861-0700

17
Wings'n Water Auction **Wetlands**

Firemen's Weekend Craft Show Gazebo, Wildwood Crest; 609/522-1669

Family Science on Sandy Hook New Jersey Marine Sciences Consortium, Sandy Hook, Fort Hancock; 732/872-1300, x39; ♿; **$;**

18
Nature Exploration Day for Preschoolers **Great Swamp**

Wildflowers and Wildlife of the Pinelands Hike **Batsto;** 609/567-4559;

Fishing Derby for People with Disabilities Rain date: Sept. 19; Warinanco Park (boathouse area), Mountainside; 908/527-4900; ♿;

Bus Tour of the D&R Feeder Canal Prallsville Mill, Stockton; 908/722-7428; **$**

Underwater Cleanup New Jersey's waters; 609/729-9262

Jersey Devil Century Bike 25, 50, 75, 100 or 125 miles; Thundergust Picnic Area, Parvin State Park, Centerton (Salem County); 609/848-6123; **$**

Anglesea Surf Anglers Surf Fishing Tournament The Wildwoods Beaches; 609/522-1526; **$**

18 and 19
Civil War Encampment **Cold Spring**

Rock'n Oldies Fall Wine & Cheese Classic Waterloo Village, Stanhope; 908/745-3671; ♿; **$**

Wings'n Water Festival **Wetlands**

19
Beach Plum Festival Island Beach State Park; 732/793-0506 or 732/793-5525

6th Ridgewood County Street Fair Rain date: Sept. 26; Ridgewood; 908/996-3036

23 through 26
6th Annual Boardwalk Classic Car Show The Wildwoods Boardwalk and Convention Center, Wildwood; 609/523-8051

Irish Fall Festival North Wildwood; 800/IRISH-91

25
Hike the Paulinskill Valley Trail Beginning at Footbridge Park, Blairstown; 908/852-0597

Whitesbog Landscape Volunteer Morning **Whitesbog;**

Drop-in Village Tours **Whitesbog; $**

Full Moon Hike **Whitesbog; $;**

Seafarers Celebration Sunset Lake, Wildwood Crest; 609/522-1669

25 and 26
Ocean County Decoy and Gunning Show Tip Seaman County Park, Pinelands Regional High School and Pinelands Regional Middle School, Tuckerton; 609/971-3085 or (toll free) 877/OCPARKS

Civil War Naval Reenactment and Civil War Ball Sunset Lake, Wildwood Crest; 609/729-9000

26
Harvest Festival **Trailside; $**

Manasquan Reservoir Run Manasquan Reservoir, Howell Township; 732/842-4000, ext. 237 or 239; **$;**

Cranberry Harvest Program & Wild Cranberry Hunt Whitesbog; **$;**

Dolphin Watch Cruise Gardner's Basin, Atlantic City; 609/266-0538; **$;**

10th Westfield Festifall of Arts & Crafts Rain date: Oct. 3; Westfield; 908/996-3036

Model Aircraft Beach Fly-In North Wildwood; 609/463-0283

26 through 30
Cape May Food & Wine Festival Various locations throughout Cape May; 609/885-5404 or 800/275-4278

October

1 and 2
24th Annual Wildwood AHEPA Greek Weekend Convention Center, Wildwood; 609/522-7157 or 610/775-7155; **$**

1 through 3
October Fest Botanical Garden at **Skylands;** ♿; **$**

2
Star Watch at Wharton State Forest **Batsto;** 609/627-3043

Hermitage Harvest Festival and Halloween Fair **Hermitage; $**

Scandinavian Festival North Wildwood; 609/463-8035 or 609/889-9785

2 and 3
Festival of Fine Craft **Wheaton**

Family Harvest Festival Four Sisters Winery/Matarazzo Farms, Belvidere; 908/745-3671; ♿

New Jersey Beach Buggy Association Surf Fishing Tournament 15th Avenue & the beach, North Wildwood; 609/522-1526

Thunder on the Lake Festival and Power Boat Races Sunset Lake, Wildwood Crest; 609/523-8051

3
Horse Ride on the Paulinskill Valley Trail Bring your own horse; 908/725-9649

Hunter Pace Thompson Park, Lincroft; 732/542-1642; **$**

Walnford Day Mini fair; Historic Walnford, Allentown; 732/842-4000, ext. 237 or 239

12th Somerville Fall Fun Festival & Boogie Woogie Blues Festival Rain date: Oct. 17; Somerville; 908/996-3036

Big "C" Day Festival; Cooper Environmental Center, Cattus Island Park, Toms River; 732/270-6960; ♿

Governor's Surf Fishing Tournament Island Beach State Park; 732/793-0506 or 732/793-5525

Poetry & Jazz **Skylands;** ♿

8 through 17
6th Annual Victorian Week Cape May; 609/885-5404 or 800/275-4278

9

Fall Foliage Hike on the Paulinskill Valley Trail Beginning at Warbasse Junction; 908/852-0597

Old Fashioned Country Fair Longstreet Farm, Holmdel; 732/842-4000, ext. 237 or 239; ♿

Pine Barren Jamboree Wells Mills County Park, Waretown; 609/971-3085

Pennsauken Surf Fishing Club Tournament North Wildwood beaches; 609-486-9180

9 and 10

21st Annual Great Fall Classic Surf Fishing Tournament 15th Avenue and the beach, North Wildwood; 215/289-2019; $

Christopher Columbus Treasure Hunt and Festival N. Wildwood; 609/729-3223

Family Science on Sandy Hook New Jersey Marine Sciences Consortium, Sandy Hook, Fort Hancock; 732/872-1300, ext. 39; ♿; $; ✎

9 through 11

Annual Juried American Indian Arts Festival Rankokus Indian Reservation, Westampton Township; 609/261-4747; ♿; $

10

American Wheels Car Show Rain date: Oct. 24; **Wheaton**

Antique Show Convention Center, Cape May; 609/884-5404

1770s Festival Somerset County Environmental Education Center, Basking Ridge; 908/766-2489; ♿

6th Annual Heritage Festival Holly Beach Station Mall, Wildwood; 609/729-6818

18-Mile Run St. Francis Community Center, Brant Beach (Long Beach Island); 609/494-8861; ♿; ✎

14 and 15

Creatures of the Night Wagon Rides Huber Woods Park, Locust (Middletown Township); 732/842-4000, ext. 237 or 239; $; ✎

9th Cranford Autumn Festival Rain date: Oct. 17; Cranford; 908/996-3036

16

Kids pARTicipate **Wheaton**

Timberbrook Triathlon Manasquan Reservoir, Howell Township; 732/842-4000, ext. 237 or 239; $; ✎

Trail Tales **Great Swamp**; ✎

Wildflowers and Wildlife of the Pinelands Hike **Batsto**; 609/567-4559; ✎

16 and 17

Harvest Wine Festival Alba Vineyard, Finesville; 908/745-3671; ♿;$

17

Turkey Swamp Park Day Family fair; Turkey Swamp Park, Freehold Township; 732/842-4000, ext. 237 or 239; ♿

Bats **Great Swamp**

2nd Annual Fall Country Harvest Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

Family Science on Sandy Hook New Jersey Marine Sciences Consortium, Sandy Hook, Fort Hancock; 732/872-1300, ext. 39; ♿; $; ✎

22 and 23

Creatures of the Night Wagon Rides Huber Woods Park, Locust (Middletown Township); 732/842-4000, ext. 237 or 239; $; ✎

23

8th Annual Pumpkin Festival Rain date: Oct. 24; **Cold Spring**

Fall Beach Sweeps Help Clean Ocean Action clean up beaches; various counties; 732/872-0111 or 609/729-9262

Autumn Crossing Fest Celebrate Colonial era agriculture; Washington Crossing State Park, Titusville (NJ) and Washing Crossing Historic Park, Washington Crossing (PA); 215/493-4076

23 through 29

Storm Drain Stenciling Week Help Clean Ocean Action combat nonpoint source pollution throughout New Jersey by raising awareness; 732/872-0111 or 609/729-9262

24

Haunted Hayride North Wildwood; 609/522-2955

29

Halloween Parade and Fun Fair Wildwood; 609/729-1934

29 and 30

Creatures of the Night Wagon Rides Huber Woods Park, Locust (Middletown Township); 732/842-4000, ext. 237 or 239; $; ✎

29 through 31

74th Annual Meeting and 8th Tree Expo Sheraton Four Points Hotel, Cherry Hill; 732/246-3210, ext. 237 or 239; ♿; $; ✎

30

Halloween Show Albert; $

Children's Halloween Party **Hermitage**; $; ✎

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

Popcorn Harvest **Howell**

31

Historical Ghost Hike on the Paulinskill Valley Trail Beginning at Footbridge Park, Blairstown; 908/852-0597

November

1

Great Pumpkin Sail **Trailside**; $; ✎

5 through 7
53rd Annual Cape May Autumn Weekend . . . The Bird Show Cape May area; 609/884-2736 or 609/861-0700

6
Explorer Hike on the Paulinskill Valley Trail and Other Rail Trails Beginning at Warbasse Junction; 908/852-0597

Jersey Devil Show **Albert**; **$**

Maze Harvest for Wildlife **Howell**

7
Mineral Club Show **Trailside**; **$**

12 through 14
Cape May Jazz Festival Cape May; 609/884-7277

Quiet Festival Ocean City; 800/BEACH-NJ

13
Homeplace Gathering **Albert**; **$**

Myra's Amazing Puppets **Great Swamp**; **$**; ✎

Symposium on the Delaware and Raritan Canal History and Technology Prallsville Mill Complex, Stockton; 908/722-7428

Barn Raising and Barn Restoration Tours **Howell**

14
Hunter Pace Thompson Park, Lincroft; 732/542-1642; **$**

20
Wildflowers and Wildlife of the Pinelands Hike **Batsto**; 609/567-4559; ✎

27
Hike the Paulinskill Valley Trail Beginning at Footbridge Park, Blairstown; 908/852-0597

Holiday Hoopla Craft show; **Wetlands**

Thanksgiving Hayrides; Wreath and Sleigh Bell Sale **Howell**

December

1 through 4
Winter Wonderland Kuser Farm Park, Hamilton Township (Mercer County); 609/890-3684

1 through 5
'Twas the Night Before Christmas A Victorian Christmas house museum tour; Kuser Farm Mansion, Hamilton (Mercer County); 609/890-3630

2 through 5
Holiday Open House **Skylands**; ♿; **$**

3
Hereford Inlet Lighthouse Christmas Tree Lighting Ceremony Hereford Inlet Lighthouse Courtyard, North Wildwood; 609/522-4520

3 through 12
Festival of Trees Exhibit; Somerset County Environmental Education Center, Basking Ridge; 908/766-2489; ♿; **$**

4
Hike the Paulinskill Valley Trail Beginning at Warbasse Junction; 908/852-0597

Children's Holiday Party Hermitage; **$**; ✎

26th Christmas Candlelight House Tour Cape May; 609/884-5404

Christmas by the Sea Holiday House Tours North Wildwood; 609/522-6200 or 609/522-4520; **$**

5
Nature Boutique **Trailside**; **$**

Holiday Happening Family fair; Thompson Park, Lincroft; 732/842-4000, ext. 237 or 239; ♿

Sled Dogs **Great Swamp**

8 through 12
'Twas the Night Before Christmas A Victorian Christmas house museum tour; Kuser Farm Mansion, Hamilton (Mercer County); 609/890-3630

11
26th Christmas Candlelight House Tour Cape May; 609/884-5404

Christmas by the Sea Holiday House Tours North Wildwood; 609/522-6200 or 609/522-4520; **$**

15
Christmas by the Sea Holiday House Tours North Wildwood; 609/522-6200 or 609/522-4520; **$**

18
Holiday Show **Albert**; **$**

Explorer Hike on the Paulinskill Valley Trail and Other Rail Trails Beginning at Footbridge Park, Blairstown; 908/852-0597

Wildflowers and Wildlife of the Pinelands Hike **Batsto**; 609/567-4559; ✎

19
Friends/Jersey Shore Running Club Trail Run Hartshorne Woods Park, Middletown; 732/542-6090; **$**

31
New Year's Eve Horse Ride on the Paulinskill Valley Trail Bring your own horse; 908/725-9649

The Black-Crowned Night Heron

by Natalie Verdi

As the sun fades to an orange glow and a tapestry of stars fills the evening sky, the quintessential sound of a black-crowned night heron echoes through the silence of the marsh. In the distance, the silhouette of another rises from a tide pool. Frozen in a hunched posture, it waits with anticipation for the slightest movement from the surrounding water. Ready to gather its evening meal, it peers into the night waters. Slowly, it moves its head forward and its thick bill spears the surface of the water, grasping from beneath a small eel.

Probably the most well known of all night herons, the black-crowned night heron is medium-sized (23 to 28 inches) and stocky in build, with relatively short legs and a strong, short neck. The adult's dark crown and back contrast sharply with its ash-gray wings and creamy white head, neck and under parts. This heron has large red eyes, a stout black bill and yellow-green legs that turn pink at the height of the breeding season. Often mistaken for the American bittern and the immature yellow-crown night heron, the immature black-crown is primarily brown with yellow eyes and gray legs. It has large pale spots at the tips of the feathers and its under parts bear light streaks.

As its name implies, the black-crowned night heron is primarily a twilight and evening feeder. This enables it to avoid competition with day herons that use the same feeding grounds. The black-crown's Latin name, *Nycticorax*, means "night raven," referencing its nocturnal habits and raven-like guttural calls of *woc*, *quock*, *guark*, *quawk*.

In New Jersey, black-crowns usually arrive at the feeding grounds 15 minutes after sunset and return to roost approximately a half-hour before sunrise. During the breeding season adult black-crowns will also feed during daylight hours, especially under cloudy skies.

Of all herons, the black-crown is the most cosmopolitan, breeding on every continent except Australia and Antarctica. Widespread and common in North America, its habitat encompasses nearly every conceivable type in which a wading bird might exist — saltwater, fresh water and brackish water. Swamps, streams, rivers, salt marshes, lagoons, tidal mudflats, man-made ditches, canals, ponds, lakes, reservoirs and wet agricultural fields are all familiar grounds for this night heron.

As varied as its habitats, so too is its diet. Suitable meals include everything from fish, frogs, crabs, mussels and squid to earthworms and insects, including moths. These birds also have been known to feast on lizards, snakes, rodents, plant material and even garbage at landfills.

Generally a loner when it comes to hunting and feeding, the black-crown tends to return to the same feeding grounds. Upon arriving at the foraging area, it will feed in a variety of ways — from standing and waiting for prey to slowly stalking its unsuspecting meal. Less common feeding behaviors include swimming, plunging, hovering and bill vibrating, which is the rapid opening and closing of the bill in the water to lure prey.

Although flexible in the selection of breeding colony sites, this heron often nests on islands or in swamps where it is protected from predators. Daylight hours are spent in a communal roost with others of its species. Nests may be built in trees, bushes or the occasional reed bed and consist of flimsy stick platforms lined with finer materials.

The initial construction of a nest is the responsibility of the male bird. Once a nest site is secured, he advertises his availability to females by swaying from side to side, arching his back, lowering his head and making a hissing sound. Interested females then perform a ritualized ceremony of erecting their crown and neck feathers. The male follows suit, thereby initiating the pair bond. This bond is further strengthened by a twig ceremony, during which the male gathers twigs and sticks and presents them to the female for finalizing nest construction before egg laying takes place.

In New Jersey, black-crowns have been found to return from winter migration sites sometime around the end of March. By early May, females have laid between two and five oval-shaped green eggs that will be ready for hatching in 21 to 26 days. Although these birds usually have only one brood, black-crowns will re-nest if the first nest fails.

The New Jersey Division of Fish, Game and Wildlife monitors these colonial waterbird populations from Cape May to Point Pleasant, obtaining important information used to assess the impacts of coastal development projects that may affect waterbird habitat. As these birds are high on the food chain and have a wide geographic distribution, they serve as important indicators of environmental quality.

Unfortunately, aerial surveys have found a major decline in the numbers of adult black-crowned night herons. In 1978, the adults counted totaled more than 1,400 birds nesting in 28 colonies. The 1995 count — not even two decades later — totaled only 221 birds nesting in 27 colonies. Human disturbances at breeding colonies, the past use of pesticides such as DDT, the drainage of wetlands and land development for homes and recreational area are all possible contributors to this decrease. Due to the declining numbers, the black-crowned night heron has been added to New Jersey's list of endangered species.

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