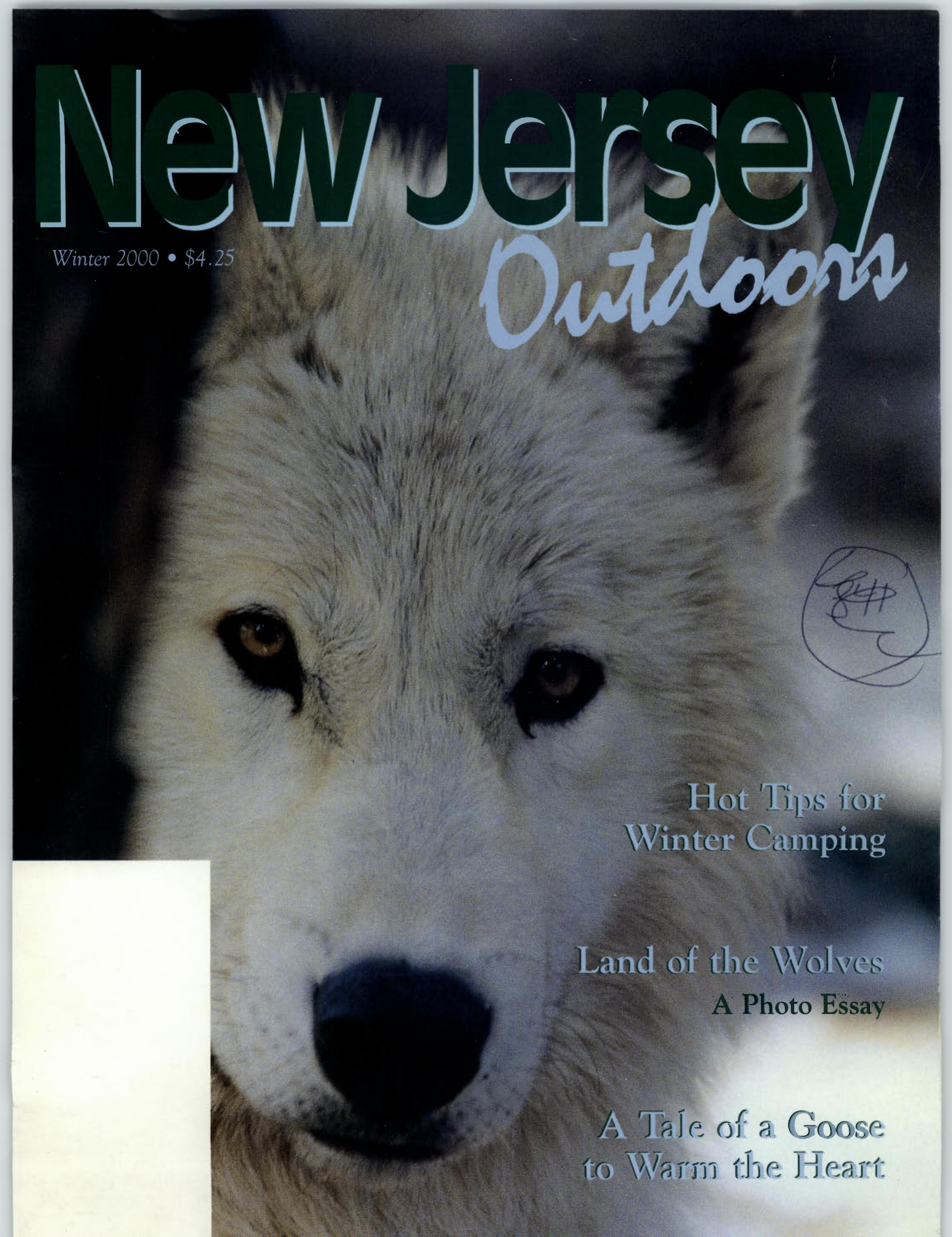
New Jersey Outdoors

Winter 2000 • $4.25



Hot Tips for Winter Camping

Land of the Wolves
A Photo Essay

A Tale of a Goose to Warm the Heart

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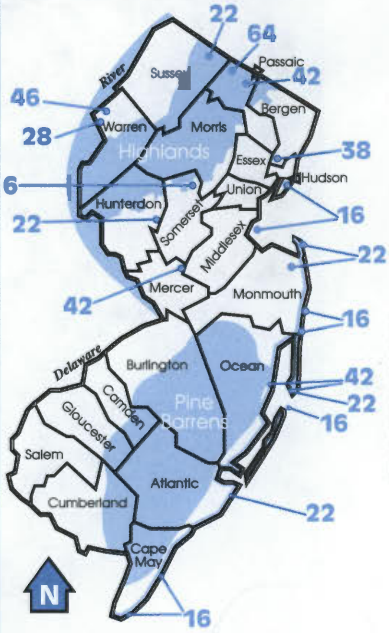


Departments

Front Cover

You can almost tell by the strong, intelligent look on his face that King, a five-year-old male Arctic wolf, is the alpha (dominant) one in his pack. To see some of the other wolves who now call New Jersey's Lakota Wolf Preserve home, see the photo essay beginning on page 26. © Dan Bacon

Inside Front Cover

Sandy Hook Lighthouse graces the snow-dusted landscape of Gateway National Recreation Area. For tips on how to freeze winter's icy beauty on film, read ***Cold Snap***, starting on page 42. © Michael S. Miller

Inside Back Cover

A member of the pike family, the muskellunge can be distinguished from the northern pike by its red caudal and paired fins, the ends of which are more pointed than those of the pike. © 1999 John "Duke" Carr

Back Cover

Sunrise on Stripes and Ice, taken at Pigeon Swamp and Fresh Ponds Road in South Brunswick, was entered in one of New Jersey Outdoors' photo contests by Dee Schuric of Jamesburg.

From the Governor

Christine Todd Whitman,
Governor

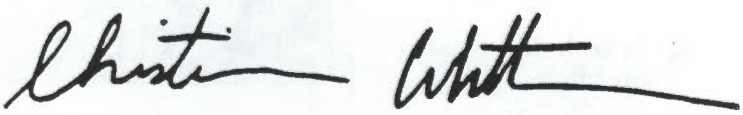
Last fall I had the pleasure of swearing in the nine members of the newly established Garden State Preservation Trust. The Trust is responsible for the implementation and oversight of the historic open space and farmland preservation program approved by voters in 1998.

I am proud to say that New Jersey's program serves as a national model for preservation efforts by dedicating a stable source of funding to save one million acres of undeveloped land in our state by 2009.

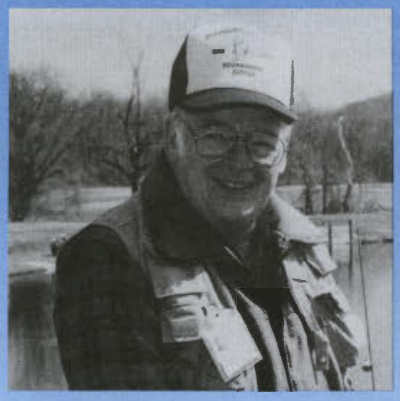
The preservation of land and historic sites in urban, suburban and rural parts of New Jersey is a critical part of my vision for revitalizing our cities and older suburbs and promoting smart growth throughout the state.

Saving farmland and open space requires better designing and smarter planning of our cities, towns and suburban areas. We need to encourage smart growth of the land that is to be developed as well as the redevelopment of our existing cities, towns and brownfield sites.

Thirty years from now, the million acres we preserve will look much like they do today — lush and open, clean and green, beautiful and inviting. And thirty years from now I hope the people of New Jersey will look back on the turn of the century and recognize it as a time when all the citizens of our great state acted so wisely in setting aside parks and farms and open spaces.



From the Commissioner



Robert C. Shinn, Jr.,
Commissioner

Late last June, I helped launch the newest addition to New Jersey's Artificial Reef Program —uniquely designed, concrete fish habitats called Reef Balls. They resemble small igloos and are peppered with holes that enable reef inhabitants to hide from predators.

The Reef Balls, which will provide habitat for many food and game species, were placed on existing artificial reefs. The concrete provides firm attachment points for the mussels, barnacles and other sea life that will become food for reef fish.

Reefs are an important resource for our saltwater sportfishing industry. Even in winter, hearty marine anglers brave the elements and head for the party boats to fish for species such as cod, ling, sea bass, tautog, pollock and scup — all of which enjoy the reef habitat.

Reef Ball project costs were paid by monies from the Federal Aid to Sportfish Restoration Program, which funds state fisheries enhancement programs through federal excise taxes on sport fishing equipment. The Reef Balls were fabricated by inmates at the Department of Corrections' Southern State Correctional Facility, in Leesburg (Cumberland County), and transported on land and water by the Ocean County Bridge Department.

The Artificial Reef Program is administered by our Division of Fish, Game and Wildlife. Since 1984, the state has constructed more than 1,250 reefs at 14 ocean sites along the New Jersey coast. This latest reef habitat project is an excellent example of how three government agencies can work together to maximize available funds and enhance the marine environment.

Editor's note: *To learn more about fishing the winter seas, read "The Timid Need Not Apply" on page 36 of this issue. For information about reef charts, see page 58.*

NJO News & Notes

2000 — Not Just a Year

By now, you're probably so tired of those ubiquitous digits that it's hard to remember they can mean something other than the new year. But, in conjunction with the words *more miles*, they're now appearing on signs that mark progress in Governor Whitman's Bike Trail Initiative to build 2,000 miles of bicycle trails across New Jersey within the next decade.

Whitman unveiled the first of the new bike signs this past summer in Pemberton (Burlington County). The ceremony highlighted 18 months of work by the Pemberton Rotary — with help from the state departments of Transportation and Environmental Protection, local businesses, school children and countless volunteers — to turn the abandoned railroad corridors in the northern section of the township into a walking and bicycle trail.

The Pemberton "Rails to Trails" project was funded by $40,000 in cash and in-kind contributions to the Pemberton Rotary, $20,000 in donations from more than 30 local companies and community groups, and two $10,000 federal National Recreation Trails Fund grants administered by the Department of Environmental Protection.

In addition, the Department of Transportation supplied crushed stone to cover the trail and the labor to install it, and provided and installed trail markers to guide hikers and cyclists. The value of DOT's contribution is approximately $50,000.

For additional information about the 2,000 more miles program and other topics of interest to bicyclists and pedestrians, visit www.state.nj.us/njcommuter/html/bikewalk.htm or call 609/530-8051 or 800/245-POOL.

Get Out in the Open and Go Wild!

The N. J. Division of Fish, Game and Wildlife proudly announces the publication of *Wild Places and Open Spaces*, a wildlife enthusiast's guide to accessing public open space in New Jersey. The publication, similar in design to a road map, offers a wealth of information in a compact and easy-to-read format.

Originally developed as an updated version of the familiar *Guide to Wildlife Management Areas*, the guide not only contains valuable information on these tracts and the variety of wildlife present, but also includes state parks, forests and much more. The full-color state map highlights more than 700,000 acres of public open space and features an activity matrix. The publication also lists marine pump-out stations, artificial reef locations and accessible fishing sites for people with disabilities, as well as providing information on stocking, hunting regulations, the use of wildlife management areas and more.

For information on purchasing *Wild Places and Open Spaces*, please see DEP Products on page 58.

New Hotline Number Is Toll-Free

The Department of Environmental Protection has a new, easy-to-remember, toll-free telephone number for the reporting of environmental complaints, abuses and emergencies:

1-877-WARNDEP (1-877-927-6337).

The new toll-free number is available in the calling areas of New Jersey, New York, Pennsylvania and Delaware.

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

Winter 2000, Vol. 27, No. 1

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:
Maria J. Scimone

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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New Jersey Outdoors is printed with soy ink on recycled paper that includes at least 10 percent post-consumer waste.

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www.state.nj.us/dep/njo**

NJO News & Notes

Bzzzz

This March, the American Mosquito Control Association will celebrate the 100th anniversary of organized mosquito control. The organization will hold its 66th annual meeting in Atlantic City in order to recognize New Jersey as the place in which the science of mosquito control originated.

John Bernard Smith, appointed New Jersey's Agricultural Experiment Station Entomologist in 1889, published more than 600 works including the 482-page *The Mosquitoes of New Jersey*, in which he reported on different species and their habitats, life histories and control.

At the direction of the State Legislature, the Station investigated all aspects of the state's mosquitoes. Salt marshes were surveyed, breeding areas were mapped, and ditches were cut on the Newark meadows to bring in fish to consume the mosquito larvae. In the resulting report, Smith showed that a general mosquito problem anywhere within 40 miles of the salt marsh required the elimination of both salt marsh and freshwater breeding species. He was the first to prove that the Atlantic coast *Aedes sollicitans* breed exclusively in salt marshes but fly many miles inland, thus explaining the failure of some local attempts at mosquito control and showing that elimination of salt marsh mosquitoes was essentially a state, not local, problem.

As a result, in 1904 the Legislature authorized local boards of health to eliminate mosquito-breeding places as public nuisances. In 1906, it passed an act that anticipated a broad program of mosquito control throughout the state. Smith died in 1912.

The first annual meeting of the New Jersey Mosquito Extermination Association was held in Atlantic City in 1914. Each year thereafter, New Jersey would invite other states' mosquito control professionals to the conference and, in 1936, the Eastern Association of Mosquito Control Workers was formed.

In 1944, the organization changed its name to the American Mosquito Control Association. Today it is an international association, providing leadership, information and education leading to the enhancement of health and quality of life through the suppression of mosquitoes and other vector transmitted diseases and the reduction of annoyance levels caused by mosquitoes and other vectors and pests of public health importance.

In New Jersey, mosquito control programs exist at all levels of government, but the heart of the effort is the county government network that has been in place for more than a century. In that time, mosquito control agencies have developed and put into practice a standardized and defensible system of mosquito surveillance, habitat management, larval control and (as a last resort) pesticide applications for the control of adult mosquitoes on-the-wing. This has resulted in a two-fold benefit to the environment: there are fewer pesticides applied than ever before and wildlife habitat has been enhanced as a result of mosquito breeding source reduction projects that rehabilitate wetlands. This regional approach to mosquito control has also protected human and wildlife populations from the diseases that these insects can transmit.

New Jersey can take pride in knowing that the research, education and communication efforts fostered here have contributed to the many accomplishments of mosquito control professionals, who have come to recognize that the control of mosquitoes within their habitat, achievable by ecologically sound practices, is preferable to outright extermination.

For more information, buzz on over to the web sites of the American Mosquito Control Association (http://www.mosquito.org/) and the New Jersey Mosquito Control Association (http://www-rci.rutgers.edu/~insects/njmca.htm).

Thanks to Judy Hansen, president of the N.J. Mosquito Control Association, for contributing the bulk of the foregoing article.

Chicken Soup Authors Want Your "Recipe" for the Outdoor Soul

Chicken Soup for the Soul is heading outdoors. The best-selling series is seeking inspiring stories, anecdotes, poems, quotations, cartoons and other material for its upcoming *Chicken Soup for the Outdoor Soul*.

The range of outdoor activities includes everything from hiking, biking and boating to birding, fishing and hunting, and from camping, climbing and caving to skiing, dog-sledding and scuba-diving. Or your tale can simply relate to the enjoyment of nature. The list is long; the possibilities are boundless.

An *Outdoor Soul* story is an inspirational, true story that opens the heart and re-kindles the spirit. It should offer readers an increased awareness of the wonders, lessons and adventures of nature's unlimited ability to enhance, enrich and expand our lives, far away or right in our own glorious "backyards." It *isn't* a sermon or an essay, nor is it about politics or controversial issues.

You may submit original unpublished stories or previously published material. If you did not write the story, be sure to provide as much information as possible about the author and the publication in which it appeared. Once the *Chicken Soup* folks select a story as one of the 101 that will be included in the book — and be patient, for the process is a long one — they will contact the writer regarding rights and compensation. The book will also contain a short bio on each contributing author.

If you have a true story that opens the heart and rekindles the spirit, please e-mail

it to submissions@outdoorsoul.com. Send a separate e-mail message for each submission and include the story in the body of the message, not as an attachment. Be sure to put **Outdoor Soul Submission** in the "Subject" line.

If you do not have any access to e-mail, submissions may be sent to Outdoor Soul Submissions, P.O. Box 69774, Los Angeles, California U.S.A. 90069. Send a hard copy, an electronic copy on an IBM compatible disc and a self-addressed, stamped envelope. Please keep a copy, as your submission cannot be returned.

There is no limit on the number of stories you submit. Stories should be typewritten, in English, and shorter than 1,000 words. Include your name, address and telephone number on all correspondence. At the top of each submission, indicate the chapter heading — It's All in the Attitude, Our Common Bond, Powerful Places, Wild and Free, On Healing, Living Your Dream, Overcoming Obstacles, Encountering Nature, A Matter of Perspective, On Love, Special Moments, Making a Difference, On Children, or Nature's Wisdom — that is most appropriate for your story. For more details, check out www.outdoorsoul.com/outdoorsoul.html.

Birds of New Jersey Published

The New Jersey Audubon Society's encyclopedic new book, *Birds of New Jersey*, will hit the shelves of local booksellers in January, but those who see it as the perfect holiday gift can buy it at New Jersey Audubon Centers and select outlets. Listed at $65, purchasers at one of the organization's sites will pay only $49.95, and NJAS members receive an additional 10 percent discount.

The book serves as a benchmark, recording the status of each of the state's 443 bird species over the past century. Reflecting data gathered by more than 500 volunteers over a six-year period, it took co-authors Joan Walsh, Vince Elia, Rich Kale and Thomas Halliwell three years to write. The informative accounts are written to appeal to casual readers and land use planners alike, but the book is not made of words alone — it features artwork by famed bird illustrator David Sibley and distribution maps for each species that breeds in New Jersey.

For more information, visit the New Jersey Audubon Society's Web site at www.njaudubon.org or call 609/861-0700.

Students Capture Gold in Internet Competition

Endangered New Jersey is the title of the website that won its designer team — three Cedar Grove students and their two teacher-coaches — a Science and Mathematics category Gold Award (second place) in the 1999 *ThinkQuest Junior Internet Competition*.

The team's organizer, Drew Ronkowitz, is no newcomer to the competition, having been a finalist in 1998. He invited friends Jimmy Kegley and Brandon Lane to work with him. Drew's father, Ken, a language arts teacher at Heritage Middle School in Livingston, and Barbara Ann Ellert, Cedar Grove School District's Gifted and Talented Program teacher, agreed to coach them on the technical side of web page creation and on research and site content, respectively. Sixth grade students at South End School when they entered the contest, the boys now attend Cedar Grove Middle School.

Their first task was to identify an educational — and fun to research — topic. Coach Ronkowitz, a Wildlife Conservation Corps volunteer, suggested endangered species, a topic studied in almost all elementary schools. Since there were few sites about the state's endangered species directed at students, the team agreed to pursue it.

Team members worked independently, researching information at libraries and on the Web. The boys wrote the text, Drew formatted the pages, Coach Ellert tracked remaining tasks and Coach Ronkowitz checked the formatted pages for compatibility.

Once completed, the attractive, well-organized and informative site was uploaded to the contest sponsor's site and the waiting began. In April, the team was advised it was a finalist. May brought the good news that the site was selected as a Gold Award winner. The team — coaches and students — and the schools they represented all won cash awards. In addition, the students received *ThinkQuest* trophies and backpacks.

The annual *ThinkQuest Junior* contest, for 4th through 6th grade students in U.S. schools working in teams, is one of several sponsored by Advanced Network & Services, Inc. Created a decade ago, the nonprofit corporation is dedicated to advancing education by accelerating the use of computer networking applications and technology.

For a look at the award-winning site, go to http://tqjunior.advanced.org/5736/. For more information about the various competitions, visit http://www.thinkquest.org/index.shtml.

NJO News & Notes

Kudos on 50 Years of Service

More than a half-century ago, a handful of visionaries perceived the need for an out-of-doors education program for New Jersey's teachers in training. One of them — DeAlton Partridge — undertook a leading role in organizing the New Jersey State School of Conservation, established by the State Legislature as the field campus for the six New Jersey state colleges.

The school, which grew up around Lake Wapalanne in Stokes State Forest, welcomed its first students in 1949. The development of Camp Wapalanne and a plethora of summer field courses during the school's first decade laid the foundation for its current international recognition.

Dr. John Kirk became the school's director — a position he still holds — in 1963 and built on that foundation by adopting a mission that led to a rich multi-curricular blending of environmentally focused field lessons. As a result, more than 250,000 students and their teachers have heightened their environmental awareness.

Among the diverse programs the school offers are two that have been featured in *New Jersey Outdoors* articles in the recent past — a music ecology camp (**The Hills are Alive with the Sound of Music,** Summer 1996) and a junior fly fishing school (**Summer Camps**, Spring 1998). For more information about the School of Conservation, for which Montclair State University's College of Science and Mathematics has administrative responsibility, call 973/948-4646 or visit www.csam.montclair.edu/njsoc.

© MSU Office of Public Information

Governor Christine Todd Whitman and Montclair State University's president, Dr. Susan Cole, discuss exhibits in the School of Conservation's fly fishing museum during a tour of the oldest and largest university-operated resident center for environmental studies in the world.

Website Wows

Why bother to recycle motor oil? If you've ever been asked — or asked yourself — that question, have we got a website for you! Check out the **American Petroleum Institute's** new site, www.recycleoil.org. It contains a wealth of interesting information and some terrific links — such as the one that, after you type in your ZIP code, brings you to a site that allows you to locate the recycling center nearest you for whatever it is you want to recycle. The locator site is provided by **Earth's 911**, the public and private sector partnership for the environment whose mission is to help citizens improve their quality of life by providing information about local resources via a single user-friendly network. The Earth's 911 website, www.1899cleanup.org, also features information about recycling, buying recycled products, household hazardous waste and more.

Whether you're an angler or native fish enthusiast, you won't want to miss the Native Fish Conservancy's website (www.nativefish.org). It's loaded with piscatorial information and images. The site also features a web page that serves as a resource for conservation-minded youth, teachers and youth leaders.

Finally, if it's what's under the earth beneath your feet that fascinates you, check out the Northern New Jersey Grotto's website at www.monmouth. com/~rbl/nnjg.htm. A nonprofit organization dedicated to conserving, exploring, photographing and surveying the underground world, the grotto is eager to teach newcomers how to cave safely.

Red Drum Was the Catch of the Day at Governor's Tourney

Dorothy Harrison, who caught a 29" red drum, won the grand prize at the 1999 Governor's Surf Fishing Tournament held on October 3 at Island Beach State Park. She received the Governor's Trophy and a variety of prizes, including a Penn reel and, courtesy of the G. Loomis Fly Fishing School, her choice of a rod. Additionally, her name will be engraved on the Governor's Cup, which will be permanently displayed at Island Beach State Park.

The Wayne resident was the second female participant ever to win the trophy. Toms River's Peggy Peterson copped the prize last year with her 34-1/2" bluefish.

Sunshine and warm temperatures drew more than 1,200 anglers to participate in the 8th annual contest which, since its inception, has raised more than $50,000 for projects such as the construction of a beach access ramp, two mobile fishing education carts and specialized wheelchairs for the disabled and elderly. The event is sponsored by the New Jersey Division of Fish, Game and Wildlife and Division of Parks and Forestry, the New Jersey Federation of Sportsmen's Clubs, the Jersey Coast Anglers Association and the New Jersey Beach Buggy Association,

Albacore, striped bass, blackfish, bluefish, red drum, fluke, kingfish and weakfish were eligible for entry in the tournament. Of these, all but albacore and striped bass were submitted.

Overall length determined the grand prize winner as well as place winners for each of the species categories. There were children, teen and adult categories for many of the species submitted, including sub-categories for male and female. For the second year in a row, there were categories for fly-fishing and Becoming an Outdoors-Woman (BOW). The latter is open to students of the surf fishing workshop held the day before the tournament. The inclusion of second and third place winners was dependent upon the number of entries submitted in each species category.

It's interesting to note that this year's winners came from all over New Jersey as well as from Pennsylvania. There were several sibling and parent-child combination winners, and a number of repeat winners. And, lest you think we mixed up the winners'

names, first place in the Becoming an Outdoors-Woman category was, indeed, captured by a man. Gerald Smith and his wife made Saturday's surf fishing workshop a family affair, so he put his newly acquired skills to work and beat her catch by a quarter of an inch.

The winners, listed by category, were:

Red Drum (Adult, Female)

1st Place/Winner of the 1999 Governor's Cup : Dorothy Harrison, of Wayne; 29" red drum

Red Drum (Adult, Male)

1st Place : Joseph Thomas, of Jenkintown (PA); 28-1/8" red drum

2nd Place : Sam Hammond, of Edgewater; 26-1/8" red drum

3rd Place : Joe Skelly, of Blackwood; 26" red drum

Bluefish (Child, Female)

1st Place : Elizabeth Dugan (age 11), of Toms River; 16" bluefish

2nd Place : Darian Becker (age 4), of Medford; 15-7/8" bluefish

3rd Place : Rachel Jochem (age 11), of Tabernacle; 15-3/8" bluefish

Bluefish (Child, Male)

1st Place : Travis Watson (age 6), of Sussex; 16-1/2" bluefish

2nd Place : Kyle Lombard (age 10), of Toms River; 16-3/8" bluefish

3rd Place : Sean Piscatelli (age 7), of Ringoes; 16-1/4" bluefish

Bluefish (Teen, Female)

1st Place : Jennifer Wallach (age 17), of Morrisville (PA); 17" bluefish

2nd Place: Robin Dymowski (age 16), of Hamilton Square; 14-1/4" bluefish

Bluefish (Teen, Male)

1st Place: Chris Peirson (age 13), of Brick; 15-3/4" bluefish (caught at 7:51 a.m.)

2nd Place: Ronnie Batesko (age 13), of Lakehurst; 15-3/4" bluefish (caught at 7:59 a.m.)

3rd Place: Andrew Nastasiak (age 13), of Point Pleasant; 15-1/2" bluefish

Bluefish (Adult, Female)

1st Place: Cindy Jablonski, of Levittown (PA); 16-1/4" bluefish

2nd Place: Dorothy Obropta, of Metuchen; 16" bluefish

3rd Place: Patty Gregitis, of Cranford; 15-3/4" bluefish

Bluefish (Adult, Male)

1st Place: Phil Rosso, Lambertville; 21" bluefish

2nd Place: Joe Schaefer, of Levittown (PA); 16-1/2" bluefish

3rd Place: Michael Hulse, of Jackson; 16-1/8" bluefish

Blackfish (Child, Female)

1st Place: Samantha Salato (age 12), of Toms River; 17-1/2" blackfish

Blackfish (Teen, Male)

1st Place: Joe Rosetti (age 15), of Bloomfield; 20-1/2" blackfish

2nd Place: Peter Kotenko (age 17), of Bridgewater; 18" blackfish

3rd Place: Mike Rosetti (age 16), of Bloomfield; 15-1/2" blackfish

Blackfish (Adult, Female)

1st Place: Arlene Parrino, of Middletown; 18" blackfish

Blackfish (Adult, Male)

1st Place: Alex Kotenko, of Bridgewater; 21" blackfish

2nd Place: Zoltan Egyed, of Trenton; 18-1/4" blackfish

3rd Place: Claus Faller, of Beachwood; 16" blackfish

Fluke (Child, Male)

1st Place: Patrick Dugan Jr. (age 7), of Toms River; 17-1/2" fluke

2nd Place: Jason Jayanty (age 10), of Jersey City; 16-1/2" fluke

Fluke (Teen, Female)

1st Place: Megan Westerback (age 14), of Jackson; 16-1/2" fluke

Fluke (Adult, Female)

1st Place: Lauren Hill, of Toms River; 16" fluke

Fluke (Adult, Male)

1st Place: Kerry Ross, of Pemberton; 19-3/4" fluke

2nd Place: Peter Gacho, of South Toms River; 19-1/4" fluke

3rd Place: Anthony Manno, of Rockaway; 18-1/2" fluke

Kingfish (Child, Female)

1st Place: Kyra Kanig (age 12), of Jackson; 12" kingfish

2nd Place: Sara Jochem (age 7), of Tabernacle; 10-1/2" kingfish

3rd Place: Megan Smith (age 11), of Mayfair (PA); 10" kingfish

Kingfish (Child, Male)

1st Place: Mark Langel (age 7), of Lanoka Harbor; 13-3/4" kingfish

2nd Place: Jimmy Dwyer (age 10), of Neshanic Station; 13-1/2" kingfish

3rd Place: Dakota Goldinger (age 11), of Toms River; 11-7/8" kingfish

Kingfish (Teen, Female)

1st Place: Brielle Talarico (age 15), of Sicklerville; 13" kingfish

Kingfish (Teen, Male)

1st Place: John Schwartz (age 16), of Howell; 14-1/2" kingfish

2nd Place: Brandon Gelormine (age 13), of Jackson; 14-1/4" kingfish

3rd Place: Anthony Souza (age 14), of Bechtelsville (PA); 14" kingfish

Kingfish (Adult, Female)

1st Place: Jennifer Sanders, of Bayonne; 14-1/2" kingfish

2nd Place: Wanda Farrell, of Bangor (PA); 13-1/2" kingfish

Kingfish (Adult, Male)

1st Place: Michael Wilk, Bound Brook; 17-1/2" kingfish

2nd Place: James Jorquez, of Sicklerville; 16" kingfish

3rd Place: James Gordon, of Pemberton; 15-1/4" kingfish

Weakfish (Adult, Male)

1st Place: Robert Sabo, of Atco; 16-5/8" weakfish

Becoming an Outdoors-Woman

1st Place: Gerald Smith, of East Brunswick; 14" kingfish

Fly Fishing

1st Place: Richard Carroll, of Toms River; 15" bluefish

Congratulations to all!

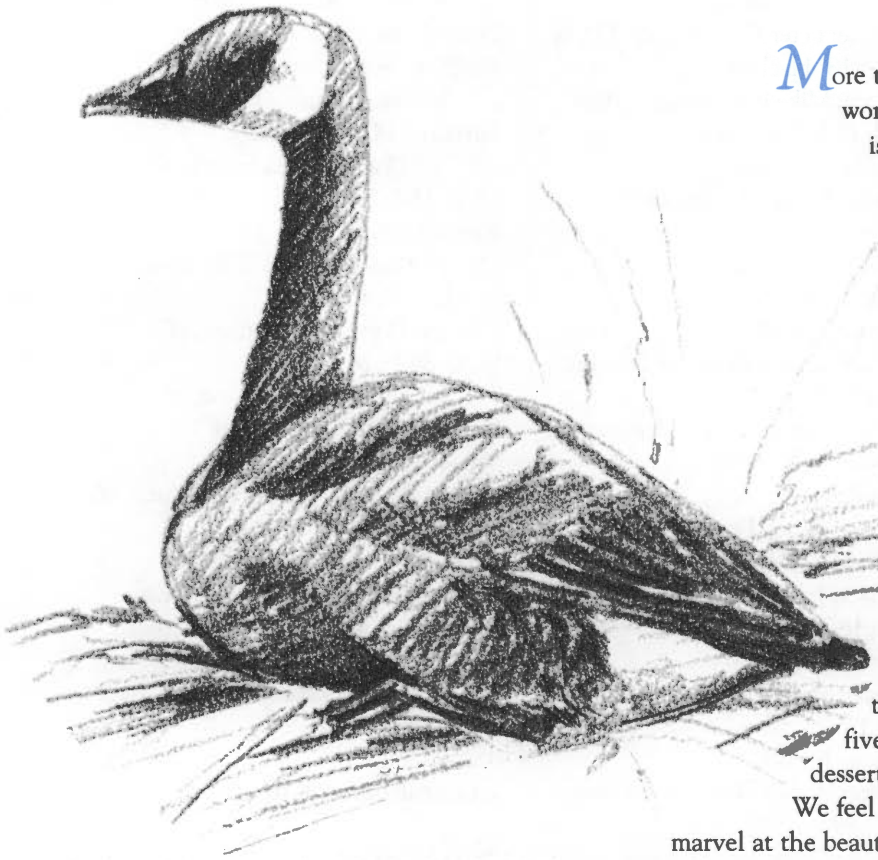
Saluting the Bay's Finest

Since 1986, Ocean County has presented the Hurley Conklin award, named for the last of the area's old time working decoy carvers, to individuals who have lived in the Barnegat Bay tradition. The 1999 recipients were: Jack Scheimreif, Robert Gaskill, Herb Bell, Howard John Rogers, Ernie Lang, Harry Shourds, Gus Heinrichs and Edna Marshall. Each honoree received a engraved plaque with a miniature decoy at its base.

A replica of Conklin's decoy carving shop will be constructed in the Tuckerton Seaport, due to open in April 2000. It will contain exhibits and displays depicting the lives of all the Conklin awardees.

The Tale of the Goose

Story by Donald B. Louria, M.D.
Illustrations by Beatrice Bork



More than a decade ago, my wife Barbara and I bought a wonderful 5-acre property on a small mountain. Included is a 1-acre pond that is the home of a school of large-mouth bass. When it gets reasonably warm and the fish come to the surface, I feed them trout food and we have become friends.

My son and grandchildren fish the pond, as do a few neighborhood teens, but we have strict rules. The big ones can be taken home and eaten; all the rest have to be treated gently and put back. In fact no fish has ever been taken out.

The pond is also home to up to 100 ducks that come and go in spring, summer and fall. But in winter they are there in large numbers because I feed them corn all year around. Ducks may be skittish and not very bright, but they know their food source.

After I give them their pail of corn, I stand nearby to shoo away the 10 or so deer that have decided our five acres are home. For them, the corn is a pleasing dessert. When the snow is deep, they too get fed.

We feel incredibly lucky to live where we do. Every day we marvel at the beauty of our property and we like sharing it with the fish, ducks and deer, as well as the horde of birds that grace it all year around.

A Different Kettle of Fish

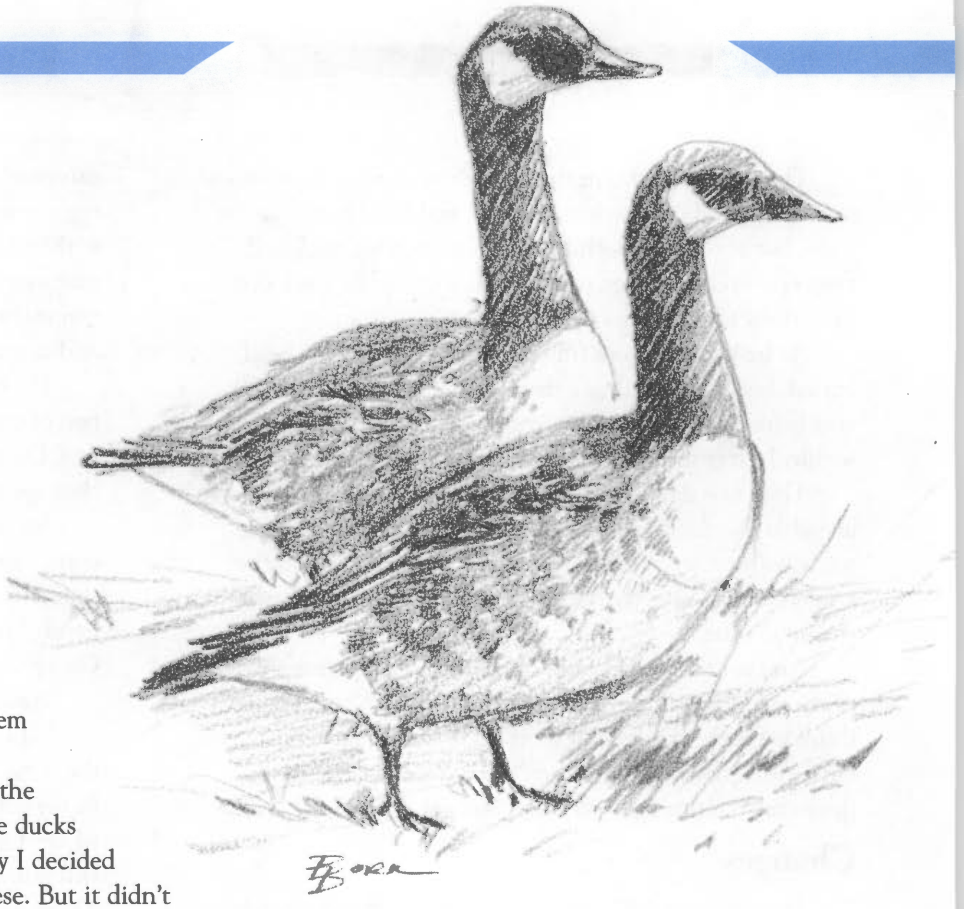
The geese are a different story entirely. I confess that, for the most part, I have never liked geese. They tend to travel in large flocks, make an awful din, are unpleasantly aggressive and, above all, make a terrible mess. All they seem to do is honk loudly and poop, and once they settle in, they are very hard to dislodge.

When they come in waves each spring and fall, it is a war of attrition. I want them to go; they are determined to stay. They settle at the edge of the pond and I run at them, flapping my arms and shouting. They squawk and become agitated, resisting to the last second, then flying into the water, complaining loudly — but they don't fly off.

Then I throw stones at them, hoping to get close enough to persuade them they are not welcome. Sometimes that works, but more often they just go to the other side of the pond. So at night, after they have settled down, I race at them waving a broom and screaming. The idea is to make them so edgy and uncomfortable they will decide to leave.

For years I won; each gaggle would stay a few hours or, at most, a day or two. Then they would decide it just was too unfriendly a place.

The Couple



Eight years ago they came again, but something was different. Two of the geese, clearly a pair, stayed away from the others, both on land and in the water. It was as if they were saying, *We are different; don't include us with our brethren.* When the others finally left, honking in anger, the pair left with them, but I knew something was up. I was sure they'd be back — and they were. Two days later, they came quietly in the evening, alighting in the pond and watching me as I walked to its edge. I knew they were waiting to see what I would do.

As I looked at them, trying to figure what approach to take, Barbara joined me. "They are a pair," she said. "You know they mate for life. Let them stay. They won't bother us."

And so I did. At first they stayed only during the day. Then they started to stay at night as well. The ducks continued to come, demanding their corn. Initially I decided not to feed them, afraid I would encourage the geese. But it didn't work. Finally I gave in.

At first the geese watched from a distance as the ducks ate. The next day I could see them watching from the far side of the pond as I threw the corn in the air so it distributed better. They had been there a week and, with a huge flourish of honking, they charged over to join the ducks.

I watched from a little distance. They knew and I knew. "Oh well," I said to no one in particular, "I guess you are our geese now."

For six years they held sway on the pond. Each year she nested but only once did that result in goslings.

They were clearly devoted to each other and gradually we became quite attached to them. They had decided this was their pond; ducks were okay but not other geese. At first they'd make a lot of noise but leave the dislodging to me. Finally, after one particularly difficult time persuading the goose intruders to leave, I turned to Mr. Goose — whom we had named George — and said, "Some help you are. It's your pond; you get them to leave."

Now I know geese do not understand English and I knew it was pure coincidence, but after that George and Mrs. George took a very active role in flying at the intruders. Most of the time they succeeded, but when they couldn=t make the invaders fly off, I would help out. Our geese, like most geese, were very smart. Often they would join the intruders and when I rushed them, they would squawk loudly and fly off. Invariably the whole gaggle would follow. The next morning or later that night, George and Mrs. George would return, boisterous as ever.

After any event on the pond that aroused them, they would face each other and talk. Their conversations were a marvel to watch. They communicated more in a given day than most human couples do in a week. Their devotion was extraordinary. Here they were, paired for life, never far apart either in the confines of the pond or on the rolling adjacent lawns. It was easy to tell they enjoyed each other's company.

"They are a devoted couple. It's nice to have them around. You know they mate for life."

Yes, Barbara I know. You say it often enough.

Gradually, they began to trust us — within limits. At first, they would stand on the edge as I fed the ducks, waiting impatiently until I moved off, then they would rush in, pushing the ducks aside to grab their share. It took several years before they led the run (or more properly the waddle) for the food. George always came first, hissing if he felt I was too close.

They spent the day in the pond or at its edge. Sometimes he would stand on one leg, his neck and head buried in his wing, but at our approach he would stretch his neck and keep one eye riveted on us, suspicious we might have evil intentions toward him or his wife.

As he became more trusting he would keep his head buried, but I could still see that eye fixed on me. It took a year before he'd completely ignore me, letting me come within 10 feet as I removed algae or leaves from the pond.

Then one day as I threw the corn, he came running up ahead of the ducks, stopping 7 or 8 feet away and talking softly without any hissing. When I threw the corn on the ground George eagerly pecked at it, eating and talking at the same time.

And so it went. They became our friends; we were captivated by their devotion. We never spoke about it but I think we both wondered if their bond was greater than ours, even though we had been married for decades, raising three children through bad times and good.

Changes

The spring of 1998 followed a warm, virtually snowless winter. In early April they made a nest, but in a different site. Every other time it had been on the far side of the pond, behind a willow tree. This time it was close to us, in a wooded area at the edge of the pond. I could see her sitting on that nest — awake, watching, protecting. Perhaps they thought that a change of scenery, of nesting site, would change their luck and produce a gaggle of goslings.

At the same time George's personality changed dramatically. Suddenly, he would not permit the deer on the front lawn. He would honk loudly and angrily and then charge, running or flying just above the ground, wings fully spread, making an enormous din.

The deer were no match for this irascible goose. They would split up, some on one side of the lawn, some on the other, but it made no difference. George would charge one group, harassing that group as a whole, then any individuals that entertained the notion of standing up to him. As soon as one group fled, he'd fix his eyes on the others and, with an angry bellow, charge until they too left.

With me he was not quite sure how to behave. If I went into the barn and came out with the pail of corn he frequently ran at me in a half charge, but he always stopped about 10 feet away. Often he would just stand and let me walk by, then I would hear the webbed feet slapping the driveway, or if he was on the grass, I could see him out of the corner of my eye rushing to catch up. He would come within a few feet, mock-pecking at the orange pail. Unlike past months, whenever he got close he hissed and when I threw the corn on the ground he literally attacked it, hissing and eating at the same time.

His behavior was clearly purposeful. He wanted a full pail of corn on the ground for the infrequent occasions when Mrs. George would leave the nest, eat and drink hurriedly, and then return to her maternal labors.

Sometimes when Barbara was gardening, he would come close to her and stand there until she got up, filled that pail with corn and threw it on the ground near the pond. Then Mrs. George would appear and feed while George, eating nothing, would stand guard.

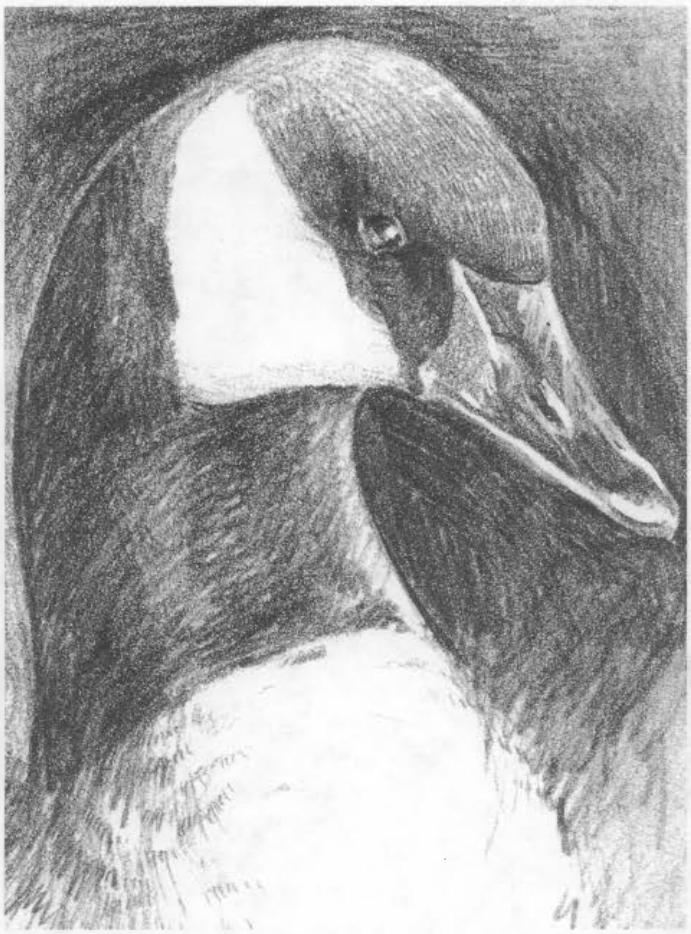
And so it went for weeks. Then one day early in May I ambled to the garage to get the pail of corn. George was in the pond but, unlike every other day, he seemed uninterested in my activities. I walked to the area at the edge of the pond where I ordinarily threw the corn. He remained in the pond, still uninterested. I threw the corn on the ground as usual. Thirty minutes later when I left for work, eight deer were there and George didn't chase them. "That's strange," I thought.

The next day George was sitting at the edge of the pond, not far from the nest. Again I threw a pail of corn. Again he paid no attention. I had a very queasy feeling. Something was wrong. I tried to locate Mrs. George but she wasn't visible.

On the morning of the third day George was sitting in the same place. I threw the corn down. Still no response. I looked at him. Something was very wrong. I walked to within a few feet of him and said, "What's wrong, old man?"

With that he looked at me. As I looked at him I gasped, for in that eye there was an unmistakable look of terrible despair, of sadness, of overwhelming sorrow. And in that moment of communication between goose and man I blurted out, "I'm so sorry."

Then, shaken by that look, I walked around to the nest. It was empty but undisturbed. There were no eggs, no sign of a struggle. I was to learn later that a coyote had killed her in the middle of the night and dragged the carcass about a quarter of a mile where feathers and body parts were found. Not knowing that Mrs. George was dead and puzzled by the benign appearance around the nest I walked back to where George had been sitting but he had gone. We would never see him again.



Later, after we knew the full story, Barbara said, "Maybe he has not gone forever. Maybe he'll be back. Sometimes they find new partners." She was giving voice to that wellspring of inner hope that helps us all deal with tragic events. But we knew it was not to be. George, heartbroken, had almost certainly flown off to die.

Life Lesson

That look of overwhelming sorrow in his eye has haunted me ever since. It is more than just thinking about it; I can visualize it and it is never far from my consciousness. I wondered how many other species mate for life.

Are we humans so focused on ourselves that we have little consideration for the other species that inhabit our Earth? How often do we consider the consequences of what we do to animals or birds on their familial relationships or on their dependent and fragile young? Was not the devotion to each other of our goose couple as strong as any human bonds and deserving of the same respect? Isn't that what parents and schools should be teaching our children?

Of course life goes on. The flocks of geese returned almost immediately. There was no goose couple to tell them this pond is already taken and to drive them off. I still didn't want the pond overrun with geese and, as in the past, I made it clear they were not welcome. They were tenacious but so was I, and I harassed them until, protesting loudly, they flew off.

This went on for several weeks; then I noticed that a pair stayed apart from the rest. One day after the larger gaggle had gone, they came back and stayed a few hours. They watched me closely, obviously testing whether I would let an isolated pair stay. When I left them undisturbed that first evening, they got the message. The next afternoon they were back and the day after that. They haven't adopted the pond as their own yet but we think they will.

"Maybe it's George with a new partner," said Barbara. But we know that is not the case. We have seen this pair up close; they are actually a much younger and far less demonstrative pair. We will not see George again.

Our experience with George and his wife has changed our lives. I consciously try to be nicer to my colleagues. I am not particularly demonstrative; I never have been. But I hug my wife a lot more now. When we walk she has always been the leader in taking my hand; I virtually never took the initiative. Now I seek her hand as often as she takes mine. She thinks it is my mellowing with age and a by-product of realizing that as we get older there are not a great many years, or decades, left.

There is some truth in that but it doesn't really account for the change. For the most part it is the effects of the soul-penetrating look in the eye of that shattered goose that will be with me for the rest of my life. Mostly it is the tale of the goose.

For Reference

Not to be taken

from this library

Donald and Barbara Louria have lived in Bernardsville for the past 15 years. Dr. Louria is Chairman Emeritus of the Department of Preventive Medicine and Community Health of the New Jersey Medical School in Newark.

Search and Rescue on High

by Arline Zatz

Help, I can't reach the ground — my rope is too short. I'm stuck on a ledge. Please send someone to help me down this cliff.

"At first, when this frantic call came in to 911, it seemed a bit humorous," recalls Wayne Valentine, New Jersey District Ranger at the Delaware Water Gap National Recreation Area (NRA). "Here was a climber who, after rappelling down one of Mt. Minsi's steep cliff walls, suddenly discovered he couldn't reach the ground because his rope was too short. Fortunately, he did have a cell phone in his backpack that enabled him to call for help."

There are many selfless individuals who volunteer to search for lost children in their neighborhood and victims of natural disasters around the world. But it takes specially trained, dedicated people — such as the members of the Delaware Water Gap National Recreation Area's High Angle Rescue Team (HART) — to answer some calls for help.

According to Valentine, who also serves as coordinator for the park's search and rescue program, more and more injured or missing people are using cell phones when there's an emergency within the park. Since the Delaware Water Gap National Recreation Area includes approximately 70,000 acres on both the New Jersey and Pennsylvania sides of the Delaware River, these calls are then transferred to National Park Service Dispatch, with notification going immediately to park staff responsible for a search and rescue response. (A cautionary note: Transmission is spotty in places at the park so people shouldn't rely solely on cell phones in case of an emergency.)

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High Angle Rescue Team member, at edge of Mt. Tammy face during a recent training session, monitoring lift operations with the team's A-frame assembly.

When an initial call comes in reporting someone is overdue or lost, Hasty Search Teams are frequently deployed. They perform a sweep of roads, trails and other areas where it is highly probable that the overdue person may be. The hasty search is essentially an effort to locate the individual as quickly as possible with limited resources on the scene. A quick response often can be the difference between life and death and can avert a very lengthy and costly operation. Members of the Hasty Search Team generally carry basic emergency medical equipment and supplies.

If there is a question as to whether someone is actually overdue or lost, team members may be sent to the reported party's home, vehicle, a friend's house or local hangouts. If the individual is located, the report is considered "unfounded."

If the location of an injured person is known or strongly suspected, a Hasty Medical Team of two or more rescuers is sent in as soon as possible to verify the incident, conduct a patient assessment and provide emergency medical treatment prior to arrival of additional resources for patient carryout. As the patient is stabilized, members of the High Angle Rescue

Team (HART) and Evacuation Team arrive on the scene to carry the victim out. Those teams, along with the Dive Team, are all components of the park's search and rescue program.

A rapid medical response is extremely important, especially if there's been a head injury or serious trauma that may cause the victim to go into severe shock and die. The team has to stop the bleeding, stabilize the injured party and prevent heat loss because hypothermia — a progressive cooling of the body — is always a concern, even during warm weather. Improper dress, such as not wearing clothing that wicks off perspiration, and immersion in cold water, are among the ways people succumb due to hypothermia. "Exhaustion, dehydration and hypothermia are conditions we frequently deal with," notes Valentine.

A Multiplicity of Challenges

Some emergency calls are solved easily. A few may even have a comical twist. For example, Valentine recalls when the team rescued an injured hiker atop Mt. Minsi. "Because he was a small, lightweight jockey, we didn't have to use a stretcher. Instead, he was tied to a rescue team member's back and carried down that way." Also remembered are the two embarrassed honeymooners who, after purposely leaving the main trail for privacy, were stranded in a steep area — and the two fathers who got lost themselves while looking for their children who hadn't returned home when expected.

Humorous rescues are rare, however; the normal missions for the High Angle Rescue Team are hazardous to life and limb. Members are constantly placed in dangerous situations, often because park patrons just don't think about what they're doing.

"They may go hiking or climbing in bad weather," explains Valentine, "but then they'll get into an area where more technical expertise is needed and they don't have the skills and equipment to successfully take care of themselves. Or they'll climb up unstable cliffs with loose shale."

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A hauling system, utilizing mechanical advantage provided by ropes and pulleys, is set up to lift a load up the cliff face.

Often, rescues extend into the late night hours when headlamps are necessary. Ron Matthews, a federal park ranger who is the HART leader and the search and rescue specialist at Delaware Water Gap NRA, has handled dozens of these dangerous rescues — including the short rope incident.

"This rescue was tough from the beginning," he says, "because we had to search for the stranded climber. We saw a few climbers on some of the cliff faces, but when you're a couple of thousand feet away, it's hard to determine just who's stuck and who's okay because the climbers aren't always moving fast. Once we found the victim, we had to figure out the best way to reach him. Every step was laborious and difficult for our team because there's always the risk of slipping or turning an ankle."

The Right Approach

Effecting a successful land-based rescue depends upon the scenario, which falls into one of three categories that are related to the degree of slope or steepness of the terrain — high angle rescue, low angle rescue, or belayed carry-out. A high angle response is used for a vertical face or very steep slope; a low angle rescue is used on a moderate slope or steep hill; and a belayed carry-out is appropriate for an even gentler slope, but when the stretcher or climber has to be tied in for safety.

Although all team members live in the general area, because they're scattered throughout the river valley, it takes them a while to get together when an emergency call comes in. "Therefore," notes Matthews, "we have to assimilate as much information as possible as to where the victim is; the difficulty he/she is in, how difficult it will be to reach and evacuate the victim, and the gear we'll need. We have to determine if the victim is on the side of a cliff or on a ledge on New Jersey's Mt. Tammany or Pennsylvania's Mt. Minsi; if so, that determines that it will be a high angle rescue."

Figuring out if it's best to go in from the bottom or the top must also be considered. "It's easiest from the top," says Matthews. "When this way is possible, we must get the stretcher, ropes, gear

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Team members, even with mechanical advantage, must provide the "horsepower" to perform a raising operation.

HART Roster

The high angle rescue team includes federal and state park rangers and state forest fire personnel.

- **National Park Service**
  - Ron Matthews, *search and rescue specialist; team leader*
  - Randy Seese, *team leader*
  - Ed Appel
  - Larry Commisso
  - Chris Kross
  - Troy Mueller
  - Don Philpot
  - Joel Schwartz
- **New Jersey State Park Service**
  - Bob Brown
  - Bob Pfeil
  - Rob Sikora
- **New Jersey State Forest Fire Service**
  - Jim Mangine
  - Todd Sacchiero
- **Pennsylvania State Bureau of Forestry**
  - Shawn Turner

and personnel up there. This can take from 30 minutes to a couple of hours; there's no fast way. We can Medevac by helicopter in this case, but can't send our personnel in this way."

If the person is injured, the team must get a rope over the edge as quickly as possible and get a team member with some medical gear down to the victim. That's the first job, but it has to be done safely, because whenever a rope goes over the edge, it must be padded to protect it from being abraded by the rock face. They also have to ensure that no rocks or other debris fall on the victim below.

Meanwhile, other team members are rigging anchors. Often, they use trees as anchors, but even if a tree is 24 or 36 inches in diameter and is solid all the way through, they have to use two to four trees and a minimum of two ropes for the rescue. The anchors have to be virtually bombproof because nothing can pop out when the person puts his weight on it. One rope serves as the main line and is the rope they raise or lower with; the other is the belay line, which is controlled by a team member in case the other rope or system fails.

Versatility's the Key

In the short rope case, Matthews climbed up the cliff, but found when he reached the victim that the area wasn't a safe place to install the rope anchors because the rock was loose. Luckily the team members atop the cliff had attached ropes to trees and were able to come down that way to reach the victim safely.

In similar rescues, if a person is injured, one team member stays with the patient and another is hooked into the stretcher, which has two ropes hooked into it. The team member would work his way over the edge and be lowered down to the injured party, a little offset rather than directly above if possible, to avoid rocks falling down on people below. Then the rescuer must get the victim

onto the stretcher. This can be very dangerous because, if a fall was involved, spinal injury must be assumed. A backboard or splint is used to keep the victim's spine straight as the patient and team member are moved as a unit.

The patient is tied onto the stretcher so as not to fall out, and usually one of the rescuers will descend with the stretcher to monitor and care for the patient and keep the stretcher away from the cliff so it doesn't snag on the way down. When the patient is at the bottom of the cliff, a low angle evacuation is carried out.

"Our job then," says Matthews, "is to get them down the mountain the rest of the way, which may mean 600 to 900 more feet. For this operation, we use ropes and the stretcher in a different configuration."

When coming down the cliff, the stretcher is horizontal and parallel to the cliff. For the low angle rescue, the person on the stretcher is brought down feet first, with three or four rescuers tied onto the sides of the stretcher. As the ropes lower them down, they hold the weight of a person.

Sometimes it's easier to raise the stretcher and patient to the top. "Then we use the same roles and equipment," explains Matthews, "but we make a haul system using pulleys. We can rig a haul system for any kind of mechanical advantage we need."

Another type of rescue is one-on-one, where a person is stranded or only slightly injured, as in the jockey incident. "They may have twisted a hand or shoulder," says Matthews, "and once we're certain they haven't fallen and injured their spine, we know we won't hurt them further by having them help out with the rescue." In such a case, a stretcher is not used; rather, a rescuer descends and, tying them into the same rope he's tied to, helps them down.

EMERGENCY HOTLINE

1-800-543-HAWK(4295)

This 24-hour, toll-free number should be used only to report a crime or emergency situation.

A Team of Teams

Utilizing their special skills, the High Angle Rescue Team, Evacuation Team and Dive Team members handle approximately 45 rescues each year. In 1998, there were 14 hiking, 4 climbing, 12 swimming, 9 boating and 2 unfounded incidents. (An unfounded incident is one in which the reported problem either didn't really exist or had been resolved by the time the Hasty Search Team arrived.) As of the middle of November 1999, the High Angle Rescue Team had been involved in 4 major incidents, 2 of which were falling fatalities, and the Dive Team had been involved with the recovery of 6 drowning victims within the park's boundaries.

"The High Angle Rescue Team, as we know it today," says Valentine, "actually got its start in 1990 following an incident when a young woman fell about 180 feet in a rugged area of the park on the Pennsylvania side. She didn't die, but was terribly injured. The rescue, just after sunset, was arduous, but things went well considering the terrain and the difficulties involved in a night operation. We had experience with this type of rescue before, but didn't have the number of trained people that were needed. Once we recognized the need to put together a High Angle Rescue Team, we decided to get together on a regular basis rather than at random times or only when an incident occurred."

A team made up of National Park Service members was formed and monthly meetings were held. Today's HART includes staff from the National Park Service and other cooperating agencies (see sidebar). Members are required to attend at least 9 of 12 monthly training sessions after completing initial prerequisite training, plus in-house training sessions, to keep their membership current and valid. Training sessions include carryout overview, introduction to search and rescue, basic rock climbing, advanced knots and advanced technical gear; as training progresses, there is more detailed technical instruction. Evacuation Team members must complete the more basic of these in-house training courses and attend at least one monthly meeting annually.

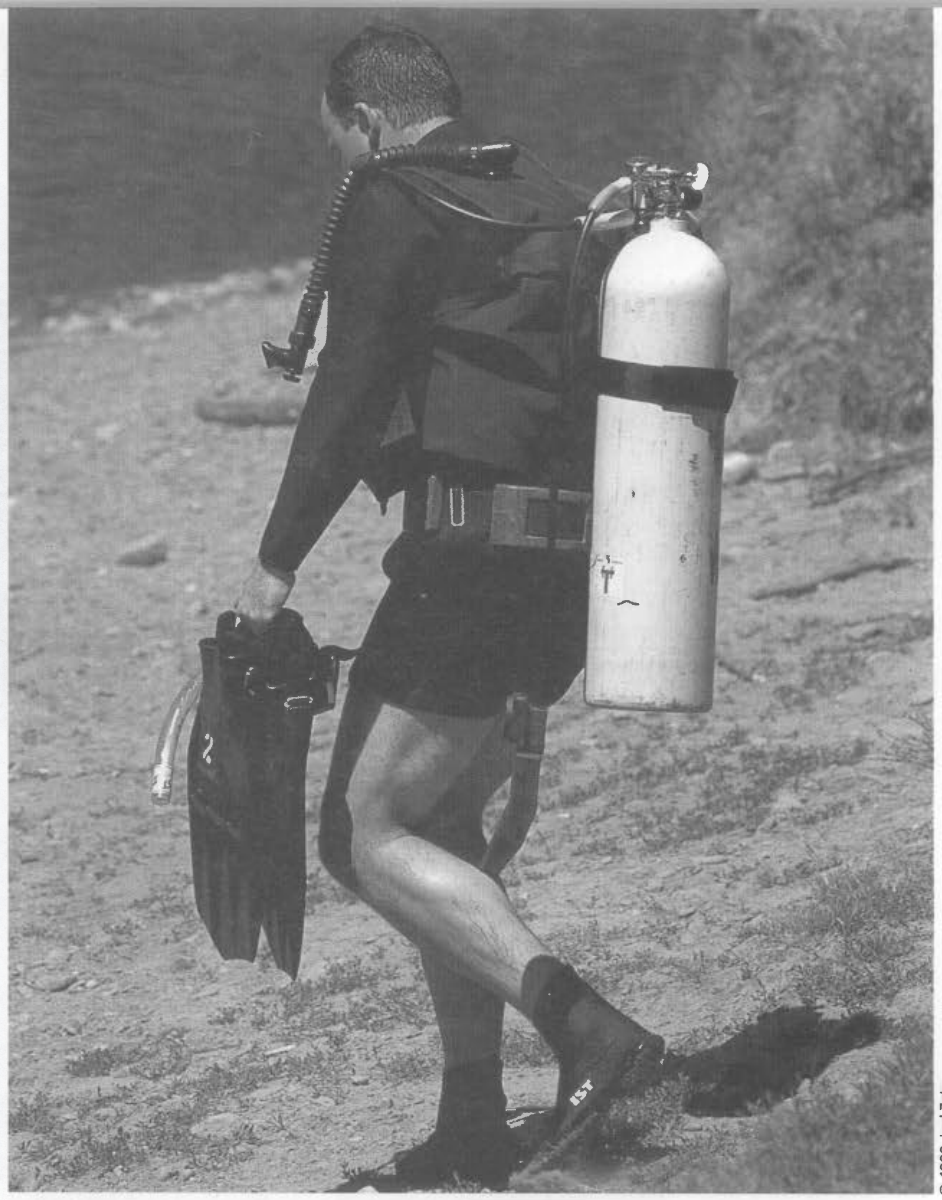
The Right Stuff

The High Angle Rescue Team requires a lot of technical skills and hands-on practice, notes Valentine. "For high angle rescue, we're talking about various hardware to bring systems up or down." Pulleys and two kinds of rope are used — dynamic, capable of stretching up to 40 percent of its length and used as belay lines by climbers to cushion a fall, and static, those with little elasticity that stretch less so the stretcher and injured party can remain securely in place.

Specialized knots are used, such as the bowline, double fisherman's, figure eight, and frequently, the Prusik knot, invented by a mountaineer, Dr. Karl Prusik, in the 1980s. Whenever the terrain is flat or not too steep, a wheel is used beneath the stretchers to eliminate the possibility of team members hurting their backs. "We've had patients weighing 250 pounds, and need the extra support the wheel allows," Valentine says.

High and low angle rescue techniques

During the High Angle Rescue Team's monthly water rescue drills, divers practice donning gear and getting into the water as quickly as possible.



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are often employed for water rescues, particularly when a person falls into a ravine, or gets into trouble on the river when the current is strong or is stuck against rocks or trees. "There are many demands on us, and we need a capable response team for the many types of problems that can occur," notes Matthews.

"We've been called to rescue people from overturned ATVs and boats and, on occasion, have rescued animals. People's pets go swimming or get caught on a ledge, and we have to get them to safety," says Valentine. "In a recent rescue situation, we had to lower one of our men on a rope down to the dog and there was concern that the dog might bite. That's why our team practices again and again till everything, including knot tying, becomes second nature. We stake our lives on the ropes and knots, and the more knots a rescuer is familiar with, the better off he'll be in a tight situation, although a selection of basic knots meets most of our needs."

The Right People

Team members are actually multi-specialists, says Valentine. "We change hats quickly. It's hard to keep up with, but it's fun. The troops in my division are all trained as EMTs; are federal law enforcement officers and game wardens; are wild land fire fighters; and some have been trained in scuba rescue and other specialized fields. When it comes to law enforcement, we're protecting the visitors from other visitors. Using our other skills, we're protecting the visitors from the resources. We're also protecting the resources from the people. We're involved in everything — alcohol, controlled substance, motor vehicle violations and even domestic violence, which sometimes occurs within the park."

The Delaware Water Gap NRA rangers, paid employees of the National Park Service, aren't required to join the rescue team. In fact, Valentine deems doing so above and beyond the call of duty. So why do Matthews — at 50, married with two young children — and other team members volunteer for these potentially dangerous rescue missions?

"A lot of us got into this because we like the outdoors," he says. "These aren't mountains compared to those in the West, but it's rugged terrain. It's exciting, thrilling, and we all enjoy helping people. I enjoy doing something I'm good at. Helping people who are in a bad situation is most rewarding."

These volunteers — all of whom take great pride in being part of the HART or another specialized search and rescue response unit — need good technical skills, a practical mind and physical prowess. To qualify as a High Angle Rescue Team member, each person must be trained in belaying and rappelling, assist or perform rigging operations, and assist or perform as a vertical stretcher attendant. He or she also must maintain a minimum of Advanced First Aid and CPR certification and maintain a readily available personal rescue pack.

Prepare!

Is there any way to prevent getting lost or having an accident while enjoying a day in the park? "It takes time and a lot of experience to understand all aspects of mountain climbing, rappelling, hiking, boating and other outdoor activities to be safe," notes Matthews. "My advice is to spend time at a good school or with instructors, guides or a friend who is experienced, safety-conscious and confident."

He notes that climbing gyms are popular but, while those who go there do learn how to climb and get good at mastering the artificial walls, they haven't learned about the real outdoor world and route finding. "The route you're on may seem easy or moderate," he says, "but it may actually be a difficult route that can

Here, the team practices with the apparatus used to bring a victim from the water into the boat as carefully as possible. The plastic net allows the victim to be rolled up onto and into the boat. Following this procedure is especially important if the victim suffered a back or spine injury.

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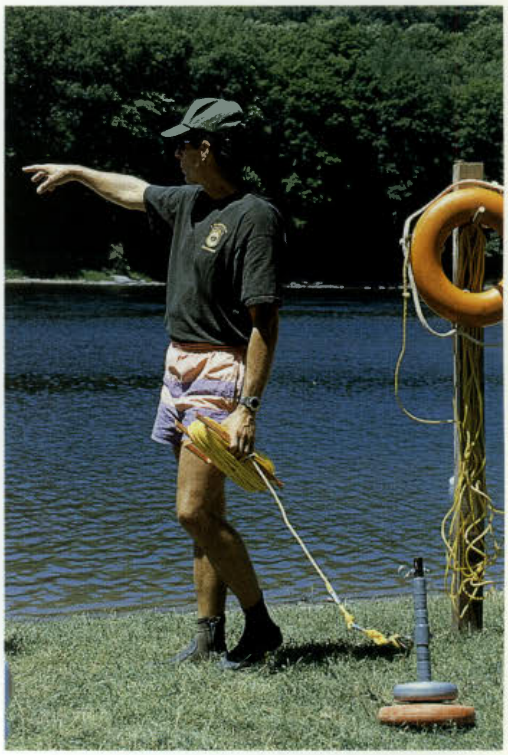
During one of their drills, a HART member on the shore tosses a throw rope rescue apparatus to a team member in the water who's pretending to be in trouble.



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Wayne Valentine points out how a float bag can be used for different purposes. It can be tossed to the victim in the water so he can be pulled in to the shore or used by a diver as a search tool. By letting out a bit of rope at a time and swimming in a circle, he can conduct a careful underwater search rather than just swimming randomly.

cause you trouble." Also, people who have trained in climbing gyms often don't take enough liquid with them on outdoor climbs because the indoor setup is air-conditioned.

It's wise to sign up for a course that's given outdoors, such as those offered by the Appalachian Mountain Club, the Pack Shack or Eastern Mountain Sports, so you can go out with people who are truly experienced. Trouble can also be avoided by staying on the trails when hiking and exploring, and by staying off cliffs and waterfalls.

In addition to writing for **New Jersey Outdoors**, *Arline Zatz is the award-winning author of* **Best Places to Hike with Children in New Jersey** *(Mountaineers Books);* **30 Bicycle Tours in New Jersey** *(Backcountry Publications);* **New Jersey's Special Places** *(Countryman Press); and* **New Jersey's Great Gardens** *(Countryman Press). Her features and photographs appear in magazines and newspapers nationwide.*

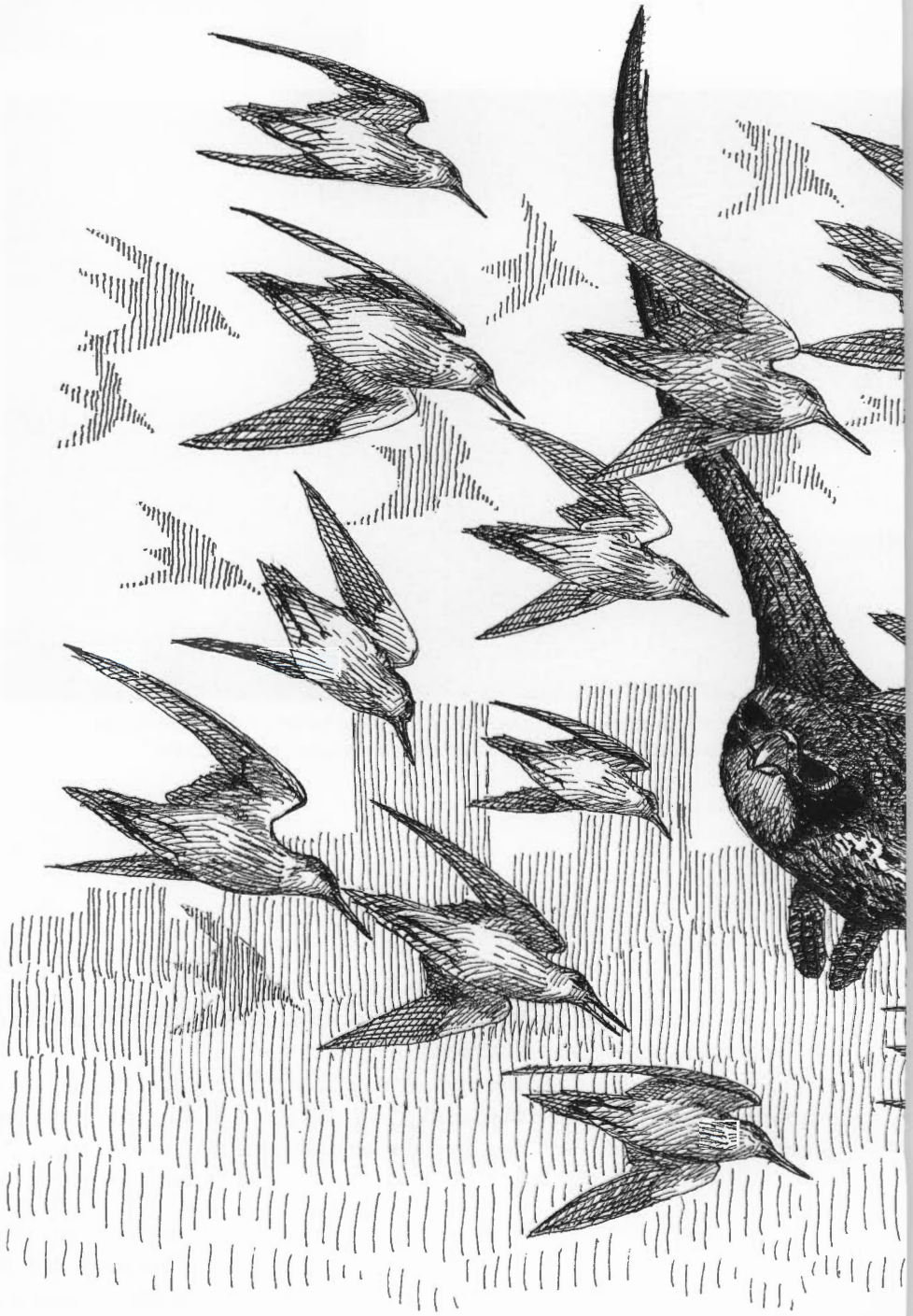
The Hidden World of an Urban Wilderness

by John R. Quinn
Photographs courtesy HMDC

With a rush of wings, a thousand tiny brown shorebirds erupt from an August mudflat, come together in a densely packed swarm and race away across the reeds-and-water expanse of a coastal estuary. Seemingly moving as a single living organism, the birds wheel in tight formation and course swiftly against the sky, flashing light undersides and dark backs as they twist and turn in a marvelous natural symphony of motion.

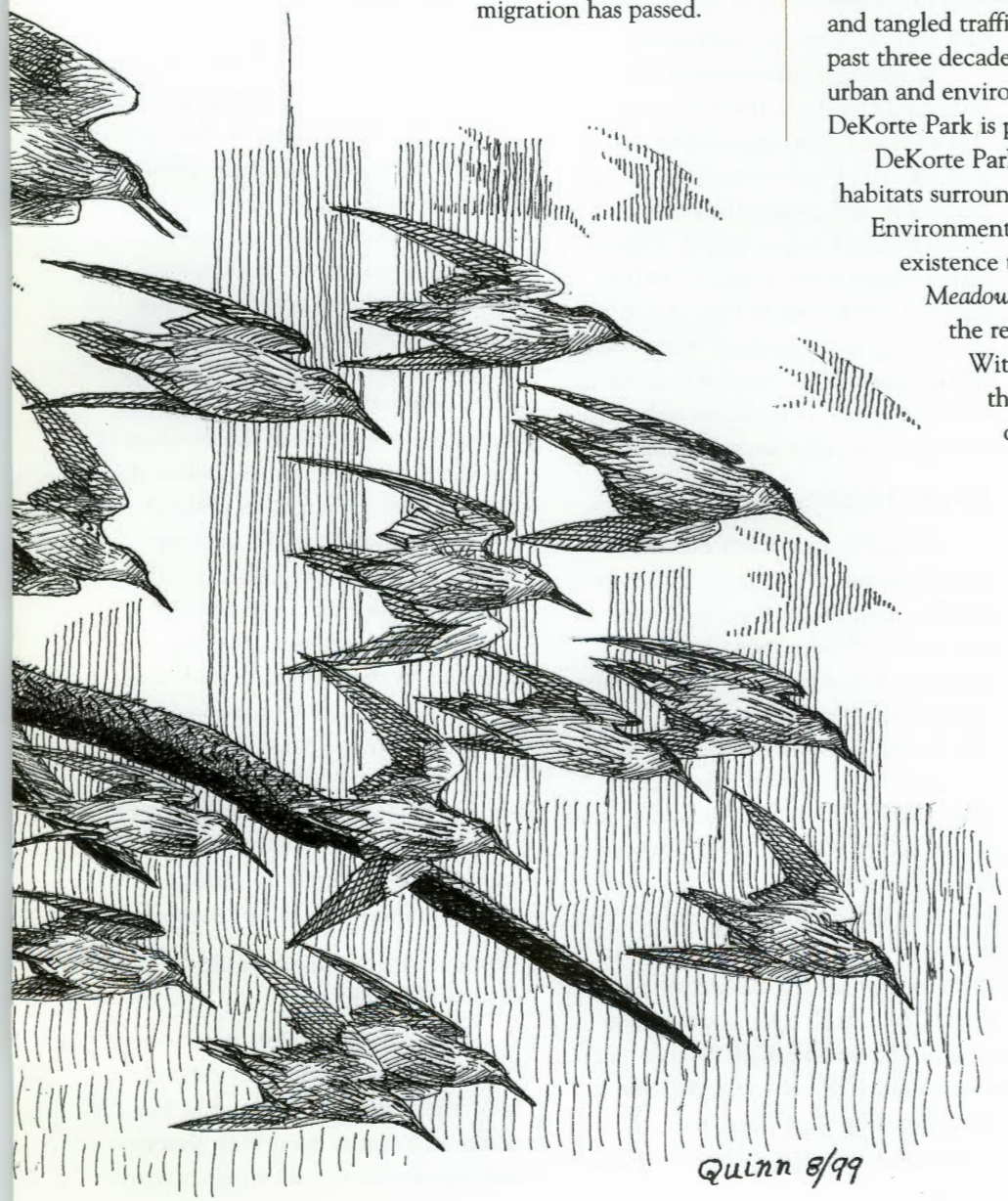
Then, in a flash, the cause of the sandpipers' sudden flight appears out of the hazy blue. An angular shadow slips across the mudflat; above it, a peregrine falcon, trim and relentless as a stealth bomber, angles in toward the fleeing blizzard of "mud peep." The flock bunches up and streaks away and, although the endangered peregrine is a matchless hunter, this one strikes out — unable to single out a target from the confusion of flying bodies. After a darting, frustrated feint into the swirling flock, the falcon angles steeply into the sky and hangs suspended against the sun — a superb image of flight in its most eloquent expression.

Action-packed, nature-in-the-raw scenes like this frequently are played out on television nature specials, usually against a wilderness backdrop, but the above-described peregrine's assault on the shorebirds took place not with a mountain looming in the background, but a building: the twin towers of New York City's World Trade Center.



The throng of shorebirds, a mix of semipalmated, pectoral and least sandpipers, had been feeding on what can best be described as a man-made mudflat. For most of the year the 100-acre Kingsland Tidal Impoundment in Richard W. DeKorte Park in Bergen County is maintained as an open expanse of reeds and water crossed by a rustic hiking trail in the form of a boardwalk. In mid-July, however, the impoundment is drained through two tide gates, creating the extensive mudflat habitat — rare in the Meadowlands — that is essential to shorebirds migrating south along the Atlantic Flyway.

This "instant" environment, rich in the invertebrate fare sandpipers favor, is maintained until early October, when the bulk of the fall migration has passed.



Recreating Nature

The Kingsland Impoundment is but one of the several "natural" features of DeKorte Park in the Hackensack Meadowlands that combine to make it one of the most unique and exciting slices of open space in the nation. Created out of closed landfills by the Hackensack Meadowlands Development Commission (HMDC), a state regulatory agency formed in 1969, DeKorte Park and environs are the crowning jewel of environmental recovery in a heavily urbanized region long dismissed as an ecological Armageddon.

The 32-square-mile Hackensack Meadowlands District, once considered a state liability and a regional eyesore — a malodorous wasteland of smoking dumps, abandoned factories and tangled traffic arteries — has been transformed over the past three decades into a nationally acclaimed model for both urban and environmental renewal. And the 1,500-acre DeKorte Park is perhaps its most dramatic accomplishment.

DeKorte Park is an intriguing mix of wetland and upland habitats surrounding the headquarters of the HMDC and its Environment Center. In both cases, the fact of their very existence today is a major part of the so-called *Meadowlands Miracle*, a term most often applied to the revitalization of the region's economic health. Without the stewardship of the HMDC, neither the flat marshes nor the rolling wildflower meadows of the park would exist to offer visitors an outdoor experience in the midst of one of the most densely populated metropolitan areas on earth.

Thirty years ago the site that is now DeKorte Park was the eastern section of the active Bergen County Landfill. At that time receiving thousands of tons of municipal solid waste yearly, the landfill was poised to expand farther east into the marshes of Kingsland Creek. With the purchase of Kingsland Impoundment from Bergen County in 1988, the HMDC began the closure and capping of the vast dump and the protection of the remaining marshes (or "meadows," as they were long known) as open space.

Birders scan the Kingsland Impoundment for avian rarities. More than 260 bird species — including the northern harrier, Bonaparte's gull and the least tern —either visit or nest in the Meadowlands District.

An Experimental Park

Thus, the core of the park was formed and its development into a biological and recreational resource initiated. Following extensive "land-sculpting" by the HMDC and effective management of the Kingsland marsh, the transformation of the old dumping ground into "an experimental park on a landfill" was underway. Genuine biological integrity soon began a return to the former barren, trash-filled "wasteland."

Thirty years ago, the principal fauna of the Meadowlands seemed to be little more than dump rats, gulls, crows and starlings; today more than 300 species of birds and mammals are either resident or transient in the district. In 1970 about a dozen fish species, including the indestructible killifish, were reported as just hanging on in the polluted Hackensack River; today more than 50 species, including the striped bass, winter flounder and weakfish, are recorded as maintaining viable populations in "the Hacky's" recovering aquatic ecosystem.

For the modern Meadowlands visitor, DeKorte Park and the Environment Center offer a close-up look at an ancient glacial estuary formed by the Wisconsin Ice Sheet 18,000 to 12,000 years ago, and permit casual travel across terrain considered formidable by the hardy hunters and trappers of yesteryear. Indeed, the park's unique trail system itself is a combination of the old and the new, and of technology and nature.

Beginning at the crown of the Kingsland Overlook, the attractive walkways and viewing pavilions of this singular little Meadowlands foothill are situated on the eastern flank of the closed Bergen County landfill. Capped with a rugged cover made of 144,000 recycled plastic soda bottles, this mini-promontory is the original "experimental park on a landfill" — the end result of the combined talents of landscape architects, botanists, horticulturists and contractors.

Diverse Habitats Created

Planted in four major biomes of native vegetation — grassland, butterfly meadow, herbaceous shrubland and mature woodland — the Overlook's walking trails offer not only spectacular views of the Meadowlands and Manhattan but trailside nesting habitats for a wide variety of birds, including mourning dove, brown thrasher, orchard oriole, yellow warbler, cedar waxwing and song sparrow.

The Transco Trail forms the southern boundary of Kingsland Impoundment and is one of the few nature trails in the world that is built upon a natural gas pipeline. The half-mile-long trail section of the Louisiana to New York pipeline, purchased from the Transcontinental Pipeline Company in 1988, offers the park visitor a look at the manmade impoundment on the north side and the fully tidal Saw Mill Creek Wildlife Management Area to the south. Both habitats are a mecca for shorebirds and other waders in summer and early fall, attracting such rarities as avocet, the Eurasian ruff and the Hudsonian godwit, as well as hordes of more familiar avian folk like greater and lesser yellowlegs, dowitchers, least and semipalmated sandpipers, and herons and egrets of several species.

The Marsh Discovery Trail, probably the best-known and most popular public walking trail in the Meadowlands, takes the practice of waste recycling into new avenues of accomplishment. Built almost entirely of recycled materials called Super Deck, the boardwalk itself is made of recycled plastic milk jugs and is designed to simply rest or float upon the marsh, a construction approach that eliminated the use of habitat-damaging heavy equipment, such as pile-drivers.

The Marsh Discovery Trail affords the visitor true egress to the mystique of the salt marsh environment, albeit the human-created phragmites wetland that dominates so much of the modern Meadowlands District. Although the "phrag" islands that dot Kingsland Impoundment and are connected, necklace-like, by the boardwalk trail, were created from dredge spoil banks, this habitat nonetheless supports an impressive biomass. This is due primarily to the seasonal management of the water level for the benefit of waterfowl and the endangered pied-billed grebe in spring and migrating shorebirds in late summer.

Nurturing Awareness and Appreciation

The Richard W. DeKorte Park trails offer the visitor an image of — and access to — the complex and beautiful world of nature in a region many New Jerseyans and out-of-staters had long since written

Canoeists enjoy a recreational paddle on Mill Creek in the Meadowlands. A part of the HMDC's 144-acre Mill Creek Wetlands Enhancement Site can be seen in the background.

off as a polluted industrial moonscape. Today, the HMDC's Environment Center annually hosts more than 15,000 student and teacher participants in education programs designed to nourish awareness of the value of wetlands. Hundreds of visitors walk the trails and marvel at the paradox of a wilderness within a city.

The HMDC's popular pontoon boat and canoe cruises carry people into both the natural vistas of the 1,000-acre Saw Mill Creek Wildlife Management Area and the rehabilitated wetlands of the Mill Creek Wetlands Enhancement Site in Secaucus. And the peregrine falcon hunts its prey above a landscape that has survived the onslaught of two glaciers — one of ice, the other of garbage.

Where 30 years ago the HMDC itself described the Hackensack Meadowlands as a grim, industrialized wasteland where "cattails, rusting auto bodies and garbage merge in unholy, stinking union," today the Meadowlands District is a nationally-acclaimed model for the recovery of urban ecosystems.

In 1970 the agency lamented that "the Meadowlands is more the victim than the cause of pollution." How this ancient glacial estuary became a victim, and was then transformed into a biological "patient" undergoing dramatic recovery, is surely one of the greatest environmental success stories of the 20th century.

A Meadowlands muskrat ventures abroad on the snows of winter. This hardy little furbearer was once the object of a considerable fur trapping industry; today less than a dozen part-time trappers still pursue the "poor man's mink" in the Meadowlands.

The Richard W. DeKorte Park and Environment Center are located at the eastern end of Valley Brook Avenue in Lyndhurst. The barrier-free trails are open to the public at no charge from 8 a.m. to 8:30 p.m. in summer and from 8:30 a.m. to 4 p.m. in winter. For information on HMDC pontoon boat or canoe cruises and environment center programs and special events, call 201/460-8300.

Artist-naturalist John R. Quinn is employed as natural resource specialist with the Hackensack Meadowlands Development Commission. Acclaimed author of **Fields of Sun and Grass** *and other books on nature and science, his prose-and-pictures reflections on our state's environment appear regularly in* **New Jersey Outdoors**.

MORE WINDOWS ON OUR WORLD

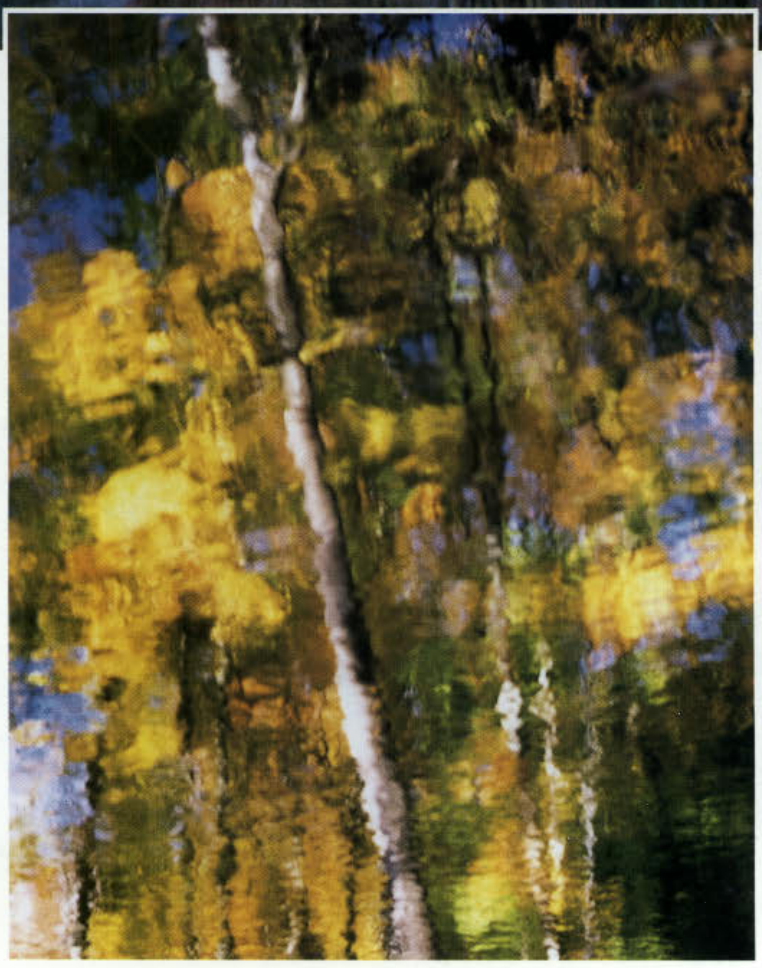
The images on these four pages were selected for honorable mention in the recent *New Jersey Outdoors* photo contest.

Philip W. Dezan of Kendall Park caught *Emerging Light* at the Delaware and Raritan Canal State Park near Kingston.

Laura Melendez of Dunellen captured *Red Fox* in the Dunes at Island Beach State Park.

M. J. Hulsart of Point Pleasant took *Bayside Shoreline* at Island Beach State Park.

Gloria Archambault of Marlton snapped *Castaways* at Island Beach State Park.



Joseph Zielinski of Florham Park captured both *Fall Colors* (above) and *Fall Impressions* (right) at Ringwood State Park.

Frank Fautacone of Forked River took *Still* at the Forked River State Marina.

Gail Hoofnagle of Marlton snapped *Silver on Blues* at Island Beach State Park.

The Return of the

Photographs © by Dan Bacon

A pair of six-year-old tundra wolves go head-to-head as they stike a mirror image pose. Sasha, a female, is on the left; Kazan, a male, is on the right.

Wolves

Her silver-tipped black coat ensures that Willow, a six-year old timber wolf, stands out against a snowy background.

The howling of wolves — one of the most beautiful and haunting forms of communication in nature — has been absent from the wilds of New Jersey for more than a hundred years. Thanks to professional photographer and native son of our state, Dan Bacon, visitors to the Lakota Wolf Preserve in Warren County now have an opportunity to hear their song and see these magnificent creatures in a natural setting.

With his wife Pam and partner Jim Stein, Bacon has created a very special place where visitors can learn about wolves, pack social structure, wolves' eating habits, their interaction with man and more. A walkway wends through the spacious compounds that provide a natural habitat for individual packs of wolves and allows observers to see how the wolves play, interact and communicate.

Oden's eyes mesmerize as he surveys his environment. Another of the Lakota Wolf Preserve's grey wolves, he'll soon be four years old.

Cache shares his Lakota compound with two other bobcats.

Aptly named, Red is one of the preserve's two foxes. (The other's coat is white.)

King is in his element as the snow falls around him

The reserve is located behind Camp Taylor Campground, at 89 Mt. Pleasant Road in Columbia (Knowlton Township). It also serves as "home" to a red fox, a white fox and a pair of bobcats in addition to various subspecies of the gray wolf (Canis lupus).

Wolf Watches, which are offered year-round, are presented daily at 10:30 a.m. and 4:00 p.m. during warmer weather. Cold weather Wolf Watches are scheduled by appointment. Serious photographers can make arrangements for a guided photography or video session around each individual wolf compound.

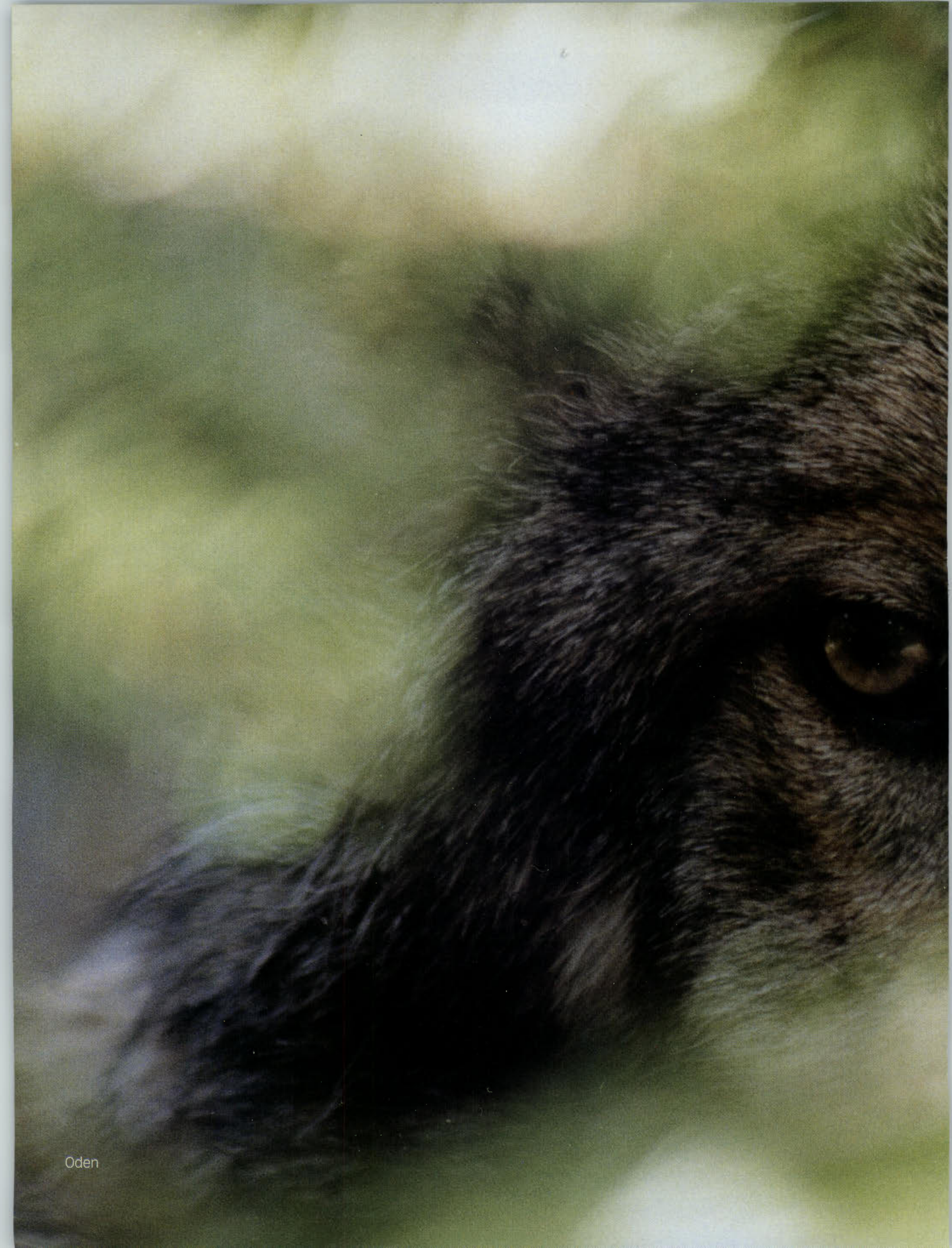
The reserve is supported in part by visitor fees and in part by sponsors, who "adopt" one or more wolves. New Jersey's hunters also help out by donating venison. You can learn more about the Lakota Wolf Preserve by visiting their website at www.lakotawolf.com or calling 877/SEE-WOLF.

Oden drapes a protective leg over the grey wolf pup, Sheba.

White Cloud and Storm (l-r) relax on a rock as Thunder stands watch. All are three-year-old Arctic wolves; White Cloud is a female while the other two are males.

Snow, snow, everywhere! Fresh powder covers the landscape, frosts the coat of Lakota, a six-year-old female grey wolf, and even shows up on the tip of her nose.

Pairing up again, Sasha (left) and Kazan (right) gaze into the distance.



Oden

Cheyenne is outlined against the winter sky by her black tipped fur. She's a one-and-a-half-year-old grey wolf.

NOW SHOWING AT LIBERTY SCIENCE CENTER

If you enjoyed these wolf images, be sure to visit Liberty Science Center before June 18, 2000. Until that date, 28 of Dan Bacon's wolf images will be on display in the Health Floor Atrium. The exhibit, titled *Lakota Wolf Preserve*, complements the film featured in the center's IMAX theater, Wolves.

Liberty Science Center features three floors of hands-on exhibits and interactive programs related to inventions, health and the environment. Until March 31, it is open from 9:30 a.m. to 5:30 p.m. Tuesdays through Sunday and on January 17 (Martin Luther King Jr. Day) and February 21 (Presidents' Day). Beginning April 1, the center is open (same hours) seven days a week. Located in Liberty State Park (Jersey City), it can be reached via the New Jersey Turnpike (Exit 14B). For additional information, call 201/200-1000 or visit www.lsc.org.

Chinook , a five-year-old Arctic wolf, stands atop a snowcapped rock as she surveys her wintery world.

Lakota (background) and Oden.

The Timid Need Not Apply

by Robert Brunisholz

© Robert Brunisholz

Captains Will Egerter Sr. and Jr. are at the helm of the ***Dauntless*** year round. The ***Dauntless*** is moored at Broadway Basin, Point Pleasant, and is one of the Jersey Shore's most popular winter bottom boats.

"Umm, ah.., you won't be needing that," one of my fishing cronies explained, wearing one of those pasted-on grins that only slightly turned up at the corners of his mouth, and a look in his eyes that said in no uncertain terms, "this guy is gonna' need some enlightening."

He was looking at the spinning rod I had in hand at the time.

"Leave last summer's tackle home. You're going to be fishing at depths of 150 to 200 — sometimes even 300 — feet, and you're going to need a heavy-duty reel spooled with line capable of derricking heavy fish out of those depths. We'll also be using sinkers that range in weight from three or four ounces up to as heavy as six or seven, sometimes more, depending on how rough it is out there," he said, adding, "Gotta be able to hold bottom, you know."

By *holding bottom*, he was alluding to dropping a baited rig into the briny deep at great depths, and then expecting that rig to remain in place by virtue of lead sinkers attached to the business end of a line. In the meantime, the deck on which you're standing is heaving up and down, often to the tune of four or six feet per wave, sometimes more.

Six, seven or eight ounces of weight? Or more? Heck, some of the trout I catch during fall and summer don't weigh that much.

Admittedly, the conversation with my friend took place more years ago than I care to admit. Nonetheless, that was my first winter bottom fishing trip. It was, indeed, a trip during which the folks who sail from New Jersey's charter and party boat ports between mid-November and early April, earned a lot of respect from yours truly. This is not the lazy, hazy summer kind of fishing one finds during June, July or August as families and friends, even novice anglers, casually jump aboard party boats to sail in short-sleeve weather for bluefish or summer flounder.

The Die-Hards

The Jersey Shore is mostly deserted at this time of year with, of course, the exception of the folks who reside there year 'round. And it's safe to say many party and charter boat captains place their craft in dry-dock for yearly maintenance sometime during the early or mid-winter months, while others sail their boats to more temperate climes like Florida, or off the coast of the Carolinas, where they continue to fish while taking advantage of warmer weather. But there is a contingent of crusty, die-hard captains, most of whom own their boats, who continue to sail from New Jersey ports throughout winter. Avid saltwater anglers refer to the winter fleet as *bottom boats*, denoting the type and style of fishing available between mid-November and late April.

The boats usually sail to known destinations. The captains know, all too well, the charting and courses necessary to find submerged wrecks, for it is at these wrecks that winter fish like cod, hake and ling find smaller baitfish. Captains usually refer to their favorite hot spots as the *50-to-80-mile wrecks*, indicating the distance from port to the wrecks.

The baitfish use the wrecks as protection from predator fish. Despite whatever protection baitfish find in and around wrecks, larger fish — those which anglers are trying to catch — congregate at the wrecks seeking breakfast, lunch and dinner comprised, primarily, of smaller fish. And it's at these wreck sites that experienced captains anchor while anglers drop their baited rigs overboard.

There's no denying that winter bottom fishing isn't for everyone. Seas are sometimes mountainous and the bitter winds one feels inland seem, as often as not, twice as cold while standing on an open deck. But there is also an upside to all of this.

Cold Hands, Warm Rails

Decades ago, most of the winter fishing fleet moored along the coastline of New Jersey consisted of wooden ships with few or no amenities to help anglers through days in which the wind seems to cut through you like a surgeon's scalpel.

Contemporary boats are primarily steel, and they are feats of nautical engineering. There may be a bottom boat or two still sailing that lack modern, high-tech creature comforts, but if there are, I'm unaware of them.

Today's steel-hulled, cold weather bottom boats offer heated handrails, and if that doesn't sound like such a big deal, try tying a knot while rigging your terminal tackle, or baiting a hook, with fingers that are numb. The heated handrail has become a *must have* among today's bottom fishermen and women, as opposed to a *nice to have*.

Winter bottom boats also offer heated cabins into which an angler can duck when the cold gets too much to bear. Rarely do anglers get cold enough to step inside; when the fishing is good, most stay outside catching fish. If they stay outside long enough, however, there will come a time when that next fish can wait a few minutes, or at least wait until the angler can feel his or her feet again. That translates into stepping into a warm cabin for a few moments.

Modern winter fishing boats usually offer much more than heat in an enclosed cabin. Inside, anglers will find hot coffee and sandwiches — and many boats even provide hot meals. Today's bottom boat is a far cry from the old, wooden ship that offered, at best, a cabin in which temperatures were dictated by the heat of the boat's engines.

Finally, one must ask the question that begs an answer: Why?

Why would anyone wish to set sail during a cold winter day, sometimes with strong winds blowing the spray of rollers over the bow, to catch a few or three?

The answer is: They don't catch a fish or two, or even three. Like all fishing, regardless of season, winter bottom fishing has good days and poor days. In general, however, the daily catches of railbirds who sail on bottom boats are between 50 and more than 100 fish. Usually.

If you're considering trying a winter fishing trip for the first time, there are a few rules as well as a few items of necessity of which you should be aware before departing for the shore.

Words to the Wise

It takes a heck of a blow to keep a bottom boat captain moored dockside. Most sail in conditions that warm weather weekend sailors would consider just too much for weak stomachs. Keep in mind, however, these are experienced captains with the best, high-tech boats, and they will ***not*** put fares at risk.

It's a good idea to select ahead of time which boat you intend to sail aboard for that first trip, then obtain the captain's name and phone number. Check with him or her the night before you make the trek to the shore, just to be certain the boat will be sailing the next day.

In some instances, captains will cancel a trip, not necessarily because the seas are rough, but because rain the night

© Robert Brunisholz

Do fish bite in the winter? Do they ever, as experienced railbirds will tell anyone willing to listen. When fish are in a biting mood, action along the heated rails of a high-tech winter bottom boat such as the ***Dauntless*** can become a bit chaotic.

Courtesy of Capt. Howard Bogan

Eight-year-old Nicole Bogan, daughter of Capt. Howard Bogan of the ***Jamaica*** out of Bogan's Basin, Brielle, holds her first cod — a 13 pounder. The budding angler caught the fish unassisted during one of Bogan's special offshore trips to the 50-to-80-mile wreaks.

Courtesy of Capt. Howard Bogan

Matt Chupella, 14, of Bethlehem, PA, proudly shows off the 16-pound cod and 14-pound pollack he took during a winter wreck trip aboard ***Jamaica.***

before may have created icy road conditions. Captains do not expect anglers to put themselves at risk by driving on slippery roads to make the shore trip during the wee hours of early morning.

At other times, the day of your planned trip may be bluebird bright, but extreme cold may have the boats iced in at various marinas. In addition, even boats that sail all winter need routine maintenance. Most bottom boat captains will take between one and three-weeks off during winter to put their craft into dry-dock for refurbishing. The bottom line is: Check with the captain before making the drive.

Of equal importance is your own comfort. If you've yet to sail aboard a winter bottom fishing boat, there's little need to concern yourself about proper tackle and baits. Nearly all bottom boats sell baits and rent the properly rigged gear at a nominal cost. You will, however, need to make preparations that will assure your comfort.

Given the leaps and bounds made by manufacturers of contemporary outdoor clothing, with their latest designs utilizing synthetic fibers like nylon and polymer fabrics, there is really not much reason to be uncomfortably cold. The days of the surplus U.S. Army fatigue jacket as a winter outer garment are long gone. Although you have a warm cabin into which to retreat during those sub-zero days, you should dress in layers. Start with a good set of woolen or synthetic material undies — you know, the long johns with the trapdoor in the seat — progressing to light sweaters, and finally, the overgarment or heavy coat. Just keep in mind the adage that it's a lot easier to take off a sweater or jacket, than it is to put them on if they're left at home.

Most of the avid bottom anglers I know wear a hooded jacket and woolen cap. Leave the baseball type caps at home — they're not only downright difficult to pull down over your ears but, more often than not, their bills will catch the wind and they'll end up blowing from your head to somewhere in the drink, never to be seen again.

It's the hooded jacket, however, that eliminates that sometimes skin-numbing wind as it whips around the back of your neck. Winter bottom fishermen swear by them. One angler once told me he'd rather forget his rod and reel than leave his hooded woolen sweatshirt at home. "I can always rent a rod and reel, but no one aboard is going to rent or even loan me their hooded jacket," he said.

Other items of clothing that are just as important as the clothes that keep you warm are the rubber, or rubberized, rain slicker and pants. Of course, you'll want a pair of insulated boots, preferably rubber, with a sole design that will not slip and slide on icy or wet decks, but it is the rain slicker that will offer a buffer from whipping winds, and more importantly, keep you clean and dry.

Fish like cod, one of the dominant species taken during winter bottom fishing trips, tend to bleed rather profusely. The rubber rain slicker will keep your outer clothing clean and free of fish

slime and blood.

Gloves also are very important, but before you ruin that nice pair of warm woolen gloves the kids gave you last Christmas, I'd suggest checking at your favorite bait and tackle store for the fingerless gloves designed for cold weather fishing. The guides and anglers who travel to northern New York's Lake Ontario region to fish for steelhead in December through May wouldn't be without them. Most manufacturers of outdoor gear make fingerless fishing gloves that are insulated. (Keep in mind, you always have the heated handrails on which to warm your fingers.) The fingerless gloves allow you to complete tasks like retying a rig and baiting hooks — a cumbersome chore when covered fingers decrease dexterity.

A Tipping Tip

When bottom fishing during cold weather, there are no secrets that will separate experienced anglers from novices. The same type of clothing that keeps you warm while deer hunting will suffice aboard a bottom boat. But there is one thing of which anglers — especially party boat novices — should be aware, and it has nothing to do with warmth or clothing. Rather, this little tidbit relates to the mates aboard bottom boats.

Their pay scale is similar to that of waitpersons. Mates don't make a ton of money in terms of dollars-per-hour. Consequently, they are almost entirely dependent upon the generosity of the anglers aboard. Keep in mind, mates have no control over weather, fishing conditions, or if fish are in a biting mood. They should be tipped a minimum of 20-percent of the cost of the trip. And if you're fortunate enough to win a pool for the heaviest or largest fish, an additional $5 or $10 is not out of order.

Remember that the mates are the folks who will see to it that you have an enjoyable trip. They are the individuals who will untangle what most anglers would consider an impossible bird's nest, get you out of trouble when you snag your rig on a wreck, gaff your fish for you, and even clean and fillet the fish on the return trip. The number of fish caught is dependent on many factors, but the mate isn't one of them.

If you take a close look at party boat mates, you'll notice that most of them are big and strong. There's little doubt they could be making much more money by hiring on with an electrician or carpenter. Instead, they are there because they love the sea, and they love to be around anglers. They deserve better than a paltry $3 or $4 when you return dockside.

The best advice I can offer concerning choosing a winter bottom boat is to visit several marinas prior to your trip. Discuss with the captain the type of fishing he or she will be focusing upon, and ask questions concerning the captain's recommendations for any specialized gear.

Remember also to arrive at the dock at least a half-hour early. Doing so gives you a chance to select your spot along the rail, stow your gear and make arrangements for rental equipment if needed. During the winter, party boats generally sail at 7:30 a.m. and return around 3 p.m., depending upon the day's fishing and weather conditions. If everyone aboard has full bags of fish, the captain may opt to return a little earlier.

Keep Yours Cool

And speaking of full bags of fish, don't forget to bring a cooler, a burlap bag or one of those five-gallon buckets that are so common today. The five-gallon buckets, used to hold everything from paints to lard or fat at bakeries, are readily available almost anywhere you look. And, despite the cold temperatures of winter, load up on ice. Carrying fish home in a warm automobile can spoil them or, at the least, ruin the taste of your catch. Make provisions to keep your catch on ice after you've returned dockside.

Admittedly, the salty old hands at bottom fishing know what rigs to use, which baits work best, and how to fish the rigs at just the right depths. But if you're a novice, you haven't a worry in the world. The mates and captains will show you exactly what's working best, and how to use the rigs. After one or two trips, you'll know firsthand just what you can expect and what equipment you may wish to purchase if you rented gear for those first few trips.

Undeniably, your friends are going to look at you with raised eyebrows (and perhaps even question your sanity — behind your back, of course), when December and January winds are howling and temperatures plummet to below freezing and you are on the way out of the house with rod and reel. But you shouldn't care. After all, you know something they don't. Midwinter fishing at the Jersey Shore is *great*.

Califon resident Robert Brunisholz is a noted sportswriter and periodic contributor to **New Jersey Outdoors**. *The most recent of his articles to appear, "Nothin' But Dust" (Fall 1999), focused on trap shooting.*

Winter Bottom Boats

Keep in mind that there always are variables concerning which ships are conducting winter-long bottom fishing trips. Some captains may decide to take a year off, or perhaps their craft is being outfitted with new engines and will be dry-docked for most of the winter. In addition, like the rest of us, captains sometimes retire or sell their boats. The following list is as current as possible, but it is always a good idea to call ahead to verify the captain's schedule.

Raritan Bay-Sandy Hook Region, Atlantic Highlands Marina

- *Sea Fox*
  Capt. Don Hager
  732/291-4222
  Year-round

Shark River Inlet, Belmar Marina

- *Catherine II*
  Capt. Bob Garafano
  732/681-6577
  Year-round
- *Skipper*
  Capt. Dominick Vitolo
  732/787-0691
  April - February

Brielle, Bogan's Basin

- *Bal Bog*
  Capt. Francis Bogan
  732/528-6620
  Year-round
- *Jamaica*
  Capt. Howard Bogan
  732/528-5014
  Year-round
- *Paramount*
  Capt. Dave Bogan
  732/528-5720
  Year-round

Brielle, Bogan's Basin

- *Captain Kel*
  Capt. Tom and Jack Kelly
  732/840-9391
  Year-round

Brielle, Hoffman's Marina

- *Stress Management*
  Capt. Chris Long-
  & Tom McConlouge
  973/331-8763
  Year-round

Point Pleasant Beach, Broadway Basin

- *Dauntless*
  Capt. Will Egerter
  732/892-4298
  Year-round

Point Pleasant Beach, Spike's Fishery

- *Mimi VI*
  Capt. Kenny Namowitz
  732/370-8019
  Year-round

Point Pleasant, Clark's Landing Marina

- *Canyon Runner*
  Capt. Joe LaRosa
  & Phil Dulanie
  732/842-6825
  Year-round

Experienced anglers usually have their own gear, and know precisely what baits to have with them or purchase, and how to use the combination of rod, reel, terminal tackle (rigged hooks) and baits. But the novice should not be wary. Nearly everything one needs to enjoy a winter bottom trip may be rented aboard the party boats that sail all winter long.

The cost of the trip can vary, but most captains remain competitive by pricing fares almost exactly alike. The average cost to board a winter bottom boat is $34. In addition, most party boats offer a discount to senior citizens and children. The average discount is $4 off the regular trip price for seniors, and children under age 15 are usually allowed aboard for $15.

Rental for rod and reel, and "the first rig" is $4. Should an angler lose a rig, however, the replacement usually runs between $1.50 and $3. Prices of rigs can vary, depending upon what type an angler is using. Some rigs are more sophisticated than others, and can cost more.

Baits are available on all boats and are usually included in the cost of the trip. However, if an angler wishes to use a special bait, he or she should make an effort to stop at a bait and tackle store to purchase any baits not usually carried aboard.

© Robert Brunisholz

Marvin Taylor, Newark, hauled aboard a double-header (two fish on the same rig) of Boston mackerel, during a winter fishing trip aboard Capt. Willie Egerter's ***Dauntless***, out of Broadway Basin, Point Pleasant.

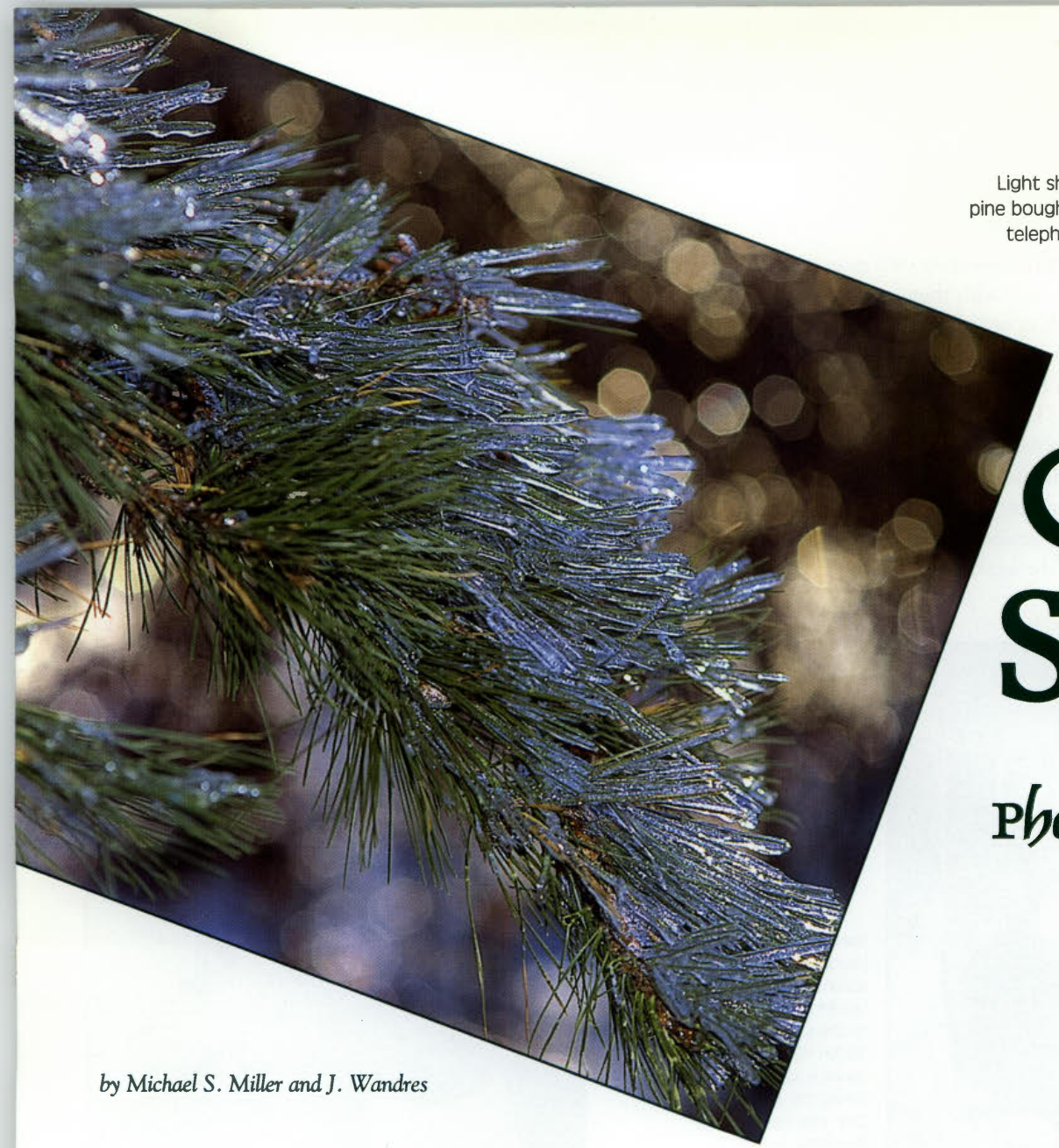
Courtesy Capt. Howard Bogan

Dressed in traditional winter garb, including the ever-present hooded sweatshirt, Tony Panaro, Mt. Ephriam, hefts a tasty 20-pound white hake caught in the dead of winter while fishing aboard Capt. Howard Bogan's ***Jamaica***, out of Bogan's Basin in Brielle. Note that Panaro is wearing yellow rain-slicker pants.

Plenty of Fish in the *(Winter)* Sea

What species of fish are caught during winter bottom fishing? Here are the most dominant species, but keep in mind that others, such as tuna, albacore, striped bass and even bluefish, sometimes are caught during bottom fishing trips.

- Cod
- Ling (red hake)
- Sea bass
- Blackfish
- White hake
- Winter flounder
- Whiting
- Pollock
- Scup (porgy)
- Boston, or Atlantic, mackerel



Light shining on an isolated, ice-crusted pine bough can make a pretty study. Use a telephoto lens to blur the background.

Cold Snap

Photographing Nature in the Winter

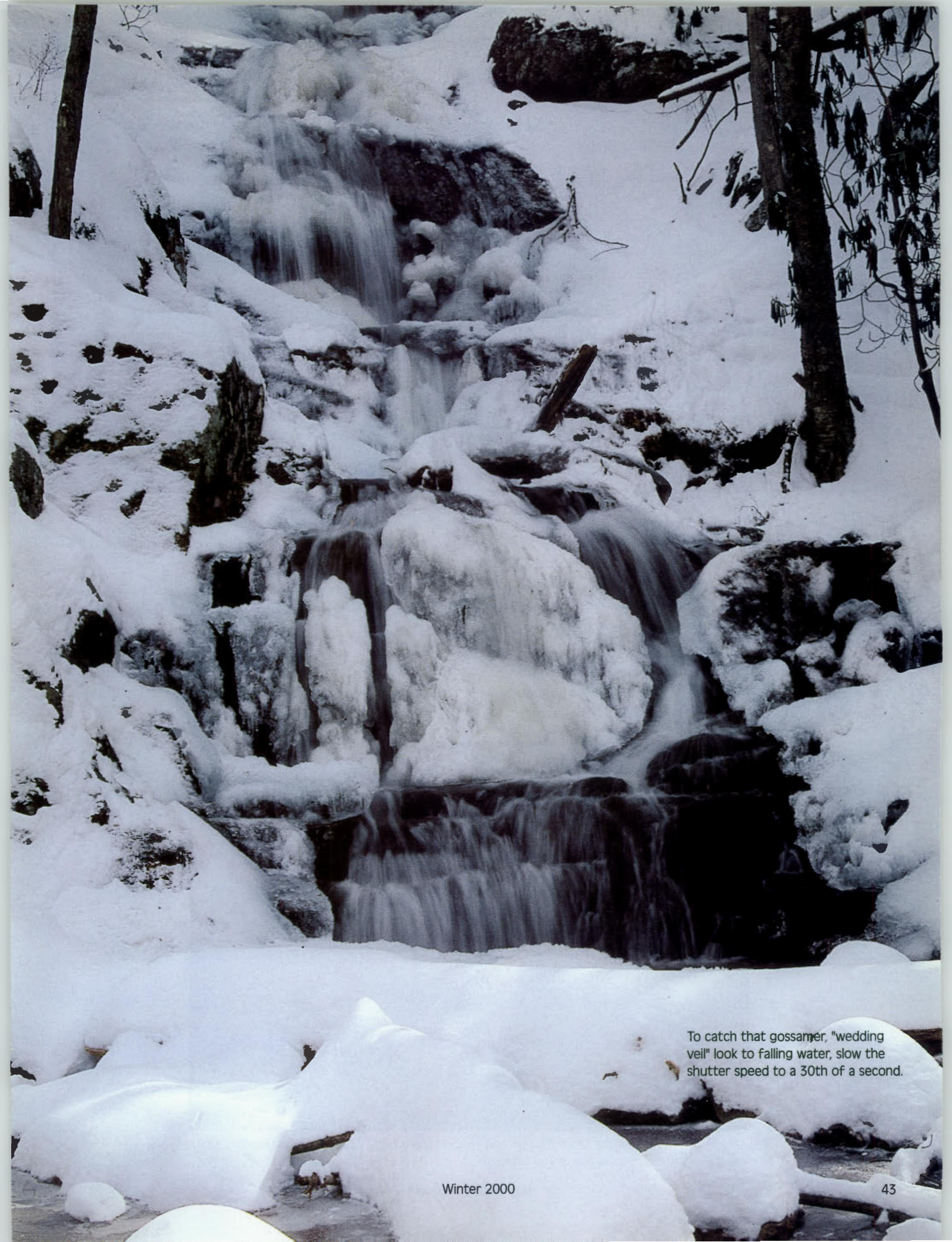
by Michael S. Miller and J. Wandres

New Jersey's state parks and wildlife refuges offer a panoply of opportunities for winter photography in the snowy mountains, by frozen lakes and rivers, along the ice-crusted Jersey shore.

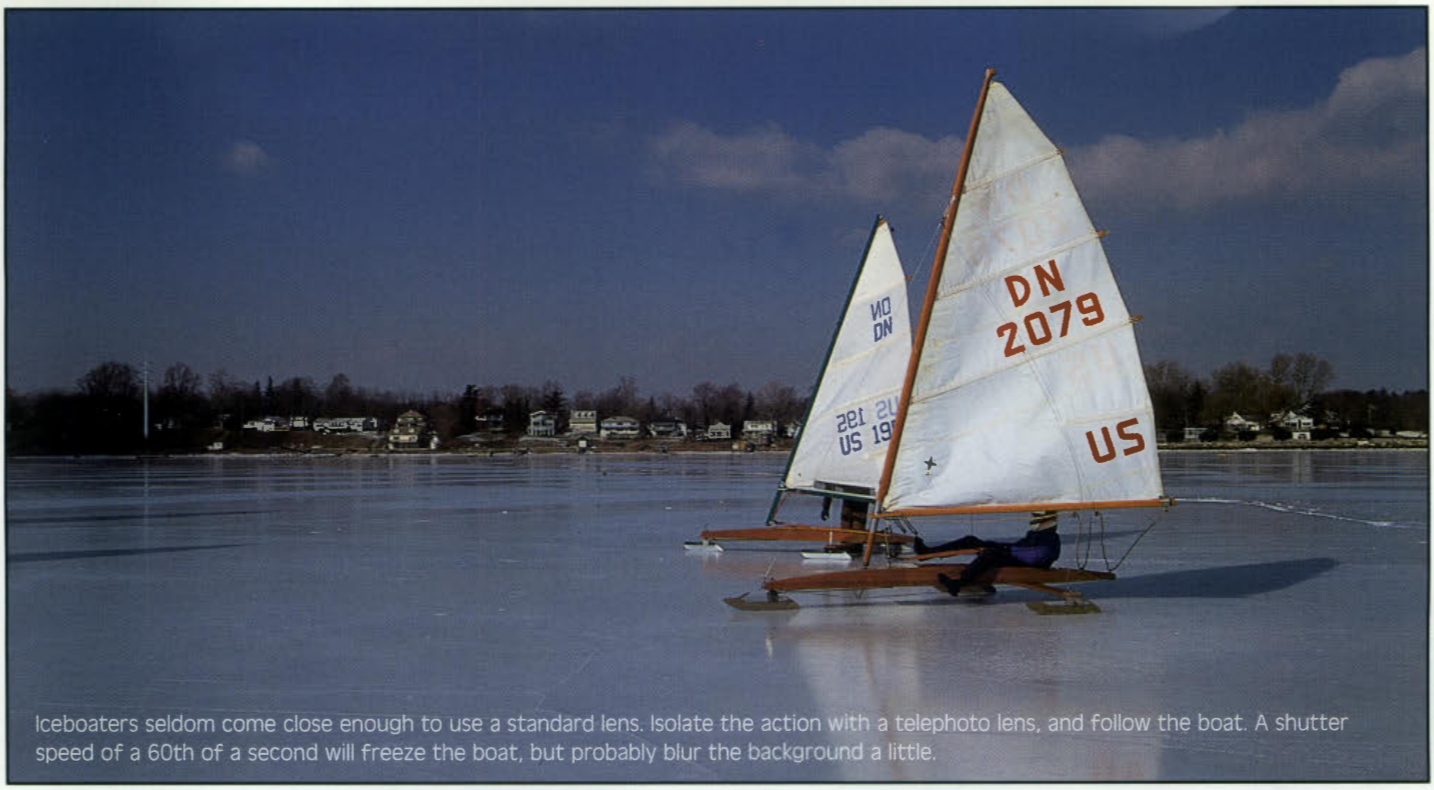
Let's say you're day-tripping in the Skylands region, driving along the snow-covered Old Mine Road. You spot a waterfall free-falling down a cliff and exploding on rocks in the creek. You want to get that gossamer image of falling water looking like a wedding veil. You brace your camera on a tripod, against a tree or on a rock. You set the shutter speed at a 30th of a second, decrease the aperture to f/22, and take several exposures. You take several more at a 30th at f/16, and some at a 30th at f/11. Now you want to capture the explosion of a zillion water bubbles hitting the rocks. So, you set the shutter speed at 250th of a second and the aperture at f/8, and click off several exposures.

As you head back to your car, you notice the ice-encrusted bough of a pine tree, with the sun shining through the ice, swaying in the breeze. You could use your standard, 35mm lens up close to the bough. Instead, you use your telephoto lens, focused on the icicles. This leaves the background blurry. For a different, artistic effect, slow the shutter speed to a 30th — or even a 15th — of a second. Close the aperture as small as it will go. Now take several images of the ice-encrusted bough, with the sunlight shining through it. What you may produce is an image that artfully dances in the breeze.

You want to catch the action at a New Jersey ski area. Using slow- and high-speed techniques, standard and telephoto lenses, you freeze the motion of a skier wearing a rainbow of colors, *schussing* downhill. Another skier kicks up plumes of powder while navigating a mogul field. A "snowbunny" plows a huge *sitzmark* into a drift after a head-over-heels tumble.



To catch that gossamer, "wedding veil" look to falling water, slow the shutter speed to a 30th of a second.



Iceboaters seldom come close enough to use a standard lens. Isolate the action with a telephoto lens, and follow the boat. A shutter speed of a 60th of a second will freeze the boat, but probably blur the background a little.

On another outing you stop by frozen-over Round Valley Recreation Area, near Clinton in Hunterdon County. Or you stake out the banks of the frozen Navesink River in Red Bank, in Monmouth County. Your telephoto lens isolates fast-moving iceboats, and the far shore blurs as you pan to follow the boats' course.

Along the Jersey shore are several magnificent wildlife areas: Sandy Hook National Recreation Area in Monmouth County, Island Beach State Park in Ocean County and the Edwin B. Forsythe National Wildlife Refuge near Smithville in Atlantic County.

It's late afternoon at the Forsythe Refuge. You walk slowly along the perimeter road so as not to disturb the thousands of snow geese camped for the winter. Aha! You spot a fox spying on the magnificent birds. You change to a telephoto lens and photograph the fox closing on its prey. Suddenly the alarm goes up and thousands of geese head for the skies, with you clicking away . . . and the fox slinking away.

Animals are not known for holding poses too long, so use a telephoto lens and be ready take several exposures, in case the animal takes off.

You have half a dozen frames left on the roll of film. You do a 180° turn and point your camera at the skyline of Atlantic City across Reed's Bay. The setting sun casts a golden glow on the glitzy hotels, whose huge illuminated signs cast a palette of undulating colors on the water. If the cold hasn't taken your breath away, your photographs surely will.

It is said that the only person more dedicated than a winter surfer is a winter photographer searching for just that special image as the surfer searches the sea for the ultimate wave.

On another day, you decided to check out the "action" along the boardwalk. The place is as active as a graveyard; that is, except for a lone surfer, clad head-to-toe in a wet suit, still looking to catch a wave.

It's late and you're hungry. As you pull up to a neon-lit roadside diner you spot the indistinct image of a couple seated at a window booth inside. One has scribbled their initials inside a heart on the steamed-up window. You smile, compose the scene in your viewfinder, and then capture their love in your image, forever.

Preparation = Picture Perfect

Most important: If you're going to be out in the wilderness by yourself, let someone know, as specifically as possible, where you'll be. Check in with park rangers and ask about closing hours. Carry a backpack. Along with camera equipment, carry a thermos filled with your favorite hot drink, a food snack, a flashlight, matches to start a fire and a poncho in case of rain — or an emergency. Don't count on a cellular phone to work in the wilderness.

Plan your photo session around the light. You get more dramatic results with morning and late afternoon light than at high noon when shadows are non-existent. However, don't ignore fog or rain storms for subdued or dramatic effects. Be on location about two hours after dawn, and call it a day a couple hours before sunset (unless, of course, you're waiting for the sunset). During midday, take a break for lunch — or for bird watching, hiking or skiing.

Taking pictures in cold weather requires you to do things differently. Don't rely on the camera's battery-operated functions and light meter. Turn off the auto-focus and auto-exposure functions. The cold may affect battery function and, hence, electronic operations and and meter readings.

The built-in meter probably sets the camera's shutter and aperture based on the brightest light reaching it. Thus, it will expose for bright snow or ice. Other objects may be under-exposed. A hand-held incident meter measures light shining on your subject. Point the meter in the direction your subject is facing, then manually set your camera according to the dial setting.

There is only a short period when the rising sun is at its photogenic best. Before long, it disappears into the horizon haze.The best morning light becomes available a couple hours after sunrise.

You may prefer to keep your camera always at the ready, outside your winter jacket. However, store film in an inside pocket to keep it from becoming brittle. This will reduce the possibility of sprocket holes tearing or breaking while loading or taking pictures. When you bring a cold camera into a warm room, don't immediately unload it. The quick temperature change could cause condensation to form inside the camera and on film inside the canisters (not the outside plastic container). Let both warm up gradually, inside your jacket, before unloading the camera.

Take several varieties of film and different speeds, from ISO 100 to ISO 400. Some film and processing produce deeply saturated colors. Others produce more muted textures. A photographic supply store can give you advice on which is best. Try black and white film for dramatic results. Whatever you do, don't worry about "wasting" film. Take several different exposures of the same image. There's only one thing worse than a story about the fish that got away — it's the picture that you missed.

J. Wandres, a freelance writer from Aberdeen, and Michael Miller, who lives in Avon-by-the-Sea, frequently team up to produce interesting and superbly photographed articles for **New Jersey Outdoors**. *Among their recent contributions are "The World of Walnford" (Fall 1999) and "Leave It to the Beavers" (Spring 1999).*

Common objects take on new qualities when seen at uncommon times. Let a boardwalk, a deserted amusement park, or any industrial object light up your imagination.

BUNDLE UP FOR WINTER CAMPING

by Sandra Koehler

The temperature is dropping. A cold wind is blowing. It may even snow.

No problem. You've cranked up the heat and you're snug in bed with a down comforter pulled up to your chin, right?

Not exactly. You're cocooned in your sleeping bag, hoping your tent can withstand a sudden snowfall.

It's not as bad as it sounds — if you are prepared.

Andy Benesch leads day hikes during warmer seasons for the New Jersey Chapter of the Sierra Club, but his handful of cold-weather excursions has taught him how to be prepared. Benesch's most important piece of advice is never camp alone in the winter.

"Go with a group because a mistake can be very dangerous," he says.

Benesch advises backpacking with at least two other people. In case someone gets hurt, one can stay with the injured hiker and the third person can go get help, he says.

"Safety is the most important thing, especially when you're dealing with the elements," agrees Matt Solomon, a veteran winter camper and salesman for The Nickel outdoor store in Princeton.

While cold is part of the winter experience, so is an early sunset. Benesch recommends allowing extra time to get to your destination so you don't get caught on the trail in the dark. Just in case, everyone in the group should have a flashlight or headlamp and extra batteries, which are among what experts consider the 10 essentials needed for any hiking or backpacking trip. You also should bring a map, compass, extra food

© Joseph Lee Jr.

A good tent is important to survival, as well as comfort, during the winter months.

and water, matches, sunglasses, a first-aid kit, fire starter, knife and extra clothing.

A map and compass can come in handy, especially with snow on the ground. Benesch recalls one trip when his group lost the trail and took an unplanned detour before finding the path again.

Don Functional, Flexible Layers

Solomon advises wearing layers, so whether you get hot or cold, you can easily remove or apply another layer. You should wear at least one wicking layer (one that sheds sweat rather than absorbing it) such as thermal underwear, then fleece or wool as an insulating layer and finally a waterproof jacket to shield you from wind, rain and snow. A hat will keep you warmer than an extra sweater because much of your body heat escapes through your head; it's also less bulky to pack.

Cotton should never be worn in winter because it absorbs moisture and, unlike synthetic materials, does not keep you warm when wet. Wet clothing will eventually chill you and could cause hypothermia, which occurs when the body's temperature drops below normal (98.6 degrees). The best way to prevent this is to change into warm, dry clothes when you stop hiking for the day, advises Solomon.

In addition to being wet and cold, other contributing factors to hypothermia are dehydration and long exposure to the elements. Solomon recommends drinking lots of water the night before the trip and continuing to drink — even if you aren't thirsty.

"When you get thirsty, it's already too late," Solomon warns. "The other big thing is extra food because you're going to burn more calories."

In the winter, being cold is not unusual, so how can you tell if you are hypothermic or just chilly?

Signs of hypothermia include blue lips, uncontrollable shivering, fatigue, loss of coordination and slurred speech, according to Peter Stark and Steven M. Krauzer, authors of *Winter Adventure, A Complete Guide to Winter Sports*. The cure is similar to the preventative measures — remove wet clothing, put on dry layers, drink water or something hot and, if necessary, get into a sleeping bag and tent to warm up.

Hikers and backpackers don't necessarily have to be in freezing temperatures to fall victim to hypothermia. It is not uncommon to see hypothermia in conditions as warm as 55 degrees. Typically, people don't think they need to pack extra clothing in this weather so they have nothing to change into if they get wet.

Using Nature's Resources

While you'll need to pack extra clothes, you may not have to load down your pack with tons of water if there is snow on the ground.

"Water's available everywhere; you just melt the snow," says Al Tatyrek, who has led winter hikes and backpack trips for the Sierra Club and the Appalachian Mountain Club.

If you plan to melt snow for water, he advises bringing extra fuel for your stove. White-gas-burning stoves are best for winter because they burn very hot even when it's cold out, says Stephen Gorman, author of the AMC Guide to Winter Camping, Wilderness Travel and Adventure in the Cold-Weather Months. But be careful, white gas is highly volatile and you should do your cooking a safe distance away from your tent and gear.

The items needed for winter camping are the same ones you would bring for any backpacking trip — such as a tent and sleeping bag — but special attention has to be paid to the types of equipment.

Sleep Warm and Dry

You will need a four-season tent, which is designed for winter conditions. Double-wall tents, which have a separate waterproof cover or fly, are commonly used, but more avid — and wealthy — backpackers may opt for a single-wall tent. A quality two-person, four-season tent with a rain fly starts at about $350. (If you really want to save money, you can find a decent tent for around $250, but you'll sacrifice weight, durability, ability to keep out water and ease of set-up — *big* sacrifices in winter conditions.) Single-wall tents, favored because they weigh substantially less, start at $500.

A warm sleeping bag also is a necessity. Sleeping bags are rated by degrees. Select a bag suitable for the temperatures you are likely to encounter. For example, a zero-degree bag will keep you warm in conditions as low as zero degrees. You should be aware, however, that the temperature rating is set by the manufacturer and is not standardized, so one zero-degree bag might not be as warm as a zero-degree bag made by a different company. Ratings among many of the high-end sleeping bags tend to be more consistent, so in this case, you get what you pay for.

The average price for synthetic sleeping bags rated to zero degrees is between $180 and $250. A zero-degree down bag can run from $200 to $400. Down bags are lighter and will last longer than synthetics, but they will not keep you warm if they get wet. If cost is an issue, go with the synthetic bags because they are cheaper and will still insulate when wet. One way you could save money is to buy a less expensive bag rated for a colder temperature than you anticipate camping in (e.g., buy a bag rated for 20-below-zero for a trip with conditions no lower than zero degrees).

Sleeping pads in the spring or fall provide comfort, but in the winter, they also insulate you from the cold ground. The best kinds of pads are made of closed-cell foam, because they are cheaper and lighter, and keep you warmer than other types, according to Don Graydon and Kurt Hanson's *Mountaineering, Freedom of the Hills*. Although air mattresses

Tent poles can help you balance the weight of a heavy backpack.

© Sandra Koehler

are more comfortable, they should be avoided in winter, because the air in the mattress draws heat from your body — and a punctured air mattress is useless. Another pad on the market is a combination of air and foam, which provides comfort and warmth, although there still is a risk of puncture. Foam pads can be bought for as low as $10 while air/foam mattresses start at $50.

"It can get expensive, but it's an investment," says Solomon.

If you're not ready to invest in the sport, there are plenty of outdoor stores that rent equipment. A one- to three-day rental package — which can include a tent, sleeping bag, sleeping pad, backpack and even snowshoes — ranges from $40 to $70, depending on what you need.

Treat Your Feet

One thing you will have to buy is a pair of winter boots, which can cost from $120 to more than $250. Solomon strongly advises against borrowing a friend's boots. Footwear is really a personal choice and your feet will thank you later. The more weight you intend to carry in your backpack, say for a weeklong trip, the sturdier the boot should be.

Tatyrek recommends buying a boot made of full-grain leather rather than those made of a combination of leather and Gore Tex. "You don't want snow or any moisture creeping through," he says.

You also may want to consider a boot to which you can fasten crampons, which are metal spikes used for ice climbing and for climbing steep, icy and snow-covered slopes. Crampons will help you navigate without slipping. If there is fresh snowfall of more than a few inches snowshoes can also come in handy, Tatyrek says. Snowshoes aren't necessary if the snow has been on the trail a few days because it will have been packed down.

If you plan to camp in more extreme conditions, double or plastic boots may be a wiser choice, but they are very expensive — starting at $250 — and are more suited to mountaineering and glacier climbing. Whatever boots you choose, Tatyrek strongly suggests breaking them in several weeks before your trip. Take short, local hikes and even wear them around the house to see how they feel.

You can make your leather boots warmer by wearing overboots, which cover the entire outside of the boot to keep water out and insulate your feet, Tatyrek says. Gaiters, typically made of Gore Tex and nylon that is fastened with Velcro around your calf and hooked to the laces of your boot, keep your feet warm and dry by keeping out snow.

Another handy accessory is walking poles. They will help you counterbalance the weight of a pack and assist in trudging up and down hills. Poles will also take pressure off your knees, reducing soreness at the end of the day. When holding the handle and sticking the pole in the ground, your hand should be just above the waist. If going uphill, it's easier if the pole is shorter and vice versa for going downhill. A good pair of adjustable poles can be found for about $100. You also can use ski poles or pick up wood in the forest to serve as homemade walking sticks.

Pack It In

You need to put all your gear in something, so attention also should be paid to backpacks. A pack should fit comfortably, even though it's loaded. An internal-frame pack contours more closely to your body and moves with you, enabling you to keep your footing in wintry conditions or on a rough trail. It also is suitable for off-trail hiking and mountaineering because it doesn't get caught on tree branches as easily as an external-frame pack, Tatyrek says. An external-frame pack is designed to carry heavier loads, distribute weight more evenly and is cooler because it sits away from your back. But externals are very rigid and can interfere with your balance.

After you've chosen the type of pack you prefer, you have to select the size. Figure on at least a 3,500-cubic-inch capacity pack — if you travel light and share gear — for a weekend trip in full winter conditions; otherwise a better capacity would be at least 4,500 cubic inches. To put things into perspective, a

backpack for a short day trip would have a capacity of about 1,000 cubic inches while expedition packs can carry an enormous 7,000 cubic inches (approximately 4 cubic feet).

Try on a variety of brands before buying, because internal-frame backpacks with sufficient capacity, a good fit for your body and improved load-carrying ability can start at about $200. One way to save money is to buy a decent external frame backpack with 4,000 cubic inches for around $125. A lot of people tend to buy internal-frame packs because they are trendy — which is not to say that they aren't good — but in places such as the Pine Barrens, which has wider trails, an external-frame pack actually is a better choice.

Take all your gear with you to the store and pack those you try on as you would for a trip. It may feel silly but it will be worth it when you hit the trail. An alternative would be to rent different backpacks for a few hikes.

Just remember that the larger your pack is, the more you will be tempted to put in it. Resist this urge and pack lightly. And if you're with a group, distribute the burden. One person can carry the tent while another carries the sleeping bags or food. (Volunteer to carry the food because most of it will be gone by the end of the trip and you might just get away with carrying a lighter pack on the way back to the car.)

So pack your bags, grab a few friends and hope for some snow.

Reporter and writer Sandra Koehler, who lives in Milltown, enjoys hiking and camping with both people and pets. This is her third article for ***New Jersey Outdoors****.*

The Thrills, Spills and Chills of Winter Camping

Seeing the morning sunlight sparkle off the snow is one of the more rewarding parts of a winter-camping trip, especially if you're still in your warm sleeping bag.

But you have to come out sometime — to eat, relieve yourself and pack up for the hike back to the car. That's one of the harder parts of winter camping.

Mistakes also can be a large part of the experience. Anyone who's been backpacking has stories of how they messed up, left something behind or just did something stupid. In the winter, such errors can be dangerous, but if no one gets hurt, they also can be pretty funny tales to share after the trip.

Preparation is the key to any outdoor experience, but it doesn't just mean bringing the right equipment. *You* have to be ready.

But you also have to be careful not to overdo it.

The cooler weather hadn't really inspired me to maintain my fitness level, so when we decided to make an overnight trip in December at Worthington State Forest in northern New Jersey, I had to whip myself into shape. Unfortunately, I worked out on a climbing machine too many times too close to the trip.

About 20 minutes into the hike we were trudging up a long incline and my thighs cramped. Carrying about 40 pounds in my pack didn't help. We had to stop several times and I felt about 25 years older by the time we reached our intended camp.

I learned to start training earlier and to gradually increase the difficulty of the regimen.

During another trip, sponsored by Eastern Mountain Sports to Harriman State Park in New York, a bad choice made for a memorable adventure.

Harriman was chosen over a New Jersey location because it was supposed to snow there. The store had a new single-wall tent that could be rented. My boyfriend, Joe, thought that would allow us to test-drive it before spending $600 to buy it.

A single-wall tent is lighter than a double-walled one and is suited for snowfall, but not rain. The latter started with a few drops as it got darker and gradually became a downpour accompanied by thunder and lightning. Joe and I were reading in the tent when we noticed a few drops from the ceiling. Then we realized it was actually raining inside.

Fortunately, the group had camped around a wooden shelter so we grabbed our sleeping bags and gear and ran for it. We spent a chilly night but we weren't wet. We decided not to buy the "sieve tent."

The moral of that story: Unless you're absolutely sure it won't rain, take the heavier, double-wall tent.

It's really not that bad to go winter camping. Yes, you will make mistakes, just as on any other trip, but if you are careful it will be a safe one.

And there are plenty of good things I remember from our winter trips during the past few years.

One trip to Worthington was particularly special. We were huddled over our steaming bowls of noodles when we heard a rustling in the bushes about 15 feet away. In the dim light just before sunset, we saw a large doe step into the clearing in front of us. Then two fawns followed.

We didn't move or speak while they stood in front of us. After about a minute, the wind changed and the doe must have caught our scent because she suddenly leaped away and the fawns scurried after her.

There were no leaky tents or muscle pains that trip, but the deer made it memorable.

Purchase Prices

It's not just the cold that will make you shiver. Here's what good quality basics cost:

- Synthetic sleeping bag — $180 to $250
- Down sleeping bag — $200 to $400
- Foam sleeping pad — $10 to $25
- Foam and air sleeping pad — about $50 and up
- A two-person four-season tent — starts at $350
- Internal-frame backpack — $200 to $400
- Boots for winter hiking/camping — start at $120

Rental Fees

Except for boots, you can rent the essentials from many outdoor stores.
Renting equipment for one to three days could cost $40 to $70, depending on what you need.
You can rent an entire package or individual items.
Following is the breakdown of the average fees. (Most stores require a deposit, usually charged to a credit card, which is credited once the equipment is returned.)

- Sleeping bag — $15
- Foam sleeping pad — $4
- Air and foam sleeping pad — $6
- Two-person winter tent — $20
- Internal/External frame backpack — $15
- Snowshoes — $15

Where to Go

For equipment and technical advice:

- **The Nickel**
  Princeton
  609/921-6078
- **Eastern Mountain Stores**
  Several NJ locations including Woodbridge, Bridgewater and Paramus
  www.emsonline.com
- **Mountain Sports**
  Clinton
- **Campmor**
  Paramus
  201/445-5000
  www.campmor.com
- **Outdoor Review** (a website offering reviews of tents, sleeping bags, backpacks, boots and more written by outdoor enthusiasts)
  www.outdoorreview.com

For group trips and workshops:

- **Eastern Mountain Stores**
  (see above)
- **The New York-New Jersey Chapter**
  Appalachian Mountain Club
  212/986-1430
  www.outdoors.org

Books and Other Resources

- *Mountaineering, The Freedom of the Hills* by Don Graydon and Kurt Hanson
- *Winter Adventure: A Complete Guide to Winter Sports* by Peter Stark and Steven M. Krauzer
- *Everyday Wisdom: 1,001 Expert Tips for Hikers* by Karen Berger
- *AMC Guide to Winter Camping, Wilderness Travel and Adventure in the Cold-Weather Months* by Stephen Gorman

Public Parks and Private Campgrounds in New Jersey

Most private campgrounds allow recreational vehicles and campers and have some sites for tents, but they don't really provide a wilderness experience.

- **New Jersey Campground Owners Association**
  29 Cook's Beach Road
  Cape May Court House, NJ 08210
  609/465-8444
  http://www.beachcomber.com/Nj/campnj.html
  For a FREE full-color hard copy of the latest *New Jersey Campground & RV Guidebook*, leave a message at 1-800-2-CAMP-NJ
- **CampNet America Campground, RV Park, and Camping Directory**
  Offers information on private campgrounds and a listing of state parks.
  http://www.kiz.com/campnet/html/campnet.htm
- **Campground Online Campground Directory**
  Offers information on public parks and provides link to L.L. Bean site, which offers more listings.
  http://www.channel1.com/users/brosius/campgrounds/nj.htm
- **New Jersey State Parks, Forests, Recreation Areas and Marinas**
  For a listing, call or write:
  New Jersey Division of Parks and Forestry
  P.O. Box 404
  Trenton, New Jersey 08625-0404
  609/292-2797 or, in NJ, 800/843-6420
  http://www.state.nj.us/dep/forestry/parks/parkindx.htm
  State camping facilities that offer a chance of snow in the winter include:
- Stokes State Forest, Sussex County
  973/948-3820
  Campsites open all year
- Voorhees State Park, Hunterdon County
  908/638-6969
  Campsites open all year
- Worthington State Forest, Warren County
  908/841-9575
  Campsites open April 1 through December 31

Jersey Sketchbook: On the Winter Beach

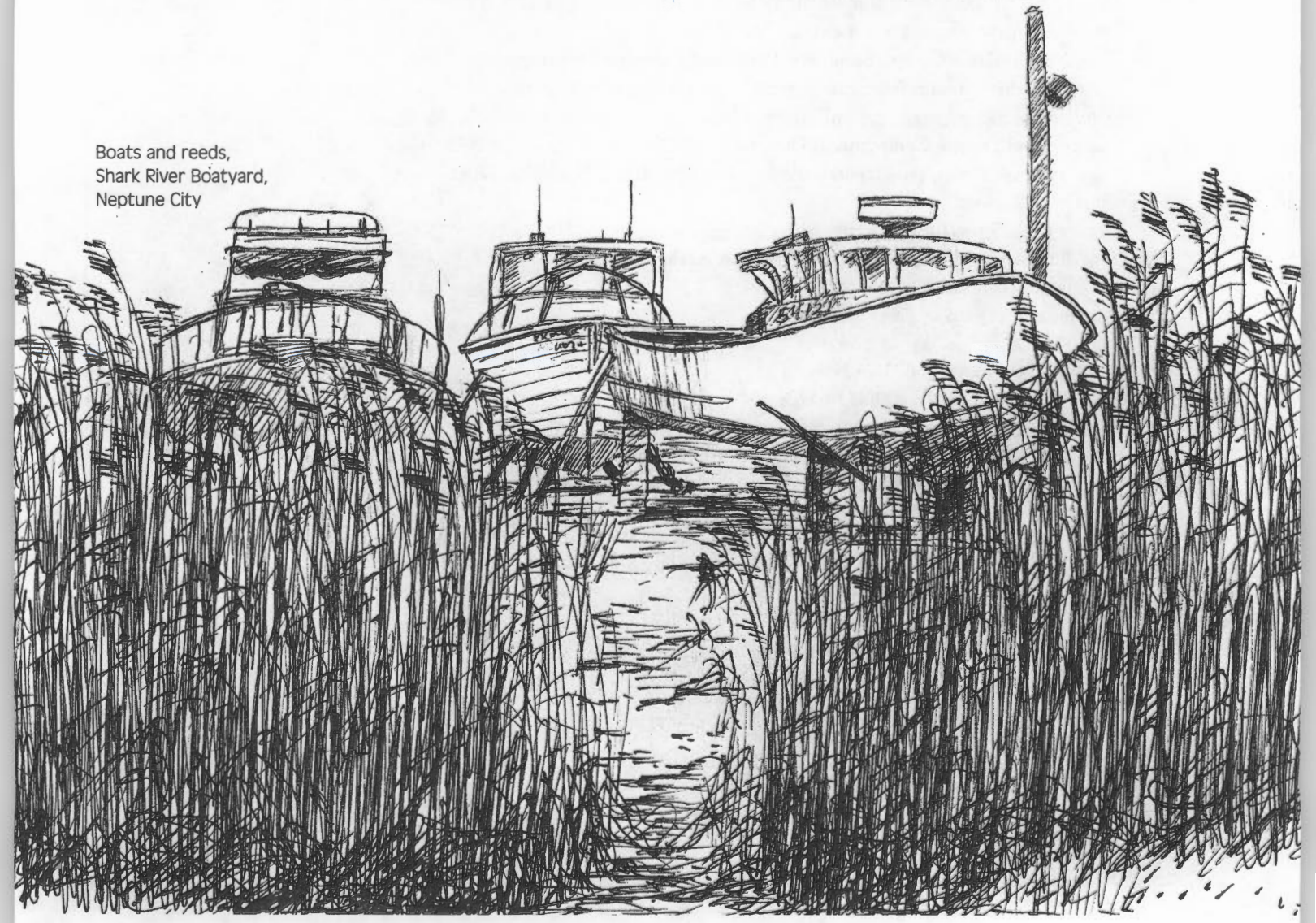
Story and illustrations © by John R. Quinn

Among those chroniclers of the natural scene who have inspired me over the years are New Englander Henry Beston (*The Outermost House*), who gained literary fame by so eloquently expressing the maritime mystique of Cape Cod; Peter Matthiessen (*At Play in the Fields of the Lord*); and a somewhat less celebrated author by the name of Charlton Ogburn Jr.

Ogburn, a Virginian, was a journalist and a member of the famed World War II Special Forces combat group, Merrill's Marauders. His best-known literary work was an epic tale of man and nature in the Amazon Basin entitled *The Gold of the River Sea.*

In late middle age, Ogburn found himself casting about for grist for his pen a little closer to home. At that point he had something of a vision. As he wrote,

> . . . a picture of a deserted beach fixed itself in my mind. There was an expanse of sand, a half-buried candy wrapper that collected the drifting grains; a cottage boarded up against the weather and for all sound the crashing of the breakers. In my thoughts, the seas kept rolling in upon shores abandoned to the cold by the last of the vacationers and of the vendors who ministered to them. I began to have the feeling that this was what lay ahead of me . . .



Boats and reeds,
Shark River Boatyard,
Neptune City

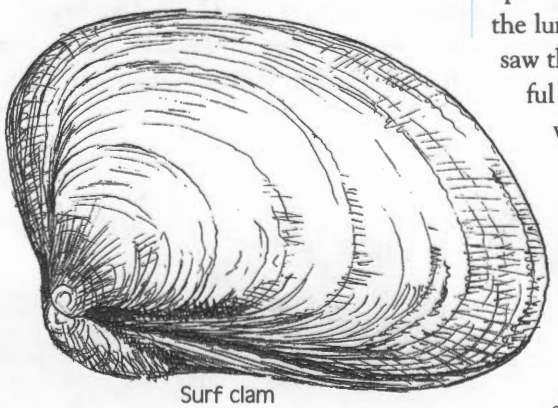
Aftermath of storm, drift timbers on ocean beach

What lay ahead was *The Winter Beach*, published in 1966 and destined to become a classic in the John Burroughs genre. The book was an eloquent account of Ogburn's coastal journey south from Mount Desert Island in Maine to North Carolina's Outer Banks in the dead of winter, when most normal folk were hunkered down in front of fireplaces or TV sets.

Making the trek in a battered Volkswagen bus, Ogburn recorded the essence of the winter Atlantic littoral thus:

> . . . the sweep of the horizons; the sense of timelessness induced by the procession of waves upon the strand with elemental power from an inexhaustible store; the astringency of the clean, spume-edged winds; the emptiness and the vastness of the solitude it connoted.

In the 11 years I lived on the Jersey Shore — in Ocean Township and Avon-by-the-Sea — I often recalled bits and pieces of Ogburn's prose whenever I walked the empty wintry beaches of Sandy Hook, Spring Lake or Long Beach Island. Or when I fished the ice-bound jetties with only the wind, the gulls that rode it and the "jetty rats" (of both the human and tailed variety) for company. While Ogburn was somewhat less generous with his praise for New Jersey's section of the "Great Atlantic Beach" than he was for, say, Cape Cod's, I find that his references to the solitude, the power and the majesty of the January strand apply as well to the state's 127- mile strip of sand — if you know how to seek them.



Surf clam

A winter fishing memory comes to mind at this point. The striped bass season on the Jersey Shore ends somewhere around mid-December. At the tail-end of the season about 10 years ago, I caught one of the biggest stripers of my angling career off the Marine Place jetty in Deal — and ended up letting it go.

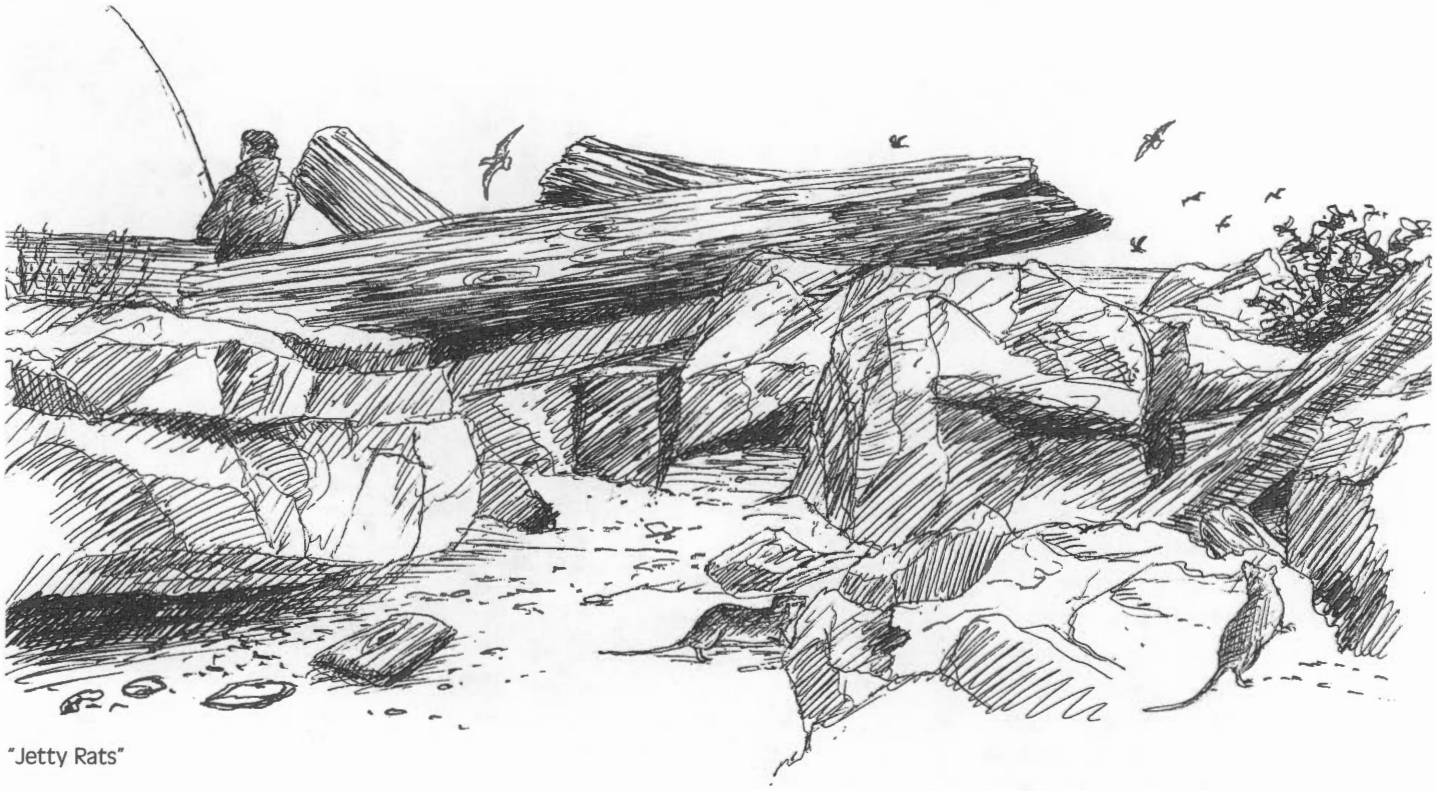
I remember that the rocks were slick with sea-ice and kelp, the northeast wind portending a storm. I'd been casting a Bomber plug into the plunging surf all afternoon with nary a strike, and it was getting dark. And then, just as the lights were winking on in the extravagant shoreside manses of Deal, the bass came up out of the wild, dark sea and grabbed the lure right next to the jetty rocks. I saw the flash of the big linesides' powerful strike and then it was gone, and so was about a hundred feet of my line.

I fought the fish for about 20 minutes; it ran seaward with a power born of desperation and then back in toward the beach; it did this at least a score of times. When the fish finally tired, I slipped and bumbled down the slippery rocks, guided it into a cleft in the jetty, grabbed it by a gill cover (I had no gaff) and hauled it onto dry land.

It was at that point that my sense of elation began to take a downward turn. A pocket tape measure revealed that my lunker bass, at 28 inches, was two inches short of the then-legal size limit for the species; it would have to be released.

Due to a certain circumstance of the capture — the bass had swallowed both sets of the Bomber's treble hooks — I saw that humane release of the fish would present something of a problem. My all-too-usual pessimistic outlook on my own personal "fisherman's luck" had resulted in my leaving my tackle box (along with its indispensable pair of hook-removing pliers) back in my van, parked a country mile away on Marine Place. But to my good fortune, my desired winter fishing solitude had been rudely interrupted by the arrival of another angler about a half-hour before, who now graciously offered his own tool as we watched my catch flop its life away on the rocks, shedding a storm of scales in the process.

After I had managed to de-hook the striper and wing it, just barely in time, back into the deep, I fell to reflecting on the incident within the almost inevitable



"Jetty Rats"

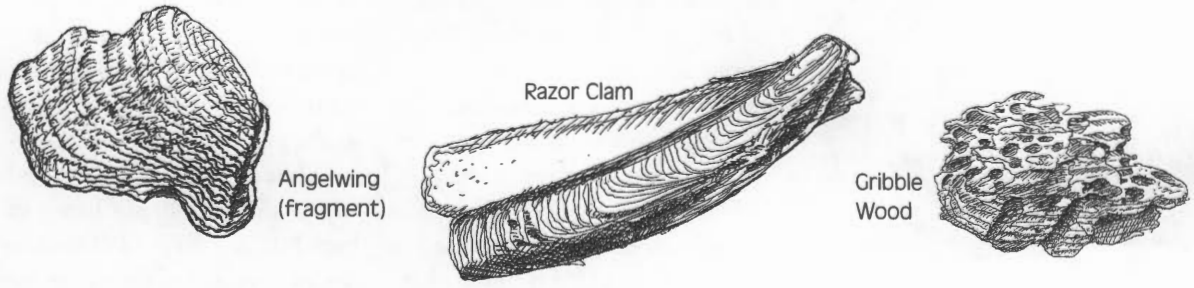
(to me, anyway) context of sport versus subsistence fishing, and the ultimate validity of each. I had bagged and eaten countless bluefish and fluke over the years, generally regarding them as part of the "wild foods" category of human sustenance, like venison or wild rice. But the regal linesides is different. Here, to my mind, is a true creature of the wilderness, and although I have caught many undersized stripers (inelegantly called *shorts*), I had never thought of actually cutting one up and eating it; they're just too special — kind of like whooping cranes, timber wolves or grizzly bears.

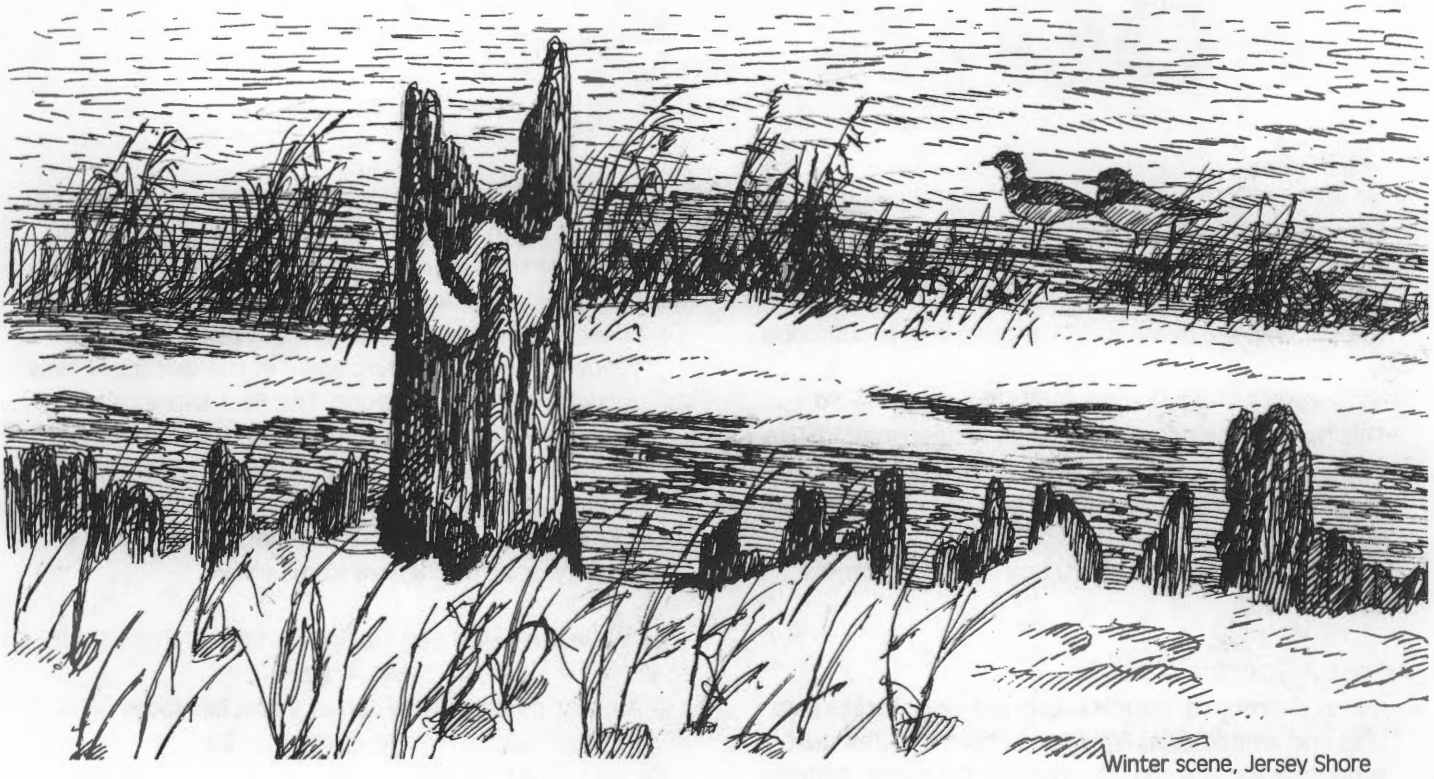
On the winter rocks at Deal on the Jersey Shore, I felt this insistent tug of the "wilderness conscience." I still think it's okay to fish to eat; why not? Our kind has been doing it for millennia. But I think striped bass belong to the wilderness of the sea and not on a table or a mantelpiece, as a trophy. And the fact that they exist off the beaches of New Jersey is an affirmation of the presence of and the need for wilderness in the human spirit, and that, just maybe, they should be allowed to serve that purpose for us, the so-called "stewards of the Earth."

I'm glad that I released that bass that winter night and that I have never caught another one, of any size, on the Jersey Shore. This may admittedly be less through profound spiritual conversion than because my trusty Daiwa rod and Penn reel now gather dust in my basement in North Jersey, the casualty of a move inland and away from the sea. But still — please indulge me in this — I disagree that the striper is mere food or trophy; it is surely an icon, a symbol of where we came from and, ultimately, who we are as a part of nature. It is a part of a world we have regrettably distanced ourselves from, to our great loss, and in the end it belongs there — a creature of the wild winter beach and that primeval part of the collective soul that still lives in all of us.

Last winter, I visited my old shore haunts for the first time in nearly two years. I took a walk on the February beach at Belmar, a place that in summer is the absolute antithesis of Charlton Ogburn's notion of cosmic, littoral loneliness. As I strolled along the wrack-line south toward Spring Lake, I saw that my sole companion on this winter beach was a man walking his dog far ahead. As the pup ran back and forth over the sand, clouds of gulls rose ahead of it and headed out to sea.

As the birds fled toward the sunrise, I paused and took in the incongruity of the scene: to my right was the empty





Winter scene, Jersey Shore

boardwalk, a 7-Eleven store, ranks of parking meters, shuttered entertainment arcades and other "tourist traps" of Belmar's legendary summer promenade; to the left, the eternal and now very empty sea. On impulse I turned and gazed out over the ocean. The winter surf thundered in — those "white-maned horses of the sea" — and beyond, the gunmetal gray, white-capped waters — completely bereft of boats — stretched on and on, all the way to Europe.

I thought that if I could but ignore the constructions of humanity at my back, I might be standing on a wilderness beach in Labrador. On impulse, I stooped and picked up a handful of Belmar sand. Although I knew that it had likely been dumped there by a borough work crew and leveled by a bulldozer as part of the state's beach replenishment efforts, it was golden-clean, free of candy wrappers and looked just like sand anywhere in the world.

As I contemplated this one little handful of Jersey Shore, most of whose grains were many eons old, a scrap of verse came to mind:

I stand amid the roar
Of a surf-tormented shore
And I hold within my hand
Grains of the golden sand —
How few! yet how they creep
Through my fingers to the deep . . .
(*Edgar Allan Poe*)

Pretty heavy stuff, and sure, this was New Jersey and not Baffin Island, but it was winter, the sea full of fearsome power and the beach just about as empty of humanity as that far-flung place I'd probably never get to visit. "You takes yer wilderness where you finds it," and a beach in winter, even a partially man-made one in the Garden State, did the trick for me just fine.

As I stood there, watching black-backed gulls the size of eagles course over the mountainous breakers and a scrim of windblown sand driven by the February wind down the slope and into the sea, I realized that from this perspective, this was all the wilderness anyone could want. And I think that even Charlton Ogburn would agree with me on that.

Artist-naturalist John R. Quinn, who is employed as natural resource specialist with the Hackensack Meadowlands Development Commission, 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**.

DEP Products

New Jersey Outdoors — $13.50

Save more than 20 percent off the cover price by entering your subscription before March 31, 2000. Use the order card in this issue, call 800/645-0038, or visit our Web site (www.state.nj.us/dep/njo) to subscribe.

New Jersey's Wild Places & Open Spaces — $4

This hot-off-the-press publication is described in detail on page 3. Send a check or money order made payable to the New Jersey Division of Fish Game and Wildlife to: New Jersey Division of Fish Game and Wildlife, Wild Places Map, PO Box 400, Trenton, NJ 08625-0400.

Adopt-A-Species — $15

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

Reef Charts — $5 (plus $1.50 S/H)

The sale of these reef charts, available for Atlantic City, Barnegat, Cape May, Garden State North, Garden State South, Great Egg, Little Egg, Ocean City, Sandy Hook, Shark River, Sea Girt and Wildwood, benefits the Artificial Reef Association.

New Jersey Wildlife Viewing Guide — $10.95 (plus $3.95 S/H)

This soft cover, 160-page book contains fabulous species photos and detailed information about 87 wildlife viewing sites. Its purchase benefits wildlife conservation efforts in New Jersey.

Reef T-Shirts — $14 to $16 (plus $2 S/H)

These tees depict either saltwater fish or an under water scene; their sale benefits the Artificial Reef Association. They come in a variety of colors and materials and are available in adult sizes S through XXL.

New Jersey Wildlife Profiles — $23.95 (plus $4.05 S/H)

The purchase of this hard cover, 112-page coffee table book featuring 52 full-color reproductions of New Jersey artist Carol Decker's wildlife paintings benefits wildlife conservation efforts in our state. Special offer: buy one before 12/31/99 and get another one free.

Marine Prints — $60 unframed, $150 framed in walnut, $160 framed in oak (plus S/H)

Full-color reproductions of marine oil paintings are being sold to benefit the Artificial Reef Association. The latest, *Yellow Fins in the Canyon*, depicts a school of yellowfin tuna attacking squid in the waters of New Jersey's offshore canyons. The first three prints — *New Jersey Reef, Blues on the Beach* and *Stripers on the Rocks* — also are available, although the supply of Stripers is limited.

Call 609/292-9450 for additional information and to order any or all of the five items above.

New Jersey's State Parks, Forests, Recreation Areas & Historic Sites — $2

A great guide to New Jersey's special places

Barnegat Lighthouse Poster — $5

Beach Towel — $14

This all-cotton beach towel features forest green trees on a white background.

Teddy Bear — $14

Ten-inch-high plush black bear in a gold T-shirt with the State Park Service logo

State Park Pass — $35

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

Most of the above items may be purchased at State Park Service field offices. They all may be ordered by calling 609/984-0370 or 800/843-6420. Please note that shipping and handling fees will be added to mail orders.

New Jersey's Big Trees — $6

This 40-page publication includes color photographs, informative facts on each species, details on measuring big trees and more.

Trees of New Jersey and Mid-Atlantic States — $10

This beautifully illustrated 112-page field guide describes 146 frequently encountered species and includes maps and related information.

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

Products DEP

New Jersey's Deer Hunter Knife — Second Edition #NJ43OT — $24.95 (plus $5 S/H)

The Partnership for Wildlife Volunteerism will donate a portion of receipts from the sale of this easy-opening, lock able pocket knife to the N.J. Division of Fish, Game and Wildlife programs that use volunteers. The rust resistant, dual edge blade is etched with the division's logo. To order, send check payable to The Granite Group, P.O. Box 271, Fanwood, NJ 07023, or call 908/654-5159. Visa/MasterCard accepted.

Centennial Limited Edition Knife #LB5N196

Both the blade and the wood resin handle of this knife feature the logo of the N.J. Division of Fish, Game and Wildlife. The knife, priced at only $29.95 plus $5 shipping and handling, features a locking clip blade and serialized leather sheath and comes in its own gift box. To order, send check, money order or Visa/MasterCard account number and expiration date to Imperial Schrade Corp., 7 Schrade Court, Ellen, NY 12428 or call 800/2SCHRAD, ext. 364.

1999 New Jersey Waterfowl Prints — $150

Each full-color, limited edition print includes a resident and non-resident stamp (see description above) and comes framed, matted, hand signed and numbered — a piece to display with pride. Call 800/382-5723 to find an art dealer near you.

Pine Barrens Treefrog Sculpture — $325

With your purchase of this finely crafted, limited edition bronze sculpture, you will receive a certificate of origin, a display card containing natural history notes and a letter acknowledging your contribution to the Wildlife Conservation Fund. ($130 of the purchase price benefits the Endangered and Nongame Species Program.) Call 609/292-1244 for additional information.

The Partnership for Wildlife Volunteerism Platinum Visa Card

This Visa card program helps support important volunteer activities conducted by the Division of Fish, Game and Wildlife. Call 800/First-USA for information.

Pottery, Books and So Much More

Visit the gift shop in Wharton State Forest's Batsto Village (near Hammonton) to select from a full line of gifts, books, pottery, historic items and more. Call 609/561-0024 for information.

Golf Gear

Give your favorite golfer a gift certificate for Spring Meadow Golf Course's Pro Shop — it carries everything a golfer needs. Spring Meadow is located adjacent to Allaire State Park in Farmingdale. Call 732/449-0806 for information.

Special License Plates — $50 (Annual renewal fee: $15 for USS New Jersey; $10 for all others)

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

Treasure Our Trees — Helps communities nurture, protect and manage their local tree resource. The design features the red oak, New Jersey's official state tree, in fall foliage color and the flowering dogwood, the state's designated memorial tree, in full spring bloom.

Pinelands — Helps acquire land for the Pinelands National Reserve. The design features a pine bough and two of the Pinelands' specialty agricultural products — cranberries and blueberries. On the right side of the plate is the Pine Barrens treefrog.

Discover New Jersey History — Helps preserve historic structures, documents and artifacts. The design features a charming Victorian rowhouse.

USS New Jersey — Helps bring the famous battle ship home as a floating educational museum. The design features the Battleship U.S.S. New Jersey.

Baymen's Heritage — Helps preserve the legacy of the Jersey Shore baymen. The design features the Little Egg Harbor Lighthouse, which fell into the Atlantic Ocean in 1927 and which will be replicated in Tuckerton Seaport, a 30-building maritime cultural village currently being constructed.

Shore to Please — Helps clean our beaches and improve water quality. The design features New Jersey's most famous lighthouse, Old Barney.

Conserve Wildlife — Helps restore endangered wildlife and create a statewide network of wildlife viewing areas. Two designs — a red-headed woodpecker and a bald eagle — are available. The woodpecker plate may be out of stock at some locations, but it can be ordered through the mail. Note: if ordering by mail, be sure to specify which plate design (woodpecker or eagle) you want.

Special license plates are available at any Motor Vehicle agency or you can call 888/486-3339 toll-free in New Jersey or 609/292-6500 from out of state for a mail-in application. You can personalize your plates with up to five characters for an initial fee of $100.

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; handicapped accessible; fee charged

Allaire – Allaire State Park/Historic Allaire Village/Pine Creek Railroad, Farmingdale; 732/938-2253 (park and village) or 732/938-5524 (railroad)

Batsto – Batsto Vollage, 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

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

Trailside – Trailside Nature & Science Center, 452 New Providence Rd., Mountainside; 908/789-3670

Waterloo – The Historic Village of Waterloo, 525 Waterloo Road, Stanhope; 973/347-0900 (unless otherwise noted); open 10 a.m. to 5 p.m. Wednesday to Sunday from mid-April through mid-November; 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.; 856/825-6800 or 800/998-4552; handicapped accessible; fee

Whitesbog – Whitesbog Village, mile marker 13 on Rte.530, Browns Mills (Pemberton Township); 609/893-4646

Notes:

Information listed was accurate at the time it was received. Before traveling to an event, readers are advised to call the number listed to confirm the information provided and obtain any additional information desired.

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

Ongoing

Ongoing

Sundays except Christmas, New Year's and Easter
PLANETARIUM SHOW **Trailside**; $

Sundays, January through May and September through December
FAMILY NATURE PROGRAM **Trailside**

First Saturday of Every Month except January, February and December
TRAILWORK DAY Volunteers needed; **Trailside**; ✎

January

13 through 16
GARDEN STATE OUTDOOR SPORTSMEN SHOW NJ Convention & Expo Center, Edison; 800/248-7469; $

15
MID-WINTER INVITATIONAL ANTIQUES SHOW AND SALE **Allaire**

20 through 23
SAIL EXPO Atlantic City Convention Center; 800/817-7245; $

33RD NJ TRAILER & CAMPING SHOW NJ Convention & Expo Center, Edison; 800/332-3976; $

22 through March 5
CURATOR'S CHOICE EXHIBITION Museum of American Glass at **Wheaton**

29
ANNUAL OPEN HOUSE Rutgers University Geology Museum, New Brunswick; 732/932-7243; ♿, except exhibit area

29 and February 1
GREAT ENVIRONMENTAL MAGIC SHOW Second show (3:30 p.m.) on 1/29 will be ASL interpreted; schools and other organizations may call in advance to schedule attendance at group shows which will be offered Jan. 25 through Feb. 4; Somerset County Environmental Education Center, Basking Ridge; 908/766-2489; ♿; $;

February

Through March 5
CURATOR'S CHOICE EXHIBITION Museum of American Glass at **Wheaton**

2 through 6
20TH ANNUAL ATLANTIC CITY INTERNATIONAL POWER BOAT SHOW Atlantic City Convention Center; www.acboatshow.com; 215/732-8001

4 through 6
7TH SOUTH JERSEY RV SHOW South Jersey Center, Pennsauken; 800/332-3976; $

5 and 6
16TH ANNUAL OCEAN COUNTY WILDFOWL ART & DECOY SHOW Brick High School, Brick; 732/341-9622, ext. 214; ♿; $

MID-WINTER ANTIQUES & COLLECTIBLES SHOW & SALE **Wheaton**

6
12TH BLUEGRASS FESTIVAL Albert

11 through 13
FLOWER & GARDEN SHOW OF NEW JERSEY NJ Convention and Expo Center, Edison; 800/332-3976; $

19
CRAFTS IN WINTER Cape May Convention Hall; 609/884-5404 or 800/275-4278; ♿; $

19 and 20
TUNDRA SWAN TOUR **Whitesbog**; $

20
ANTIQUES IN WINTER Cape May Convention Hall; 609/884-5404 or 800/275-4278; ♿; $

1830S GEORGE WASHINGTON'S BIRTHDAY **Allaire**

24 through 27
NEW JERSEY FLOWER & PATIO SHOW Somerset; 732/785-9174

13TH NJ BOAT SHOW New Jersey Convention Center, Edison; 800/332-3976; $

25 through 27
ATLANTIC CITY CLASSIC CAR AUCTION, FLEA MARKET & ANTIQUES Atlantic City Convention Center; www.acclassiccars.com; 800/227-3868

26
DISCOVER CAPE MAY HISTORIC HOUSES TOUR Cape May; 800/275-4278; $

MAPLE SUGARING Reeves-Reed Arboretum, Summit; 908/273-8787; $

27
ASTRONOMY SUNDAY **Trailside**; ♿

March

Through March 5
CURATOR'S CHOICE EXHIBITION Museum of American Glass; at **Wheaton**

Through May 31
SPRING MIGRATION 2000 **Great Swamp**

Through June 30
HERON ROOKERY **Great Swamp**

1
FABULOUS FLOWERS Reeves-Reed Arboretum, Summit; 908/273-8787; $

3
SILVER FEATHER FESTIVAL Montclair State University, Upper Montclair; 973/655-5112; $

4
PINELANDS SHORT COURSE Hickman Hall (Cook/Douglass Campus), New Brunswick; 732/932-9271 or 609/894-7300; $;

4 and 5
QUILT SHOW **Wheaton**

5
TODD HALF MARATHON 13-mile run through Lincroft, Holmdel and Colts Neck; Brookdale Community College, Lincroft; 732/842-4000

10 through 12
VICTORIAN HOLMES WEEKEND Cape May; 609/884-5404;

11
SEARCH FOR CLUES TOUR House tours; Cape May; 609/884-5404; $

11 through 26
PRESCHOOL SCIENCE DISCOVERIES **Trailside**; ♿; $;

12
1830'S ST. PATRICK'S DAY CELEBRATION **Allaire**

15
CHINA & GLASS IN AMERICA, 1880-1980: FROM TABLETOP TO TV TRAY Newark Museum; 973/596-6550

16 through 22
CARVING AND WILDLIFE ART PREVIEW Somerset County Environmental Education Center, Basking Ridge; 908/766-2489

Events

17 through 19
5TH ANNUAL ATLANTIC CITY RV AND CAMPING SHOW Atlantic City Convention Center; www.macevents.com; 800/332-3976; $

18
SONGWRITERS SHOW **Albert**

LET'S GO FLY A KITE **Batsto**; 609/561-7310

19 through 23
INN DEEP WORKSHOP Learn how to purchase, restore and operate a bed and breakfast inn; Convention Hall, Cape May; 609/884-5404; ♿; $

25
NEW JERSEY DECOY COLLECTORS ASSOCIATION SHOW Manahawkin Elks, Manahawkin; 732/255-6291

25 and 26
'ATLANTIQUE CITY' SPRING FESTIVAL Atlantic City Convention Center; www.atlantiquecity.com; 609/926-1800 or 800/526-2724

REVOLUTIONARY WAR ENCAMPMENT Israel Crane House Museum Grounds, Montclair; 973/744-1796; $

April

Through May 31
SPRING MIGRATION 2000 **Great Swamp**

Through June 30
HERON ROOKERY **Great Swamp**

7 through 9
CAPE MAY JAZZ FESTIVAL Cape May; 609/884-5404; ♿

8
OPENING DAY OF TROUT SEASON

8 through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

9
WILDLIFE SUNDAY **Trailside**; ♿; $

14 through 16
24TH ANNUAL ATLANTIC CITY ARCHERY CLASSIC Atlantic City Convention Center; 609/358-3196

28 through May 7
CAPE MAY'S SPRING FESTIVAL Spring Victorian Festival and Tulip & Garden Festival; Cape May; 609/884-5404, 800/275-4278 or 609/884-5508

30
OUTDOOR ADVENTURE EXPO Turkey Swamp Park, Freehold Township; 732/842-4000, ext. 255 (TDD: 732/219-9484)

30 through May 26
PINELANDS ART EXHIBIT Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

May

Through May 26
PINELANDS ART EXHIBIT Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

Through May 31
SPRING MIGRATION 2000 **Great Swamp**

Through June 30
HERON ROOKERY **Great Swamp**

Through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

1
CHERRY BLOSSOM FESTIVAL Bayhead; 800/4-BAYHED

6
25TH ANNUAL OCEAN COUNTY FRESH-WATER FISHING CONTEST Lake Shenandoah County Park, Lakewood; 609/971-3085; $

7
PET FAIR **Trailside**; ♿; $

13
30TH AND FINAL MANASQUAN RIVER CANOE RACE Howell Park Golf Course to Brice Park, Wall Township;732/842-4000, ext. 255 (TDD: 732/219-9484); ✎

19 through 21
SPRING SUGARLOAF CRAFTS FESTIVAL Garden State Exhibit Center, Somerset; ♿; $; 800/210-9900

20
HISTORIC PRESERVATION RECEPTION Smithville Mansion Annex Gallery, Eastampton; 609/265-5068; ✎

20 and 21
20TH ANNUAL CARVING AND WILDLIFE ART SHOW AND SALE Somerset County Environmental Education Center, Basking Ridge; 908/766-2489, ext. 0; ♿

20 through June 25
CAPE MAY MUSIC FESTIVAL Cape May; 609/884-5404; $

21
GARDEN FAIR **Trailside**; ♿

27 and 28
ARTS AND CRAFTS SHOW **Cold Spring**

27 through 29
ANNUAL SPRING AMERICAN INDIAN ARTS FESTIVAL Rankokus Indian Reservation, Rancocas; 609/261-4747; $

June

Through June 30
HERON ROOKERY **Great Swamp**

Through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

3
Delaware Bay Day Festival Take a free tour of New Jersey's offical Tall Ship, the *A.J. Meerwald*, during this family festival held in historic bayside villages of Bivalve, Shell Pile and Port Norris (all in Commercial Township) and at the East Point Lighthouse (at the mouth of the Maurice River); Cumberland County; 856/785-2060; ♿

3 and 4
MICHAEL ARNONE'S 11TH ANNUAL CRAWFISH FEST Concert Field, **Waterloo**; 212/539-8830

CONFEDERATE WEEKEND **Cold Spring**

5 through 15
BURLINGTON COUNTY ARTS FOR TEENS TRAVELING EXHIBIT Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

6
ARTS FOR TEENS PERFORMING CONCERT Smithville Mansion Annex Gallery, Eastampton; 609/265-5068; $

10 and 11
NEW JERSEY FRESH SEAFOOD FESTIVAL Atlantic City; 609/344-1943
UNION WEEKEND **Cold Spring**

16 through 18
AMERICA'S PLAYGROUND BEACHFEST Beach and boardwalk, Atlantic City, 609/484-9020

17 and 18
REELS AND WHEELS **Cold Spring**

18
ANTIQUE BOTTLE SHOW & SALE **Wheaton**

20 through July 5
HANGING TOGETHER ART EXHIBIT Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

24
NATIONAL BALLET OF NEW JERSEY Rain date: June 25; Smithville Mansion Courtyard, Eastampton; 609/265-5068; ♿; $

24 and 25
THREADS THROUGH HISTORY **Cold Spring**

July

Through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

1 and 2
ARTS AND CRAFTS SHOW **Cold Spring**

8 and 9
RAILROAD DAYS **Cold Spring**

15 and 16
STELLA ANTIQUE SHOW **Cold Spring**

22 and 23
CAPE MAY COUNTY DAYS **Cold Spring**

28 through 30
QUICK CHEK NEW JERSEY FESTIVAL OF BALLOONING Solberg Airport, Readington; 973/882-5464; $

29 and 30
MID-SUMMER ANTIQUES & COLLECTIBLES SHOW & SALE **Wheaton**

CHILDREN'S DAYS **Cold Spring**

August

Through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

5 and 6
COUNTRY CORN FESTIVAL **Cold Spring**

12 and 13
STELLA ANTIQUE SHOW **Cold Spring**

19 and 20
ANTIQUE AUTO SHOW **Cold Spring**

20
ANTIQUE FIRE APPARATUS SHOW & MUSTER **Wheaton**

26 and 27
HARVEST DAYS **Cold Spring**

September

Through October 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

2
16TH ANNUAL ANTIQUES & COLLECTIBLES FAIRE Ocean County Historical Society, Toms River; 732/341-1880

2 and 3
ARTS AND CRAFTS SHOW **Cold Spring**

9 and 10
REVOLUTIONARY WAR ENCAMPMENT **Cold Spring**

10
VETTES IN GLASSTOWN ALL-CORVETTE SHOW Rain date: Sept. 17; **Wheaton**

16 and 17
CIVIL WAR ENCAMPMENT **Cold Spring**

24
HARVEST FESTIVAL **Trailside**; ♿; $

October

Through 22
20TH CENTURY GLASS ANNUAL EXHIBITION Museum of American Glass at **Wheaton**

1
1770S FESTIVAL Somerset County Environmental Education Center, Basking Ridge; 908/766-2489, ext. 0; ♿

8
AMERICAN WHEELS CAR SHOW Rain date: Oct. 15; **Wheaton**

21
KIDS PARTICIPATE **Wheaton**

23
8TH ANNUAL PUMPKIN FESTIVAL **Cold Spring**

November

1
GREAT PUMPKIN SAIL **Trailside**; ♿; $;

5
MINERAL CLUB SHOW **Trailside**; ♿; $

10 through 12
CAPE MAY JAZZ FESTIVAL Cape May; 609/884-7277; ♿

24 through January 6, 2001
THE HOLIDAYS AT WHEATON VILLAGE **Wheaton**

December

Through January 6, 2001
THE HOLIDAYS AT WHEATON VILLAGE **Wheaton**

3
NATURE BOUTIQUE Trailside; ♿

8 through 17
FESTIVAL OF TREES Somerset County Environmental Education Center, Basking Ridge; 908/766-2489, ext. 0; ♿; $

The Muskellunge

by Bob Papson

The muskellunge (*Esox masquinongy*), the largest member of the pike family, is a highly prized sportfish. Restricted to the fresh waters of eastern North America, it occurs in southern Canada from the Red River of the North, east through the Great Lakes to the St. Lawrence River and Lake Champlain. It also occurs in the Ohio and Tennessee river systems to northern Alabama, and in the Mississippi River in Wisconsin and Minnesota. Because of improved methods of artificial propagation and increased stocking programs, more new muskellunge fisheries are being created annually.

Muskies are most abundant in large, fertile, shallow lakes with extensive submerged weed beds, although they may be found in very clear, sterile lakes with virtually no weeds. They prefer cool temperatures with an optimal upper limit of 78° F but can withstand water temperatures as high as 90° F.

Spawning generally occurs from early April to mid-May when the water temperature is 49° to 59° F. It takes place in water 15 to 20 inches deep, in heavily vegetated flooded areas. No nest is built; the eggs are scattered at random and drop into the vegetation. Less than half the eggs are fertile, and predation and low oxygen levels may prevent the hatching of otherwise viable eggs. (The fertility of eggs reared in a hatchery is often as high as 95 percent.) The number of eggs increases with size of the female and ranges from 6,000 to 265,000; the average is approximately 120,000.

The muskie is a solitary fish that prefers to ambush prey and move very little in doing so. It is an opportunistic feeder, preying on whatever is most abundant and available. It prefers soft rayed, fusiform (spindle-shaped) fish to spiny-rayed, laterally compressed species; predation on other game fish, such as bass and walleye, is reported to be relatively low.

The muskellunge, which generally reaches 30 inches — as well as sexual maturity — in 3 to 5 years, is considered to be one of the fastest growing of the freshwater fish species. Females grow faster than males, are larger at any age and live longer; consequently all the notable-sized muskellunge are females.

The current angling record is 69 pounds, 15 ounces. This 64.5-inch fish was taken on the St. Lawrence River in 1957. The current New Jersey state record muskie, which weighed 42 pounds, 13 ounces and measured 48 inches, was caught through the ice at Monksville Reservoir in 1997. Though muskies have been reported to live more than 30 years, this fish was less than 13 years old.

A major concern of introducing non-native species is the potential for that species to overpopulate to a level detrimental to the resident species. This does not appear to be the case with muskellunge. Native muskie populations are seldom abundant, and one to two adult fish per acre is considered a good to excellent fishery.

In New Jersey, the likelihood of natural reproduction of muskellunge in our waters, especially lakes, is slight; a self-sustaining fishery of meaningful numbers is rare. Our muskie fisheries have to be maintained through annual stockings.

The first such fishery in New Jersey was developed in the Delaware River through the stocking efforts of the Pennsylvania Fish Commission. The development of inland water fisheries started with the mid-1980s stocking of Greenwood Lake by the N.J. Chapter of Muskies Inc. The N.J. Division of Fish, Game and Wildlife's muskellunge rearing and stocking program began in 1993. Eggs or fry are obtained both by capturing in-state brood fish and from out-of-state sources.

The fingerlings are reared to a 10-inch average length at the Hayford Fish Hatchery in Hackettstown and generally are stocked at a rate of two fish per acre. The program is relatively small, producing approximately 4,000 fingerlings annually.

New Jersey currently has four major muskie fisheries — Greenwood Lake, Monksville Reservoir and Echo Lake Reservoir (all in Passaic County) and the Delaware River. Mercer Lake (Mercer County), Mountain Lake (Warren County) and Lake Hopatcong (Morris and Sussex counties) also have been stocked and have developing fisheries.

The muskie harvest in New Jersey generally is limited to a 30-inch minimum size and a daily creel limit of two. The creel limit is one at Greenwood Lake and Echo Lake Reservoir, where the minimum size is 36 inches, and at Mountain Lake, where it is 40 inches. There is no closed season on any of the state's water bodies.

Because of their rarity and the stress these fish undergo when captured, they are particularly vulnerable to fishing pressure. In their native waters, pollution, habitat alteration and the introduction of exotic species are among the more serious threats to their populations. Fortunately, while the popularity of muskie fishing is increasing, so is the catch and release ethic that ultimately may be the salvation of this majestic species.

The muskellunge has been called the fish of 10,000 casts. In the Garden State, however, even novice muskie anglers are scoring with much less effort.

Bob Papson, who works out of the Division of Fish, Game and Wildlife's Lebanon office, is a principal fisheries biologist with the Bureau of Freshwater Fisheries.


Duke