



# New Jersey

Spring 2000 • \$4.25

## Outdoors

A Look Back  
At Batsto and Lumberton

Trees for Trout

Nature's Offering  
From Lake Kittatinny to the  
Pine Barrens

Go Fly a Kite!







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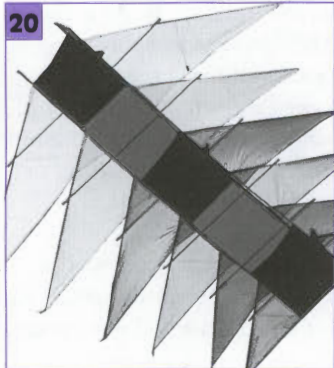
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**Batsto Mansion's** Italianate lines transport a bit of the Old World to the New. For a fascinating look at Batsto's history and surroundings, turn to page 46. © Cindy Ross

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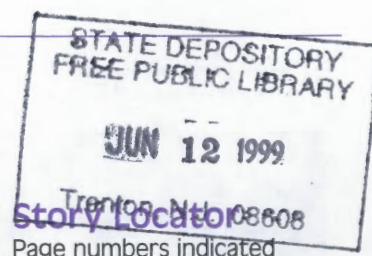
**Cape May Daffodils** poke their heads through wrought iron fencing to dance in the sunlight of the "Queen of Seaside Resorts." © 1998 Joseph Zielinski

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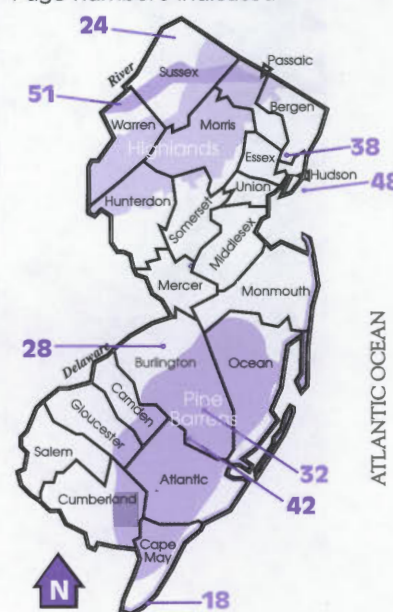
The Flying Squirrel © 1999 Carol Decker

## Back Cover

**Washington Spring Garden** blazes with color to welcome spring to Paramus (Bergen County). The garden is located in Van Saun County Park. © Dotty Waxman



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## From the Governor



Christine Todd Whitman,  
Governor

Spring showers remind us how vital water is to flowers, foliage, and farms. A drought such as we suffered last summer makes us appreciate clean and abundant water even more. To ensure clean and plentiful water we must protect New Jersey's watersheds.

Our state's effort to preserve 1 million acres — including 100,000 acres of watershed lands — moves us in the right direction. So, too, will planning wisely where we put new sewers, roads, and buildings.

By this fall, long-term management planning for every one of New Jersey's 20 watershed management areas will be under way. Also this year, the Department of Environmental Protection will adopt rules for managing watersheds that will require anyone who wants to build or extend a wastewater system to conduct a comprehensive environmental assessment subject to DEP review.

Government can't do it alone. I ask you to help protect our watersheds. Limit the use of fertilizers on your lawn, for example, and make sure the soil can handle them. Clean up after your pet and dispose of the waste properly. Recycle used motor oil.

What will statewide watershed protection mean? It will mean cleaner streams, lakes and beaches. It means healthier habitats for fish and wildlife. It will mean the water your family uses for cooking, drinking, and bathing will be clean. Rain or shine, that's ample reason to protect our precious water supply.

## From the Commissioner



Robert C. Shinn, Jr.,  
Commissioner

Protecting water resources so that New Jerseyans can be assured of clean and plentiful water as the future unfolds is one of the most important environmental challenges of this new millennium. And the goal is one that we must work together to achieve.

In the 30 years that have passed since the first Earth Day and DEP's creation, tremendous strides have been made. Initial efforts targeted obvious sources of water pollution, such as industrial facilities and municipal wastewater dischargers. As pollution from these "point" sources was eliminated, the need to address less obvious threats to water quality, such as "nonpoint" sources and combined sewer overflows, became apparent.

Because water flows across political boundaries, we need to look at these threats as they relate to watersheds—where all of the underground and surface water draining from an area of land goes to the same place—not as they relate to municipalities or counties. To facilitate this, all of the watersheds in the state were identified, then grouped into watershed management areas.

The Department's 1999 *Annual Report* contains a CD-ROM that, used with free Geographic Information System software, can help you to explore your watershed and gain an understanding of how everyday activities, planning decisions and natural conditions affect its water quality. This CD represents one of the many ways we are developing new technology to keep you better informed and to work with all New Jerseyans as knowledgeable partners in our efforts to protect the environment.

If you'd like a copy of the annual report, please call our Public Access Center at 609-777-DEP3. For more information about GIS or watershed protection, please visit our Web site at [www.state.nj.us/dep](http://www.state.nj.us/dep)



# NJO Mailbox

## A Beautiful Story

Dr. Louria's story (*The Tale of the Goose*, Winter 2000) touched my heart. We were able to identify in every way—a sensitive, beautiful, meaningful story. We, too, see so much on our one acre with a neighbor's pond surrounding us.

We watch young deer bound, carefree, through our properties. At night, mom raccoon and her three young ones feast on the fish we give them. We see crows, bears, bluebirds, wood ducks and turkeys that never leave. But not many rabbits, to our dismay. In late summer there are too many hummingbirds to count. Geese by the zillions (over the years) have floated on the pond. We feed them and, if we're lucky, we see their babies.

How fortunate we are to experience nature at its best. It's joyful—and heart-breaking. That's nature; that's life.

Congratulations on a fine magazine.

Virginia Sweeney  
Blairstown

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Governor



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## New Jersey Outdoors

Spring 2000, Vol. 27, No. 2

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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[www.state.nj.us/dep/njo](http://www.state.nj.us/dep/njo)



### Interactive Topographic Map Site Launched

Getting there is half the fun — especially if you take advantage of MapsALaCarte's new TopoZone Web site. The company recently launched [www.topozone.com](http://www.topozone.com), making seamless United States Geologic Survey (USGS) topographic maps available over the Web.

TopoZone is the first interactive, seamless topographic map and database of the entire United States and is accessible at no charge to anyone with an

industry standard Web browser. The site will serve millions of hikers and other outdoor recreation enthusiasts who formerly needed to use paper and CD-ROM topographic maps to plan and document their outdoor activities.

According to Bill Everett, president and CEO of Maps a la Carte, "TopoZone has revolutionized the presentation, delivery and use of digital topographic map data for the United States by making

it available on-line. There are over 50 million outdoor recreation enthusiasts on-line in the United States and this site gives them the ability to plan, share and manage their outdoor recreation activities in a convenient and friendly environment. The tight integration of our 2-million-name geographic database with our seamless topographic maps makes it simple to navigate around the country and visit your favorite places."

### Hunters Helping the Hungry Program a Success

Garden State hunters donated more than 30,000 pounds of venison to local food banks in 1999 through an effort known as *Hunters Helping the Hungry*. The program, a non-profit endeavor coordinated by the New Jersey Division of Fish and Wildlife, the NORWESCAP Food Bank, the Food Bank of Monmouth and Ocean Counties and the New Jersey Federation of Sportsmen's Clubs, oversees the distribution of sportsmen-donated venison to feeding programs throughout the state.

"Hunters have really taken the initiative to provide for the less fortunate in their communities," said Division Director Bob McDowell. "In fact, hunter participation has been so overwhelmingly successful that the program is in need of additional funding."

Sportsmen and women who donate deer are asked—but not required—to provide a contribution to help offset the cost of butchering. While venison donations have been impressive, monetary contributions have not kept the same pace.

"Sharing the harvest from a successful hunt is a hunter's tradition that is linked back to early civilization," said Federation President Frank Bitner. "It's

wonderful to see all the venison being donated, but unfortunately we are falling short on funds for processing."

To donate toward deer processing fees, please make checks payable to the: Northwest New Jersey Community Action Program (NORWESCAP) Food Bank Venison Fund, 201 N. Broad Street, Phillipsburg, NJ 08865 or the Food Bank of Monmouth & Ocean Counties Venison Fund, 516 Passaic Avenue, Spring Lake, NJ 07762. Your generosity is greatly appreciated.

For more information, call Fred Carlson at 609/292-6685.

### Help Save the Wetlands

This new campaign, recently introduced by the U.S. Fish and Wildlife Service, is an extension of the Federal Duck Stamp Program. It will help to educate people about the importance of wetland conservation and the power they have to make a difference. In addition to receiving a certificate and collectible duck stamp in appreciation for their \$30 contribution, each participant will be helping to

save as much as one-tenth of an acre of wetlands.

The Federal Duck Stamp Program, created in 1934, uses the revenue from Duck Stamp sales to purchase and preserve wetlands throughout America. The Duck Stamp Program has successfully saved over 5 million acres of wetlands, but America continues to lose as much as 100,000 acres of wetlands per year. Wetlands are critical ecosystems, relied on by thousands of species of plants and animals. They also act as a water filter; removing pollutants and contaminants from drinking water.

To contribute to the *Save the Wetlands* program, call 1-800-DUCK-499 or visit [www.savewetlands.org](http://www.savewetlands.org).

### First Lady of Carving

Last fall, Sally Schneider became the first woman in the 17-year history of the Ocean County Decoy and Gunning Show to win *Best in Show* in the Barnegat Bay Decoy Contest. The Mantoloking resident, who has been carving for 12 years, fashioned a green wing teal hen to garner the award.





On December 20, 1999, Governor Whitman signed into law the long awaited funding initiative that will help the Division of Fish and Wildlife maintain healthy operating levels. Due to the effects of inflation and no fee hikes in more than five years, many bureaus' operating budgets had been reduced to levels so low that programs and services were impacted.

Some of the losses felt by the hunting and angling public included the loss of a fall trout stocking program and decreases in the pheasant and quail-stocking program. With fee hikes now in effect for the new millennium, the division will be able to re-establish these and other services that have been cut or impacted.

In addition to reestablishing programs and services, these funds will allow the division to fill several critical positions left vacant due to funding deficits and will assist in the development, management and accessibility of new lands acquired through the state's Open Space initiative. Additional funds will also enable the division to continue cooperative efforts with the agricultural community to alleviate deer damage to crops and maintain deer densities at tolerable levels.

The license increase should generate approximately \$2.6 million in revenues for the division—monies that will provide for programs that will increase productivity, management and services to the public and wildlife of the state. In addition, New Jersey's economy will benefit tremendously from the license increase.

## Hunting, Fishing License Fee Increases OK'd

Currently, residents and non-residents spend more than \$1.9 billion on wildlife-related activities in New Jersey, generating \$3.8 billion to the state's economy.

Some of the many benefits to be gained from increased fees are:

- Free hunting and fishing licenses for youths under age 16, with deer and turkey permits only costing \$12 each, or less than half the cost for an adult.
- Free hunting and fishing licenses for disabled veterans.
- The Fall Trout Stocking Program will be reinstated and the Quail Stocking Program will be restored to its former capacity.
- Residents who firearm hunt, bow and arrow hunt and freshwater fish benefit with the special all-around license by saving over the cost of purchasing each license separately.
- Boaters & anglers will benefit as the division will develop approximately 12 new boat ramps and fishing access sites in addition to six urban fishing access sites.
- Woodcock hunters will no longer need to purchase a woodcock stamp.
- Warmwater anglers benefit as the division would implement its warmwater fisheries plan to provide increased production of stocked fish such as bass, wall-eye, tiger musky and many other species.
- All outdoor enthusiasts benefit as the state continues to acquire more lands for public use. The division will continue to manage them for the benefit of both wildlife and people.
- Urban anglers will benefit as the division expands its popular program to stock bluegill sunfish and channel catfish for youth fishing derbies.

The new fee structure is detailed in the chart accompanying this article. Please note that youth fishing licenses are not required and that free youth hunting licenses (under age 16) will be

issued by the division only. For more information, call Natalie Baratta-Verdi at 609/777-4194.

### License or Stamp Total Cost

Resident Fishing	—\$22.25
Senior Fishing (Ages 65-69; no license needed over age 69— just driver's license or another age-documenting ID)	—\$12.25
Resident Youth Fishing	—Free*
Resident Trout Stamp	—\$10.50
Non-Resident Fishing	—\$33.75
Non-Resident Youth Fishing	—Free*
Non-Resident 7-Day Vacation Fishing	—\$19.25
Non-Res. 2-Day Fishing	—\$8.75
Non-Resident Trout Stamp	—\$20
All-Around Sportsman	—\$72
Resident Firearm Hunting	—\$27.25
Senior Firearm Hunting (Age 65+)	—\$15.25
Resident Youth Firearm Hunting	—Free*
Non-Resident Firearm Hunting	—\$135.25
Non-Resident 2-day Hunting	—\$36.25
Non-Resident Youth Firearm Hunting	—Free*
Resident Bow & Arrow Hunting	—\$31.25
Senior Bow & Arrow Hunting (Age 65+)	—\$16.25
Resident Youth Bow & Arrow Hunting	—Free*
Non-Resident Bow & Arrow Hunting	—\$135.25
Non-Resident Youth Bow & Arrow Hunt	—Free*
Pheasant & Quail Stamp	—\$40
Youth Pheasant & Quail Stamp	—Free*
Resident Waterfowl Stamp	—\$5
Non-Resident Waterfowl Stamp	—\$10
Resident Trapping	—\$32.25
Resident Youth Trapping	—Free*
Turkey Permits	—\$21
Deer Permits	—\$28
Youth Deer & Turkey Permits	—\$12



### Whitman Is Honorary Chairperson for Conserve Wildlife Golf Benefit

Governor Christine Todd Whitman has agreed to serve as Honorary Chairperson of the Conserve Wildlife Foundation Golf Benefit to support the state Department of Environmental Protection's (DEP) Endangered & Nongame Species Program.

The event is scheduled for May 22, 2000, and will be held at the Stanton Ridge Country Club in Readington Township. All proceeds from the benefit will go to support protection efforts, such as the conservation of critical wildlife habitat, for rare wildlife conservation.

"It is an honor to be asked to chair this important event to help raise awareness and support for our endangered wildlife," said Governor Whitman. "To save wildlife habitat is an essential part of our goal to preserve one million acres. New Jersey's natural heritage is everyone's responsibility. We need to promote stewardship of our wildlife resources so that New Jersey remains a place where we all want to live, work and play."

While the state has mandated endangered species protection, it provides no direct funding to do so. Instead, funds for the Endangered & Nongame Species Program are raised from New Jersey citizens who purchase Conserve Wildlife license plates and by individuals who take advantage of the "Check-Off for Wildlife" option on the state income tax return. The remainder of the fund raising efforts is managed by the Conserve Wildlife Foundation of NJ, the fund raising arm of the state's endangered species program.

"This event will be an excellent opportunity for those who enjoy the outdoors, whether they're devoted golfers or average duffers, to show their support for New Jersey's special habitats and endangered species," said DEP Commissioner Bob Shinn.

Proceeds from the golf benefit will support long-term protection for New



Jersey's endangered and threatened species including the peregrine falcon, osprey, piping plover, bobcat and bald eagle.

The Conserve Wildlife Foundation of New Jersey is a private, non-profit organization that assists the Endangered & Nongame Species Program with funding, promotion, public education efforts and community outreach initiatives. For more information on the event or for sponsorship opportunities, call Linda Tesauro at 609/292-1276.

### Rockingham at the White House

Rockingham is on the move. The historic site—General George Washington's last military headquarters during the Revolutionary War and the place where he wrote his farewell orders to the armies of the United States—is being relocated from property in Princeton that's owned by, and now must be returned to, a local quarry. The "new" site—Laurel Avenue (Route 603), outside Kingston—is very close to Rockingham's original site. (The building was moved once before.)

The relocation is one of only 12 projects in New Jersey officially recognized by *Save America's Treasures*, a public-private partnership between the White House Millennium Council and the National Trust for Historic Preservation. To memorialize the move, Jennifer Saar—a museum technician at Rockingham—and her sister Melissa created an artistic rendition entitled *Rockingham's Transplantation*.

The artwork was based on an original graphic design Melissa created for Rockingham's August 1999 groundbreaking ceremony. The sisters used clay to sculpt the historic house on a hill. After making a plaster cast of the sculpture, they poured cement into it, then spent many hours painting the final piece.

The finished work of art was displayed, with representations of other *Save America's Treasures* projects, in the White House's Green Room. And its creators were honored by an invitation to a reception at the White House on December 17.

Rockingham will be moving this spring. For more information, visit [www.rockingham.net/index.html](http://www.rockingham.net/index.html).

### OpSail 2000—Don't Miss It!

Named by the American Bus Association as this year's top event in the entire nation, OpSail 2000—a two-month voyage—will be the largest tall ship and maritime event in history. It will begin on May 25 in San Juan, Puerto Rico. The fleet, which will feature more than 200 tall ships representing 60 nations, sets sail from there on May 29, docking for gala celebrations in Miami, Norfolk and Baltimore before reaching Philadelphia on June 23. Six days later, the ships will depart for New York City, the centerpiece of the national celebration. On July 4, U.S. and foreign dignitaries will review the parade of ships; the largest fireworks display in history will cap the day's festivities. The ships will leave New York on July 9 for calls at New London (Connecticut) and Portland (Maine).

Call 732/899-2424 for information on when to see them as they pass Point Pleasant Beach.

For more information about OpSail 2000, visit [www.opsail2000.org](http://www.opsail2000.org) or call 212/435-2665.



## Books for All Interests

Whether your interest is stirred by nature in all its glory, the intrigue of the past, or the plethora of outdoor activities New Jersey offers, one of these new or soon-to-be released books is sure to please you.

Former *New Jersey Outdoors* editor Steve Perrone recently announced that maps and fishing tips for seven new surveyed lakes are included in the more than 120 featured in the revised 7th issue of the *New Jersey Lake Survey Fishing Maps Guide*. Published by New Jersey Sportsmen's Guides and priced at \$12.95, it offers articles by such noted Jersey anglers as frequent NJO contributor Tom Pagliaroli, John Brylinski, Al Peinecke, Walt Neumann and Dan Pryor.

*The Sporting Spaniel Handbook*, by Loren Spiotta-DiMare, is a comprehensive guide to the sporting spaniels recognized by the American Kennel Club. Its 144 pages offer solid information on each breed's history, current status, personality, training, grooming and health concerns, liberally illustrated with color photos. The official standard for each spaniel breed is both illustrated and described in detail. Spiotta-DiMare is no newcomer to writing about man's best friend—her tale of Cady, the guns-and-ammo-detecting field spaniel, appeared in the Winter 1999 issue of *New Jersey Outdoors*. Published by Barron's, *The Sporting Spaniel Handbook* is available for \$9.95.

Landscape photographer Dwight Hiscano, whose work has graced the pages of *New Jersey Outdoors*, shares more of his views in *New Jersey: The Natural State*, which will be published in May by Rutgers University Press. The 130-page book features 100 color images of the Garden State's diverse and beautiful landscape, and will retail for \$39.

ful landscape, and will retail for \$39.

*Exit Here for Fish!* is a 256-page guide that will appeal to new and experienced anglers, as well as students of fisheries science. Author Glenn R. Piehler addresses almost 100 species of freshwater and marine sportfish, providing physical and lifestyle descriptions and tips on where to catch them. He also explores current populations, reviews the history of fisheries management and examines the issues involved in preservation efforts. Due from Rutgers University Press in July, the hardcover book will cost \$52, while the paperback edition will sell for \$22.

The most comprehensive "tour" of New Jersey's Revolutionary War sites ever written is found within the pages of Mark DiIunno's *A Guide to New Jersey's Revolutionary War Trail*. Released in April by Rutgers University Press, the book takes readers to more than 350 historic sites—large and small; public and private—and tells the story of each. This fascinating guide is available in hardcover (\$45) and paperback (\$19) editions.

*To the Shore Once More*, a coffee table book released in 1999 by Jersey Shore Publications, was named as the top regional best-selling book in the nation in December. It offers Jersey Shore prose and poetry by acclaimed writer Frank Finale—whose poetry also has been featured in *New Jersey Outdoors*—and more than 100 full color paintings by local artists. Already in its third printing, the hardbound, 12.25" x 12.25" book sells for \$44.

Selecting the 25 most dramatic, predictable and characteristic of New Jersey's many nature displays wasn't easy, but Joanna Burger and Michael Gochfeld did—and present their choices in *25 Nature Spectacles in New Jersey*. The collection covers the state, the seasons and a variety of species, both flora and fauna. Also included are maps, recommended events and a number of "runners-up" to the spectacles that appear in the book. The May offering from Rutgers University Press is available in hardcover (\$45) and paperback (\$20).

ommended events and a number of "runners-up" to the spectacles that appear in the book. The May offering from Rutgers University Press is available in hardcover (\$45) and paperback (\$20).

## Hot off the Press

The Artificial Reef Association's new *Guide to Fishing and Diving New Jersey Reefs*—a spiral bound and completely waterproof book—is packed with all the New Jersey reef site information you'll need. It includes a chart of each reef, showing both the Loran and GPS coordinates, in addition to interesting data and facts on our artificial reef program. This is a must for the saltwater wreck angler and anyone who scuba dives. The book is available for \$15 plus \$5 shipping and handling.

Also just arrived are sandwashed reef t-shirts in two new colors—mustard and cocoa brown—plus burgundy, blue denim and bottle green. The design is the same as last year: five saltwater sportfish. These are only available in sizes large and extra large. Pay \$16 for your first shirt, and save a dollar on subsequent shirt purchases this season.

For additional information or to order either item, call 609/292-9450.

## Division Modifies Name to Better Reflect Mission

The Division of Fish, Game and Wildlife has changed its name to The Division of Fish and Wildlife to better clarify its mission of providing for all wildlife of New Jersey. The new name will appear gradually as new lands are acquired, new signs are posted and damaged signs are replaced.





# Ten Minutes to Better Streams

Article and images by Ross Kushner



(Top left) Pruning shears and cuttings ready for planting

(Top right) A newly planted cutting

(Above) A 2-year-old willow, grown from a cutting

In the fishing vest of my friend, Bob Burke, is a rather strange piece of equipment, one he's used to increase his angling success, and mine as well—and for that matter maybe yours too. It's not a fly pattern, a custom-tied leader or a crystal ball; it's just a pair of pruning shears tucked in a pocket. But what these shears have accomplished is so extraordinary I've adopted Bob's "system" and started toting a pair of my own. Here's how we put those shears to work:

Most anglers know (or should) that an excess of sediment is a deadly problem for trout streams, particularly on waters where natural spawning occurs. Trout deposit their eggs in beds of clean, well-oxygenated gravel, and a heavy silt load can smother both eggs and the newly hatched fry. In fact, studies have shown that a 10 percent increase in siltation can reduce trout spawning success by as much as 90 percent.

On all streams and rivers, this same silt decimates insect life, burying the rock and gravel habitat favored by most stonefly, caddis and mayfly species—creatures important to everything from otters to ospreys since they form the base of aquatic food chains. It can also damage the stream's structure by filling or broadening channels and destroying the varied mix of deep, slow pools and fast, shallow riffles so essential to healthy waterways.

Although sediment can be carried in from tributaries, storm drains or road run-

off, much of it originates in the stream itself, washing from banks stripped of vegetation by improper construction practices, severe floods or even the tromping boots of visiting anglers. Re-planting these banks is the key to reducing or preventing silt and is something Mother Nature might handle on her own. But why not give her a helping hand?

There are few plants better at protecting stream and riverbanks than the durable growth of dogwoods and willows, including such local varieties as black willow, pussy willow and red osier dogwood. If you aren't familiar with these common plants, the help of an illustrated field guide, available at most bookstores or libraries, should clear this up. Their roots hold the stream bank soil in place, while their spreading boughs provide shady cover for fish and insects, nesting sites for birds, and tasty snacks for muskrats and beaver. They are tough as steel cable, spread quickly, tolerate flooding and, important here, are easily grown from cuttings.

In Bob's scheme the existing stands of these plants found near the water represent raw materials. Assuming you brought your shears along, take a minute out from your hiking or fishing and clip a few branches from a willow or dogwood along the bank. Select branches that are as long and straight as possible and about the thickness of your thumb at their base. Snip off all leaves and side shoots





Plant the cutting by pushing it into the bottom of the bank and angling it downstream.

and then clip the branches into 8- or 10-inch lengths, assuring that each section has some of the small buds or bumps where new shoots and leaves will eventually sprout. Make each cut at an angle, leaving the ends sharply pointed. This light pruning does no harm and will actually spur new growth.

At the next section of bare or damaged stream bank, push your cuttings into the bottom of the bank at intervals of about a foot. If the bottom is rocky this can require some elbow grease and a measure of finesse. The shoots should be angled downstream to help prevent their loss to the push of floods, and positioned so that in low summer flows they will still be close to or at the water's edge. Each one should be planted with about two-thirds of the cutting underground and in the

same manner it was originally growing; that is, top end up and bottom end down. Now reach behind you and pat

yourself on the back. That's all there is to it.

Timing this work can be important. Pat Hamilton, a trout biologist for the New Jersey Division of Fish and Wildlife, is a firm believer in the benefits of these plantings, and suggests the earlier in the year they are done the better. March and April are ideal, since they allow a solid root structure to develop before the following winter. In high rainfall years, the month of May—after spring's high flows have settled and before the heat of summer—might be your only option. Never install cuttings later than May.

Within weeks, or even days, most of your plantings will push out new leaves; by season's end they might attain a foot or more of growth. A few years down the road the bank will be shaded and well-armored against erosion. The water will

be running cooler and cleaner, and there will be heavier insect populations and healthier fish. If there's a better or more lasting return on 10 minutes' work I'd certainly like to hear about it.

Of course groups like Trout Unlimited and DEP's fish and wildlife division have a history of large-scale bank plantings and other stream restoration projects that accomplish a great deal but require plenty of volunteer time, funding and coordination. The Ken Lockwood chapter of Trout Unlimited, for example, has been heavily involved in such work for years on the South Branch of the Raritan, and I urge you to pitch in with these folks whenever you can.

But the next day you spend on the water remember to bring your clippers along. As the saying goes "every little bit helps" and with enough of us out there doing our part who knows what we might achieve.

*Ross Kushner is a freelance outdoors writer—and avid angler—from Kinnelon.*

## For More Information . . .

For additional information on stream restoration, planting and bank stabilization, contact the sources below.

Each November for the past two years, the N.J. State Council of Trout Unlimited in cooperation with the (then) Division of Fish, Game and Wildlife, the Natural Resources Conservation Service, the North Jersey Resource Conservation and Development Council, the South Branch Watershed Association and the Musconetcong Watershed Association, held a one-day workshop called Restoring Our Streams. Participants learned about stabilizing stream banks using vegetation and in-stream fish habitat enhancement in a classroom setting, then participated in a hands-on field experience. A similar workshop is planned for this year. The date and other details will be announced in several months on the Fish and Wildlife Web site ([www.state.nj.us/dep/fgw](http://www.state.nj.us/dep/fgw)). The specifics also will be available from the contacts for Fish and Wildlife and Trout Unlimited.

### N.J. Division of Fish & Wildlife

Freshwater Fisheries 908/236-2118  
(Lebanon Office)

### County Soil Conservation District

Atlantic, Cape May 856/625-3144  
Bergen 201/261-4407  
Burlington 609/267-7410  
Camden 856/767-6229  
Cumberland 856/451-2422  
Essex, Hudson, Passaic 973/364-0786  
Gloucester 856/589-5250  
Hunterdon 908-788-1397  
Mercer 609/586-9603  
Middlesex, Monmouth 732/446-2300  
Morris 973/285-2953

Ocean 609/971-7002  
Salem 856/769-1124  
Somerset, Union 908/526-2701  
Sussex 973/579-5074  
Warren 908/852-2579

### State Soil Conservation Committee

609/292-5540

### Rutgers Cooperative Extension

732/932-9306

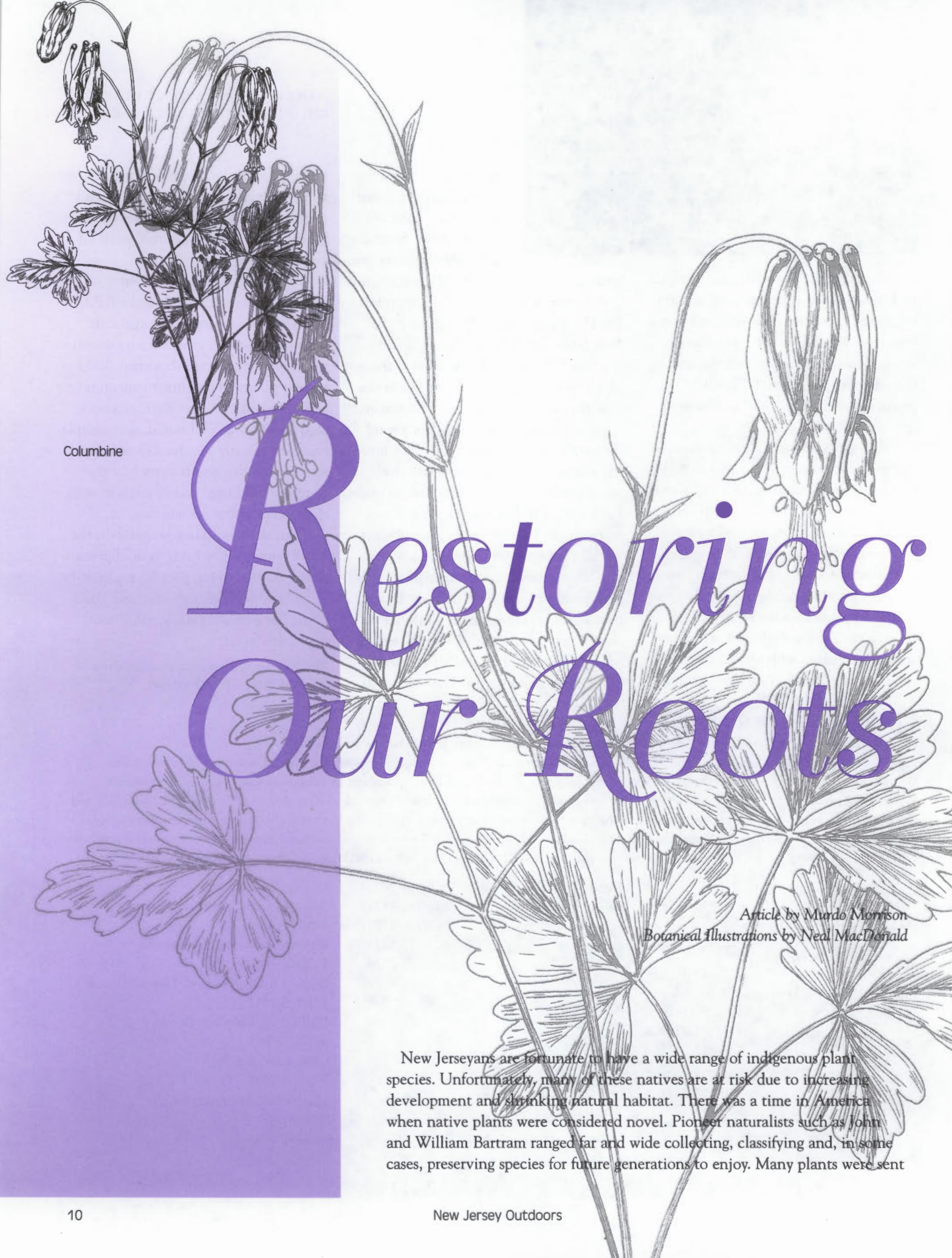
### Trout Unlimited—N.J. State Council

973/448-0176

### USDA Nat. Resources Conservation Service

Atlantic, Cape May, Cumberland 856/205-1225  
Mercer, Middlesex, Monmouth 732/462-1079  
Bergen, Essex, Hudson, Morris, Passaic 973/538-1552  
Burlington, Camden, Ocean 609/267-0811  
Gloucester, Salem 856/769-2790  
Hunterdon, Somerset, Union 908/782-3915  
Sussex, Warren 908/852-5450





Columbine

# Restoring Our Roots

Article by Murdo Morrison  
Botanical Illustrations by Neal MacDonald

New Jerseyans are fortunate to have a wide range of indigenous plant species. Unfortunately, many of these natives are at risk due to increasing development and shrinking natural habitat. There was a time in America when native plants were considered novel. Pioneer naturalists such as John and William Bartram ranged far and wide collecting, classifying and, in some cases, preserving species for future generations to enjoy. Many plants were sent





Sweet Joe Pye

overseas as exotic species.

Later, new species and hybrids were introduced to this country—and some supplanted indigenous species in the beds and borders of American gardens. Now, however, there's a growing interest in preserving our native vegetation as gardeners are discovering that this rich heritage has a place in their own gardens.

This interest in preserving our state's botanical heritage before it was lost prompted Rich Pillar to open the Wild Earth native plant nursery in Jackson. I came upon Wild Earth while seeking native plants to include in my backyard habitat (see **Yes, in My Backyard**, *New Jersey Outdoors*, Spring 1997). Recently I spoke with him about making New Jersey gardeners more aware of the rich heritage of native plants on their doorstep and encouraging them to include them in their own gardens.

As he explained, native plants are well adapted to their local region and are generally hardier and better able to tolerate the extremes of weather than are imports. They're also more earth friendly in that they generally need less water and chemical inputs than exotics and are friendly to wildlife, providing food and cover.

Rich stressed that it is very important not to collect native plants from the wild. Not only is it ecologically disruptive, but the plants may not survive. It also may be, in some cases, illegal. Nurseries such as Wild Earth either propagate their own plants or obtain them from known propagators. Rich prefers to grow his plants from seed whenever possible. While native plants may cover a wide area, often there are local genotypes that are particularly suited to the immediate area. He tries to find seeds and plants that are as local as possible, preferably from within 100 miles of his nursery.

New Jersey can boast a diverse range of plant species within its five major physiographic regions that extend from the Outer Coastal Plain in Cape May to the Ridge and Valley region of the Northwest. The gardener, therefore, can select from a wide range of plants that are suitable for different conditions. Nursery catalogs usually make this task easier by listing plants according to the conditions to which they are best suited.

While some native plants have made it into the mainstream, most are not commonly used in home gardens. Often gardeners will plant hybrids, not realizing that their native precursors or equivalents are available.





Wild bleedingheart



### Replicating Nature

When people consider natural planting, they often think of an open field environment and wildflowers—but it's also possible to create woodland habitats or even wetland environments. You'll need some knowledge of your local area to select plant combinations that make sense in the type of habitat you are trying to recreate. But even if you're not trying to faithfully recreate an ecosystem, it's still worthwhile to include some native plants, from understory shrubs and shade plants to delicate flowers and ferns, in your home landscape.

Many of the plants in common use today can be considered invasive species. The term invasive describes the ability of these plants to spread rapidly and become dominant over native species. Some common invasive plants are purple loosestrife (*Lythrum salicaria*), burning bush (*Euonymus alatus*), Norway maple (*Acer platanoides*), privet (*Ligustrum spp.*), periwinkle (*Vinca minor*), multiflora rose (*Rosa multiflora*), Japanese honeysuckle (*Lonicera japonica*) and English ivy (*Hedera helix*).

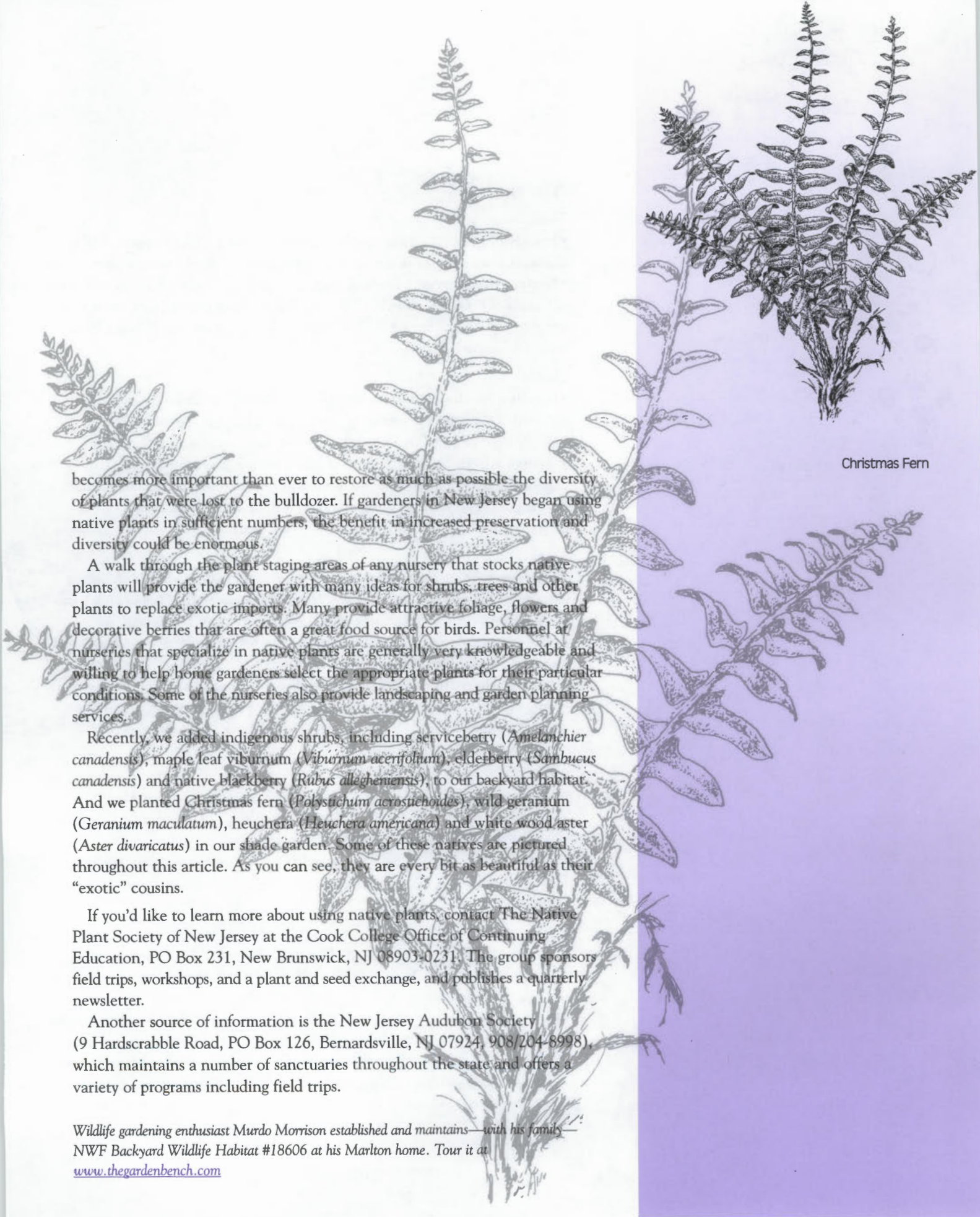
Why should we be concerned about invasive plants when many of them appear to offer decorative solutions for problem areas? Since these plants are generally not native, the natural controls that would keep them in check may be lacking. Where they are introduced, invasive plants can disrupt the local ecosystem.

### All Projects, Great and Small

Larger projects can also benefit from a greater use of native plants. While wetlands restoration and erosion control projects are obvious candidates, there is an encouraging trend towards indigenous plant use in public projects such as golf courses and municipal open spaces. At the Ridgewood Country Club in Paramus, for example, native plants—selected with the needs of wildlife in mind—were used to restore pond and wetland areas on the golf course to a more natural state.

While large public and environmental reclamation projects are highly visible examples of the use of native plants, home gardeners can also play a very important role in preserving large areas of native plants simply because of the large number of backyards across the state. As development continues, it





Christmas Fern

becomes more important than ever to restore as much as possible the diversity of plants that were lost to the bulldozer. If gardeners in New Jersey began using native plants in sufficient numbers, the benefit in increased preservation and diversity could be enormous.

A walk through the plant staging areas of any nursery that stocks native plants will provide the gardener with many ideas for shrubs, trees and other plants to replace exotic imports. Many provide attractive foliage, flowers and decorative berries that are often a great food source for birds. Personnel at nurseries that specialize in native plants are generally very knowledgeable and willing to help home gardeners select the appropriate plants for their particular conditions. Some of the nurseries also provide landscaping and garden planning services.

Recently, we added indigenous shrubs, including serviceberry (*Amelanchier canadensis*), maple leaf viburnum (*Viburnum acerifolium*), elderberry (*Sambucus canadensis*) and native blackberry (*Rubus allegheniensis*), to our backyard habitat. And we planted Christmas fern (*Polystichum acrostichoides*), wild geranium (*Geranium maculatum*), heuchera (*Heuchera americana*) and white wood aster (*Aster divaricatus*) in our shade garden. Some of these natives are pictured throughout this article. As you can see, they are every bit as beautiful as their "exotic" cousins.

If you'd like to learn more about using native plants, contact The Native Plant Society of New Jersey at the Cook College Office of Continuing Education, PO Box 231, New Brunswick, NJ 08903-0231. The group sponsors field trips, workshops, and a plant and seed exchange, and publishes a quarterly newsletter.

Another source of information is the New Jersey Audubon Society (9 Hardscrabble Road, PO Box 126, Bernardsville, NJ 07924, 908/204-8998), which maintains a number of sanctuaries throughout the state and offers a variety of programs including field trips.

Wildlife gardening enthusiast Murdo Morrison established and maintains—with his family—NWF Backyard Wildlife Habitat #18606 at his Marlton home. Tour it at [www.thegardenbench.com](http://www.thegardenbench.com)





Shadbush/service berry

## Alternatives

### Trees

- **Invasive Species:** Norway maple (*Acer platanoides*), tree of heaven (*Ailanthus altissima*), sawtooth oak (*Quercus acutissima*), princess tree (*Paulownia tomentosa*)
- **Native Alternatives:** white oak (*Quercus alba*), northern or southern red oak (*Q. rubra*, *Q. falcata*), tupelo (*Nyssa sylvatica*), serviceberry (*Amelanchier* spp.), fringetree (*Chionanthus virginicus*), black haw (*Viburnum prunifolium*), chokeberry (*Aronia arbutifolia*)

### Shrubs

- **Invasive Species:** multiflora rose (*Rosa multiflora*), bush honeysuckles (*Lonicera* spp.), Japanese spiraea (*Spiraea japonica*), privet (*Ligustrum* spp.), burning bush (*Euonymus alatus*), Japanese barberry (*Berberis thunbergii*)
- **Native Alternatives:** spicebush (*Lindera benzoin*), strawberry bush (*Euonymus americanus*), maple-leaf viburnum (*Viburnum acerifolium*), wild hydrangea (*Hydrangea arborescens*), highbush blueberry (*Vaccinium corymbosum*), lowbush blueberry (*V. angustifolium*)

### Vines

- **Invasive Species:** kudzu (*Pueraria lobata*), Japanese honeysuckle (*Lonicera japonica*), Chinese and Japanese wisteria (*Wisteria sinensis*, *W. floribunda*), oriental bittersweet (*Celastrus orbiculatus*), porcelain berry (*Ampelopsis brevipedunculata*), English ivy (*Hedera helix*), wintercreeper (*Euonymus fortunei*), periwinkle (*Vinca minor*)
- **Native Alternatives:** American bittersweet (*Celastrus scandens*), trumpet honeysuckle (*Lonicera sempervirens*), wisteria (*Wisteria frutescens*), trumpet vine\* (*Campsis radicans*), Virginia creeper\* (*Parthenocissus quinquefolia*)

\* Aggressive growers

### Ground Covers

- **Invasive Species:** crown vetch (*Coronilla varia*), carpet bugle (*Ajuga reptans*), mint (*Mentha* spp.), ground ivy (*Glechoma hederacea*), Indian strawberry (*Duchesnea indica*)
- **Native Alternatives:** golden ragwort (*Senecio aureus*), moss pink (*Phlox subulata*), Allegheny spurge (*Pachysandra procumbens*), wild ginger (*Asarum canadense*)

### Wetland Plants

- **Invasive Species:** common reed (*Phragmites australis*), Japanese knotweed (*Polygonum cuspidatum*), purple loosestrife (*Lythrum salicaria*), lesser celandine (*Ranunculus ficaria*)
- **Native Alternatives:** turtlehead (*Chelone glabra*), lizard's tail (*Saururus cernuus*), cardinal flower (*Lobelia cardinalis*), New York ironweed (*Vernonia noveboracensis*), blueflag iris (*Iris versicolor*), Virginia bluebells (*Mertensia virginica*), wild blue phlox (*Phlox divaricata*), arrowhead (*Sagittaria latifolia*), pickerelweed (*Pontederia cordata*)





## Places to See Native Plants

### New Jersey

- Bennett Bog Sanctuary, Cape May
- Frelinghuysen Arboretum, Morristown
- Herrontown Woods, Princeton
- Cattus Island Environmental Center, Toms River
- Lebanon State Forest
- Wharton State Forest
- Rancocas Nature Center, Mt. Holly

### Pennsylvania

- Bowman's Hill Wildflower Preserve  
P.O. Box 685  
New Hope, PA 18938  
215/862-2924  
[www.bhwp.org](http://www.bhwp.org)  
[bhwp@bhwp.org](mailto:bhwp@bhwp.org)
- Historic Bartram's Garden,  
54th St. and Lindbergh Blvd.  
Philadelphia, PA 19143  
215/729-5281  
[www.libertynet.org/bartram/index.html](http://www.libertynet.org/bartram/index.html)  
[bartram@libertynet.org](mailto:bartram@libertynet.org)

Elderberry





Red chokeberry

### Sources for Native Plants

#### Retail

- Wild Earth Native Plant Nursery  
P.O. Box 7258  
Freehold, NJ 07728  
732/308-9777
- Fairweather Gardens (mail order only)  
PO Box 330  
Greenwich, NJ 08323  
856/451-6261

#### Wholesale

- Pinelands Nursery  
323 Island Road  
Columbus, NJ 08022  
609/291-9486  
[www.pinelandsnursery.com](http://www.pinelandsnursery.com)
- Arrowwood Nursery  
870 W Malaga Rd, Rte 659  
Williamstown, NJ 08094  
609/697-6044

### Web Links

The Nature Conservancy of New Jersey

[www.tnc.org/infield/State/NewJersey/newjersey.htm](http://www.tnc.org/infield/State/NewJersey/newjersey.htm)

The New Jersey Natural Heritage Program

[www.heritage.tnc.org/nhp/us/nj/](http://www.heritage.tnc.org/nhp/us/nj/)

New Jersey Division of Parks and Forestry

[www.state.nj.us/dep/forestry/divhome.htm](http://www.state.nj.us/dep/forestry/divhome.htm)

New Jersey Audubon Society

[www.nj.com/audubon/](http://www.nj.com/audubon/)





Prickly Pear Cactus (*Opuntia compressa*).

© Clay Myers



Bluets or Quaker Ladies (*Hebe x exoniensis*).

© Clay Myers



© Murdo Morrison

Rich Pillar (right) of Wild Earth  
Greenhouses (below)



© Clay Myers



© Murdo Morrison





# FLY HIGH AS A KITE

by Lois Brunner Bastian

Above Wildwood's broad beach, sleek sport kites streak through the New Jersey sky as fast as the eye can follow. Diving, climbing, swooping, rolling, looping, they slice the sky with circles, figure eights, spirals, precise triangles and squares, droning as loudly as cranky hornets. A few hundred feet away, a brilliant 300-foot-long serpent kite rises serenely in the onshore breeze, majestically swishing its elegant, extravagant tail. Windsocks and giant inflatable flying creatures add to the airborne extravaganza.

These sights dot the sky during the annual Wildwood International Kite Festival, America's largest, running this year from May 26 through 29. The festival rolls several events into one eye-popping spectacle. At last year's festival, for example, 42 kites—each 200 square feet or larger—were flown simultaneously, setting a world record!

The East Coast Stunt Kite Championships is the core of the festival. It's the oldest sport kite competition in the world and largest by far in this country. The Wild Wheels Buggy Blast spotlights kite-powered landsailing—buggies harnessed to kites barreling along the beach. The World Indoor Competition on Monday is the most amazing sight of all—kite flying in zero wind.

Sounds impossible, doesn't it? But in recent years, a revolution in kite materials, design and technology has produced lighter, faster and more sophisticated models.

Traditional single line kites—except for the maneuverable fighter and rokkaku kites—have only two ways to go: up and down. Two-line sport kites (also called stunt kites) are steered by means of one line in each hand; pull on the left line to go left, on the right to go right. A still newer design would blow Ben Franklin's mind. It's a four-line sport kite controlled by pivoting its handles, rather than pulling on them. These quad type models can move forward, backward, spin around their center, stop in mid-air and hover like a hummingbird. Fast and responsive, they're the Corvettes of kiting.



## A Long History

Mankind has been sending objects into the sky for more than 2,500 years, since the custom originated in China. The earliest kites were flown for religious purposes. Over the centuries, traditional single-line kites have been used in warfare (for signaling, to carry observers and to distribute propaganda leaflets behind enemy lines). They've towed advertising banners, pulled boats and carriages, been used in meteorological experiments and carried cameras aloft for the first aerial photographs. Around the turn of the last century, kite experiments by Alexander Graham Bell, the Wright Brothers and others were instrumental in developing the airplane.

No sooner had powered flight become a reality than interest in kite flying—especially by adults—plummeted. That decline persisted for decades. The relatively few adults who maintained an interest couldn't put up kites alone without inviting snickers. Veteran flyers frequently were asked, "Hey, mister, where's your kid?" by youngsters who encountered them flying a kite in a park.

In the early 1960s when the American Kitefliers Association (AKA) was formed, new shapes appeared, many with ancient roots: boxes with wings, canopy types, delta shapes and parafoils having no rigid spars. Interest in kiting took off as adults found other adults to fly with. Sophisticated new sport kites revved up the excitement.

What accounts for this long-time love affair between earth-bound man and sky? "It's the challenge of getting the kite up and the satisfaction of keeping it up," says Len Conover, associate editor of *Kite Lines* magazine. "They don't stay up by themselves."

For another inveterate flyer, "It's the fascination of this thing in the sky, suspended, with nothing visible holding it up—and I'm attached to it!"

## Sport Kite Interest Soars

The first commercial sport kites, produced by British maker Peter Powell, appeared in 1972. Today there are dozens of sport kite models on the market. Serious competition has heated up and team flying—a completely new technique—has emerged. What was a hobby has now become a full-fledged sport.

Standing shoulder to shoulder on the beach at Wildwood, a four-member team puts a quartet of kites through their routine. Skimming the sand, then scaling the blue at breakneck speed, they fly sometimes only inches apart. They do synchronized barrel rolls and loops before peeling off into a game of follow the leader. Every loop in one direction must be offset by a loop in the opposite direction to untwist their flying lines. The legend on one flyer's T-shirt proclaims him a

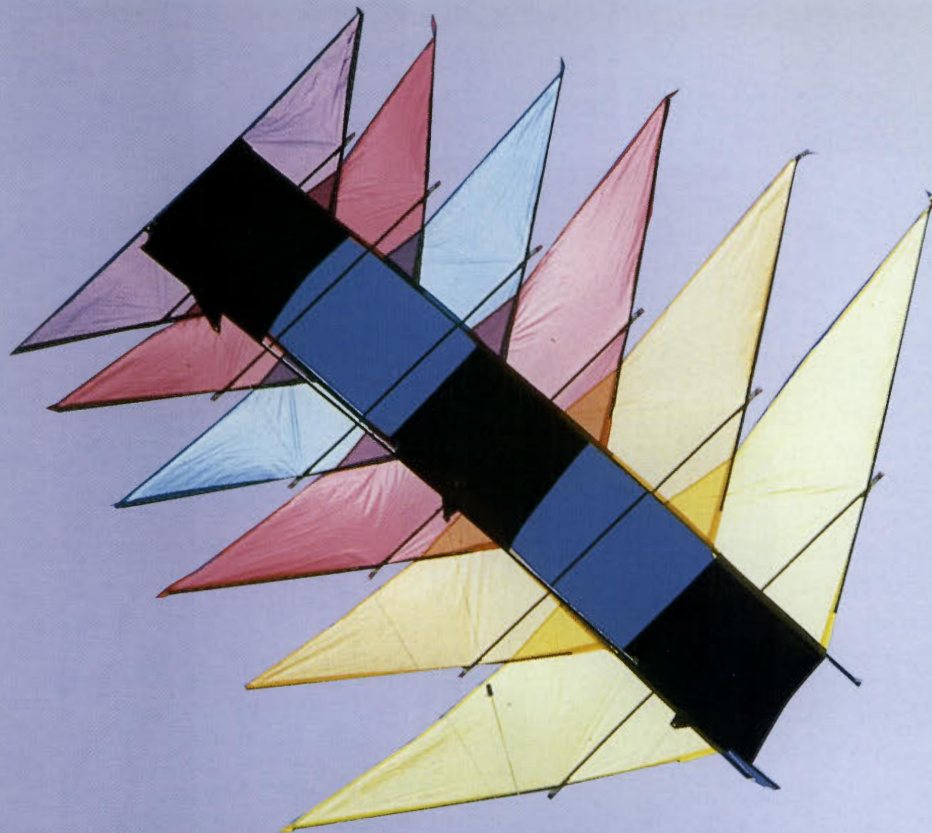


A trio of trilobites, prehistoric marine creatures

A closeup of Tribby stack







A stack Delta

© Lois Brunner Bastian

#### Wind Junkie.

Sport kite contestants compete in two major events: precision—flying compulsory figures much as Olympic skaters once did, and ballet—interpreting music through movement of the kite.

Beyond expressing the mood and tempo of a piece of music, ballet contestants sometimes tell complete stories through their kite choreography. One solo performance at Wildwood was set to the music and narration of *Peter and the Wolf* with a single kite enacting the hero, then the villain as well as all the other characters. One team staged a Wild West saga about settlers wiped out by Indians who were then routed by the cavalry. It set the crowd cheering the good guys and booing the bad ones.

Real kite addicts own a variety of kites suitable for winds of varying velocities. Putting up one kite at a time often isn't enough. If one is fun, then two are twice as nice and 25, 50 or more kites flown in a train are heaven. A train—also known as a centipede—is a series of kites attached to each other. They're traffic-stoppers as passers-by goggle at the seemingly endless chorus line of kites dancing into infinity like an aerial ver-

sion of Radio City's Rockettes. Several sport kites flown in a series may be called a train or a stack, but not a centipede.

#### On Land and Sea

On the hard sand near the ocean, a pilot dons a helmet, protective knee and elbow padding and, in many cases, a windsurfing harness, and climbs into a buggy. This tubular-frame cart has three wheels and balloon tires. With the control handles of a traction kite tethered to the harness or held in the pilot's hands, the buggy can cruise along the beach powered by the wind. Feet are used to steer the buggy, hands to steer the kite. The sport is called landsailing. Pilots compete in pursuit and circuit races. With good wind, buggies can reach speeds over 40 mph.

Dave Town, from Absecon, has been flying kites of all kinds for more than 20 years. Now he's hooked on piloting his kite-powered buggy. "There's nothing that compares, nothing that puts a bigger smile on my face," he says. Why? "The challenge of steering the buggy, flying the kite and watching where I'm going in order to get where I want to go," he explains. This idea led to one of the

hottest things in kiting today: windsurfers are now using traction kites with specially built windsurfing-type boards to skim across the water. It's called *kite surfing*.

Landsailing and kite surfing are new reasons kite popularity is surging. Jim Miller, a former AKA president, points out other appealing elements. "You can be outside in the wind and sunshine; women can do it just as well as men; it's suitable for all ages, including older retired people, and it doesn't have to be terribly expensive."

Bobby Stanfield, a kite designer from California, agrees. "I've never known anything that's as family oriented. Kids can fly simpler kites, adults more advanced ones." Competitive people like flying sport kites; artistic types like designing and making kites.

#### Getting Your Interest off the Ground

Just how does an adult attracted to kites get started in this hobby? That depends on which kind of kites you fancy, according to Miller. "Sport kites appeal to a younger group, especially those 18 to 25. A lot of single-line flyers are older people, who have the time to build their own kites," he points out.

Novices sometimes see a stunt kite slicing across the sky in dizzying patterns and decide they want one just like it. "They don't realize how much skill it takes to master such a fast, responsive model," Miller cautions. "If you'd like to be a race car driver and you didn't know how to drive, you wouldn't start out on a Formula One car."

For someone just beginning, Miller recommends a slower, more forgiving sport kite like the diamond-shaped Peter Powell or Trlby brands. Made of polyethylene, these inexpensive stunts are easier to learn on and come complete with tails, handles and line for \$25-\$35. All sport kites need more wind than do single-line ones.



He suggests selecting a place free of obstructions like telegraph poles or trees, a location where the wind isn't deflected, and one away from people. Even experienced flyers avoid sending their kites over spectators' heads.

"In the beginning, it helps to have a friend assist with launching and retrieving the kite. You're going to crash land it a number of times," he says, "but at the end of the first afternoon you should be able to do some gentle loops and figure eights."

For the single-line beginner, both Miller and Conover recommend starting with a delta model. A delta is a triangular kite whose base is longer than its two other sides. It's easy to fly and performs well in a variety of wind conditions. A 6-foot nylon delta kite sells for as little as \$35.

### The Sky's <sup>Ceiling's</sup> the Limit

On the final day of the Wildwood International Kite Festival, the focus shifts from the beach to the Convention Center, where the World Indoor Kite Competition is held. No kidding! No-wind kite flying is a reality. How? By using unique designs coupled with ultra lightweight space age mate-

rials like carbon composite spars, manmade polymer flying lines and ripstop sailcloth. The result: kites that seem to defy gravity. One ultralight model with a 50-inch span weighs an astonishing 1.4 ounces. Even an 80-inch-wide kite weighs in at only 4.5 ounces. The flyer need only stroll around, pivot his body or move his arms to produce lift. A high ceiling is required.

Indoor performances are set to music and as carefully choreographed as a Balanchine ballet. The flyer and his partner, the kite, respond to each other's movements with the delicacy of ballet dancers in a *pas de deux*.

Spectators are asked not to leave their seats—doing so would create undesirable air currents—during a performance. The request is hardly necessary. The audience in Wildwood seems mesmerized by the beauty and intimacy of indoor flying. It's added another new dimension to an age-old sport that has enchanted humans for centuries.

*Periodic contributor Lois Brunner Bastian, who resides in Holmdel, enjoys traveling and sharing glimpses of more unusual competitions with New Jersey Outdoors readers. Her last such article, Castles—and More—in the Sand, appeared in our Summer 1998 issue.*

(Background) Train of snow cones © Lois Brunner Bastian

(Below) Cellular kite designed by Bobby Stanfield



### For Your Information

The Wildwood International Kite Festival is held on the beach at Rio Grande Avenue. All events are free to the public.

For more information about kites, contact:

**The American Kitefliers Association**

352 Hungerford Drive

Rockville, Md. 20850-4117

800-252-2550

[www.aka.kite.org](http://www.aka.kite.org)

**South Jersey Kite Flyers**

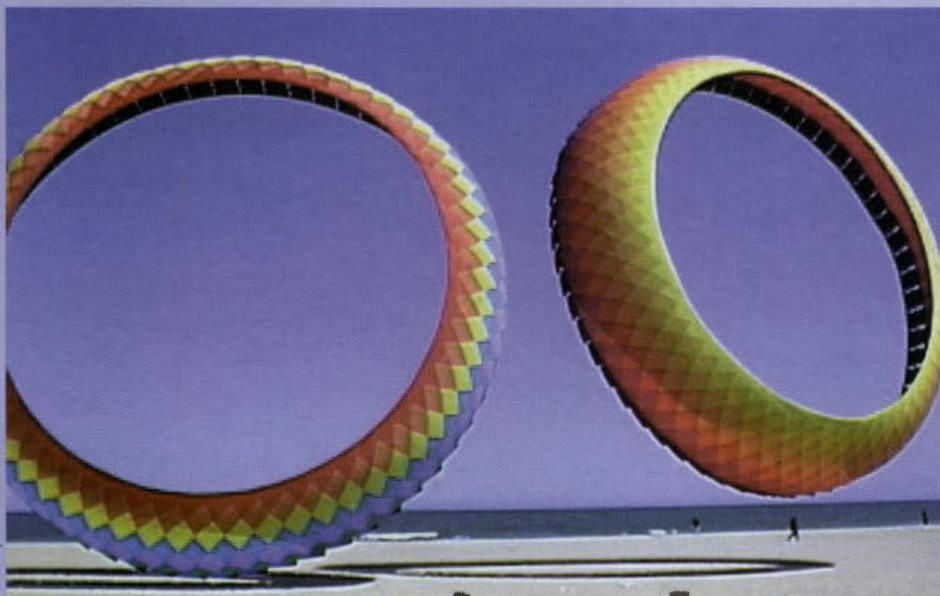
P. O. Box 32

Collingswood, NJ 08108

215/722-4092

[sjkf@geocities.com](mailto:sjkf@geocities.com)





Pictured on this page are bols (left) and circoflexes (below). Although the two are similarly shaped, bols are not true kites; they are more like windsocks and generally create no lift by themselves. Circoflexes, however, are kites and do generate lift.

The bols shown here are about 35 to 40 feet in diameter and are anchored to a large truck. The train circoflexes, built by Mike Dallmer Jr., won first place in the train category at last year's Smithsonian Kite Festival. Sixty hours in the making, they have 12 bridle lines each; three of the kites have a diameter of 9 feet while the others are 5 feet across. Dallmer flies them by himself, letting one up at a time.

## WIKF Highlights

The Wildwood International Kite Festival, which kicks off the beach season on Memorial Day Weekend with the biggest exhibition of kite flying in America, offers so much that it's almost impossible to single things out as highlights. The festival features everything from giant kites to miniature kites and controllable kites to power kites. It attracts kite designers, artists, competitors and fans from across the country and around the world.

Outdoor events are generally held on the beach at Rio Grande Avenue, while indoor activities are located in the Wildwood Convention Center. All events are free to the public.

Buggy pilots will race along the ocean's edge at speeds over 40 mph as **The Wild Wheels Buggy Blast** begins competition activities on Friday afternoon. Once darkness descends, **The Nite Kite Show** (illuminated kites) and a fireworks display will light up the sky.

The festival's main event, the **15th Annual East Coast Stunt Kite Championships**, attracts top sport kite pilots from around the United States, Canada and Europe. The ballet and pre-

cision competitions—which individuals, pairs and teams may enter at the novice, intermediate, experienced or masters level—take place on Saturday and Sunday. The championships culminate on Monday with the **Wildwood World Indoor Competition**.

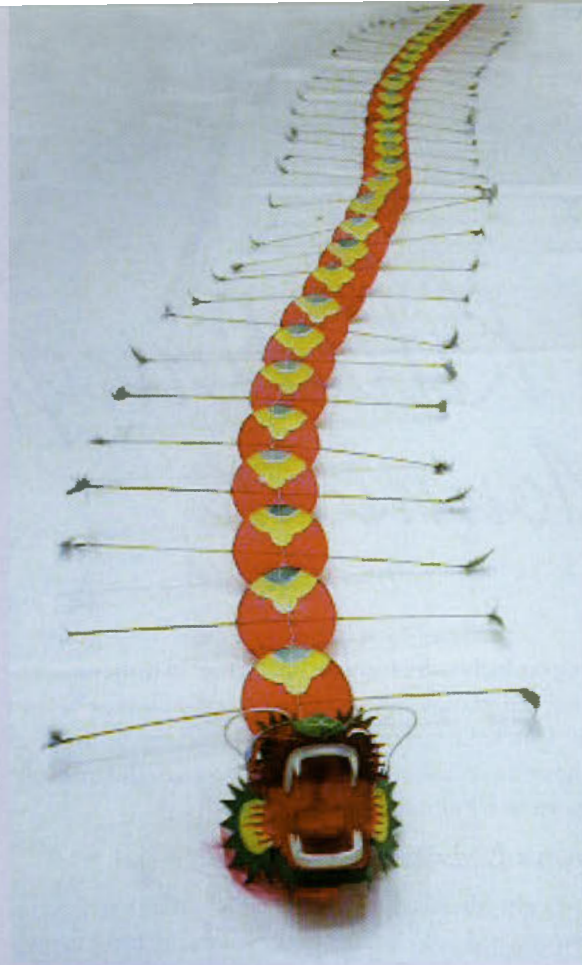
New this year is Saturday night's **Great Miniature Kite Contest**, when the world's smallest kite will be selected from entries crafted by kite designers from

around the world. Hundreds of miniature kites will be on display and miniature kite building workshops will be conducted.

Children attending the festival will enjoy a variety of activities, including kite making workshops, geared for the younger set. Plus there'll be food, crafts and kites for sale; entertainers and music; sport kite lessons and stunt kite demonstrations; and Japanese Rokkaku and Indian Fighter kite battles.







Courtesy of Glenn Davison

Individual disks only 2 1/2 inches wide comprise the Chinese dragon kite pictured above. The 8-foot-long kite was one of the miniatures featured in the gallery at the February 2000 Kites on Ice Winter Festival.

Davison designed the three "Valentine" kites shown below. The heart kite (the smallest, with a wingspan of about an inch), bee-mine kite and rosebud kite all fly at walking speed.

The 6"-tall kite pictured below (to the right) features a kabuki style picture of a sunset in brilliant colors and requires a tail to fly. A size perspective is offered by the coin next to this traditional Japanese rokkaku kite, also designed by Davison.



Courtesy of Glenn Davison

## Miniature Kites

Miniature kites are often lightweight versions of their larger cousins. Fine slivers of bamboo, balsa, carbon or nylon—selected for their high strength and low weight—are covered with tissue paper, typing paper, Mylar, polyester, nylon or even a simple table napkin. Narrow thread, rather than string, is used to fly the miniatures.

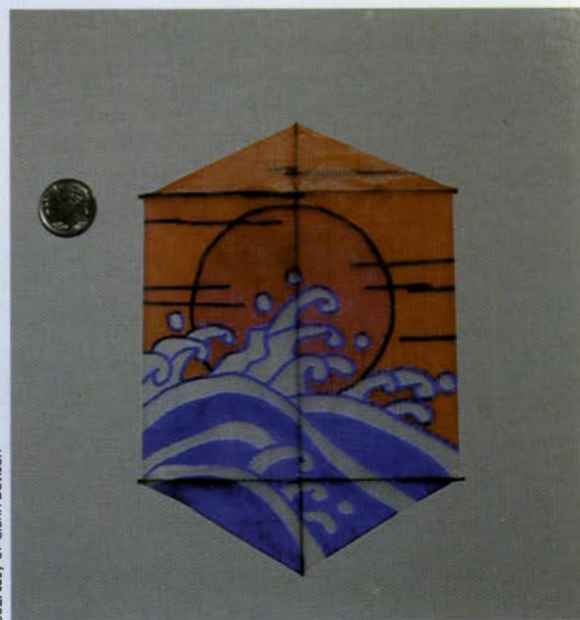
The pictures of miniature kites on this page were graciously provided by Glenn Davison, curator of the Miniature Kite Art Gallery displayed at the American Kite Association's (AKA) 1999 national convention. To see more, visit <http://members.aol.com/davisong/miniatures.htm>

"There's something magical about miniature kites," says Davison, who also will serve as curator of the miniature kite display at the Wildwoods Festival. "The kites I build are so small that small changes can make a huge difference in the way it flies. The best part is that it's rewarding to see them fly."

Recently, using an extremely thin film and tiny fibers the thickness of a human hair, he crafted a kite with a wingspan of only 31/2 inches. When it was finished, it weighed an estimated five ten-thousandths (0.0005) of an ounce. The kite was sold at an auction for the remarkable price of \$95 and, pound for pound, it may have been the most expensive kite ever sold.

But it's not only miniature kites that fascinate Davison. A few weeks ago, he flew the largest kite in the world for the first time in North America. The size of a large airplane, it weighs 500 pounds. It took a team of seven people to put it together and get it airborne over a frozen lake in Canada.

**Editor's Note:** Special thanks to Mike Dallmer Sr. (president of the South Jersey Kite Flyers), Roger Chewning (a founder of the East Coast Stunt Kite Championships and owner of Sky Festivals Productions) and Glenn Davison (curator of the Wildwood International Kite Festival's Miniature Kite Art Gallery) for sharing their wealth of knowledge and allowing the use of their kite images.



Courtesy of Glenn Davison



# Magic Dawn at Kittatinny, Lake of the Mountain

Article and images by Ron Messenger

**K**ittatinny Lake, a private lake surrounded by Stokes State Forest, has been our treasured summer home for the last 12 years. Retired from the rewarding and difficult job of teaching young adolescents about the wonders of science and nature, I now find myself a would-be nature photographer, looking to somehow show the magic in the wonder of creation. From Cape May to High Point, through the pinelands, farmlands, and highlands, I have seen and felt the magic of dawn as the living world comes alive. Last summer, when I finally had the time, I wanted to capture these special moments on film.

The south end of Lake Kittatinny was once almost all wetland. Now, desirable lakefront lots have been sold and filled with soil and rocks; lawns grow where the marsh grasses and cattails once waved in the wind. The first summer of my retirement I watched the beaver, mink and muskrat slide silently through the water and saw a young black bear

munching on highbush blueberries and painted turtles sunning on old logs and stumps. Because I have felt the pleasure of their company, I am saddened to think they might be gone in a few years. I hope these images and words will convey the magical gift of dawn at Kittatinny Lake.

## At Dawn's Early Light

Faint light filtered through the cabin window as I tiptoed from the bedroom at 5:30 in the morning, leaving my wife curled up and cozily asleep. Cool for early August, the thermometer outside the porch read 53 degrees; I shivered. With a heavy flannel shirt under my new camouflage jacket, I waddled sleepily down the lake path, paddle in one hand, coffee cup in the other. Aside from the occasional peep of a playful tree swallow, a peaceful silence blanketed the lake. Wispy swirls of mist twisted upwards from the lake; swirling clouds obscuring the mountains to the north and south.





With a pack of camera equipment on my back, I struggled to step into the center of the canoe, spilling half my coffee in the process. It was one of those goose bumpy mornings. Creation surrounded me and seemed to lift me up with hope and promise. For the third morning in a row, I paddled south in the heavy mist toward the marshy end of the lake, hoping to get some good slides of the resident great blue heron, and the playful flock of tree swallows swooping to gather insects rising from the lily pads. I looked forward to seeing the pair of mute swans, finally together again after the loss of their two young cygnets.

As I passed into the shallows, the great blue stood regal and solitary, perched fixed and unmoving on the weathered trunk of a long-fallen oak, frozen by the sound of the canoe moving through the water. A few days before, the heron dove in the air to threaten and drive away another blue following in its path. Alone by choice, the heron turned its attention to the shallows and, with a lightning thrust of its neck, speared a small fish. As I reached the heron's danger zone, it moved into the wind and took off, cruising along the lake's edge in slow motion to its favorite spot, the roof of the beaver lodge.

I paddled to the western shore, behind an old wooden screen house at the point of the marsh, hidden by a screen of alder, cattails and marsh grasses. From the darkness, the mist grew brighter, flashing light onto the surface of the shallows. Tree swallows darted in groups among the water lilies for

*Our bodies have formed themselves in a delicate reciprocity with the manifold textures, sounds, and shapes of an animate Earth; our eyes have evolved in subtle interaction with other eyes, as our ears are attuned by their very structure to the howling of wolves and the honking of geese. To shut ourselves off from these other voices, to continue our life-styles to condemn these other sensibilities to the oblivion of extinction, is to rob our own senses of their integrity, and to rob our minds of their coherence.*

David Abram,  
The Ecology of Magic in  
Ecopsychology, Sierra  
Club, 1995



Ah, sweet nectar





Waiting patiently

tiny insect prey, black shadows in the eerie glowing mist. Crows moved in from the forest, noisily marking their territories on the tall trees and roof peaks. I watched the black form of a large snapping turtle silently cruising the shadows, hungry for frogs' legs, looking like a stealth bomber, making my heart pound.

Through the heavy clouds gathered around Sunrise Mountain, an orange glow revealed the silhouettes of hemlock and oak on the Appalachian Ridge and, finally, the emerging disk of the sun, faint and shadowy through the thick layer of clouds. A stirring of wings grabbed my attention and I watched, riveted, as a pair of mute swans, punctuated the sunrise with their perfect, elegant forms and graceful movement. It was a million-dollar moment—the kind I live for. One swan stood on a small stump at the edge of the point and gazed as the other cruised silently past and vanished in the mist at the center of the lake. The lone swan then waited, perched on a small hummock, like a lover waiting for the sailor's return.

### Let the Lessons Continue

Later, I paddled back the half mile to our dock as the sun heated the air and cleared the mist from the lake. The following mornings taught me many unexpected lessons about the complex mysteries of the lake. Each creature, from a larva on the leaf of a duckweed plant to the far-ranging male black bear, claims a unique place in the scheme of things. Just yesterday I discovered that the mute swan acts as a landing beacon and protector for the black ducks; the day before that, I found a marshy pool where a flock of goldfinches comes to feed, drink and play. Today I sat at the edge of the marsh in a cool drizzle, photographing raindrops as they splashed in pools of duckweed draped in wet and splendid fern fronds. The subtle textures of mosses and lichens on the base of a silver maple provided the perfect opportunity to try out my new film and equipment.

I got the slides back from the photo store in Newton and I think they turned out pretty fine. My new zoom lens seems to have done its job, and my photographer's eye seems to be working OK. The slides have now been sorted and catalogued, each in its own little pocket, each one reminding me of a special moment on the lake. I am





(Above) A butterfly breakfasts.

(Below) Solitary sentinel

proud of my work; sometimes I even feel like a real nature photographer, and maybe someday I will be one . . . when I grow up!

Last week I photographed animals at Space Farms in Beemerville. I took shots of bobcats, cougars, wolves and gray foxes, animals I may never see in the wild. Thirty years from now, when our daughter is as old as I, will zoos be the only lifeboats for the animals that now roam freely in our forests and wetlands? I hope that Tara will be able to experience, as I have, those special moments when one senses a feeling of oneness with the wild places. I hope that she, too, will feel the magic of the morning on Kittatinny Lake.

*Ron Messenger, a retired science teacher who earned his masters in environmental studies from Montclair State, lives in Whitehouse Station. This is his first contribution to New Jersey Outdoors.*







# *Decoration Day in Lumberton*

*Article and images by John C. Chitester*

"Look!" a voice cried out from beyond a tombstone.  
"There's one over there."

"I see one over here," echoed another voice from a different monument, as the two ten-year-olds crisscrossed the cemetery lawn leaving a trail of red, white and blue.

For Matt Venner and his friend, Daniel Vazquez, placing flags on veterans' graves at Evergreen Cemetery in the village of Lumberton is a first-time experience.

Caught up in the excitement of the moment, they may not fully understand the meaning of Memorial Day. But, neither do those of us who merely see the observance as a three-day weekend, paid holiday, beginning of summer vacation, bonanza of 30-percent-off sales or reason to party.

Decoration Day or Memorial Day, as it came to be called, had its inception right after the Civil War. Its officially recognized debut is attributed to the community of Waterloo, New York, which first closed all businesses, lowered flags to half-mast and decorated all the soldiers' graves with flowers on May 5, 1866.

However, the community of Boalsburg, Pennsylvania, claims its right to first observance status stems from a day in

October 1864 when two women placed flowers on loved ones' graves and agreed to meet again the following year to decorate the plots. Eventually others in the community adopted the practice.

Early observances were also carried out in 1865 at Vicksburg, Mississippi; Petersburg, Virginia; and Charleston, South Carolina. In 1866, war graves were strewn with flowers in Columbus, Mississippi, as well as in Lynchburg and Richmond, Virginia.

The United States Government marked the first national Memorial Day on May 30, 1868 with ceremonies held near the nation's capital at Arlington National Cemetery.

For 100 years, the patriotic holiday was observed on May 30. Then, on June 28, 1968, President Lyndon Johnson signed legislation creating three-day weekends for some national holidays, including Memorial Day. Since then, Memorial Day has been celebrated on the last Monday in May.

Of New Jersey's 566 municipalities, the hamlet of Lumberton is believed to host one of the state's oldest "continuous" Memorial Day parades.

Lumberton is nestled along the banks of the South Branch of the Rancocas Creek. The first known celebration of Decoration Day credited to the tiny town was reported in the



neighboring community's newspaper, the Mt. Holly Herald, in its June 6, 1885 edition.

"Decoration Day was observed here in rather an unusually patriotic manner. Flags were floating at half-mast. To the Sabbath school children belongs the honor of making the floral preparation for decorating the graves of our heroic dead. They in company with many of our citizens marched in procession to the cemetery headed by the martial band of this place, when the decorating services were performed by comrades Worth and Matthews, after which they returned to the church and listened to a very appropriate address by the pastor, Rev. W. Sherman."

The earliest sponsor of the Lumberton Parade was the Methodist Church, followed by the Lumberton Fire Company, which organized it until 1946.

Emerson Gaun still lives in the Lumberton home where he was born 83 years ago. The retired school custodian participated in the parades as a youth and vividly remembers a local Civil War veteran, Caleb Ridgway, leading the way.

"He was dressed up in his uniform and he beat on the drum all the way to the cemetery from the old town hall," says Gaun.

The 17-year-old Ridgway joined the 34th Regiment of the New Jersey Volunteers in 1862 as a drummer boy. He participated in the Battle of Mobile and served until 1865. Ridgway used the same drum that he carried throughout the Civil War and participated in every parade almost up to his death in 1932.

One of 132 Lumberton residents who served their country during the Second World War, Gaun's army tour of duty took him to Australia, New Guinea and the Philippines in the Pacific Theatre. Four service members were killed in action during WWII.

On September 2, 1946, a group of 41 Lumberton World War II veterans started a civic-minded "Last Man's Club." During their first meeting, a whiskey bottle was brought forth and the 41 members' names were placed on it. It was agreed that the last surviving member would open the bottle. Today only 14 of these veterans are left.

Gaun, the current treasurer of the club, says the group has sponsored youth baseball teams, Boy Scout Troop 22 and Christmas parties for children over the years. They've built playgrounds and "even put coal in the fire house," says Gaun.

The club took seriously its underlying, self-proclaimed

The Rancocas Valley Regional High School marching band fills the air with sound.



Continental soldiers with a live firing cannon pass in front of the Covenant Baptist Church.





mission to provide civic support for the underprivileged, to sponsor recreational activities and to render any other assistance needed by the community. That promise to serve included taking over the task of running the town's Memorial Day Parade from 1946 to 1986.

"We used to hand out a bean to the kids marching in the parades. Afterwards the kids went to Jobs' store to cash it in for a Popsicle or a sweet," remembers Gaun.

As members of the Last Man's Club grew old and dwindled in number, parade sponsorship passed back to the fire company for a year. The Lumberton Historical Society picked up the torch in 1988 and sponsors the event to this day. Members Ruth Lewis and Bob Benedict co-chair the parade.


"I didn't want to see it dropped," explains Lewis. "It's always been successful and still is." She regards Lumberton as

"a little town with a big heart"—and it's a heart big enough to be noticed by then-president Ronald Reagan.

The presidential message, read during the 1988 services, says, "Please extend my very best regards to the citizens of Lumberton for Memorial Day. I'm gratified to know that across our great nation many communities like Lumberton continue to mark this special day as one of honor and respect for these men and women, relatives, friends and neighbors, who through their sacrifices have enabled us to enjoy the freedom we hold so dearly today."

Although Lewis says it has become difficult, given the area's shrinking military presence, to get anyone from the armed forces to speak or march in the parade the Lumberton Memorial Day parade is marching its way into its third century.

So, this coming Memorial Day holiday, before you take a



*"a little town with a big heart"*

(Below) Yesteryear remembered





William Challendar, of the Hainesport Fire Company, offers a salute to the fallen.



*"...the freedom we hold so dearly today."*

chomp out of that ol' weenie or slam down a cold one, stop a moment and give thanks. Not only to those veterans buried here or on foreign soil, but also, to those whose graves are in the depths of the oceans and those who have fallen from the heavens.

Remember in a special way the men and women who made the supreme sacrifice in America's "forgotten" wars, not only on Memorial Day 2000 but also on June 25 of this year—the 50th anniversary of the Korean War.

*New Jersey Outdoors* is pleased to welcome back Westampton photojournalist John Chitester. Veteran readers may remember his last contribution—an article about the state's forest fire observers—which appeared in the May/June 1983 issue.

**For additional information about Lumberton  
or the Memorial Day Parade, contact:**

John Jardine, President  
505 Main Street  
Lumberton, NJ 08048  
609/265-8749

**Fast Facts and Contact**

- Lumberton's Memorial Day parade will begin at 1 p.m. on May 29. Parking can be found near the village green—where the parade ends, the ceremony and speeches take place, and free refreshments will be available.
- The Lumberton Historical Society Museum is housed in the Ridgeway A. Gaun Community Center.





**Out**

# **-of-Sight**

Flora and Fungi  
of the Pine Barrens

*Photo Essay by Cornelius Hogenbirk*







The Pinelands, an area of some 1.1 million acres—22 percent of New Jersey's land mass—is a wonder of nature, hosting a complexity of plant life in acidic and nutrient-poor soils. As the seasons change, its flora and fungi offer viewers an endless array of colors, shapes and sizes.

Shrubs such as the sand myrtle, staggerbush, fetterbush, wild blueberry and huckleberry are spring bloomers. In June, the mountain laurel provides an interlude of pink relief for Garden State Parkway travelers. Other June bloomers are the laurel and its cousin, the sheep laurel (lambkill). The buttonbush blooms in late summer, as does the sweet pepperbush, which sweetens the air with a delightful fragrance.

Several of Pineland's understory plants, including the broom crowberry, teaberry, partridgeberry, bearberry, the pyxie plant, trailing arbutus and the golden or pine-barren heather, are scientifically noted as sub-shrubs. Low growing, they do not have an actual shrublike appearance. The endangered broom crowberry blossoms in March, along with the first of the garden snowdrops. In mid-April, the pyxie plant heralds spring with white blossoms spread out all along its sprawling needle-leaved stems; the trailing arbutus is a May bloomer.

The endangered swamp pink grows

Sheep laurel or lambkill (*Kalmia angustifolia*)



Spatulate-leaved sundew  
(*Drosera intermedia*)





in swamp-like wetlands and blooms from mid-April into May. The late spring blossoms of the bristly locust, similar to those of the sweet pea, have a lovely rose-purple color. The turkey beard blooms in profusion in June and the beautiful grass pink in early summer.

Bogs, swamps, narrow tea-colored rivers and lowland depressions cover

approximately 12 percent of the Pineland's acreage. In some of these sites, two showy members of the wild orchis family—the dragon's mouth and the snakemouth—bloom from about mid-May into June. Other wetlands floras include the bladderworts, the golden club, the sweet-scented water lily and swamp azalea.

Insectivorous plants, such as the

pitcher plant and sundews, are common. Far less plentiful—and harder to spot—is the tiny, unfernlike, curly grass fern, a threatened species.

As summer wanes, late awakening flora—the cardinal flower, hairy blazing star, lion's foot, the marsh St. Johnswort and a host of aster and goldenrod species—start to bloom. The endangered pinebarren gentians



Button bush flower head,  
(*Cephalanthus occidentalis*)



Hairy blazing star  
(*Liatris graminifolia*)





begin their blooming season near the end of September.

Fall also is the season when the mycological underworld bursts into a frenzy of reproductive activity. After a rainfall mushrooms pop up overnight, each species according to its preset season, from late summer into November. These fungi come in

a host of sizes, shapes, colors and ornamentations, and they grow everywhere.

For more information on sites of special botanical note, check the listing in Howard P. Boyd's *A Field Guide to the Pine Barrens of New Jersey*. If you'd like to learn more about mushrooms, contact the

New Jersey Mycological Association (908/766-2489).

*Cornelius Hogenbirk, a freelance photographer and writer whose work has appeared often in New Jersey Outdoors, lives in Waretown.*



(Left) Edible wild mushroom  
- small chanterelle  
(*Cantherellus minor*)

(Bottom left) Spindle-shaped coral fungi  
(*Clavulinopsis fusiformis*)

(Bottom right) The Amanita (*Amanita spp.*) family of wild mushrooms contains several species famous for their toxicity. Though they may look harmless, avoid eating them.





A close-up photograph of an American robin perched on a light-colored, textured branch. The bird is facing left, with its head turned slightly towards the viewer. It has a dark grey head and back, a bright orange-red breast, and a white belly. Its beak is yellowish-orange. The background is a clear, bright blue sky with some blurred branches visible.

American robin  
(*Turdus migratorius*)  
© Clay Myers



# The Robin—Not Just Another Bird

by Dixie L. Anderson

Usually in March, sometimes as early as February, excited New Jerseyans report the return of the robin and bird clubs celebrate the arrival of the first redbreast of the year—our assurance that spring is on its way. As exciting as the sighting is, there's nothing really spectacular about the robin—it's just another bird, right?

Not if you look on the bird as a gutsy, bright, sure sign of warmer weather. This red-breasted bird is the early riser we most often think of as the one that 'gets the worm.'

Probably the most identifiable avian creature found in yards across the country, its ruddy breast and quick, running steps have endeared the American robin to urbanites. And the birds' habit of thronging in brushy thickets has made them a familiar sight to suburban and rural dwellers as well.

With behavior ranging from predictable to bizarre, the robin is a favorite among casual and serious birdwatchers. Highly adaptable to changes brought about by development and human population growth, they live all over North America.

Most winter in the South and breed and nest in the North. Some reside year-round in New Jersey, but many migrate to warmer climes during the cold weather months.

## What's in a Name?

Called robin redbreast by some early colonists because of its similarity to the English robin (*Erithacus rubecula*), the American robin (*Turdus migratorius*) actually is a member of the thrush family. About 10 inches long, it has a dark gray back, a nearly black head and a slender beak of yellow with a black tip. White 'spectacles' circle its large brown eyes.

There is a little white on its tail, but the brightest and most recognizable feature

sported by this feathered favorite is its breast. That breast is indeed red-ruddy, rust and beautiful. Puffed out, leading the way, the robin's breast is one of the colors of the bird kingdom that brings instant recognition. The male is brighter, with the female being just a little muted.

In the spring, migrating robins return to their nesting and breeding sites in large, loosely grouped flocks, flying at about 20 to 30 miles per hour. The flights are usually made at night to avoid predators; however, being the individuals that they insist on being, some robin flocks travel by day.

Banding studies show that 70 percent of surviving baby robins return to nest within 40 kilometers of their fledgling nests. The male of the species holds more loyalty to these spots as he reclaims his territory. In the migratory pattern, the male robins precede the females, with the older birds flying in ahead of the first-year robins. Although they migrate in flocks, robins pair up and establish distinct territories at breeding time.

## No Trespassing!

The average robin (if there is such a bird) claims approximately half an acre as its territory. Ownership means possession of all rights to food supplies, nest-building materials, building sites and general proprietorship.

Typically, there are exceptions. Some territories overlap, and two pairs of birds just might share distinct territorial rights over several acres. Robins fight and staunchly defend their home ground, chasing all newcomers away. The battles run about 70 percent in favor of the landowner. A cock robin will attack aggressively to defend his preserve by puffing out his feathers, assuming a fierce stance and, when necessary, flying viciously toward any intruder. A defending robin will not hesitate to attack his reflection in a piece of glass, or even a bunch of red feathers, if he feels threatened in his territorial primacy.

Once the territory is established, the owner birds mate, and the pair will probably remain together for the brooding of two

American robin at nest with chicks.





or three nests during one season. The couple may construct their nest in a number of possible (and seemingly impossible) places, usually five to fifteen feet above the ground, and sometimes even higher. Nests can be discovered on platforms, in the forks of trees, within tall shrubs, along girders, under eaves, on windowsills, atop mobile homes or even railroad cars. Often, if a nest is destroyed, it will be rebuilt in the same place.

The female is the chief builder, forming sturdy inch-thick walls of soft mud and coarse grass into a cup-shaped nest that measures approximately four inches across and two and a half inches deep on the inside. She will use her breast and wings to shape the deep cup, which will be lined with finer grasses and some feathers. Three to five delicate "robin's-egg blue" eggs are laid, one a day. While two or three broods may occur each year, they are seldom—if ever—fledged from the same nest.

The female incubates her eggs, keeping them warm with the hot spot on her breast known as a brood patch. She rotates the eggs with her bill for uniform warmth and leaves the nest for only 5 to 10 minutes at a time to eat.

Approximately 11 to 14 days after incubation begins, the chick breaks through its shell with its egg tooth. The chipping may take as long as a day, and when the naked, blind hatchling emerges it weighs just five grams. Ten days later it will have grown to weigh 55 grams. (A baby robin may consume up to 50 percent more than its own weight in food during a 12-hour period.)

### **Robins Don't Live on Worms Alone**

The diet of robins and their offspring is a varied one, consisting of worms, bugs, larvae, fruit, seeds and berries. Generations of delighted children,



© Clay Myers

as well as serious adult birders, have observed robins on the lawn, seeking earthworms in the wake of a spring shower. With quick running steps and abrupt stops, the bird tilts its head to right or left, seeming to listen for the movement of worms in the soil.

Studies indicate that the robin is looking, rather than listening, for the worm. The tilt of its head enables the bird to see into the grass and spot the worm, which may have only the tip of its body exposed. A sudden peck precedes the stretch and pull of the juicy prey from beneath the spears of grass.

Robins' fondness for earthworms led to a steep decline in their numbers in the Midwest some four decades ago, as residents used DDT to wage war against Dutch elm disease. Worms absorbed the chemical, which in turn poisoned the birds that fed on them. Robins died by the tens of thousands and became one of the catalysts for the 1962 publication of Rachel Carson's environmental classic, *Silent Spring*, which helped bring about the outlawing of the pesticide.

Berries are important to the robin's

diet as well. Cherries are a favorite food. Their digestive systems are unable to handle the large cherry seeds, so with a burping motion, the bird regurgitates the seeds into a pile at the completion of its feast. The love of fruit can create other reactions in the robin too. As fruit ages on the tree or bush, it ferments and becomes intoxicating to the robin. A 'drunken' robin may be seen weaving across the lawn, so inebriated that it might topple over.

A hatchling graduates to become a fledgling in about 13 days. The little bird quickly learns to fly and joins the adult males while its mother builds another nest for a new clutch of eggs. Juveniles are readily identified by their speckled but still rusty breasts, whitish throats and stubby tails.

The normal life expectancy of a robin is from 1 to 3 years, but some have lived for 12 or more years.

### **The Best Defense . . .**

To ensure the greatest possible survival rate for their nestlings, the feisty parents greet all predators with much



noise and winged attacks. They practice mobbing, a cooperative technique used to summon reinforcements. When a robin discovers a predator at the nest site, it will scream at the intruder, and the special call will bring more robins from around the neighborhood as well as other songbirds to join forces with the parents. The band screams and dives at the predator to drive it away.

During the time that the nest is home for the female robin and her nestlings, the male helps feed the chicks and continues their upbringing after they leave the nest. At the same time, the cocks value another spot as their nighttime home. Established as soon as they reach the breeding grounds, this roost is generally located in a wooded or heavily overgrown area, away from the family territory. Here, sometimes as many as hundreds of robins, adults and fledglings, birds that have disputed territories during the day, gather at night to sleep together.

The robin's call is probably the first birdsong heard in the morning. It comes with the beginning hints of the sun's light, and while there are many different calls in a robin's repertoire, the most familiar is the sound of a cheer-up . . . cheer-up carol. Actual singing takes place primarily during the breeding season, with special songs for courtship, rain, warning, mobbing and food. A wailing cry announces the approach of a predator to the nest and signals the chicks to huddle down.

Breeding and nesting robins exhibit a tolerant acceptance of humans. There are published stories telling of robin loyalties to individuals, with the birds following individuals repeatedly at a distance, eating proffered worms from the gardener, or actually following families to new locations.

You think there's nothing spectacular about the robin?

Perhaps not, if you've never sensed winter's end when you first see a robin scouting the yard . . . or heard its rich call of cheer at dawn . . . or witnessed a tug of war between a robin and a worm. But that just can't happen. How could you miss the robin?

It is indeed spectacular!

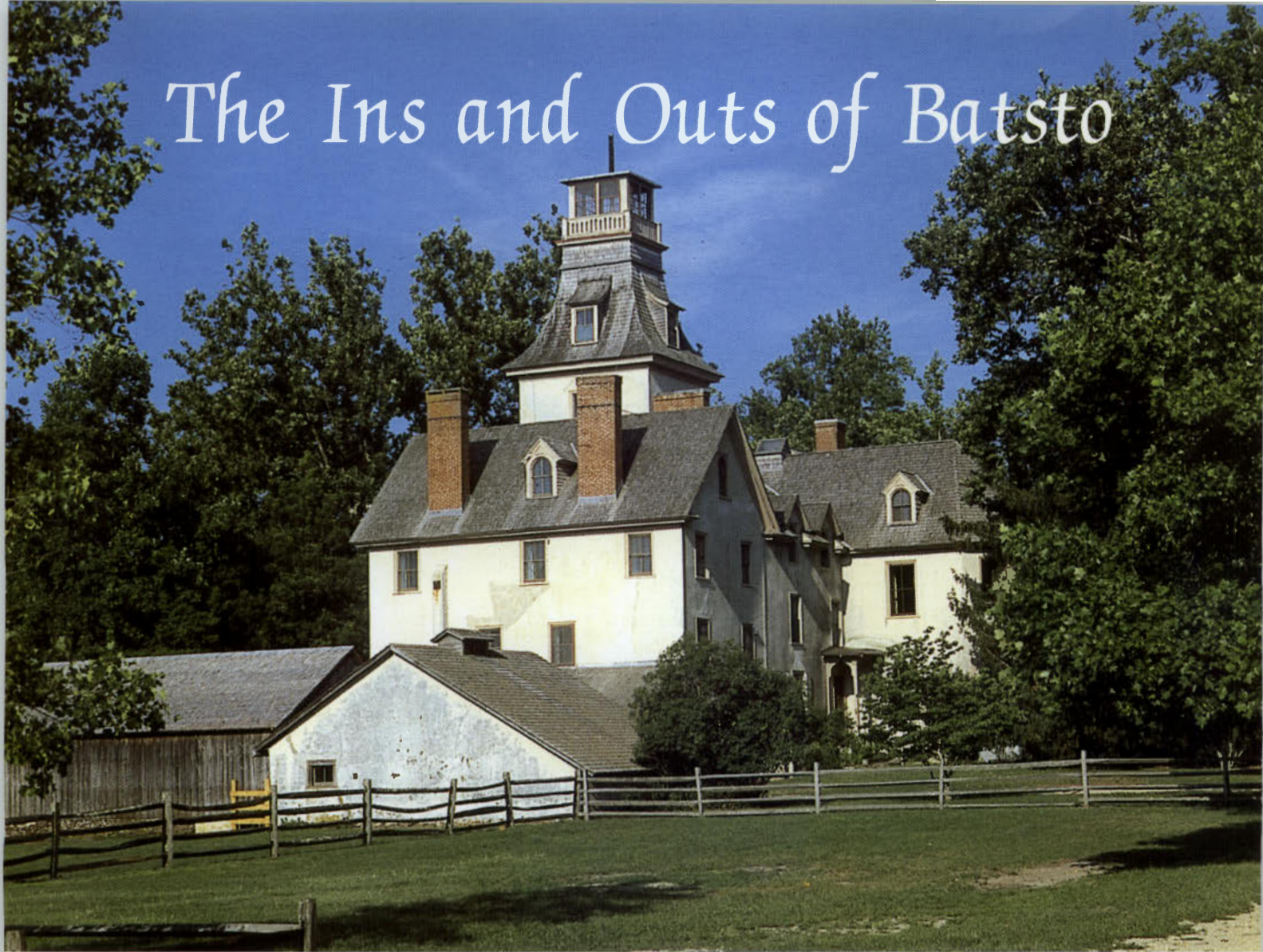


© Clay Myers

*Mt. Holly resident Dixie Anderson has authored numerous articles about East Coast wildlife as well as a children's book. This is her first contribution to New Jersey Outdoors.*



# The Ins and Outs of Batsto



*Article and images by Cindy Ross*

The story of Batsto begins with a jumbled pile of rocks outside the state historic site's visitor center. Rough looking and bumpy, this iron ore was dug out of the swamps and streambeds of the Pine Barrens 200 years ago. Next to the rock pile lies one of the ore boats used to transport the iron ore to the Batsto furnace. Raised from the bottom of Batsto Lake, it is shallow and wide, 43 feet long, made of wooden planks and barely holding on.

From this humble beginning did Batsto—the name is derived from the Swedish word *batstu* (bathing place)—grow. Charles Read of Burlington founded the town in 1766 and built the first known bog iron furnace, Batsto Iron Works, near the mouth of Batsto River.

Over the years, Batsto became an important supplier of iron wartime products for the American Revolution.

Others have lived here, most notably the Richards family. They owned and operated the furnace for three generations (1784-1876), producing pig iron, cast iron water pipes, firebacks (decorated cast-iron plates that lined the back walls of fireplaces), and then window glass when the iron industry declined. The Richards family built most of the 33 buildings that remain in the village, but it is Joseph Wharton, Batsto's last owner, who drastically changed the mansion, remodeled the general store, reestablished the post office, and built the sawmill, underground silo and blacksmith/wheelwright shops. His spirit permeates the mansion, and village we see today reflects the changes and technological

advances he implemented.

A Philadelphia industrialist and Quaker, Wharton lived a comparatively simple lifestyle, but by the time he died (in 1909) he owned approximately 96,000 acres in South Jersey. The State of New Jersey purchased this land in two parcels as a watershed and recreation area. The initial parcel, which included Batsto, was bought in 1954; the balance of the acreage was purchased in 1955.

## The Mansion

The tan stucco Italianate style mansion commands attention. Including the basement and caretaker's quarters, it has 36 rooms, 16 of which are open to the public. Wings shoot out from the main body and brick chimneys poke up like fingers from the roof. Climbing into the sky is a central tower that served as a fire





The master bedroom of the mansion

lookout and held the mansion's huge interior water tank, which could dispense water should the house catch fire. A wrap-around porch was added after the Wharton family began using it as a seasonal home. Many other changes were made around the property and to the mansion, for they frequently traveled to Europe and were influenced by architecture from around the world.

Our guide, John Morsa, opens the door for my friend, Johnny, and me and everything feels like it did when Wharton, his wife and three daughters lived here 100 years ago. The 12-leaf dining room table is set for a meal. In the parlor, a sunburst patterned cast iron

*fireback*—a reflective heat back made at Batsto—sits in the fireplace.

"George Washington was so fond of Batsto's iron works," Morsa tells us, "that he had four of them in his Mount Vernon home, two of which can still be seen today."

Other rooms in the main block of the mansion that visitors can see include the entry hall, two parlors, a library and a warming kitchen, all located on the first floor, as is the dining room. Five bedrooms and a bathroom can be viewed on the second floor, while the third floor offers a look at a game room, bedroom and a two-room bedroom suite.

## Built for Business

All the village residents who worked in Batsto used the general store and the post office, located right next to the mansion. Batsto issued its form of currency and at the end of each month villagers came to see what they had earned and what they owed. They made about \$30 a month and usually broke even after purchasing all their supplies.

The stone post office is among the oldest in the country still operating under the same name and in the same location, and is one of only four that still hand cancel and have no zip code. (The other three are in Williamsburg, Philadelphia and Kentucky's Hodgenville, which is near Abraham Lincoln's birthplace.)

The water-powered gristmill across from the post office was built in 1828 and originally operated with a wooden water wheel. The mill ground and processed wheat, corn and other grains, which were shipped out as well as sold in the general store. Sugar beets were also ground here to make sugar. Johnny and I marvel at the two massive round grinding stones that did the work—a rare sight, for few remain.

Outside, our guide stops to show us 150-year-old chunks of Batsto-made glass in the dirt. We hold the Jersey green (a beautiful seafoam shade), amber and amethyst colored pieces up to the sunlight and admire their beauty.

We pass the corn crib and mule barn as we walk to the wheelwright and blacksmith shop. On weekends between Memorial Day and Labor Day, the blacksmith and other demonstrators bring this 19th century village to life.

The stone horse barn is particularly cool and inviting on this warm day. Built in 1830 and constructed of Jersey iron-



Stone post office





(Left) The grist mill

(Below) The mule barn

stone, it housed up to four horses with hay storage above. A few wooly sheep graze in the foreground of the stable, carriage house and piggery, with its tall stone water tower. Quite a few pig products were shipped from Batsto in Wharton's time, although the sheep, cows, goats and chickens on site today are on loan from the local 4H chapter to help give Batsto a lived-in feel.

The breeze picks up as we walk down the sandy dirt road towards big blue Batsto Lake. Canada geese waddle out to the water's edge; an osprey takes off from a tall tree. The half-mile-loop nature trail, which takes you along the shore of the lake, is very popular with bird watchers.

The Batsto River was dammed to create the lake and provide power for the iron furnace and gristmill. The sawmill, built in 1882, is also water-powered and made products for sale and for use on site. Inside the dark, sweet-smelling mill are five saws; still operational, they are used in demonstrations. One, a fascinating shingle saw with one side higher than the other, cuts the cedar boards into wedge shapes. The saws can handle logs up to 25 feet long.

The wood sawed here today is used to restore the historic site's buildings.

Most of the wood in Batsto's buildings is Atlantic white cedar, which is resistant to weather and insect infestation.

### A Simpler Life

Across the dam breast are the houses in which the workers lived. At its maximum, the village contained 65 weathered-gray wooden duplexes and single family houses—all lined up, all designed basically the same—on either

side of Route 542. From 8 to 12 people lived in each of these sparsely furnished dwellings for which \$2 rent was paid monthly.

Some of the 18 buildings that remain are set up to showcase the trades of their former occupants. In the woodworker's house, for example, all his tools are laid out and labeled—antique wooden block planes, adjustable wooden clamps and the like.

The villagers worked from dawn to dusk, six days a week. Posted on their time sheets are rules established by their boss, Joseph Wharton, which decreed:

"There must be no unnecessary talking or unnecessary noise of any sort. Doors and gates must be habitually shut; if necessarily open, must be fastened and in no case allowed to swing in the wind. Laziness and slovenly habits will not be tolerated. By following these rules, the village of Batsto would be kept clean and tidy, not shabby and unkempt. Also, work should progress smoothly and efficiently, without distractions."

Wharton ran a tight ship. I can see



New Jersey Outdoors



(Right) Stone horse barn

(Below) Village house of potter and weaver

I—and many others—would have had a hard time back then, with our love of acquiring material things, pursuing an independent life and expressing ourselves. The comparison makes you appreciate all you have today. Still, I believe Batsto's residents enjoyed their lives—and a simplicity that we can only imagine.

John Morsa has some great ideas related to this topic. He is working to create an interpretive center where visitors will be able to touch and use objects that were a large part of the villagers' daily lives in the 1800s. He wants to include everyday household items, such as a rug beater, an old washboard, a quill pen, a butter churn and an iron.

"Most people learn by doing," he tells us. "Hopefully, the hands-on learning will foster an appreciation for the objects we have today." He hopes to convert one of the workers' homes into the interpretive center, just as Batsto's resident weaver and potter have done. Their authentic home is decorated with beautiful flowers and plants, giving their part of the village a warm, lived-in look.



### Back to Nature

We bid our guide good-bye and walk over to Annie M. Carter Interpretive Center to join seasonal naturalist Angie Morrison and her husband Dale, who volunteers at Batsto. In the center are displays—taxidermic animals and a "touch tower" where kids can put their hands into dark holes and guess what natural object each contains.

Outside the door is the Batsto Natural Area—at more than 9,000 acres, the largest in New Jersey. The area is home to some of the state's endangered and threatened plant species as well as to more common species. Typically encountered in the wetland areas are plants such as the rose pogonia and meadow beauty. The sand myrtle is a lovely shrub that grows where wetlands and uplands meet, while the pink lady slipper orchid can be found in dry woodland areas.

Our white sandy trail snakes through huckleberry and blueberry bushes, laden with their fat, juicy fruit. Blackjack oak and scrub oak grow amongst the berries. Small, twisted pitch pines—made famous for their pitch used to waterproof boat bottoms—are sprinkled throughout the area. We stop to listen to the wind moving through the needles, makes a swishing sound. Reindeer lichen spreads on the ground, low and dry to the touch.

We move towards the Mullica River and through a natural stand of white cedar, growing straight and extremely tight. It is fascinating to get a glimpse of what the forest probably like before it was lumbered off. Our guides point out a beaver lodge on shore. Nearby are flooded areas where the water lilies have multi-







(Left) Batsto Lake

(Below) Pitcher plants

plied profusely, their bright green pads and brilliant yellow flowers a contrast against the dark water. A green frog croaks, sounding like a single chord being struck. The huge amounts of tannic acid, naturally occurring from decaying organic matter, and dissolved iron in the water of the Pine Barrens are responsible for its tea-like color. They give it an extremely low pH (5 or lower) and sweet taste. It was the favorite water to bring when sailing across the ocean.

Our guides take us over the rim of an old, dried-up lake and we immediately notice the difference in the size of the trees growing where once there was water. These are smaller and younger, for the lake held water until early in the 20th century. Soon, we come to the prize possessions of the Batsto Natural Area—the pitcher plants, sundew and curly grass fern. Pitcher plants and sundews are insectivorous. We bend down to eye level and watch a bug struggling to break free from the sticky, resin-tipped hairs of a sundew leaf. Soon it will die, and the plant will begin to absorb certain nutrients from its decaying body.

Our guide points out a pitcher plant, whose hollow vase-shaped leaves collect rainwater. When insects land on the upper part of the leaf, on which grow downward pointing hairs, they slip down into the collected water. Unable to climb out, they get waterlogged, drown

and become an ingredient in an “insect soup” from which the plant draws nutrients.

Batsto’s naturalists also have great plans. “We’re working on an ongoing project,” says Angie. “With the help of many volunteers, we are marking trails and refurbishing the footbridges through the natural area.” One trail will be about two miles long and will wend from the western end of the village through a pine-oak forest and a cedar stand, across the Mullica River and through wetlands to circle the beaver pond and double back to the village.

Batsto is never stagnant. Research is ongoing, creating constant change and improvement. As the historic site receives more money from state budgets, more research and archaeological digs can be executed. There also are plans to expand the museum and visitor center.

I think about Joseph Wharton again



New Jersey Outdoors



#### The Batsto National Area (Beaver Dam)

as we leave the Batsto Natural Area and circle back past his mansion. He once had high hopes of amassing his properties, damming the streams and selling the water to Camden and Philadelphia. Although his plan was never realized we have, thanks to the state's foresight in purchasing and preserving his wonderful estate, a unique natural and historic resource to explore and enjoy.

*Cindy Ross, whose article about tandem biking along the Delaware and Raritan Canal appeared in the Fall 1999 issue of **New Jersey Outdoors**, lives in New Ringgold, Pennsylvania. She has written numerous articles and authored several books about hiking and outdoor recreation for families.*



## VISITORS WELCOMED

Wharton State Forest is the largest single tract of land within the New Jersey State Park System. It is located in the heart of the Pine Barrens, about 20 miles northwest of Atlantic City and approximately 40 miles southeast of Philadelphia.

Historic Batsto Village is located in the Wharton State Forest, off Rt. 542 east of Hammonton. The Village is listed on the New Jersey and National Registers of Historic Places. Batsto and all of Wharton State Forest are also part of the Pinelands National Reserve.

The Visitor Center in Batsto Village is open daily from 9:00 a.m. to 4:30 p.m. Interpretive programs are offered Wednesday through Sunday from September through May and daily from Memorial Day to Labor Day. Visitors are charged a nominal fee (\$2 for ages 12 and up; \$1 for ages 6 to 12) for the mansion tour.

The Annie M. Carter Environmental Interpretive Center is open daily from Memorial Day through Labor Day; Tuesday through Sunday during the winter (December through March); and Wednesday through Sunday in the spring and fall. The center is open from 10:00 a.m. to 4:00 p.m. (except in the winter, when hours are from 12:30 to 4:00 p.m.) and by appointment (609/567-4559). No fees are charged for interpretive center programs or activities.

A number of events and activities—from the frequently offered Pinelands Nature Hike to the popular Country Living Fair, held annually on the third Sunday in October—take place at Batsto. For information about the events, the village or the nature center, call 609/561-3262 or write to:

Wharton State Forest  
4110 Nesco Road  
Hammonton, NJ 08037





Tugboat from the Bayonne Bridge © Virginia Rolston Parrott

by Benjamin Longstreth

Most visitors to Liberty State Park are so mesmerized by the drama of the estuary's urban shoreline that they don't consider what lurks beneath the water's surface. But when an angler like Charlie Stamm visits the park, he sees the dozens of different spots where he catches stripers, bluefish, flounder and weakfish. "The harbor is full of fish," says Stamm. In fact, this estuary is packed with more fish than almost any other water body in the state.

Although the fish that Stamm and other anglers reel in look beautiful, he always removes the hook and slips them back into the Bay because their firm flesh is laced with a variety of toxic chemicals. Since 1976, the striped bass that swim beneath the Lower Hudson's ferries and cruise lines have been declared off limits to commercial harvest because of PCB contamination. In the early 1980s, researchers at the New Jersey Department of Environmental Protection (DEP) found that fish and crabs in the Lower Passaic and Newark Bay are contaminated by dioxin, PCBs

and a range of lesser toxins. As a result, New Jersey prohibits anyone from trying to snare the abundant and large crabs that creep throughout Newark Bay.

The harbor's extraordinary abundance of fish and shellfish belies the effect this contamination has on the fish themselves. According to Darvene Adams, Ph.D., a researcher with the U.S. Environmental Protection Agency, in much of the harbor the sediments are so toxin-rich that they support fewer worms, clams and other marine critters than they should. Adams' studies showed that virtually all of Newark Bay's benthic (bottom-dwelling) communities and three quarters of the Upper Harbor's benthos were impaired or absent because of toxins. "The upshot is that chemical contamination is a prominent factor affecting the benthic communities of the harbor," says Adams.

More importantly, many people still eat the fish and crabs they catch. "Based on our research, there is a very large population of people who fish in the

Newark Bay Complex, and some of those people take their fish home and eat them, particularly crabbers," says DEP's Kerry Kirk-Phlugh. "The chemical contamination in the tissues of these fish, especially dioxin and PCBs, makes us concerned because these chemicals cause health impacts." According to Anne Golden, Ph.D., of Mount Sinai School of Medicine's Department of Community and Preventive Medicine, the children of women who eat contaminated fish may be adversely affected. Of particular concern are neurological and cognitive disorders that have been related to in utero PCB exposure. In addition, exposure to these toxins has been shown to cause cancer in laboratory animals. Cumulative toxic exposures from eating contaminated fish over a lifetime can increase the risk of cancer in both men and women.

"It's a very serious problem," says Andy Willner, director of Baykeeper. "New Jersey's main response has been to tell anglers that they shouldn't use the resource." To Willner, this is an important



but inadequate response. "For a decade we have been urging New Jersey and the U.S. EPA by every means we know to tackle the real problem—toxic pollution," explains Willner.

The number of possible pollution sources is distressingly large. Stormwater washes oils off parking lots and toxins from old industrial sites into the bay. Pollutants leach out of landfills and leak out of old sewer systems. They slowly spread from Superfund sites like the old Diamond-Alkali herbicide factory in Newark that gave the Passaic River the distinction of being the most dioxin-contaminated river in the world.

But the exhortations of Willner and other environmental advocates were unable to loosen significant funding for the crackdown and elimination of the contaminants in the estuary. Four years ago, the political calculus began to change, however, when the harbor's biggest cash cow started to suffer from the same contamination problems that plague our fish.

If Charlie Stamm looks south from Liberty State Park toward the ocean, he can often see giant tankers and container ships entering the narrows that separate Staten Island and Brooklyn, or starting up the much narrower Kill Van Kull toward Newark Bay. The Port of New York and New Jersey is the largest port on the East Coast and the third largest in the nation after those in Los Angeles and Long Beach, California. It's easy to tally the port's economic value—\$29 billion, according to Frank McDonough, recently retired director of N.J. Maritime Resources—so, when it began to feel the cost of harbor pollution, environmentalists realized they might have a significant ally in the quest for a cleaner harbor.

The ships that enter the harbor stacked high with Swedish cars, Indian fabrics, Thai toys, Guatemalan bananas, French wine and Swiss cheese are deep draft vessels. In its natural state, New



© Michael A. Rivlin

York harbor is a fairly shallow estuary. This means that the U.S. Army Corps, Port Authority and private shipping terminal operators must dredge roughly four million cubic yards of muddy sediment from harbor channels each year. For decades, this mud was barged six miles out to sea and dumped without any significant testing program. But, as the harbor's fish can attest, almost all of the harbor's mud comes laced with a nasty mix of toxins.

In 1993, the conservation group Clean Ocean Action (COA) sued the Port Authority of New York and New Jersey to stop the dumping of contaminated mud in the ocean. "When COA sued the Port Authority of N.Y. and N.J. and brought dredging to its knees, people realized that we had a problem here," recalls McDonough. Clean Ocean Action won the lawsuit and, as a result, about three-quarters of the mud dredged from the harbor failed the new, more protective, ocean dumping standard.

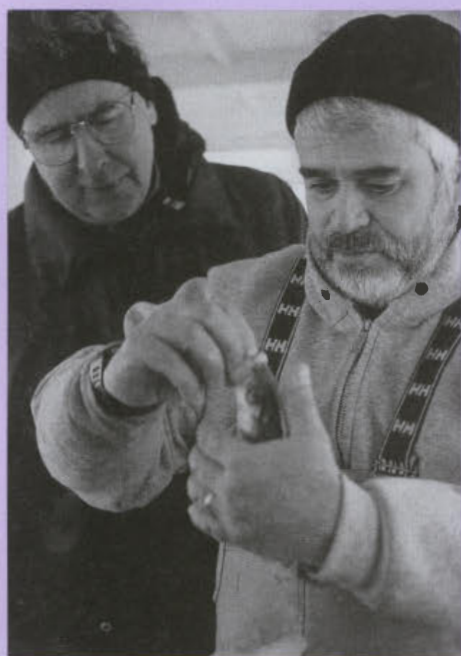
Port officials, N.J. Maritime Resources and the U.S. Army Corps of Engineers began to scramble to develop alternative sites. They explored beneficial uses of stabilized mud on landfills, mines and brownfield sites, export to landfills as distant as Utah, dumping in deep harbor pits and the creation of a containment island in Raritan Bay. All

of the alternatives cost much more than just exporting the mud—and the contamination problem—out to the ocean. "The port is now feeling the cost of harbor pollution," explains Willner.

In the fall of 1997, the U.S. Army Corps, which is responsible for dredging most of the harbor's channels, published a draft plan outlining alternative disposal strategies. As one might expect from an agency dominated by dam and dike builders, the Army Corps' plan's leading proposal was to build our way out of the problem. The Corps would construct an island in Raritan Bay to contain the dredge materials. Local citizens and conservation groups were quick to shoot down this ecologically benighted idea.

However, the thick Army Corps report also included a suggestive graph. It showed that, if the harbor's contaminant inputs were reduced at their source by 5 percent each year, the amount of contaminated mud would drop by about 40 percent over the next 25 years. This was exactly the strategy that conservation groups, including Baykeeper and the Environmental Defense Fund, had been pushing for. "Clean up the pollution at its source and you can reduce the cost of harbor dredging at the same time that you reduce contamination of harbor fish," says Jim Tripp of the





Tagging striped bass are Friends of Fishes, Dennis Suszkowski, educator (l) and Tom Lake, fisherman (r).

Environmental Defense Fund.

Tom Wakeman, chief of dredging at the Port Authority, quickly embraced the cause of contamination reduction. "The region needed to face its past practices and historic contamination of waters and sediments," explains Wakeman.

The forum to organize this effort became the 9-year-old New York/New Jersey Harbor Estuary Program (HEP). As its name suggests, the HEP works to coordinate the two states and integrate the natural values and human uses of these waterways. Dennis Suszkowski, a scientist with the Hudson River Foundation and the chair of the HEP's Contaminant Assessment and Reduction Program (nicknamed CARP), worked with the two states on how to tackle the contamination problem.

"We had never looked comprehensively at the contaminants entering the estuary," says Suszkowski. "There are a great variety of possible sources, so it is critical to figure out where the toxins are really coming from."

As the Port Authority and governors of New York and New Jersey started providing money for the effort, Suszkowski pulled in national experts to guide the effort. When each state started drifting its own way, he shepherded them back together.

The result is a massive and unprecedented \$25 million sampling effort. New York and New Jersey will take 4,700 samples of water, biota and sediments and have labs perform one million analyses to test for a wide range of toxic contaminants. The sampling will look at sources such as stormwater, sewer systems, upstream inputs and sediment hotspots. And, perhaps most importantly, the states have committed that when the sources are found, they will be cleaned up. "This sampling sets the groundwork for action," says Suszkowski.

McDonough predicts a substantial return on this investment. He estimates that contamination reduction will save \$850 million in the cost of harbor dredging between now and 2040. Willner predicts that if we could return our fisheries to full health, they would churn off even more revenue.

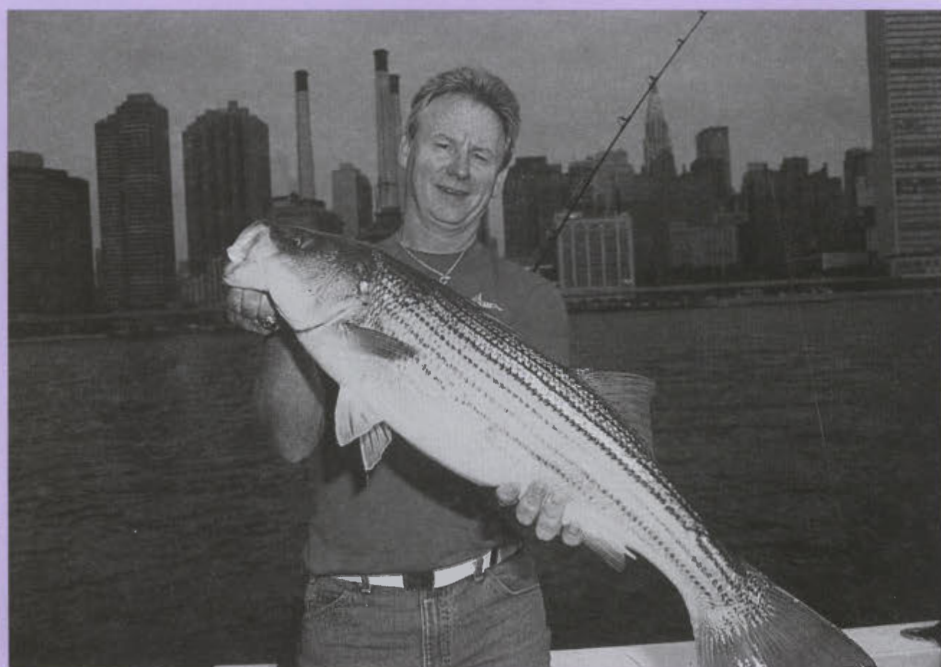
The waters that lap Northern New Jersey's shoreline have many titles. Tugboats plow through New York Harbor. Commerce flows through the Port of New York and New Jersey. Fishermen trade stories about "the big one" caught off their favorite shoal, local

(Below) Charlie Stamm displays just-caught striped bass.

bay or river. Scientists explore the dynamics of the Hudson-Raritan Estuary. The range of titles—port, harbor, bay, estuary—reflects the different perspectives of each group. Is this a natural system, a productive fishery, a safe harbor or a commercial engine?

These waters are, of course, all of these things. Each group of users has a different set of goals for the harbor. More often than not, several of the goals conflict. This promising new pollution prevention program shows the progress that can be made when normally antagonistic parties—the port community and the environmental community—unite behind a common goal. Driven by the joint interests of fish and ships, the program promises to make significant progress toward a cleaner estuary and port—if we can stay the course.

*Benjamin Longstreth was the New York City coordinator for the Baykeeper program of the American Littoral Society from 1995 to 1999. He is now a student at Columbia Law School.*





# GARBAGE in the Greenway

Article and images by Michael Zeugin

Mention illegal dumping and most people conjure visions of mysterious barrels under the Pulaski Skyway on the fringe of Newark Bay. But barrels of unknown substances can also be found in New Jersey's Skylands, parked along the state's showcase greenway.

The greenway, at first proposed as a swath of undeveloped land ranging from the Delaware River to the Hudson River, now is rapidly becoming reality. It roughly encases the Appalachian Trail where it intersects northern New Jersey's mountainous terrain—an area dubbed the Skylands region by the state.

The New Jersey portion of the greenway starts at the New Jersey/Pennsylvania border and ends where Ringwood State Park abuts New York's Sterling Forest. The latter, formerly privately held, was recently acquired as park preserve in a joint move by the states of New Jersey and New York, with

support from Washington.

Unlikely as it may seem to some area inhabitants, the greenway is a good spot to dump garbage illegally. Some dumpers, however, are finding out that the authorities don't look kindly on unwanted debris left in parks.

"Dumpers can be charged by summons or criminally. It really depends on the amount and type of garbage and the discretion of the investigating officer," says state ranger Kelly Gottheiner, who lives on the Wawayanda State Park perimeter and works in the Ringwood park district on the Northeastern end of the greenway.

The fines are stiff, as are the penalties surrounding the crime. Illegal dumping, no matter what is dumped, carries many of the same types of criminal penalties as dealing in illegal drugs. "By statute, we can impound the vehicle used in the dumping crime—and they (the dumpers) don't get it back," Gottheiner explains.

## Crime Doesn't Pay

The fines range from up to \$1,000 for .078 cubic yards (the equivalent of a 5-gallon kitchen garbage bag) to \$100,000 and possible jail time for the dumping of .14 cubic yards and higher. Additional fees are assessed for restitution—to repay the state for its time and effort spent cleaning up the mess. Dumping hazardous materials carries even heavier fines, possible jail time and restitution costs.

Ranger Gottheiner has worked park regions from the Kittatinny Range at one end of the Greenway to the Ramapo Mountains at the other, first as a seasonal employee and then as a park ranger. She takes illegal dumping seriously, almost as a personal insult and the ultimate sacrilege.

"We've got some very creative ways to catch these dumpers," Gottheiner says, preferring not to reveal the details, for fear of making the already difficult





job harder. "As a result, we have an excellent conviction record here in the Ringwood area." The Ringwood park system includes 25,000 acres, in 19 townships and 4 counties, with 11 individual parks.

Louis Casper, Ringwood's chief ranger and Gottheiner's supervisor, concurs and cites the relationship built with local courts and prosecutors as key to successful prosecution of dumpers. "The more we interact with local authorities, to show them we (state rangers) can help with this problem, the more success we have in dealing with the dumping problem," Casper explains.

Interfacing well with local governments is an important link for state park rangers, who are autonomous in many ways, concentrating on law enforcement within their own park territories, but can also be a major asset in helping local governments in dealing with certain special problems, like illegal dumping. State park rangers have the same powers as New Jersey state troopers (except weighing of trucks) and must also enforce park

rules and regulations.

But illegal dumping is not limited to the northeastern end of the Greenway. Like other parks with wide ranging perimeters, 13,422-acre Wawayanda State Park gets quite a bit of illegally dumped trash. "It's a constant problem for us," says Bob Goodman, Wawayanda's superintendent, describing the steady investigation and cleanup job illegal dumping creates.

### Cleanup is Costly

He points out that the extensive costs involved can consume more than a "fair share" of the park's operating funds. Garbage, once found, needs to be picked up and moved to dumpsters or directly to a landfill. This first step is probably the most important because, as Goodman says, "garbage breeds more dumping; so we try to clean it up as quickly as possible." The manpower, dumpsters and tipping fees at landfills are all paid for out of the park's budget.

The only time the park does not incur the costs is if toxic waste is involved.

In such cases the state Department of Environmental Protection steps in and removes the material from the park, shouldering the cost, which ultimately is borne by taxpayers.

Catching the dumpers is often not easy. Wawayanda's chief ranger, Ed Pomeroy, explained that identifying those responsible is difficult because of the park's large area. There are three rangers to cover the whole park territory, and they often have more pressing tasks.

Even so, Pomeroy, who carries surgical gloves for dumping inspections in his back pocket, states that in Wawayanda Park, "about one third of dumping incidents are successfully prosecuted." And that rate may increase soon. "We just got this to help with prosecuting dumpers," Pomeroy says, deftly unholstering a compact 35mm camera. The camera is often an enforcer's weapon of choice in the pursuit of illegal dumpers, providing photos that show a judge the dumped material in situ.

In the world of dumper interception, a bit of lucky timing—or perhaps





fate—can be helpful too. “The best case is if you happen on them in the act,” says Goodman. But with thousands of acres to cover, the odds of bumping into a dumper are slim.

Questioned about what dumpers leave in the woods, Goodman runs off a list: “Mattresses, refrigerators, truck seats, building materials and tires galore.” Although dumping happens year round, He thinks there is a bit less at Wawayanda in the winter months. Remote roads at the higher elevations (1,000 to 1,400 feet) prevalent in the park are often snowed in and unpassable in winter.

Park tracts that are further from the more heavily populated areas of New Jersey, and less easily accessed via highway, also seem to have a bit less dumping. Even so, High Point State Park superintendent John Keator says dumping is a constant problem, with mostly construction debris and appliances being left as unwanted presents.

Keator says his team of rangers has been successful in prosecuting the majority

of cases in their area. This is in no small way due to some help from the dumping violators, according to Keator. “You’d be surprised how many people leave their names on stuff they dump,” he says.

Stokes State Forest’s superintendent, Bill Foley, mentions yet another aspect of the situation. “Dumping is also a problem when the state is involved in an aggressive land acquisition program; people selling or relinquishing property often don’t maintain the land and that leads to added cleanup costs,” he points out. For some years, lands acquired for the state under Green Acres funding would simply be transferred to a given park region without additional funding to help make the land park-use-ready.

### Unseen Impact

But illegal dumping is not limited to parks alone. Maybe the worst violation of good sense—not to suggest that dumpers have any—is dumping on watershed properties. Anthony Debarros, who manages Newark Watershed properties, puts this plainly: “We don’t like to

see dumping on our lands, because they’re meant to keep the water pure.”

Bonnie Phillips, a 17-year employee with the Newark Watershed, has lived on the border of its land for 33 years. She helps keep watch over the 40,000 acres that are home to five reservoirs situated in Sussex, Morris and Passaic counties: Cannistear, Oakridge, Clinton, Echo Lake and Charlotteburg. Phillips doesn’t think the situation is getting any better. “Dumping has becoming worse and worse and it’s now almost unmanageable,” she says. The Watershed fills a 20-cubic-yard container every 3 weeks, and pays for carting.

Household garbage, construction materials and cars are among the refuse found on Watershed properties. Sometimes more unusual items are found: frozen animal carcasses, such as a goat, in the winter and, occasionally, even a human body, reports Phillips. The latter, says Debarros, usually prompt a murder investigation.

Some open spaces in Northwestern New Jersey are federally controlled. At





the Wallkill River National Wildlife Refuge, area manager Elizabeth Herland has a different angle on the dumping problem. Dumpers generally don't unload their cargo of foul flotsam on a main road in plain view; someone might catch them in the act. To avoid detection, they tend to pull off onto a dirt side road or unused thoroughfare. That's where Herland stops them. "We put up gates," she explains simply.

### Gotcha!

Herland also packs other surprises. On a tight budget, a group of federal wildlife areas shared the expense of a night-vision camera. "We use it for catching poachers, or any other illegal activities," she says. That includes illegal dumping.

Understaffed land managers can use help watching for illegal dumping. "If people see something, they should write down the vehicle license number and contact the authority for that public land—and that doesn't just mean

garbage, but also brush and yard debris," Herland says. Biological matter can unleash a species of plant or insect not native to the area. Once released, the invader gets a foothold and can damage the environment in the area.

Lacking a single solution to the illegal dumping in Northern New Jersey's greenway, each authority overseeing land implements solutions specific to the property. Wawayanda's Goodman notes, "We're a little more fortunate here than others, because we really don't have a lot of areas that are hidden and accessible by vehicle."

Exposure is why Newark Watershed has a rough time keeping up with the dumper droppings—the sheer size of the area and its accessibility via isolated back roads, increases the likelihood of dumping.

Ringwood's lands, which are closer to major travel routes and heavily populated areas, also are easily accessed by dumpers. The park's rangers combat this exposure with a heightened lack of toler-

ance for dumping. They have no choice. Give quarter and they would be overwhelmed.

Since New Jerseyans enthusiastically approved, in 1998, Governor Whitman's goal of adding a million acres of protected open space to the 854,000 acres already preserved in the state, even more vigilance will be needed to protect public lands from the seemingly ever present dumpers. Budgets for enforcement are likely to remain tight. It's your open space, so please help safeguard it. Report illegal dumpers to the appropriate authority.

*A first-time contributor to New Jersey Outdoors, Michael Zeugin is a freelancer who has written for newspapers and outdoor associations and is currently working on his first novel. The Highland Lakes resident is a certified ski instructor who also enjoys surfing, windsurfing, canoeing, hunting, fishing, hiking and mountain biking.*





# Being There with Dad

by Robert Elman

Sometimes my father fishes with me. I know that's strange, since I was the second person to look into his dead eyes 30 years ago, but he was the sort of man who leaves a lasting impression. He shows up mostly when the water is flat, the sun low, birds calling, the tall drowned timber sighing. If cicadas buzz or crickets chirp, he's all the more likely to come. I want to be careful how I tell this, because it's no sentimental ghost story. Flaws and all, this is Dad I'm talking about, not some insipid ghost.

He's a presence on the water—where, of all places, I need no hallucinations to improve reality. There he is, spooling black linen line onto his silvery Shakespeare reel, his little finger extended as if he were holding a tea cup while he turns the dainty mother-of-pearl crank handle. He flips a bass plug to a stump rising half a foot above the shimmering surface. It floats, momentarily forgotten while Dad admires the red nape of a chisel-billed flicker undulating through the trees. As I raise my fly rod, he ducks mockingly. Sometimes he examines one of my fuzzy little artificial bugs with an expression of puzzled amusement.

He'd probably

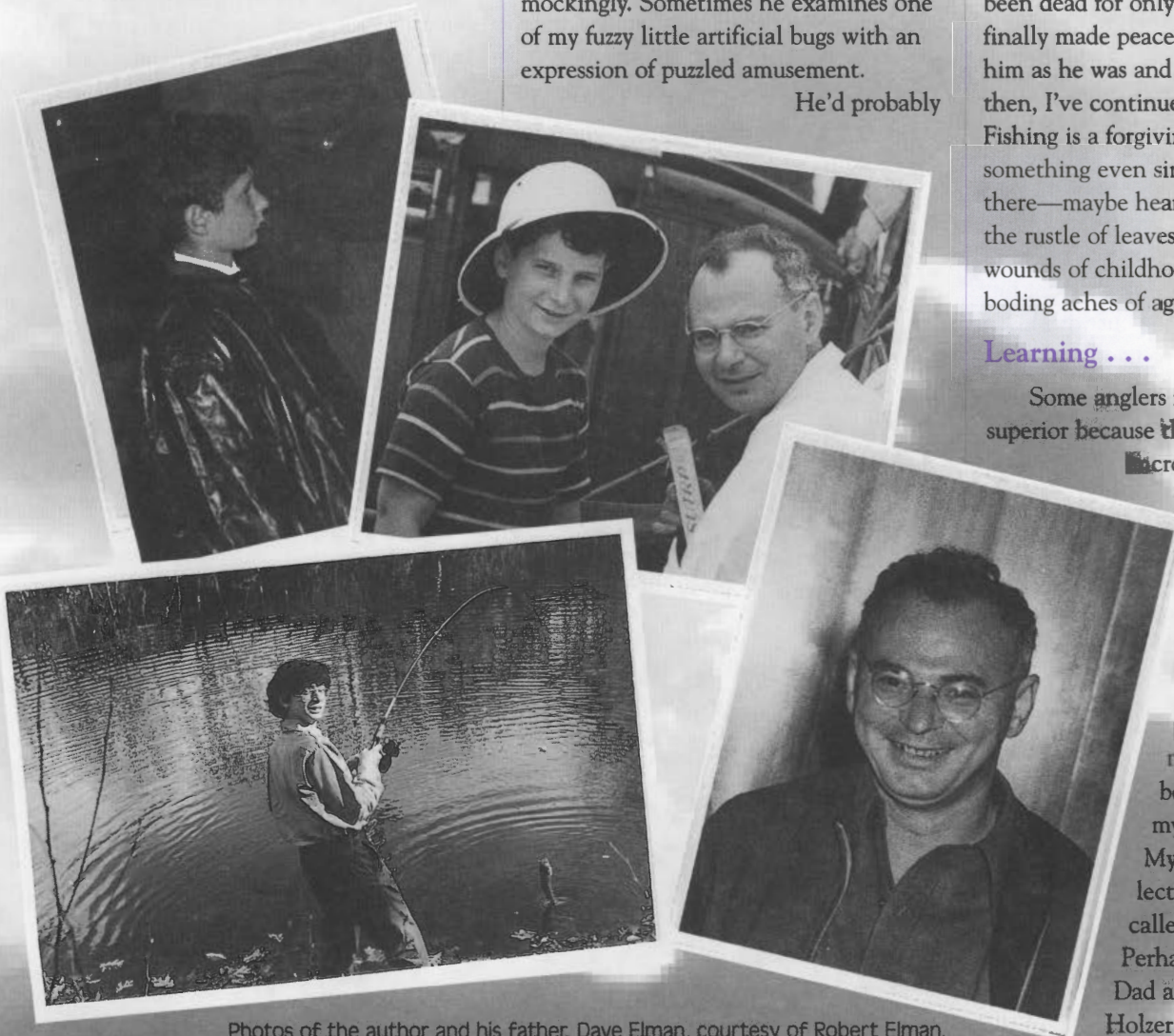
recognize a Royal Coachman or a cork-bodied popping bug, but I doubt that he'd have known a Light Cahill from an Iron Blue Dun, and why should he? His own kind of fishing expertise was unsailable, and I like his company.

He seldom shows up unless I'm in a boat or canoe. Wading wasn't his style. But he enjoyed surprises, so he appeared unexpectedly a couple of days ago while I was fishing the Delaware River from shore. He brought along memories of another day like this—when he had been dead for only a few years and I finally made peace with him, accepted him as he was and me as I am. Since then, I've continued to learn from him. Fishing is a forgiving pastime. And something even simpler, just being there—maybe hearing a heron's croak or the rustle of leaves—helps heal the wounds of childhood as well as the foreboding aches of age.

## Learning . . .

Some anglers regard themselves as superior because they limit their

macroachment upon wild things to the catching of trout on artificial flies. They puzzle me. I began fishing very early and fly-fishing very late. (It's even possible that I first messed with flies in belated rebellion against my father's domination.) My earliest angling recollection is set on a lake called Big Pine, near Perham, Minnesota, where Dad and his friend Dick Holzer caught largemouth bass and pike that couldn't



Photos of the author and his father, Dave Elman, courtesy of Robert Elman.



possibly have been as big as the images in my memory. I must have been eight or nine. Dad asked me (with a chuckle I didn't recognize as condescending) if I wanted to fish, too. He gave me a sapling pole with a thick black thread attached. At the end of the thread, a bent pin impaled a garden worm.

That belittling initiation was inevitable, although spare bait-casting rods and reels resided in the bottom of the boat. He had no choice but to do it that way because, like so many fathers of his generation, he had trouble distinguishing between reality and fable. His perceptions (literary but unguided by much schooling) had been narcotized by Horatio Alger and Eugene Field, then mesmerized by better practitioners like O. Henry and real writers like Mark Twain. Wouldn't all their boys have fished with a bent pin attached by thread or twine to a sapling or, at best, a cane pole?

Happily, my initiation was brief. I actually caught a sunny on the bent pin, which qualified me to go out with Dad in the boat and learn to handle a rod. During ensuing summers I progressed from bait (worms, minnows, leeches, hellgrammites, crawdads) to plugs, jigs, spoons, even beaded Junebug and bucktail spinners. I learned by trying to imitate him.

### Being There . . .

I remember him most happy and tranquil—most serene—on the water in gentle weather. And he taught me something else then, or passed it on to me by osmosis. Although every catch was an occasion for glee, he remained serene when he was skunked. Not that the catch didn't matter to him. Nothing else mattered nearly as much when a fish was well enticed, well played, well boated. Nor did anything else matter when a fish was poorly played and lost or roughly handled in any way, which is to say, disrespected. But the day's success, the essence, hinged only on being there.

Without actually saying so, he seemed to feel that the tangible objective (catching fish) served primarily to intensify our participation in nature's perpetual opera—sometimes grand opera, sometimes comic. While I was learning to catch fish and release them without regret, I was being taught—partly by my father's example, partly by just being there—to pay attention to subtleties in the music of existence.

Both of us were happiest when a Mozartian god seemed to be nature's composer and librettist. Mozart's Figaro and Rossini's barber suited Dad's temperament and mine when we were on the water. Since then, that carnival spirit hasn't always prevailed, but for every Wagnerian clamor, every Berlioz crescend

do damning Faust, every Puccini lament for *Madama Butterfly*, there have been many more days when the performance was as lighthearted as Gilbert and Sullivan. Even in total silence, Dad could hear the music.

Merely walking through woods or motoring across water, without the incentive of pursuit, cannot induce such intense participation. The determined pursuit of quarry—as the philosopher Ortega y Gasset demonstrated in his *Meditations on Hunting*—renders the pursuer more observant, receptive, able to recognize, interpret, absorb the sounds, sights, smells, feelings of the natural world. The pursuer is sensitized, hence more alive than at any other time. And eventually there comes a humble sensation





of kinship with everything else alive, with all our fellow specks in this unimaginably immense universe.

This heightened awareness and thankfulness would have explained my father's transcendental serenity. I don't think I "got" it directly from him; I got it from being there. But sensing it in him may have opened me to it sooner than would otherwise have been the case. Nowadays, when he comes along I believe I understand him—and myself—better. Because solitude is helpful in sorting out memories, he appears only if no one else is with me.

I recall asking him once why he never used a fly rod. "Oh, I used to," he claimed. "I got very good at it, too. Trout fishing. I just prefer plugs, that's all, and I like bass and pike. You'll catch a lot more of them with plugs or bait."

### Believing . . .

I don't know—and it doesn't matter—if he was exaggerating his fly-fishing prowess. Dad never saw any reason to distinguish between objective fact and imaginative memory. He was the most honest man I ever knew in matters that counted—agreements, promises, money. Memories were something else. He did have flaws, some of which I see in me and all of which I see in everyone else. He could have been the model for Walter Mitty except that he thought it wasteful to keep his exploits secret. He unquestionably believed he remembered the moment of his birth; believed he had been the first boy in North Dakota to break the four-minute mile, the only boy to hold his breath underwater longer than Houdini, the first boy in Fargo to whip the school bully; he believed he had been a masterful fly fisherman; and he believed that more bass and pike could be caught on plugs.

Years passed before I questioned such assertions. And probably because of my childhood experience, I too prefer warmwater fishing to trout fishing. I somehow feel more at home with it,

although I do both. In the 1960s a friend gave me a fly rod and reel, and by trial and error I learned to cast flies. I'll never be an expert, but I did gain more proficiency after I came to live near the Delaware and discovered that river's smallmouth bass. The trout fishing is better upstream and in the tributaries, but where I do most of my fishing the bass, bluegills, and rock bass are very abundant, walleyes are becoming plentiful, and the shad run is a miraculous rite of spring. More of the bass that I release are caught on spinners than on flies, but are no less beautiful for that. By the standards of some anglers, I am not among the elite. Well, what does it matter to someone blessed by just being there?

### Sharing . . .

I used to show Dad the frogs' eggs and tadpoles, snails and salamanders that I found at Big Pine Lake, and he acted as if he'd never seen the like before—his way of sharing my excitement. I've felt the same delight when my children held up a crawdad or a mass of frogs' eggs. Maybe being on the water or in the woods helps some people to stay connected, learning from the generations that came before and those that come along after us.

On the river and at my beloved local reservoir, I've seen the loons and ospreys and, at last, the bald eagles come

home to restored habitat after decades of being exiled by human devastation. I've watched beavers playing—my father was right about that, they most certainly play—and Canada geese and mallards shepherding their young. I've listened to woodpeckers and wind and wood ducks, seen butterflies that my field guide couldn't identify, and panicked a northern water snake into headlong escape when I waded too close. That's being there.

I've caught a lot of fish too, and continued a ridiculous lifelong debate with myself about which species is the most beautiful. There's no point in asking Dad because I know his answer is bass, but when he's along I show him whatever I've caught: the colors of a trout or yellow perch, the glowing red and black eye of a rock bass, the iridescent shimmer behind a bluegill's jaw, or the calico of a crappie. He laughs and holds his hands out 6 or 8 inches apart, teasing me about the size of my catch, even though he never put much stock in size or numbers. And when he laughs, I laugh. He always was good company.

New Jersey Outdoors is honored to welcome Robert Elman to its ranks of contributors. The Stewartsville resident is a prolific writer—he's authored more than two dozen books—whose words also have appeared in *Field & Stream*, *Sports Afield*, *Outdoor Life* and other national magazines.

*I can't recall his laughter as a sound,  
yet I can feel its shape and see its gleam  
reflected on the water all around  
when sunlight burnishes a lake or stream.  
I ought to miss him, and perhaps I will,  
but not too soon. He fishes with me still.*

Closing lines of *My Father's*  
Sonnet by Robert Elman



# Events

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

**Albert** – Albert Music Hall, 125 Wells Mill Rd. (Rte. 532), 1/4 mile west of Rte. 9, Waretown; 609/971-1593; ♿; \$

**Allaire** – Allaire State Park/Historic Allaire Village/Pine Creek Railroad, Farmingdale; [www.AllaireVillage.org](http://www.AllaireVillage.org); 732/938-2253 (park and village), 732/938-2003 (nature center), or 732/938-5524 (railroad)

**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

**Flat Rock** – Flat Rock Brook Nature Center, 443 Van Nostrand Avenue, Englewood; preregistration via phone or on-line ([www.flatrockbrook.org/registration.html](http://www.flatrockbrook.org/registration.html)) is required for all programs; 201/567-1265

**Great Swamp** – Great Swamp Outdoor Education Center, 247 Southern Blvd., Chatham; weekend and evening nature hikes and other seasonal activities are available in addition to listed programs; 973/635-6629

**Hermitage** – The Hermitage, 335 North Franklin Turnpike, Ho-Ho-Kus; 201/445-8311

**Horse Park** – Horse Park of New Jersey, Route 524, Stone Tavern (Millstone Township, Monmouth County); open to spectators for equine events, but horseback riding and/or lessons are not available; <http://nihorsepark.com/>; 609/259-0170; ♿

**Indian King** – Indian King Tavern Museum, 233 Kings Highway East, Haddonfield; 856/429-6792

**Pinelands** – Pinelands Preservation Alliance, 114 Hanover St., Pemberton sponsors **Pinelands Adventures** (educational programs) in the Pinelands; call to register and to obtain details; 609/894-8000

**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; ♿; \$

## Notes:

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

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

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

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

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

## May

**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

**Through May 16**  
**PREVIEW OF THE CARVING & WILDLIFE ART SHOW** Somerset County Park Commission Environmental Center, Basking Ridge; 908/766-2489, ext. 336

**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

**Through October 31 (Tuesdays, Thursdays and Saturdays)**  
**OCEAN COUNTY FROM THE EXPLORERS TO 1950** Exhibit; Toms River; 732/341-1880

**1**  
**CHERRY BLOSSOM FESTIVAL** Bayhead; 800/4-BAYHED

**3**  
**BUTTERFLIES AND MOTHS** Flat Rock; \$; ☞

**5 and 6**  
**STUNT KITE FLYING CONTEST** Belmar; 732/280-8084

**5 through 7**  
**NJ PALOMINO EXHIBITORS ASSOCIATION SHOW** Horse Park; 908/234-9469

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



**SALEM COUNTY HOUSE AND GARDEN TOUR** Salem, Penn's Grove and Pennsville; 856/935-5004; \$

**WILDFLOWERS AT ALLAIRE WALK** Allaire

**19TH CENTURY VILLAGE MARKET & AUCTION DAY** Allaire

**6 and 7**  
**WATERLOO ART AND FINE CRAFT SHOW** Waterloo

**7**  
**PET FAIR** Trilside; ☞; \$

**VICTORIAN PLANTINGS: GARDENS IN A BOX** Hermitage; ☞; \$

**POND LIFE** Allaire

**ANNUAL SPRING SHOW OF THE SOUTH ORANGE SEAPORT SOCIETY** (Radio controlled model boats) Cameron Field Duck Pond, South Orange; 732/382-5788

**11**  
**LIFE AT THE HERMITAGE, 1915 TO 1940** Hermitage; ☞; \$

**12**  
**DELAWARE BAY LIGHTHOUSE ADVENTURE CRUISE** Toms River; 732/341-1880; \$; ☞

**JERSEY DEVIL HUNT** Pinelands

**SPRING WING FLING** Birding and related activities geared for beginners and families; Cattus Island County Park (Toms River), Island Beach State Park (South Seaside Park) and Tip Seaman County Park (Tuckerton); 609/971-3085; \$

**EVENING OF MONOPOLY** Bridgewater; 732/356-8856; \$

**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); ☞

**30TH ANNUAL HERB SALE** Morristown; 908/459-9223, 908/221-0931; \$; ☞

**NAVIGATING THE PINELANDS** Pinelands

**ALLAIRE BIRD WALK** Allaire

**17TH ANNUAL WORLD SERIES OF BIRDING** Statewide; [www.worldseriesofbirding.org](http://www.worldseriesofbirding.org); 609/884-2736

**TUCKERTON SEAPORT GRAND OPENING** Tuckerton; 609/296-8868

**DENNISVILLE DAY/CARVERS OLD TYME CRAFT FAIR** Dennis Township School House Museum, Dennisville; 609/861-0099, 609/861-5460

**SURF FISHING TOURNAMENT** Municipal Marina, Sea Isle City; 215/643-0705

**ANNUAL SPRING CRAFTERS' MARKET** Allaire



# Events May/June

**PEAPACK'S PROGRESS WALKING TOUR**  
Borough of Peapack and Gladstone;  
732/356-8856; \$

## 13 and 14

**GARDEN STATE HORSE & CARRIAGE ASSOCIATION—CDE Horse Park;**  
732/446-6245

## 14

**TRAIL VOLUNTEER PROJECT**  
Manasquan Reservoir, Howell;  
732/842-4000, ext. 4283

**AZALEA FESTIVAL** Sayen Park,  
Hamilton Township (Mercer County);  
609/890-3684

## 19

**JERSEY DEVIL HUNT Pinelands**

## 19 through 21

**SPRING SUGARLOAF CRAFTS FESTIVAL**  
Garden State Exhibit Center,  
Somerset; 609/210-9900

**CAPE MAY SPRING NJ AUDUBON WEEKEND**  
Cape May area; 609/884-2736

## 20

**HISTORIC PRESERVATION RECEPTION**  
Smithville Mansion Annex Gallery,  
Eastampton; 609/265-5068; ☎

**PINELANDS NATURE HIKE AT WHARTON STATE FOREST** Hammonton; 609/567-4559

**CANOEING THE PINEY RIVERS Pinelands**

**ALLAIRE BIRD WALK Allaire**

**4TH ANNUAL BARNEGAT BAY FESTIVAL**  
Berkeley Island Park, Berkeley  
Township; 732/506-5313

**21ST GREAT CAPE FOOTRACE** 10k &  
3k; Cape May; 609/884-5508

**SPRING FLEA MARKET Allaire**

## 20 and 21

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

**ANTIQUES SHOW Waterloo**

**CRAFTFEST 2000** East Freehold Park,  
Freehold; 732/946-3229

**NEW JERSEY HALF ARABIAN ASSOCIATION SHOW Horse Park;** 610/767-7346

## 20 through June 25

**CAPE MAY MUSIC FESTIVAL** Cape May;  
609/884-5404; \$

## 21

**GARDEN FAIR Trailside;** ☎

**SPRING WING FLING** Cattus Island  
County Park, Island Beach State Park  
and other locations throughout  
Ocean County; 609/971-3085; \$

**MORE THAN A SIGNER: FRANCIS HOPKINSON**  
Performance and open house; **Indian King**

**ANTIQUFEST** Freehold; 732/946-2711

**THOMPSON PARK DAY CELEBRATION**  
Thompson Park, Lincroft; 732/842-  
4000, ext. 283

## 26 through 29

**WILDWOODS INTERNATIONAL KITE FESTIVAL** See article beginning on page 18.

## 27

**ART IN THE PARK** Rain date: May 28;  
West End Park, Long Branch;  
732/571-5678

## 27 and 28

**ARTS AND CRAFTS SHOW Cold Spring**

**CRAFTS & ANTIQUES AT MEMORIAL DAY** Cape May; 609/884-5404,  
800/275-4278

**ANTIQUES & CRAFT SHOW** Antiques on  
Saturday, crafts on Sunday; Avalon  
Community Hall, Avalon; 609/465-5481

**ESDCTA MEMORIAL DRESSAGE SHOW**  
**Horse Park;** 908/647-5801

## 27 through 29

**ANNUAL SPRING AMERICAN INDIAN ARTS FESTIVAL** Rankokus Indian  
Reservation, Rancocas; 609/261-4747; \$

**BLUES AND WINE AT WATERLOO SPRING WINE FESTIVAL Waterloo**

# June

## Through June 25

**CAPE MAY MUSIC FESTIVAL** Cape May;  
609/884-5404; \$

## Through June 30

**HERON ROOKERY Great Swamp**

## Saturdays and Sundays through July 23

**NATURE WALK** Cattus Island County  
Park, Toms River; 732/270-6960; ☎

## Through October 22

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

## Through October 31 (Tuesdays, Thursdays and Saturdays)

**OCEAN COUNTY FROM THE EXPLORERS TO 1950** Exhibit; Toms River; 732/341-1880

## 2 through 4

**11TH ANNUAL RETURN TO BEAVER CREEK NATIVE AMERICAN INDIAN FESTIVAL** White Township; 908/475-3671,  
908/475-3816; \$

**FLOWER SHOW** Music Pier, Ocean City;  
609/525-9300

## RIVERFEST FOOD & JAZZ FESTIVAL

Marine Park, Red Bank; 888/438-FEST

## 3

**NATIONAL TRAILS DAY**

**DELAWARE BAY DAY FESTIVAL** Take a  
free tour of New Jersey's official 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; ☎

**SOUTH JERSEY CANOE & KAYAK CLASSIC**  
Ocean County Park, Lakewood;  
609/971-3085

**TRY CANOEING! Pinelands**

**A VISIT TO THE FARM: A LIVING HISTORY OF FARM LIFE IN THE MID 1800S** Church  
Landing Farmhouse Museum,  
Pennsville; 856/678-4453



# Events June

**MARCH FOR PARKS TRAIL VOLUNTEER PROJECTS** Hartshorne Woods Park (Locust), Turkey Swamp Park (Freehold), Henry Hudson Trail (Bayshore Area); 732/842-4000, ext. 4283

**3 and 4**

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

**CONFEDERATE WEEKEND** **Cold Spring**

**HEREFORD INLET SEAFOOD FESTIVAL** Anglesea Firehouse, North Wildwood; 609/522-5916

**FUN DAYS** Allentown; 732/259-1109

**3 through 10**

**NATIONAL RIVER CLEANUP WEEK** 800/524-4814

**4**

**STEAMBOAT ONLY SHOW** (Radio controlled model boats) Cameron Field Duck Pond, South Orange; 732/382-5788



**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**

**ANTIQUE FAIR** **Hermitage**; 609/265-5068; \$

**POND LIFE** **Allaire**

**MORRIS CANAL DAY** **Waterloo**

**VICTORIAN FAIR** Emlen Physick Estate, Cape May; 609/884-5404, 800/275-4278

**10 and 11**

**NEW JERSEY FRESH SEAFOOD FESTIVAL** Atlantic City; 609/344-1943

**FARMFEST 2000** **Cold Spring**

**NEW JERSEY SEAFOOD FESTIVAL** The only New Jersey event on the American Bus Association's *Top 100 Events in North America* list for 2000; Belmar; 732/774-8506

**NATURE DAY FESTIVAL** Tenafly Nature Center, Tenafly; 201/568-6093; \$;

**JERSEY CLASSIC HORSE SHOW** **Horse Park**; 908/957-0063

**11**

**MARIA ALLAIRE'S WEDDING** **Allaire**; \$; 609/265-5068

**15**

**TRAIL VOLUNTEER PROJECT** Hartshorne Woods Park, Locust; 732/842-4000, ext. 4283

**15-18**

**CLAM FEST 2000** Highlands; [www.highlandsnj.com](http://www.highlandsnj.com); 732/291-4713

**16**

**JERSEY DEVIL HUNT** **Pinelands**

**16 through 18**

**AMERICA'S PLAYGROUND BEACHFEST** Beach and boardwalk, Atlantic City, <http://www.acbeachfest.com>; 609/484-9020

**17**

**PINELANDS NATURE HIKE AT WHARTON STATE FOREST** Hammonton; 609/567-4559

**SOUTH JERSEY TRADITIONAL SMALL BOAT FESTIVAL & SNEAKBOX REN-DEZVOUS** Berkeley Island County Park, Bayville; 609/971-3085

**8TH ANNUAL BAYMEN'S SEAFOOD FESTIVAL** Tuckerton Seaport, Tuckerton; 609/296-8868

**HEREFORD INLET LIGHTHOUSE CRAFT & HERB SHOW** North Wildwood; 609/522-4520

**SUMMER FLEA MARKET** **Allaire**

**ROAMING THROUGH RARITAN WALKING TOUR** Raritan; 908/252-0355; \$;

**17 and 18**

**REELS AND WHEELS** **Cold Spring**

**OVERNIGHT CANOE TRIP ON THE MULICA RIVER** **Pinelands**

**STRAWBERRY HARVEST CELEBRATION** Alstede Farm, Pleasant Hill Road, Chester; 908/879-7189

**ARABIAN HORSE ASSOCIATION OF NEW JERSEY SHOW** **Horse Park**; 201/933-0955

**18**

**ANTIQUE BOTTLE SHOW & SALE** **Wheaton**

**FATHERS' DAY PIG ROAST** Four Sisters Winery at Matarazzo Farms, Belvidere; 908/475-3671

**20 through 25**

**MIDDLESEX COUNTY HORSE SHOW** **Horse Park**; 609/448-3492

**20 through July 5**

**HANGING TOGETHER ART EXHIBIT** Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

**23**

**JERSEY DEVIL HUNT** **Pinelands**

**24**

**17TH ANNUAL BLUEBERRY FESTIVAL** Whitesbog; 609/893-4646; 609/265-5068; \$

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

**STARWATCH AT WHARTON STATE FOREST** Hammonton; 856/627-3043

**TRY CANOEING!** **Pinelands**

**7TH ANNUAL ICE CREAM FESTIVAL** Huddy Park, Toms River; 732/349-0220

**JURIED OUTDOOR ART SHOW** Tuckerton Seaport, Tuckerton; 609/294-3343

**THE LADIES OF COUNTRY & BLUEGRASS MUSIC SHOW** Albert Music Hall, Waretown; 609/971-1593



# Events

## Events June/July

**24 and 25**

**THREADS THROUGH HISTORY** Cold Spring

**ANNUAL BATTLE OF MONMOUTH REENACTMENT** Monmouth Battlefield State Park, Manalapan; 732/462-9616

**GARDEN STATE WINE GROWERS ASSOCIATION SUMMER FEST** Unionville Vineyards, Ringoes; 908/475-4460

**25**

**4TH ANNUAL GARDEN STATE CRAFT BREWERS' FESTIVAL** Waterloo

**FUN FLOAT** (Radio controlled model boats) Cameron Field Duck Pond, South Orange; 732/382-5788



**GARDEN TOUR** Freehold; 732/946-2711

## July

**Saturdays and Sundays through July 23**

**NATURE WALK** Cattus Island County Park, Toms River; 732/270-6960; ☼

**Through October 22**

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

**Through October 31 (Tuesdays, Thursdays and Saturdays)**

**OCEAN COUNTY FROM THE EXPLORERS TO 1950** Exhibit, Toms River; 732/341-1880

**1 and 2**

**ARTS AND CRAFTS SHOW** Cold Spring

**13TH ANNUAL GAZEBO-BY-THE-SEA CRAFT SHOW** Wildwood Crest; 609/522-1669

**AMERICA'S BIRTHDAY BASH PRO/AM VOLLEYBALL TOURNAMENT** North Wildwood beach; 609/522-2955

**DRESSAGE AT THE PARK** Horse Park; 908/647-5801

**3**

**B.F.K. SPORT HORSE SHOW** Horse Park; 908/647-5801

**4**

**FUN FLOAT** Radio controlled model boats; Cameron Field Duck Pond, South Orange; 732/382-5788

**9TH ANNUAL COLONY-TO-STATE OPEN HOUSE** Celebrate the creation of the state of New Jersey and the 250th anniversary of the tavern house; **Indian King**

**OCEANFEST 2000** Long Branch; 732/571-5678

**5**

**6TH ANNUAL SAND CASTLE CONTEST** 18th Avenue Beach, Belmar; 732/681-3700

**SAND SCULPTING CONTEST** 12th Street Beach, Ocean City; 609/525-9300

**8 and 9**

**RAILROAD DAYS** Cold Spring

**NEW JERSEY CHAMPION BARBECUE** 2nd & New Jersey Avenues, North Wildwood; 609/522-5916

**9**

**TRAIL VOLUNTEER PROJECT** Tatum Park, Middletown; 732/842-4000, ext. 4283

**FOUNDER'S DAY** Allaire

**NEW JERSEY BRED ALL BREED HORSE SHOW** Horse Park; 908/996-2544

**11**

**CONCERT** Smithville Mansion Courtyards, Eastampton; 609/265-5068; ☼; \$

**11 through 16**

**OCEAN COUNTY FAIR** Robert J. Miller Airpark, Berkeley; 732/349-1420; \$

**11 through August 10**

**JURIED PHOTOGRAPHY SHOW** Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

**13 through 16**

**NEW JERSEY JUNIOR QUARTER HORSE SHOW** Horse Park; 908/879-7415

**14**

**JERSEY DEVIL HUNT** Pinelands

**14 through 16**

**CIVIL WAR RE-ENACTMENT** Veterans Park, Hamilton Township (Mercer County); 609/890-3684

**15**

**PINELANDS NATURE HIKE AT WHARTON STATE FOREST** Hammonton; 609/567-4559

**CANOEING THE PINEY RIVERS** Pinelands

**REVOLUTIONARY WAR REENACTMENT** Hermitage; ☼; \$

**PRESCHOOL SING-A-LONG** Great Swamp

**15 and 16**

**ANTIQUE SHOW** Cold Spring

**HANDCRAFT UNLIMITED SUMMER CRAFT SHOW** Convention Center, Wildwood; 717/656-3208; \$

**HEREFORD INLET LIGHTHOUSE CRAFT SHOW** 1st & Central Avenues, North Wildwood; 609/522-4520

**16**

**NORTHEAST COMMODORES' CONFERENCE AND FUN FLOAT** Radio controlled model boats; Cameron Field Duck Pond, South Orange; 732/382-5788

**18**

**CONCERT** Smithville Mansion Courtyards, Eastampton; 609/265-5068; ☼; \$

**20 through 22**

**CAPE MAY COUNTY 4-H FAIR** Cape May Court House; 609/465-5115

**21**

**JERSEY DEVIL HUNT** Pinelands

**21 through 23**

**COPPERGATE** Horse Park; 856/235-5623

**22**

**CANOEING THE PINEY RIVERS** Pinelands

**ANTIQUE FAIR** Hermitage; ☼; \$



# Events

## Events July/August

### DINOSAURS Kay

ALSTEDE FARM'S 1ST ANNUAL SUMMER GET-TOGETHER Alstede Farm, Rt. 24, Chester; 908/879-7189

### 22 and 23

CAPE MAY COUNTY DAYS Cold Spring

### 25

CONCERT Smithville Mansion Courtyards, Eastampton; 609/265-5068; 6; \$

### 25 through 30

FESTIVAL OF THE SEA St. Francis Community Center, Brant Beach; 609/494-8861

### 28 through 30

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

MORRIS COUNTY 4-H FAIR Chubb Park, Chester; 973/285-8301

### 29 and 30

MID-SUMMER ANTIQUES & COLLECTIBLES SHOW & SALE Wheaton

CHILDREN'S DAYS Cold Spring

MID-SUMMER CRAFT SHOW Wildwood Crest; 609/522-1669

63RD ANNUAL GREATER WILDWOOD YACHT CLUB REGATTA Sunset Lake, Wildwood Crest; 609/522-0969

NORTHEAST CONNECTION - ZONE 7 - PAINT-A-RAMA Horse Park; 856/468-5366

### 30

ARTS & CRAFTS SHOW Viking Village, Barnegat Light; 609/361-7008

## August

### Through 10

JURIED PHOTOGRAPHY SHOW Smithville Mansion Annex Gallery, Eastampton; 609/265-5068

### Through October 22

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

### Through October 31 (Tuesdays, Thursdays and Saturdays)

OCEAN COUNTY FROM THE EXPLORERS TO 1950 Exhibit; Toms River; 732/341-1880

### 1

CONCERT Smithville Mansion Courtyards, Eastampton; 609/265-5068; 6; \$

### 2

MISS CRUSTACEAN BEAUTY PAGEANT AND HERMIT CRAB RACES 12th Street Beach, Ocean City; 609/525-9300

SAND SCULPTING CONTEST 12th Street Beach, Ocean City; 609/525-9300

### 3

TRAIL VOLUNTEER PROJECT Tatum Park, Middletown; 732/842-4000, ext. 4283

### 3 through 6

RED BANK CARNIVAL Count Basie Field, Red Bank; 732/842-4244

### 4 through 13

NEW JERSEY STATE FAIR Sussex County Fair Grounds, Augusta; 973/948-5500

### 5

10-MILE ISLAND RUN 44th Street beach, Sea Isle City; 609/263-3655

### 5 and 6

COUNTRY CORN FESTIVAL Cold Spring

### 8

CONCERT Smithville Mansion Courtyards, Eastampton; 609/265-5068; 6; \$

### 11 through 13

NJ PALOMINO EXHIBITORS ASSOCIATION SHOW Horse Park; 908/234-9469

### 12

WATERMELON/MUSIC FESTIVAL Huddy Park, Toms River; 732/240-7888

COUNTRY/BLEUGRASS MUSIC CONCERT Albert Music Hall, Waretown; 609/971-1593

BIG SEA DAY Manasquan; 732/223-8303

### 12 and 13

ANTIQUÉ SHOW Cold Spring

### 13

TRAIL VOLUNTEER PROJECT Shark River Park, Neptune; 732/842-4000, ext. 4283

### 18 through 20

FESTA ITALIA BY THE SEA Boardwalk, Bradley Beach; 732/389-9204

### 19

PINELANDS NATURE HIKE AT WHARTON STATE FOREST Hammonton; 609/567-4559

### 19 and 20

ANTIQUÉ AUTO SHOW Cold Spring

HEREFORD INLET CRAFT SHOW 1st & Central Avenues, North Wildwood; 609/522-4520

25TH ANNUAL CLEARWATER FESTIVAL Sandy Hook; [www.clearwatermc.org](http://www.clearwatermc.org); 732/872-9644; 6

### 20

ANTIQUÉ FIRE APPARATUS SHOW & MUSTER Wheaton

REPTILES Great Swamp

FESTIVAL OF HORSES Horse Park; 609/984-4389

### 25 through 27

NEW JERSEY STATE 4-H HORSE SHOW Horse Park; 732/932-9705

### 26

STARWATCH AT WHARTON STATE FOREST Hammonton; 856/627-3043

### 26 and 27

HARVEST DAYS Cold Spring

6TH ANNUAL BLUES MUSIC FESTIVAL & OKTOBERFEST BY THE SEA Wildwood; 609/729-6818

### 27

VINTAGE BASEBALL GAME Waterloo

18TH ANNUAL BARNEGAT CRAB RACE & SEAFOOD FESTIVAL Seaside Heights; 732/349-0220

ANNUAL 10K RUN Avalon; 609/368-4444



# Southern Flying Squirrel

by Mimi Dunne

One often hears stories of flying squirrels occupying chimneys and attics, but few people are treated to the sight of one in the wild. Their status in New Jersey is considered stable, but that doesn't mean you're likely to see one. They are the only nocturnal member of the squirrel family and are rarely active during the day. They also have a relatively small home range—about half an acre, compared to red and gray squirrels, whose home territory ranges from 2 to 7 acres. Their population densities may be lower, too, than some of the other squirrels. In addition to red and gray squirrels, chipmunks and woodchucks are the other members of the squirrel family that can be found in New Jersey.

Their scientific name, *Glaucomys volans*, literally means "gray mouse flying." Their coloring varies with the season and ranges from pale brown to tawny to yellowish brown to gray. They are dis-

**They don't actually fly but glide by means of a membrane, called a patagium, which extends from the wrists to the ankles.**

tinctly counter-shaded, with dark upper parts and pale undersides. They don't actually fly but glide by means of a membrane, called a patagium, which extends from the wrists to the ankles. Their length, including tail, is 9 to 10 inches, and they weigh from 2 to 4 ounces. A black ring surrounds their large, dark eyes.

The habits of flying squirrels are very different from the other squirrels. While gray squirrels are arboreal (found in trees), and may leap from tree to tree, flying squirrels can cover up to 50 yards in the air. They have been known to corner, too, while gliding—turning 90 or even 180 degrees on the descent. They may use a form of echolocation to sound their way around in the dark. Calls include a bird-like chirping, a squirrel-like chuck note, a high-pitched chirp, and a sneeze-like call. Considered granivorous—grain and seed eaters—they are also known to be carnivorous. They are ground foragers and their diet includes insects, other invertebrates, birds, eggs, nestlings, carrion, nuts, seeds, berries, fruits, blossoms, buds, fungi, lichens and bark. Females of the species defend their territories around brood nest trees. Males do not appear to be territorial.

Flying squirrels are found primarily in deciduous forests. They rely heavily on the nuts and other mast from oaks, hickories and associated trees and shrubs. They also need the cavities excavated by woodpeckers for nesting and retreat. Individuals will often use several tree cavities for shelter. They will use old nests made by gray squirrels or birds, and modify them with linings of shredded bark or moss. They'll use nestboxes constructed for wood ducks or kestrels, if

in the right habitat. They may be attracted to nestboxes erected specifically for their use. The entrance hole should be no more than 1.6 to 2 inches in diameter to exclude a gray squirrel, and should be placed on structures about 12 to 20 feet from the ground.

Seasonal changes in daylight hours trigger flying squirrel activity. As days begin to grow shorter at the end of the summer, nut gathering is stimulated. Cold temperatures may encourage them to aggregate to conserve body heat. They don't ever truly hibernate, but can become torpid (reduced body temperature and inactive) when food supplies are reduced and it's extremely cold.

When days are the shortest in December, reproductive activity is stimulated. The young are born, blind and hairless, in litters of 3 to 4 in April/May and again in August/September. They are weaned at 6 to 8 weeks of age.

Because flying squirrels are nocturnal, their main predators are owls and domestic cats. Other potential predators may be rat snakes, bobcats, raccoons, weasels and hawks.

Flying squirrels may not legally be collected from the wild, and would seem to be incompatible as a pet because of their nocturnal behavior.

*Mimi Dunne coordinates several education programs for DEP's Division of Fish and Wildlife. A senior wildlife biologist, she calls the Pequest Trout Hatchery & Natural Resource Education Center in Oxford her home base.*





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