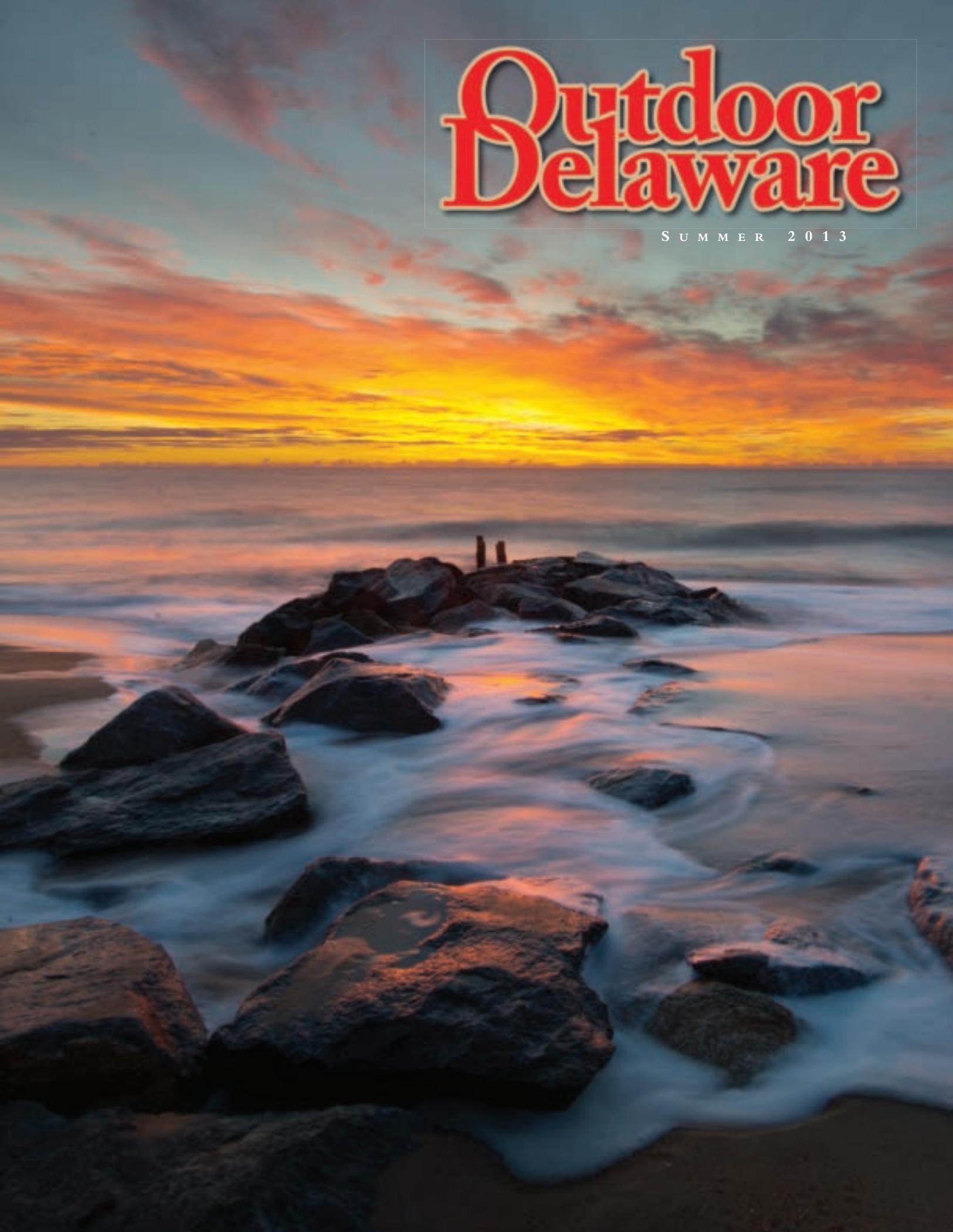


Outdoor Delaware

S U M M E R 2 0 1 3



FRONT LINES

Delaware's Crown Jewel

BY COLLIN O'MARA, SECRETARY



Remember the first time you ever swam in the ocean? I certainly do. Being bowled over by a big wave as a child gave me a firsthand taste of the awesome power of nature. There's no better place in Delaware to relive this thrill - and dozens of other recreational adventures over and over again - than Cape Henlopen State Park.

Cape Henlopen is a crown jewel among all of our state parks. And not just because of its views and access to both the mighty Atlantic and the richness of Delaware Bay. As a gateway to the Bayshore, the park is Delaware's largest and offers world-class beaches, trails, diverse wildlife habitat, ever-changing coastal landscapes, history and recreation. If you swim or fish, bird, camp, hike, bike, or study history, you will want to visit Cape Henlopen State Park again and again.

Cape Henlopen's trails are second to none. Through Governor Markell's First State Trails and Pathways initiative, we are making an unprecedented commitment to making Delaware a national leader as a pedestrian and bike-friendly state. The benefits of trails extend well beyond their physical boundaries by revitalizing communities, strengthening local economies, increasing access to healthy outdoor recreation and providing active transportation alternatives.

Cape Henlopen is a key hub of the Governor's Initiative. Building upon the miles upon miles of beaches for long-walks, swimming, or fishing, and the well-shaded pine-forested trails, we are developing new trails and improving existing ones.

Starting this fall, we are expanding the Gordons Pond Trail by connecting the park's northern and southern portions. When complete, two new miles of trail will create a continuous bike and pedestrian recreational trail and active commuter route between Rehoboth and Lewes. With a future link to the existing Junction and Breakwater Trail in place, cyclists and walkers will enjoy a nearly 15-mile loop, one of the longest in the nation along the Atlantic coast.

Another three-mile, shared-use trail gets bikers and hikers entirely off-road in Cape Henlopen. Looping around the northern core area of the park, the trail connects the Seaside Nature Center, the swimming beach bathhouse, the Fort Miles Historic Area, campground and active playfields. Yet another opportunity

to drink in nature's gifts can be found on the Seaside Nature Trail and the Pinelands Nature Trail. Hiking these trails will get you up close to the Cape's natural assets.

We are also working with DelDOT to build the long-discussed "Georgetown-Lewes-Cape Henlopen rail-with-trail." Following a state-owned rail line, a trail between Georgetown and Cape Henlopen creates linkages between coastal Sussex County communities offering new recreation, tourism and commuting opportunities.

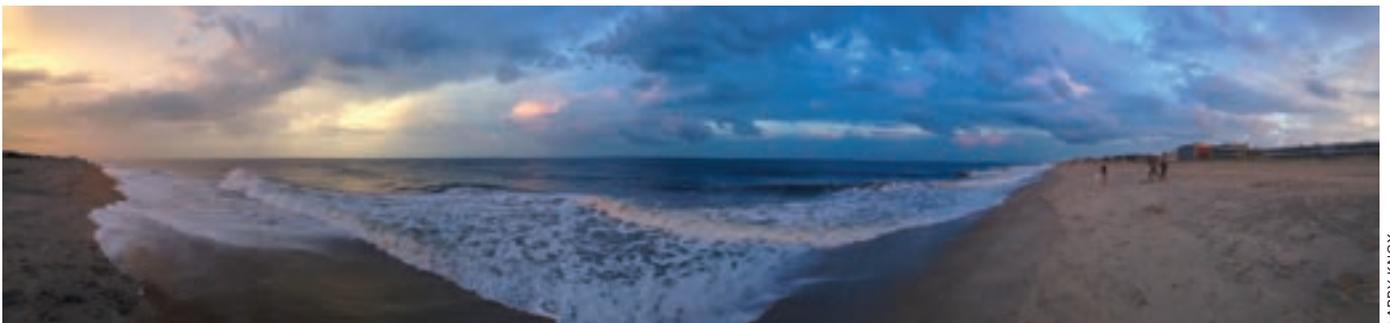
A growing number of Delawareans are visiting Cape Henlopen, not just for the beach and trails, but to enjoy the unrivalled wildlife watching opportunities as well. We've recently completed a range of habitat restoration projects to support native species and the results are impressive. Birders converge on the Cape to watch the nearly 300 bird species that may be seen in the park. These include piping plover (which nest nowhere else in the state), common nighthawk and resident brown-headed nuthatches. You also might see the occasional rarity like the swallow-tailed kite, or the scissor-tailed flycatcher, Swainson's hawk and Leconte's sparrow.

Park visitors might also spot other wildlife including intricately-patterned hognose snakes, pods of bottlenosed dolphins beyond the surf, and swarms of migrating monarch butterflies and dragonflies each autumn.

In addition, the dynamic, breathtaking landscapes that characterize Cape Henlopen provide a perfect backdrop for the Fort Miles Historic Area. Fort Miles was a strategic place for the nation's coastal defense during World War II. These defenses provide a tangible reminder of how close our nation was to fighting against Germany on our East Coast. Today, the Fort is a special place for history buffs, veterans, families or anyone interested in learning about Delaware's important role during World War II.

So come visit Cape Henlopen and experience the diverse wildlife, rich history, dazzling dunes, and magnificent views of the ocean and bay. Whether you or your family long to play in the waves, take a leisurely walk, enjoy the beach, ride the trails, fish, bird, or take a trip back to the 1940s, the Cape has something for everyone. And if my words haven't convinced you to visit Delaware's Crown Jewel, I'm sure Kevin Fleming's stunning photographs inside this issue of Outdoor Delaware will...

See you outdoors,



LARRY KNOX

STATE OF
DELAWARE

GOVERNOR

Jack Markell

DNREC SECRETARY

Collin O'Mara

DNREC DEPUTY SECRETARY

David Small

CHIEF, PUBLIC AFFAIRS, DNREC

Carol Anders Riggs

MAGAZINE STAFF

EDITOR

Beth Shockley

DESIGN

Larry Knox

CIRCULATION

Charley Roberson

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Outdoor Delaware

CONTENTS

Capturing Cape Henlopen State Park 4

By Kevin Fleming

See Cape Henlopen through the eyes of renowned photographer Kevin Fleming in a photo essay of this unique state park.



New National Recreation Trail Designations 14

By Avery Dunn

Four new National Recreation Trails in Delaware have been added to the National Trails System. Find out which ones and why.

Building an Outdoor Legacy 15

By Kendall Sommers

From hiking to bird watching, learn what Delawareans do outdoors from the latest SCORP report.



Delaware's First Environmentalists 18

By Josephine Eccel

The Lenape Tribe is a community in Kent County's Cheswold area and a remnant of the Native American tribe whose Delaware roots go back thousands of years.

Volunteers in Nature 22

By Cathleen Perrotto

Find out how you can give back to the state parks that need volunteers for everything from maintenance of trails to historical interpretation.



Warden – DNREC's Four-Legged Enforcement Officer 24

By Casey Zolper and Joanna Wilson

Make no mistake, K-9 Agent Warden, an eight-year-old black lab, is helping DNREC's Division of Fish and Wildlife take a bite out of crime.

Econotes 26 The Nature Store 30



On the cover: © 2013
by Kevin Fleming

A breathtaking sunrise reflects off the waves at Cape Henlopen State Park.



On the back cover: © 2013
by Kevin Fleming

The famous Towers take over part the beach at Cape Henlopen State Park.



Outdoor Delaware is the conservation magazine of the Delaware Department of Natural Resources and Environmental Control



An aerial photograph of Cape Henlopen, Delaware, during sunset. The sky is a gradient of orange and yellow, transitioning into a dark blue over the ocean. The land is silhouetted against the bright sky, showing a large dune area and a body of water in the foreground. A single, dark, vertical object, possibly a person or a marker, is visible in the water on the right side.

The Beauty of Cape Henlopen

Cape Henlopen is not just a major summer destination, it's great year round. Beautiful beaches, coastal dunes, woodland trails, military history – these are just a few of the reasons Delawareans and visitors alike flock there.

In this photo essay, we see Cape Henlopen uniquely - through the eyes and words of renowned photographer Kevin Fleming.





PHOTOGRAPHY ASSIGNMENTS for National Geographic magazine and my book projects have taken me to 28 countries and all 50 states. But there is nowhere I would rather be than here in Delaware, especially in Cape Henlopen State Park.

Life is on the edge here. The Atlantic Ocean ends as waves roll onto the sands where Delaware begins. Wildlife abounds where north meets south and there never is an off season for birding in the park. Even during the short, gray days of January and February you can find red-breasted mergansers and a colorful assortment of sea ducks. During the spring and autumn migrations hundreds of raptors like bald eagles, kestrels and peregrine falcons pass through

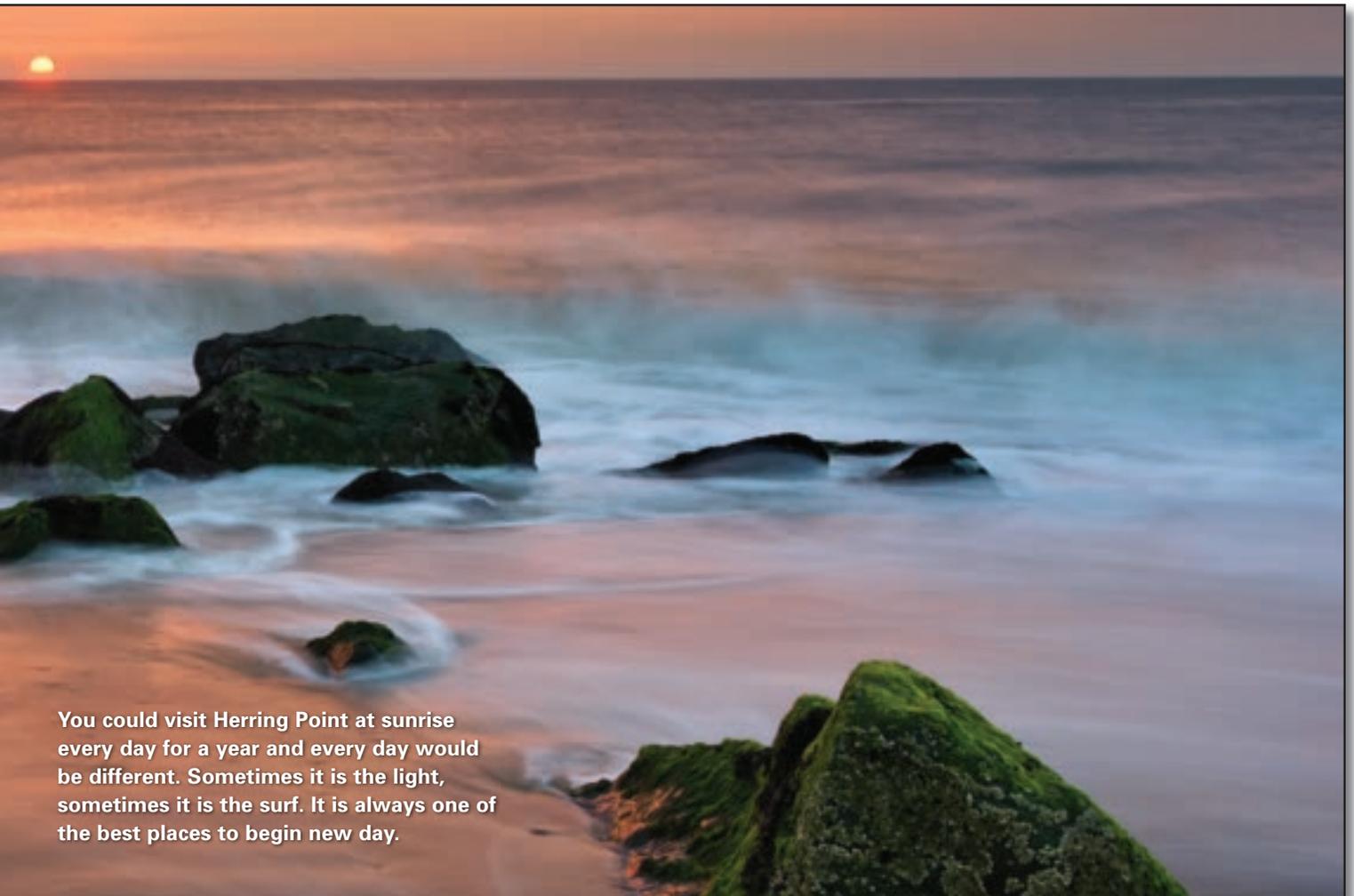
the park on their way north or south as well as many species of songbirds.

Sunrise is my favorite time to photograph the park. Every day is different as the light and tides are always creating new scenes. Herring Point catches the first light of a new day and the twin granite jetties are a great place to watch especially in the summer, and it is not unusual to see hundreds of great and snowy egrets fishing the shallow, brackish water in July and August.

Beyond the coast there are miles of woodland and wetland trails to hike and explore. In the off-season you may just have the place to yourself. Often, I do.

**A young gray seal rests on the beach (left)
and the Great Dune catches the sunrise light.**





You could visit Herring Point at sunrise every day for a year and every day would be different. Sometimes it is the light, sometimes it is the surf. It is always one of the best places to begin new day.



If there is an icon that is quintessentially Delaware, my vote would be our WWII fire control towers. Eleven were built in 1942 to watch for Nazi submarines that were taking quite a toll on shipping just off the coast. The seven towers built in Cape Henlopen State Park still stand as silent sentinels. For the star track photograph (top), I used a 40 minute exposure starting at 3:00 am.







Take the nature trail at Gordons Pond—especially in the summer—and you can often find diamondback terrapin (left), white-tailed deer (top) and great egrets.

New National Recreation Trail Designations



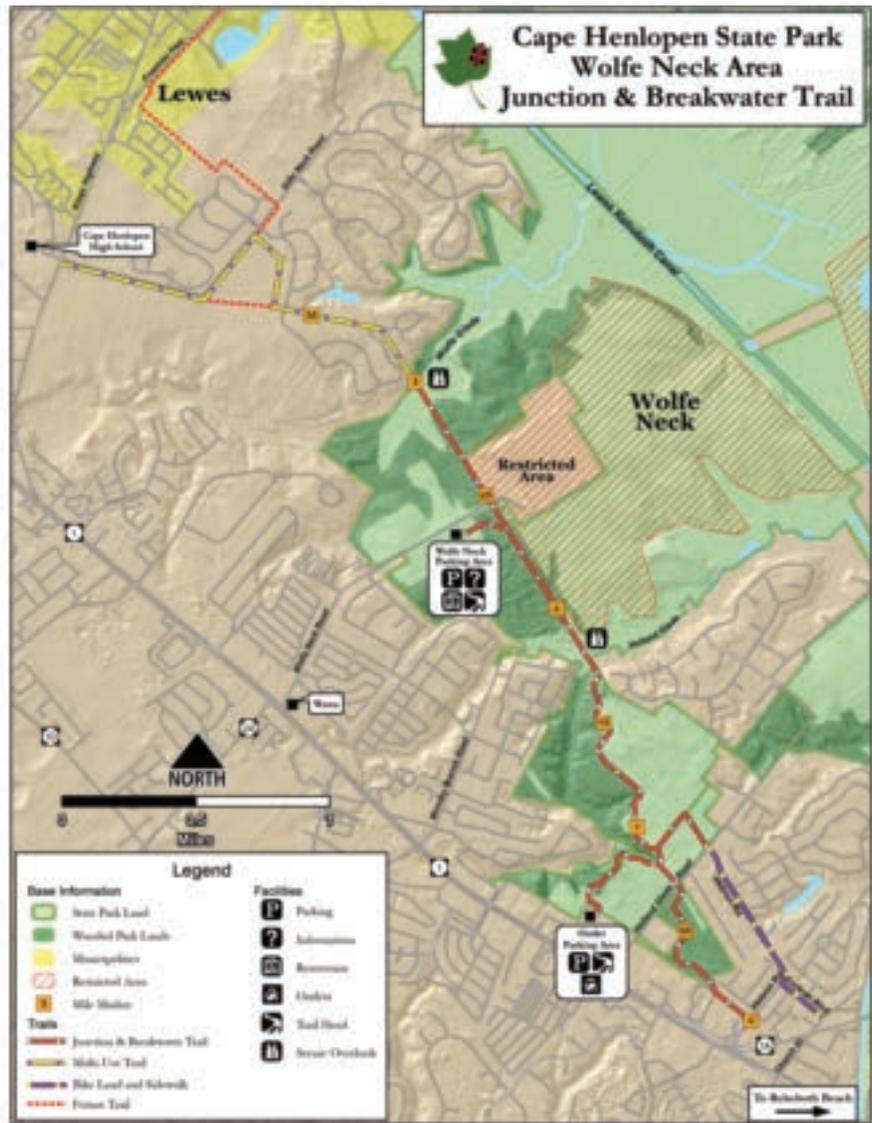
BY AVERY DUNN

FOUR NEW NATIONAL Recreation Trails in Delaware totaling 17.9 miles have been added to the National Trails System. The Junction and Breakwater Trail, Pomeroy and Newark Rail Trail, and two segments of the Northern Delaware Greenway Trail were designated on May 31 by U.S. Secretary of the Interior Sally Jewell. A total of 28 new trails were designated this year to join a network of more than 1,200 previous designations totaling over 15,000 miles.

The Junction and Breakwater Trail, located in Cape Henlopen State Park, is a 4-mile rail to trail that follows a section of the former Penn Central Railroad between Lewes and Rehoboth Beach. The trail is essential in connecting the two communities, providing residents and visitors with an outstanding hiking and biking trail. Scenic outlooks offer views of coastal marshes and interpretive signs teach us about the area's plant and animal life.

The Pomeroy and Newark Rail Trail provides a key connection between Newark's central business district, city parks, the University of Delaware, and White Clay Creek State Park. The trail is an accessible paved pathway that runs north and south within the former Pomeroy Railroad corridor. The trail, about four miles long, improves pedestrian safety and mobility, promotes cycling and non-motorized transportation, relieves traffic congestion, and encourages recreation and physical fitness.

The Northern Delaware Greenway Trail plays an important role in connecting parks, historic, cultural and natural resources. A 2.5-mile segment in Brandywine Creek State Park allows trail users to experience Piedmont wooded landscapes, spring wildflowers and wildlife, and to view unique geologic features. From the trail, visitors can picnic, fish, and canoe Brandywine Creek. A segment just over seven miles long links several state and county parks between the Delaware River and the Brandywine River. A regional recre-



The Junction and Breakwater Trail is one of four newly designated National Recreation Trails in Delaware.

ational and transportation asset, the trail serves many people in the greater Wilmington area, giving residents in nearby neighborhoods easy access to park land and a safe place to be active.

The National Recreation Trail program recognizes trails of local and regional significance, promotes the use and care of existing trails, and helps to create a national network of trails. Designated trails benefit from increased visibility, technical support and assistance, and opportunities for networking, training and funding. For more information on cur-

rent National Recreation Trails, including trailhead locations and maps, an online searchable database can be found at www.americantrails.org/NRTDatabase.

The new designations join the Pine-lands Nature Trail at Cape Henlopen State Park, James Hall Trail in Newark, and the Hagley Trail at Hagley Museum, which were previously designated as National Recreation Trails in Delaware. **OD**

AVERY DUNN IS A GIS ANALYST WITH DNREC'S DIVISION OF PARKS AND RECREATION.

DIV. OF PARKS AND REC.

SCORP: Building an Outdoor Legacy

BY KENDALL SOMMERS



Moving ahead in the Adventure Race at Lums Pond State Park.

WHAT BETTER WAY to enjoy this glorious season than by getting outside to enjoy the great outdoors? From the tiny pocket park in a suburban neighborhood to the rolling hills and hardwood forests of northern Delaware to the vast expanses of public beaches in Sussex County, Delaware has it all. The First State's recreation estate has been built over a number of years through thoughtful research, careful planning and creative partnerships.

Since 1966, Delaware Outdoors, Delaware's Statewide Comprehensive Outdoor Recreation Plan (SCORP), has helped identify priority conservation and recreation issues and needs, and direct investments in outdoor recreation and conservation. The newly released 2013 SCORP continues to guide future outdoor recreation investments and build on our existing recreation and conservation assets to provide our citizens with second-to-none outdoor recreation experiences.

Why recreation is so important

Investments in parks, trails, conservation areas and outdoor recreation facilities offer countless and long-lasting benefits to our communities, including numerous societal and economic returns. Once an investment in outdoor recreation is made, it sparks a renewed interest and expanded use of outdoor recreation facilities and results in both intrinsic and measurable benefits. Investments expand and improve public recreation facilities, increase recreation and environmental programming, improve our quality of life and contribute to a community's vibrancy. Investments in parks and outdoor recreation facilities yield returns such as environmental improvements, benefits to health and fitness, decreased healthcare costs and increased property values.

The Delaware SCORP lays out a broad vision for outdoor recreation in Delaware by recommending increased access to our recreation infrastructure, addressing the health benefits of outdoor

recreation, including efforts to build more interconnected trails and pathways, reconnecting children with their natural world, and protecting and promoting our important natural spaces. The SCORP lays the groundwork to improve the already phenomenal outdoor recreation opportunities in Delaware.

Here are some of the SCORP's recommendations:

Improve public health - increase availability to convenient and safe places

Our surroundings either enable or hinder our ability and decisions to participate in outdoor recreation and physical activity. Though many steps have been taken to address the obesity epidemic, millions of Americans still lack access to safe places to be physically active. A key strategy in chronic disease and obesity prevention is incorporating places to be active in our built environment. Regular physical activity can be achieved by running in the



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Meeting animal friends at the Brandywine Zoo.

park, hiking as a family on nearby trails, or playing on ball fields and playgrounds. Delaware's outdoor recreation places and their associated facilities can provide safe, fun, accessible and convenient settings for physical activity, which is critical amidst growing obesity in Delaware.

Get children outdoors - improve and create new opportunities for children to be active

Public open spaces play a major role in getting people outdoors, creating a sense of community and well-being. More importantly, these places provide a means for both children and adults to be physically active and to live healthy lifestyles. This is critical in terms of childhood obesity nationally and in Delaware. Park and recreation facilities - including trails and community pathways - provide an outlet for everyone to engage in positive lifelong activities. Most adults who participate in outdoor recreation were introduced to outdoor activities as children. With the growing number of electronic distractions, including TV, computers and video games, engaging youth participation is critical to sustain future generations of outdoor enthusiasts and public land stewards.

The Delaware Children in Nature Task Force is working to address the challenge of reconnecting children with nature. The Task Force represents Delaware's commitment to the nationwide No Child Left Inside movement. The

SCORP reinforces the importance of the Delaware Children in Nature Initiative and makes recommendations that ensure every Delaware child has the opportunities and benefits of exploring, growing and learning from our diverse natural environment.

Access for all - implement and maintain services that are high quality, inclusive and accessible

Distance from - and physical access to - recreational facilities are the greatest barriers to getting people outdoors and active. Not only should facilities be universally accessible and equally distributed throughout our communities, they should be located in areas that will provide the highest use for the greatest number of people. Understanding community character and local demographics plays a key role in helping locate specific amenities and ensures citizens of all ages, interests, economic stature and abilities are served by a park or recreation facilities.

The condition of park facilities and the actual pathways to reach a park can also encourage or inhibit park use. Park users are more likely to visit a park that is easy to get to, where the facilities are consistently well maintained and safe to use. Supporting infrastructure that ensures safe bicycle and pedestrian passage is particularly motivating for people to use a park and engage in physical activity. More often than not, there are significant

gaps in pathway and sidewalk structures that prevent people from safely accessing parks and recreation facilities.

Statewide Trails and Pathways Initiative - make Delaware walkable and bikeable by creating a premier interconnected network of multi-use bicycle and pedestrian trails and pathways

In 2011, Governor Markell announced the Statewide Trails and Pathways Initiative. A partnership between DNREC and the Delaware Department of Transportation, the initiative is the blueprint for creating an interconnected network of shared-use trails and pathways that support non-motorized travel and recreation opportunities in Delaware. The Statewide Trails and Pathways Initiative will build upon past local, state and federal investments in trails and pathways and extend those systems within communities.

The benefits of trails and pathways extend well beyond their physical boundaries by revitalizing communities, helping to keep local economies strong, increasing access to healthy outdoor rec-



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Cooling off at the Water Park at Killens Pond State Park.

recreation and providing opportunities for active transportation. Investing in trails and pathways makes our communities more desirable places to live. Communities around the country know that trails are good for business. They have reaped the rewards as trail users buy from small businesses and rely on local restaurants and lodging providers. Study after study demonstrates the many health, societal and economic benefits directly attributed to trail development.

Partnerships for conservation, recreation and tourism - provide responsible access to natural and historical spaces while conserving the environment and improving local economies

Nearly three out of four Americans participate in active outdoor recreation each year. Getting outdoors means big business. Americans generate jobs, spend money and support local communities when they get outside. Low impact activities like hiking, biking and wildlife viewing generate an enormous economic impact. Outdoor recreation activities contribute more than \$700 billion to the U.S. economy, support more than six million jobs, and produce \$289 billion in retail sales and services, not to mention the billions of dollars generated in annual tax revenue. Delaware is the tiny gem of the mid-Atlantic that hosts more than seven million visitors per year. With each visitor spending more than \$545 per trip, Delaware's tourism industry is a key part of the economy. Delaware offers spectacular outdoor recreation and trail opportunities. Visitors flock to our Bayshore, Nanticoke River, Inland Bays, ocean beaches, state parks, wildlife areas and farmland to experience that which they cannot enjoy at home: world-class birding, fishing, biking, hiking, canoeing and kayaking.

Launched in 2012, the Delaware Bayshore Initiative is building on the region's reputation as a unique and beautiful natural resource, and helping improve the shoreline-based economy by encouraging more Delawareans and visitors to enjoy it through recreational activities like hunting, fishing, boating and other ecotourism activities. Due in large part to early private-public land conservation acquisitions and to the legacy of the Coastal Zone Act, nearly 60 percent of the 200,000 acre Delaware Bayshore Region remains undeveloped, and is today protected as publicly-owned state or federal wildlife lands.

Protecting lands for conservation and recreation - maintain and enhance the interconnected network of natural areas, open spaces, parks and conservation lands

Land use changes due to human activ-

ity have a strong effect on ecological resources. Scattered patterns of more than 50 years of modern development in Delaware, especially the construction of low-density residential housing subdivisions, has consumed excessive amounts of land and fragmented natural landscapes. Wildlife habitat and migration corridors are lost, and normal ecosystem functions are disturbed or destroyed. When natural spaces are converted for human use, the population of species dependent on the lost habitat may decrease below the threshold needed for long-term persistence.

Habitat loss and fragmentation are perhaps the greatest threats to forest wildlife, and the primary cause for species extinction by restricting the movement of plants and animals. Ecosystems with lower diversity are generally less desirable and can affect the availability of outdoor recreation opportunities.

Strategically planned and managed networks of natural lands, working landscapes and other open spaces that conserve ecosystem functions and provide associated quality of life benefits offer a systematic approach to land conservation. A network of interconnected green spaces can provide vital habitat for wildlife, protect water supplies, improve air and water quality, and provide low impact outdoor experiences for recre-

ation enthusiasts. The end result is a healthier environment and a better quality of life for residents.

These environmental benefits can be achieved through proper planning and robust funding for land conservation. Conservation lands and residential development are not mutually exclusive. Incorporating natural spaces, wildlife habitat and conservation corridors early in the planning process can greatly enhance the quality of a residential development or a community as a whole.

Key partnerships will be instrumental in helping achieve the goals of the 2013 SCORP. Implementation of the recommendations will be accomplished through new and existing partnerships, growing collaborations and ad-hoc implementation teams.

Find out more: The full plan with a complete list of recommendations can be viewed at: www.destateparkscom/2013SCORP **OD**

KENDALL SOMMERS IS AN OUTDOOR RECREATION PLANNER WITH DNREC'S DIVISION OF PARKS AND RECREATION.



Birders at White Clay Creek State Park.

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Alexander H. Mosley, Jr., a member of the Lenape tribe. He is performing a Grass Dance, the historic purpose of which was to flatten the grass before a pow-wow.

THE DELMARVA PENINSULA once teemed with wildlife. Its pristine rivers were spawning grounds for shad and sturgeon. Oysters, mussels and other shellfish abounded in the bay and estuaries. And inland forests boasted old-growth trees of gargantuan proportions. With paddle and canoe, it was possible to navigate the length and breadth of the land through a network of waterways created by the industrious beaver and his dams.

Delaware's First Environmentalists

BY JOSEPHINE ECCEL
PHOTOS BY ROBIN RAY

This was Lenapehokink, home of the Lenape [leh-NAH-pay], who were “the first people of the first state,” as Dennis Coker, Principal Chief of the Lenape Indian Tribe of Delaware, is proud to point out. His community of about 800 related residents in Kent County’s Cheswold area is a remnant of the Native American tribe whose Delaware roots go back thousands of years. The name “Lenape,” according to some translations, means “first people,” or “original people.”

Because they occupied the vast region that encompasses the Delaware River watershed from its headwaters to its terminus in the Bay, the Lenape were also called Delaware Indians.

The state recognizes two tribes within its borders: the Lenape and the Nanticoke Tribe, based in Millsboro. However, the Nanticoke arrived later, sometime in the late 17th century, pushed eastward from their homelands along the Chesapeake Bay by encroaching European settlement.

Both groups belong to the regional Confederation of Sovereign Nanticoke-Lenape Tribes of the Delaware Bay, which also includes the Nanticoke Lenni-Lenape Tribal Nation, based in Bridgeton, New Jersey.

As white settlement increased, the Lenape migrated west, many as far as Oklahoma or north into Canada, where tribal communities still live together preserving their culture.

Among their peers, Chief Coker explains, the Lenape were known as “The



One classification of the Native Regalia is the Women’s Fancy dress. Fringed capes are edged with yarn of multicolored designs. A matching apron is worn to cover the waist, and fringed side tabs are added. Instead of leggings, most dancers wear jogging pants with fringe below the knees. Bells are worn between the ankles and moccasins.



Cory Jackson with her newborn Maeha at a pow-wow in Millsboro. Cory is a member of the Nanticoke Tribe and Maeha is Nanticoke and Lenape.

Negotiators,” “The Grandfathers,” or “The Peacekeepers,” who fought only when necessary.

Culture

The Lenape had no written language. Their traditions and legends were handed down generation-to-generation by word of mouth. But we have contemporary accounts left by European explorers and missionaries.

William Penn, who arrived from England in 1682, described the Lenape: “tall, straight, well-built, and of singular proportion...and mostly walk with a

lofty chin.” Of their language, he wrote: “I know not a Language spoken in Europe that hath words of more sweetness or greatness, in Accent and Emphasis than theirs...” The founder of Pennsylvania also wrote of the Lenape egalitarian spirit of sharing with each other when he presented them with gifts.

Theirs was a hunter-gatherer and farming culture. They were also survival guides, introducing Europeans to the “Three Sisters” – corn, beans and squash, all of which quickly became staples of the Colonial diet – and remain so for Americans to this day.

Lenape men cleared the land using a slash-and-burn technique. In the traditional division of labor, women planted, harvested and cooked the food in hand-made clay pots, sewed the deerskin clothes and cared for children. Men were the shelter builders, toolmakers, defenders and hunters.

Their tools and weapons were fashioned out of wood, bone, antler and stone. Some stones were chipped into a

foraging, netting, trapping and herbalism.

Herbs collected from the wild played both a religious and medicinal role in the lives of Native Americans. Today, leaves of sage or sweetgrass are still used in certain Lenape ceremonial cleansing rituals.

The traditional diet was healthful, says Chief Coker, and included fish, nuts, berries and plenty of vegetables, along with red meat and fowl when the hunt was successful. Native people were grateful for every part of the animal. Besides providing food, clothing and shelter, animal products had other uses: grease was used as insect repellent or colored for facial or body decoration, and parts such as teeth or shells were made into jewelry, wampum and tools.

The Lenape's oval, round-top homes, called wigwams, were fashioned from bark and skins laid over a frame of saplings. These shelters accommodated an extended family. Lenape were a matrilineal society, so when a couple married they moved in with the wife's family. As game and other resources diminished in the surrounding area, wigwams would be abandoned and the village moved, allowing the land to recover and the wildlife to be restored and revitalized.

The "first" conservationists

Native Americans lived in harmony

Lenape language is included in the Algonquian Group called Eastern Algonquian and has three distinct bands: Unilachtigo (Turkey Clan), Munsee (Wolf Clan), and Unami (Turtle Clan). Also under the classification of Eastern Algonquian belongs the related language of Nanticoke-Conoy.

The three Lenape clan totems, wolf, turkey and turtle, will be featured on the new one dollar Native American coin to be released later this year to commemorate the first treaty made by the new United States with the Delaware Indians in 1778.

razor-sharp points by flintknapping, an essential skill, since metal was virtually unknown prior to European contact. Many of these necessary skills were passed down from generations, such as



This watercolor by Russell Ray is of the Delaware Native hunters during the 1800s, moving west into Maryland on a winter hunting trip. The Delaware natives were mainly coastal dwellers. "This was my rendition of two lone hunters seeking out game for the tribe during the winter months," Ray says.



This woman wears the Women's Traditional dress for the pow-wow. It is made of hide skin with some ornamentation.

with their environment. "Our philosophy is to take only what you need and give thanks for everything you take," Coker says. "We do not exploit resources, we use them. When you interact with your environment on a daily basis, you know you've got to protect it because you are going to depend on it."

The Lenape felt a connection with all of nature. Even today, Chief Coker says,



Dennis Coker, Principal Chief of the Lenape Indian Tribe of Delaware (L) and Bill Daisy, Assistant Chief of the Nanticoke Tribe (R), attend a pow-wow.

prayers often end with "all my relations," because "that prayer is for everybody: the leaf, the rock, the tree... Everything has life. Everything has purpose." All are related, he says.

Relationship with nature had a deeply

personal and spiritual significance as well. As Lenape youth entered puberty, they would embark on a vision quest, spending several days in the wilderness alone, fasting and seeking guidance and self-knowledge. An animal might appear – whether real or in a dream – which would thereafter serve as a spiritual guide and which could be called upon for help and direction.

Life for the Lenape changed after contact with Europeans, starting in the 1600s. Iron pots, metal tools, woven cloth, mirrors, combs and guns were exchanged for the luxurious native beaver pelts.

“There was a level of greed that set in that really upset our economy,” laments Coker. “We started to forget our mandate of resource protection. We started to hunt the beaver [for pelts to trade] and the decline of the beaver was really the beginning of the decline of our culture.”



The Jingle dress, introduced in the 1980s, is made from multi-colored fabric decorated with tin jingles. The number of jingles on a child's dress is about 130. A woman's size varies depending on the design of the dress. The dancer carries a feather fan, often wearing eagle plumes of feathers in her hair.

Beaver pelts were shipped across the Atlantic Ocean by the thousands. With the decimation of the beaver population came the loss of dams and wetlands. Europeans moved in, built homes, fenced off fields, planted crops and harvested timber. Coming from a continent where every inch of ground belonged to

For More Information:

The website of The Confederation of Sovereign Nanticoke–Lenape Tribes gives links to the three state-recognized related tribes of the region and documents their shared history. <http://nanticokelenapemuseum.org/confederation/>

Website of the Lenape Indian Tribe of Delaware.
www.lenapeindiantribeofdelaware.com

Website of the Nanticoke Indian Tribe, based in Millsboro. Includes information about Heritage Days and the annual fall powwow. www.nanticokeindians.org

The Museum of Indian Culture, 2825 Fish Hatchery Road, Allentown, Pa, 18103, or 610-797-2121, offers Lenape history and culture exhibits, educational programs, guided tours and a research library. www.lenape.org

someone, they could not understand the Natives' inability to recognize ownership rights. But land to the Lenape was like air or water. “Resources were shared. They were for the community, for all of mankind. We don't own land,” explains Chief Coker. “We are stewards.”

The Lenape were forced to concede more and more of their land; some villages simply disappeared, victims of smallpox epidemics from which the Natives had no immunity. The Cheswold group survived by “hiding in plain sight,” as Coker describes it.

Conservation lessons today

Promoting the Lenape “mandate to care for Mother Earth,” Chief Coker encourages young people to study science, to “understand the denigration that has affected our ability to live off the land.”

In the space of 400 years, it has often become unhealthy to drink from a natural water source or to consume more than a certain amount fish caught in the wild. “Mother Earth is suffering,” he says.

“We are obligated as Native Americans to protect our environment [and our culture] for the next seven generations,” Coker says. “That is our instruction from the Creator. We have to conduct ourselves in a manner that considers the survival of our children for seven generations. Somebody saw to it that I was here seven generations down the road; it's my responsibility to give seven generations from me the ability to survive.”

One of the goals of the Lenape Tribal

Center in Dover, where Chief Coker's office is located, is to preserve the culture. That includes ceremonies, crafts, skills and the respect for nature that was an integral part of the Lenape way of life. Coker advocates healthy eating, growing food and buying produce from surrounding farms as a way to reduce a person's carbon footprint. The Lenape also support the move toward alternative clean energy.

“It's important for me to instill this wisdom and initiative in our youth because they are the future caretakers of Mother Earth,” he says. Chief Coker was also involved in the Delaware State Parks “Child in the Wild” program, which encouraged youngsters to get outdoors and interact with nature. Chief Coker consults with groups that have input on environmental policy, such as the Mid-Atlantic Regional Council on the Ocean, and as a member of the Bureau of Ocean Energy Management's alternative energy initiative task force.

“It's going to take all the citizenry of this country to realize that we only have one Mother Earth, and we have to respect her,” he says. “I fear that Mother Earth will cleanse herself if we don't do it. And it may not be as easy to deal with it if she does it for us.” **OD**

JOSEPHINE ECCEL, A FREQUENT CONTRIBUTOR TO OUTDOOR DELAWARE, IS A FREELANCE WRITER BASED IN WILMINGTON.

Volunteers in Nature

BY CATHLEEN PERROTTO



Volunteers play a key role in the removal of invasive and other unwanted plants from the parks.

“Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike.”

– JOHN MUIR

THIS QUOTE BY JOHN MUIR, one of the first and most influential conservationists, elegantly describes the positive effect nature can have on one’s well-being. When someone volunteers with DNREC’s Division of Parks and Recreation, that positive effect is enhanced for the volunteer and for the parks. Volunteers help DNREC fulfill part of its mission: to help restore and protect our precious natural resources, in this case, in Delaware’s beautiful and unique state parks.

State parks contain some of the few remaining undisturbed natural environments in Delaware. But with limited staff, many state parks rely on the help of volunteers to preserve these lands and resources. Volunteers have become an invaluable resource themselves.

Volunteering with Delaware State Parks

Any way you look at it, a wide range of interesting volunteer opportunities are

available within Delaware State Parks. For example, a volunteer may work in a park nature center and help visitors learn about the many wonders found there. Volunteers can also assist with environmental education, helping to inspire in others an appreciation and passion for nature. Another critical project is the maintenance of park grounds and trails, helping to keep the park beautiful as well as accessible for all visitors. Volunteer gardeners are always needed in our parks.

Those who prefer more specialized activities may become living history educators who help bring the past alive for visitors. Volunteers can also staff special events in the parks, such as the Spring Fling, the summer concert series, and sand castle contests. Delaware State Parks works with volunteers of all ages and groups of any size.

So many choices

Even with such distinctive projects, recruiting volunteers can be difficult. This is why Delaware State Parks strives not only to make every project appealing, but also seeks to ensure a volunteer leaves feeling a sense of satisfaction, accomplishment and connection to the environment.

Tara Cote, a Delaware State Parks

volunteer coordinator, says individual volunteers are attracted to the parks because of the many possible positive effects on their lives. “A lot of corporate groups like the chance to work outside and do something different than their normal jobs,” she says. “Teenagers are able to participate in activities that will help them build up their resumes for other jobs and college applications and to fulfill school service requirements. Counselors-in-training (CITs) even gain experience working with children during summer camps, which could aid them in finding jobs working in childcare.”

Cote says that researchers are especially enthusiastic about teaming with Delaware State Parks because they can help through activities that they are knowledgeable about. “Volunteers get to make an impact on areas and places that have made an impact on their life,” she says.

Importance of Environmental Stewardship

Delaware State Parks’ mission is to provide responsible stewardship of the lands and the cultural and natural resources they protect and manage. Parks officials know that this mission will not

be accomplished without the help of volunteers. To fill this need, environmental stewardship volunteer projects are being implemented in the parks. The overall goal of these projects is to create ecosystems that are typical of the region and likely to thrive.

Environmental stewardship projects can accelerate the recovery of damaged and degraded ecosystems. A diverse set of activities is crucial because volunteers must be able to respond to the ever-changing damage caused by different environmental stressors. These stressors may include climate change, human development and invasive species.

Besides benefiting a park's ecosystem, environmental stewardship projects attract and engage a wide range of volunteers including researchers, students and members of the local community. Environmental stewardship activities and projects are an effective way to educate people about natural areas and the native environment. Long-term volunteers



DAPHNE STUBBLO, DIV. OF PARKS AND REC.

"The removal of invasive species presents a good opportunity for volunteers looking for a way to be good stewards of the environment." - Kate Thomas, Delaware State Parks Field Biologist

may also be motivated by the continual learning opportunities afforded through these activities.

A variety of programs exist for volunteers that involve environmental stewardship. People can choose from programs in the beaches and bays, upland habitats, wetlands, trails, landscape and gardening, and invasive species removal. All of these projects provide volunteers the chance to take an active role in the conservation and preservation of the parks they visit and enjoy.

Benefits of volunteering

When people first volunteer, they most



DAPHNE STUBBLO, DIV. OF PARKS AND REC.

Volunteers are an essential part of park operations.

often think of helping others. However, volunteering has been shown to not only benefit recipients but volunteers themselves. Studies show that those who volunteer often have lower mortality rates and lower rates of depression compared to those that do not volunteer.

This is especially true for people who commit a considerable amount of time to volunteer activities (approximately 100 hours per year). Volunteering for an environmental organization can offer added benefits as well. Parks and other similar environmental organizations may fuel people's fascination with nature.

They often work hands-on in the natural landscape, building a sense of connection

not only with the location but also with nature.

Only a few of the countless ways people can lend their time to Delaware State Parks have been listed here. Through the efforts of volunteers, parks are able to continually provide a wide range of educational and recreational activities to visitors. In essence, those that volunteer can become the change they want to see in their parks. **OD**

CATHY PERROTTO IS LEAD NATURALIST AT BRANDYWINE CREEK STATE PARK.

How to get involved

Anyone can become a volunteer for Delaware State Parks. The first step is to visit the Delaware State Parks volunteer webpage: www.destateparks.com/volunteers and fill out an application. A completed application goes to the appropriate park volunteer coordinator who matches your interests and skills with available projects. They will contact you with a list of upcoming opportunities at the park(s) of your choice.



Warden

DNREC's Four-Legged Enforcement Officer

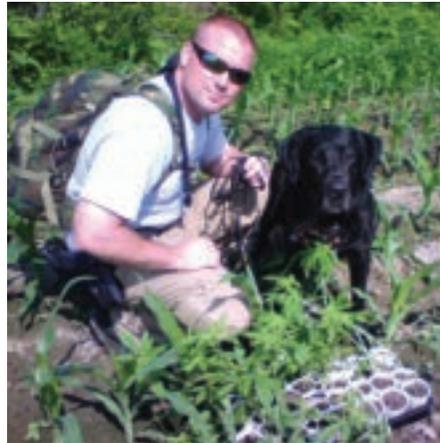
BY CASEY ZOLPER AND JOANNA WILSON

FOR SEVEN YEARS, Warden, a male black Labrador retriever from Sussex County, has served the First State as a K-9 agent working for DNREC's Division of Fish and Wildlife Enforcement Section. With his partner, Fish and Wildlife Enforcement Agent Sr. Cpl. Casey Zolper, K-9 Warden has tracked missing persons and evasive suspects, located key evidence in wildlife conservation and criminal cases, found marijuana plots, and represented Delaware's Fish and Wildlife Enforcement Section in public demonstrations of his specialized skills.

The partnership began in 2006, when Zolper did some research after learning about natural resource enforcement canine programs in other states. With then 12-month old Warden as his new partner, Zolper volunteered to take the intensive 400-hour, 10-week training course required to start the program in Delaware. The pair trained under the Florida Fish and Wildlife Conservation Commission's lead K-9 instructor, Officer John Snow, who started Florida's K-9 program in the 1980s, the premier natural resource enforcement K-9 unit in the country. The training, which is voice-command and praise-focused, is certified by the United States Police Canine Association.

Just the facts

Unlike traditional police canine units, Warden is trained specifically to meet the needs of the Fish and Wildlife Enforcement Section. He is trained and certified in tracking, evidence recovery and wildlife detection. In addition to helping agents in search and rescue operations, Warden can track people and wildlife, including doves, turkeys, ducks and deer. He is also able to sniff out evidence, such



Warden helps his partner, Sr. Cpl. Casey Zolper of DNREC's Div. of Fish & Wildlife, track marijuana planted in a field.

as discarded firearms and shotgun shells.

Warden has proven himself with many different types of cases from search and rescue to natural resource cases to criminal cases. He has assisted locating marijuana growing in State Wildlife Areas, located missing and wanted persons, and found key evidence in criminal cases. In his big first case in 2006, Warden found a wallet traced to an attempted homicide that linked the shooter to the scene.

"Warden's training is scent-specific. If you hold up an article of clothing from, say, a child lost or missing in a wildlife area, that's what he'll track, and what he will find," Zolper

said. "He can also dig up over-limit game that someone has buried, or locate illegal or discarded guns and ammunition. Just seeing Warden is a great deterrent against criminal activity."

Zolper and his K-9 partner attend training every three to four months, joining Maryland Natural Resources dogs and their handlers to practice their tracking, evidence recovery and wildlife detection skills. At the most recent training, Zolper started training Warden to alert on the scent of river herring to help locate illegally caught herring.

In his most recent case, on opening day of the 2013 spring wild turkey hunting season, Warden cracked a case



Warden signals that he has found a handgun buried in leaves



DIV. OF FISH & WILDLIFE

Warden as a K-9 “ambassador” works with his partner, Sr. Cpl. Casey Zolper, to introduce children to law enforcement techniques specific to the needs of DNREC’s Div. of Fish & Wildlife.

involving illegal hunting of wild turkeys over a baited area. Zolper and Cpl. Nathan Evans made contact with a group that declined to reveal the actual location where they had been hunting. Zolper deployed Warden, who led him on a quarter-mile trek into the woods where one of the subjects had been hunting. Upon reaching the site, the agents found the area was heavily baited with corn and wheat seed. Warden took Zolper to the spot where the subject had been sitting during his hunt. When Zolper advised the subject of Warden’s discovery, he replied, “That’s one good dog,” and admitted to hunting over the baited area. After seeing Warden’s skills, the other two subjects volunteered to lead Evans to the baited areas where they had been hunting.

Making it possible

Zolper and Warden, who are permanent partners, use their skills and teamwork statewide. While on duty Warden is all business, but when his day is done, Warden goes home with his longtime partner and loves spending time with the Zolper family.

Funding for Delaware’s canine program is provided completely by donations from private organizations, including Bill Wolter, who donated Warden to the Fish and Wildlife Enforcement Section in 2006. A dog trainer and hunter for more than 40 years, Wolter founded Owens Station, a hunting preserve in Sussex County that features some of the region’s best hunting dog stock. Other supporters include the National Turkey Federation and the generous annual donation of

equipment from the Dewey Beach Lions Club.

“We appreciate the donations from Bill Wolter, the National Turkey Federation and the Dewey Beach Lions Club” said Fish and Wildlife Enforcement Chief James Graybeal. “Without their support, this program would not exist.”

“We hope we can expand the program in the future,” Zolper added. **OD**

SR. CPL. CASEY ZOLPER IS A FISH AND WILDLIFE ENFORCEMENT AGENT WITH DNREC’S DIVISION OF FISH AND WILDLIFE.

JOANNA WILSON IS COMMUNITY RELATIONS OFFICER IN DNREC’S OFFICE OF PUBLIC AFFAIRS.





LARRY KNOX

Delaware beaches again ranked No. 1 in the nation

DELAWARE'S BEACHES have again been lauded for having the cleanest water quality in the nation, with the state also celebrated for boasting two of the country's few "Superstar Beaches," according to the National Resources Defense Council, the non-partisan international environmental advocacy group founded in 1970 which annually assesses all beaches in 30 coastal states.

Two of the state's most popular beaches – Rehoboth and Dewey – were again awarded 5-star ratings as Superstar Beaches for their perfect swimming water quality for the past four years. They were two of only 13 Superstar Beaches so designated by the NRDC among beaches of the coastal states. In its report, "Testing the Waters," the NRDC also recognized DNREC's Recreational Water Quality Testing Program as one of the most comprehensive in the nation.

Delaware attracts more than seven million visitors each year, many of them drawn to the state's scenic Atlantic beaches. According to a recent report, "The Contribution of the Coastal Economy to the State of Delaware," by Delaware Sea Grant College Program at the University of Delaware, the state's coastal

economy has a significant impact on Delaware's overall economy – generating almost \$7 billion annually, including over \$700 million in tax revenue and supporting almost 60,000 jobs. The report found that beach tourism provides more than 10 percent of the state's total employment, taxes and business production.

DNREC's Recreational Water Quality Testing Program has great breadth and consistency in its beach monitoring, frequently sampling water quality, coastal hazards and other public health and safety concerns from Slaughter Beach to the Delaware/Maryland line.

The program includes a notification system that alerts the public promptly should a swimming advisory or beach closing be necessary from a threat such as harmful bacteria. Up-to-date water quality results are posted on DNREC's website, <http://apps.dnrec.state.de.us/RecWater/> and also available by calling DNREC's toll-free, 24-hour "Beach Hotline" at 1-800-992-WAVE (9283) or by signing up to receive Beach Monitoring updates at <http://www.dnrec.delaware.gov/Pages/DNRECLists.aspx> **OD**

Go Ape zip line Treetop Adventure opens at Lums Pond State Park

DNREC SECRETARY COLLIN O'MARA joined State Representative Valerie Longhurst, and other state and parks officials on the brand new zip lines at the new Go Ape Treetop Adventure at Lums Pond State Park near Bear. It's the first zip line treetop adventure course in a state park on the East Coast; the first treetop adventure course in Delaware, and Go Ape's first partnership with a state park. Under the public/private partnership, Go Ape! and DNREC's Division of Parks and Recreation are offering Delawareans this unique outdoor adventure.

Go Ape is a highly interactive treetop adventure where participants are equipped with harnesses, pulleys and carabineers and receive a 30-minute training session before they are turned loose into the trees. The course at Lums Pond State Park provides visitors with two to three hours of outdoor fun and exercise while they navigate more than 40 obstacles situated in the treetops of the park.

The course spans seven acres and features five zip lines, four of which fly participants over Lums Pond. Also included are two Tarzan swings and a series of rope ladders, bridges, swings and trapezes, many with views of the pond.

"We welcome Go Ape's low-impact recreation approach and commend them for their attention to protecting the trees and the environment around the course," said O'Mara. "We are so pleased that Delaware families have their own zip line adventures available to them at a great location like Lums Pond State Park. This is a course that allows us to 'live life adventurously,' and experience the park like never before, from 50 feet up in the trees, hanging by a wire. I challenge everyone to take a ride down, to get outdoors and enjoy all that Delaware has to offer in nature this summer. I'll see you in the trees." **OD**



Emerald Ash Borer & Asian Long Horned Beetles How did these pests get to the United States?

BY SUE WALLS

WE DON'T KNOW for sure how they got here, but the most likely culprit responsible for the Emerald ash borer and Asian long horned beetle's presence in North America is wooden packing material, commonly used for stabilizing cargo in ships or in packing or crating of heavy consumer products.

Over the past decade, millions of trees have fallen victim to these invasive forest pests and insects of all types. The Emerald ash borer's natural range is eastern Russia, northern China, Japan and Korea. The Asian long horned beetle is native to parts of Asia. Before June 2002, it had never been found in North America.

Isolated Asian long horned beetle infestations have been discovered in parts of New York and Illinois. In all instances where the Asian

long horned beetles have been found, authorities have reacted quickly to stop the infestation from spreading. The Asian long horned beetle favors maple trees, but infestations have also been discovered in horsechestnuts, poplars, willows, elms, mulberries and black locusts. In all cases of infestation, the affected trees were cut down and the wood was destroyed.

In North America, the Emerald ash borer has only been found on ash trees. Trees in woodlots as well as landscaped areas are affected. All species of ash trees in North America are at risk. The Emerald ash borer poses an enormous threat to our urban and rural forests as well as affecting the tourism, trade and lumber industries. Their destructive path also threatens America's national pastime of baseball – since most baseball bats are made from ash trees.



Emerald ash borer emerging from a "D-shaped" exit hole.

USDA FOREST SERVICE

Emerald ash borer beetle leaves a D-shaped exit hole in the bark when they emerge.

The Delaware Department of Agriculture's Plant Industries' Forest Pest Outreach Program continues to provide education and awareness about the dangers of invasive forest pests.

Most new infestations have been started when people unknowingly moved infested ash nursery stock, logs or firewood into uninfested areas. The canopy of infested trees begins to thin because the borer destroys the water and nutrient-conducting tissues under the bark. Most of the canopy will be dead within two years after the symptoms are first observed. Although difficult to see, the adult

For more information on the "Don't Move Firewood," initiative, visit: www.dont-movefirewood.org.

Help us "Spread the Word, not the Pests!" **OD**

SUE WALLS IS PUBLIC INFORMATION OFFICER WITH THE FOREST PEST OUTREACH PROGRAM AT THE DELAWARE DEPARTMENT OF AGRICULTURE, PLANT INDUSTRIES



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to subscribe and get
updates!



No Child Left Inside:

The Parks Marketing Department conducted a photo contest, "Celebrating Children Outdoors," on Facebook in April. The winner, **Janet Colvin Mitchell**, was announced on April 29. Janet's photo, "Ian loves to fly free with his head in the clouds," was selected by a Facebook vote. Voting was open to all Parks followers on Facebook and took place from April 22 until April 26. She will receive a free week of summer camp at a Delaware State Park for one child. **OD**





Update:

Delaware Bayshore Initiative

by Karen Bennett

EVEN AS I SIT HERE PREPARING this reflection about the summer season along the Bayshore, I am anxiously awaiting for the spring return of horseshoe crabs and shorebirds to our beaches. This is one of the First State's iconic signs of spring, but it is also one of spring migration's "swan songs." Once the red knots and thousands of other migratory shorebirds depart our area for Arctic nesting grounds, things quickly calm down along the Bayshore as spring winds down and summer kicks in. Gone are the flocks of shorebirds chattering away – for now.

And yet marshes, forests and fields along the Bayshore are far from quiet in summer, when local wildlife takes over the Bayshore scene.

Our marshes are filled with the raucous calls of willet and clapper rail and the buzzy songs of seaside and saltmarsh sparrows, defending territories and protecting their nests and young. In forests bordering the marsh, brilliantly colored and vocally talented scarlet tanagers, yellow-throated warblers and Baltimore orioles occasionally reveal themselves among the dark-green sea of leaves and pine needles – singing away to mark their plot of land. In fields and along Bayshore roadsides, spectacular "blue birds" are singing incessantly, showing off atop a shrub or on telephone wires: the indigo bunting, blue grosbeak and more familiar eastern Bluebird. Northern bobwhite – though not as common as they once were – and wild turkey hustle their broods back under cover if they spot you spying them.

A stroll on the beach and a close look at the Bay when its surface is smooth as glass will reveal diamondback terrapins bobbing just offshore – hundreds if not thousands of heads peeking above the calm water on windless days. Females will make their trek across beach and dune, looking for high dry ground to lay their eggs. Raccoons and fox on the prowl may get to many of the eggs even if high water does not. In the warm waters of the Bay, striped bass and blue crabs will be growing another delectable generation, supporting our local appetite and satisfying a primal connection to Delaware Bay.

Not to rush Father Time, but Mother Nature is already pushing the season toward fall as July turns to August. It is in early July that many shorebirds are already starting to return from northern nesting territories. Fall migration has begun.

This is the second of regular Econotes dedicated to the Delaware Bayshore Initiative. Part of the national America's Great Outdoors initiative, the Bayshore Initiative focuses on landscape-level fish and wildlife habitat conservation and enhanced outdoor recreation opportunities in support of expanded ecotourism. Extending from Delaware City south to the bayside of Cape Henlopen State Park and bordered on the west by Route 1, the Bayshore area encompasses more than 200,000 acres. More than half of the area is protected as public or private conservation lands. **OD**

KAREN BENNETT IS DNR/REC'S DELAWARE BAYSHORE COORDINATOR



Fishing

by John Clark

IAM SURE MANY *OUTDOOR DELAWARE* readers have been spending a lot of time on Delaware Bay, the Atlantic Ocean, and the Inland Bays fishing this summer. As you may have seen in your catch, some of our favorite recreational fish seem to be increasing their populations, while others are getting harder to find. DNR/REC's Division of Fish and Wildlife has changed some recreational regulations for 2013 in order to sustain fish populations and remain in compliance with Interstate Fisheries Management Plans. Let's take a look at the status and regulation changes for some of Delaware's most important fish.

The summer flounder population was declared rebuilt 2012, but the stock assessment showed a population decline last year. Although Delaware's quota for 2013 was reduced by 10 percent from the 2012 level, this decrease was more than offset by the large decline in Delaware's 2012 estimated summer flounder recreational landings. Delaware's 2012 estimated landings were less than half the 2013 Delaware quota, so Delaware was allowed to liberalize its 2013 regulations. The summer flounder size limit

was reduced from 18 inches to 17 inches for 2013, the season is open all year in 2013, but the daily bag limit remains at four fish.

Weakfish, known to many Delawareans as sea trout or just trout, have long been identified with Delaware Bay, so much so that this beautiful, fun to catch, delicious fish was made Delaware's state fish. There are signs that the weakfish population is recovering from the crash that began in the late 1990s and continued through the past decade. Delaware's 2012 estimated recreational weakfish catch was 13 times greater than the estimated 2011 catch and the highest since 2006. The latest weakfish stock assessment showed that an increase in the natural mortality of weakfish due to predation, not overfishing, was the likely cause of the decline, but the bag limit on weakfish was still dropped to protect the stock as it rebuilds. You can only keep one weakfish measuring 13 inches or greater per trip, but that should change in the future if this rebuilding trend continues.

Black sea bass population estimates were again a source of

Continued on page 29



DURING THE SUMMER MONTHS duckaholics have to substitute greenhead flies for green-winged teal and they're probably sick of watching reruns of "Duck Dynasty". They are longing for those cold, rainy, nasty days where they can be found hiding behind plywood dressed up with switchgrass hoping their spread of decoys will lure the ducks and geese in close enough for a shot. Even though summer isn't very conducive to duck hunting, the process of setting waterfowl seasons occurs all year around at both the state and federal levels.

The U.S. is divided into four major flyways based on waterfowl migrations, and Delaware belongs to the Atlantic Flyway which includes 17 states and six Canadian provinces. DNREC's Division of Fish and Wildlife provides a representative to both the Technical Section and Council for the Flyway, and these reps meet in February/March and again in July of each year as part of the process of establishing waterfowl season frameworks. At the July meeting the Technical Section presents its season and bag limit recommendations to the Council, which can make its own changes. The Flyway Council then makes its recommendations to the Service Regulatory Committee of the U.S. Fish and Wildlife Service, which has the final say. The USFWS must complete public hearings and publish its proposed actions before seasons can be finalized in early September.

States are given preliminary "frameworks" or guidelines by the USFWS that states must fall within when selecting their own seasons. Delaware begins the process of selecting seasons in January of each year at the Advisory Council on Wildlife and Freshwater Fish meeting. The Advisory Council makes its

final action to recommend specific seasons to the division at its August meeting after making sure the federal framework has not changed over the summer. Keep in mind that members of the Advisory Council are appointed by the Governor, and this body provides the mechanism for public input and providing recommendations to the division which, at the state level, has the authority in this complex process. Only after the federal public hearing and posting process is completed in early September can the division start printing up the seasons and posting them on our website.

The meetings described above discuss some of the most extensive wildlife and hunter surveys in the world. Here in Delaware alone, a total of eight aerial waterfowl counts are flown from October-January each year. The Atlantic Flyway has a survey to measure breeding ducks, a survey for resident Canada geese, one in Quebec to estimate the number of breeding migrant Canada geese, and a snow goose/brant survey in the high arctic. In addition, the harvest of ducks and geese is measured by the Harvest Information Program (HIP) administered by the USFWS. A random sample of hunters also provides duck wings and goose tails to obtain biological information.

If that doesn't make your head buzz just go stand in the marsh at this time of year and the buzzing of the mosquitoes certainly will. While the process is complex, it's intended to maintain the waterfowl populations that so many Delawareans cherish at healthy levels. **OD**

BILL JONES IS A DIVISION OF FISH AND WILDLIFE REGIONAL MANAGER AND PRIVATE LANDS BIOLOGIST – AND AN AVID HUNTER.

Fishing Continued from page 28

controversy during the process of setting the quota for 2013. The first population estimate would have led to a large decrease in the coast-wide quota, but this estimate was then revised upward and resulted in small changes to the proposed federal recreational regulations. Delaware changed its black sea bass regulations in 2012 to match the regulations the National Marine Fisheries Service set for black sea bass fishing in federal waters (the ocean beyond three miles from shore). Although the 2013 federal regulations were not finalized at the time this was written, the seasons will likely remain the same as they were in 2012. The only change to the federal, and thus Delaware, regulations is that the daily limit will be dropped from 25 fish to 20 fish per day. The size limit will remain at 12.5 inches long (excluding the tail filament).

So hit the water and have a great time fishing in Delaware. Good luck! **OD**

JOHN CLARK IS FISHERIES ADMINISTRATOR FOR DNREC'S DIVISION OF FISH AND WILDLIFE.

To contact us by e-mail: elizabeth.shockley@state.de.us
By phone: 302-739-9902
By mail: *Outdoor Delaware*, 89 Kings Highway, Dover, DE 19901
For address changes by e-mail: charley.roberson@state.de.us
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Outdoor Delaware

LARRY KNOX



Nature Store

Great gifts for you, family and friends!

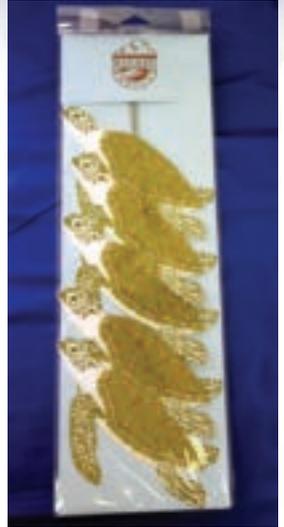
Fish Night Light

This fun night light is crafted of fused glass by designer Karen Daniel, with metal accents and colorful glass and metal beads. The night light has a blue background and lime green accents. Measures 6 ¼" by 4 ½".
\$30.50



Skyflight Mobile: Sea Turtle

Skyflight Mobiles are designed by Holly Zucker and handmade in the Pacific Northwest. The design is printed on archival art board using soy-based inks in life-like, non-fading colors. An educational fact sheet about the green turtle is included. The mobile comes completely assembled and ready to hang.
\$32.50



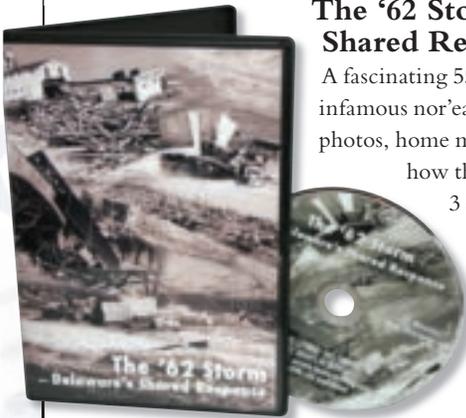
Born of Corn Travel Coffee Mug

These unique travel coffee mugs are made of 100% US corn plastic. They are injection molded in Missouri. The 18 ounce tumbler is biodegradable and microwave safe. Printed with soy ink, they feature the catchy captions: "The raccoon did it..." (Blue mug), and "The Squirrel did it..." (Green mug). Makes a great gift. Please specify color.
\$12.95



The '62 Storm: Delaware's Shared Response

A fascinating 55-minute presentation of the infamous nor'easter of March, 1962. Archival photos, home movies and interviews recall how the storm stalled offshore for 3 days, devastating Delaware's shoreline and taking lives. A great addition to your Delaware collection by Michael Oates with many other contributors.
\$17.95



Images of America: Fort Miles

Fort Miles, located in Cape Henlopen State Park, is a coastal fort built during World War II to protect the Delaware Bay and the surrounding industrial areas. This 128 page book by Dr. Gary Wray and Lee Jennings contains many vintage photographs of the fort, depicting its development and the armaments contained within. It also details the history of the fort. A must read for the WW2 history buff.
\$19.99

Fort Miles, located in Cape Henlopen State Park, is a coastal fort built during

Pine Needle Basket Kit

Create your own pine needle basket! This kit is put together by basket designer and educator Melanie Walker, of Wilmington, NC. No special equipment is required to make the Walnut Rice Bowl featured in the kit. This is a green craft, suggested ages 8 and up. Contains sharp sewing needle.
\$19.95



 These items are earth friendly.

Outdoor Delaware

Outdoor Delaware Bald Eagle Beanie

Celebrate the resurgence of our national symbol and *Outdoor Delaware*. These adorable and realistic Bald Eagle beanies are 6" tall, and sport green *Outdoor Delaware* T-shirts. **\$9.99**



Outdoor Delaware Cap

Classic stone-washed, 100% cotton, unstructured 6-panel cap. High-quality cap is adjustable with brass buckle and grommet. Stone color with embroidered *Outdoor Delaware* logo in dark green on the front. **\$12.99**



Bald Eagle Beanie and Cap Only \$19.99

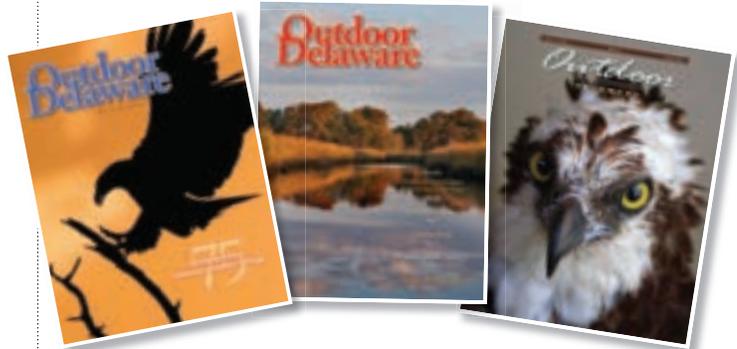
Your purchases directly support Delaware State Parks

and **Outdoor Delaware**

Items are available at www.shop.delaware.gov or use the order form below.

Items are not available for sale at DNREC offices.

To buy annual State Parks passes, Fish & Wildlife licenses and subscriptions to *Outdoor Delaware* online, visit DNREC's e-commerce site: <https://egov.dnrec.delaware.gov>



Outdoor Delaware

Four, full-color issues with stunning nature photos and engaging articles about conserving, managing and enjoying Delaware's great outdoors. Just 8 bucks for one year; 15 bucks for two years; and 20 bucks for three years! Subscribe now!

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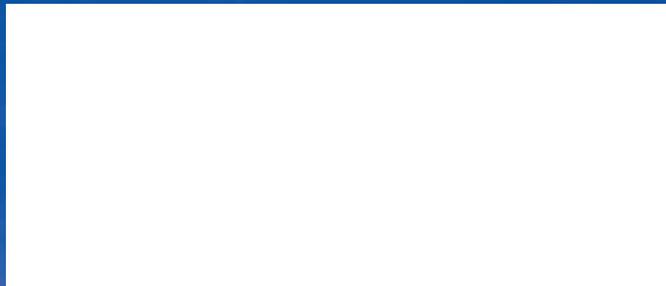
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