

NEW YORK STATE

CONSERVATIONIST

AUGUST 2018



ETHICAL
WILDLIFE
PHOTOGRAPHY

MARVELOUS MALLARDS | ROME SAND PLAINS | CONNECT KIDS PROGRAM



Dear Reader,

I hope you have had a great summer and been able to enjoy some of the great outdoor opportunities available across New York State.

Most people who love the outdoors are also great stewards of our environment. And there's no better way to promote and support a new generation of nature lovers and outdoor stewards than to introduce them to the environment at an early age. People who connect with nature when they are young will likely be lifetime outdoor enthusiasts, enjoying all our state has to offer.

In this issue, you can read how New York is helping young students learn about the environment and introducing them to outdoor activities. The Connect Kids Program (see pg. 22) provides funding that allows schoolchildren to visit state parks. It's a great opportunity for kids who have limited access to natural areas—and in some cases, it may be the first time they get to see and experience our beautiful lands, forests and waters. Also, check out how we are supporting recreation for young New Yorkers through the Archery in Schools program (see pg. 30).

Seeing people enjoy the outdoors is a reminder of the importance of managing and protecting our natural resources. In recent years, we have been combatting a relatively new threat to our lakes—harmful algal blooms, or HABs. I encourage you to read more about this threat and how DEC and its partners are monitoring lakes and developing strategies to prevent HABs and keep these waters clean, healthy and accessible (see pg. 12). And if you're interested in how we are helping to protect fish species, see the article on our cooperative efforts to expand the alewife population in Long Island waters (see pg. 16).

Conservationist readers know that New York has some unique areas to visit, such as Tug Hill—and not just during winter. Learn how the Tug Hill Commission (see pg. 19) has helped manage resources in the region during the last 45 years, promoting the conservation of critical lands and watersheds, as well as world-class hunting, fishing and snowmobiling.

For those who love wildlife photography, check out the article by Laurie Dirkx, whose work has appeared in the *Conservationist* many times. In addition to sharing great photos, she offers important advice on ethical nature photography (see pg. 2), illustrating how you can enjoy nature and capture lasting memories without disturbing the natural world.

I hope this issue will motivate you to explore the outdoors and be a strong, active steward of our environment. Don't forget to visit the DEC booth at the State Fair, August 22 to September 3, to say hello and learn more about our agency and great outdoor programs and activities available in New York.

And finally, I want to pay tribute to Dave Nelson, longtime editor of the *Conservationist*. Dave is a wildlife biologist who truly loves the outdoors, and that was exhibited in the magazine the past 18 years. As a writer, editor and storyteller, he has always sought to entertain readers (and everyone he met). Dave is returning to his DEC roots as Director of Outreach and Promotion for Fish and Wildlife, where he started his career. I thank him for his great work at the *Conservationist*, and am glad he will remain an active ambassador for DEC and our environment.

All the best,
Basil Seggos, Commissioner

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Andrew M. Cuomo, Governor of New York State

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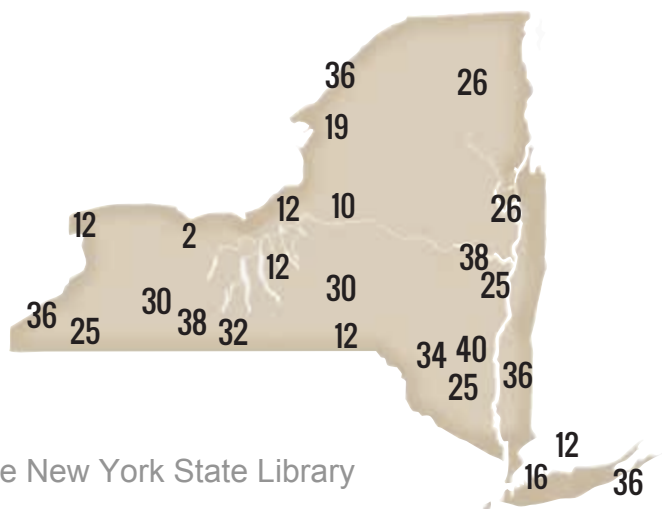
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FRONT COVER: Eastern garter snake by Laurie Dirkx

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From the Digital Collections of the New York State Library

IN PURSUIT OF THE PERFECT PHOTO

TEXT AND IMAGES BY LAURIE DIRKX

When it comes to wildlife photography, we all hope to get that perfect shot: a newborn fawn curled up in the tall grass, a turtle laying eggs in the sand, or two owls battling over the perfect perch. When we come across these natural wonders, we want to capture them with our camera to preserve and later relive the excitement, and also share them with friends and family. But sometimes in our zeal to get a good shot, we get a little too close and disturb the scene, leaving us scrambling to at least get a shot of the wildlife as it bounds off or flies away.

As a wildlife photographer, I am aware of this issue every time I go afield. In fact, in a recent conversation with fellow wildlife photographers, we discussed this very topic: “How close is too close to photograph wildlife?” While some offered actual increments of feet or yards, I offered instances, knowing that not every animal or circumstance is the same. Every scenario will have its own defining boundaries. For instance, you can be fairly near a white-tailed deer in more populated areas without it giving you a second glance. Other times, however, you might catch peripheral movement that indicates you’ve just spooked a deer you had no idea was there.

In most forums that feature wildlife photography, the buzzword being used now is *ethics*. People are sharing what ethical wildlife photography means to them, and, thankfully, most conduct themselves through the standards set forth by conservation societies. Yet, there are some who ignore these guidelines and photograph how they please, justifying their actions—no matter if they are trespassing on private property, or how much it might disturb the wildlife—all to get “the shot.”

With today's social media presence, many of these photographers are being called out. Descriptions of their vehicles, along with their location and behavior are detailed for all to see. This movement of intolerance to unethical behavior is strongly taking hold, and to me, this is a good thing. An animal's natural behavior should not be disturbed just because we want a photo.

For most photographers, not disturbing wildlife means small steps of approach while viewing the animal to ensure no signs of stress begin to show. I can say from personal experience that it's not easy walking with your eyes looking straight out or through a viewfinder rather than where your feet are stepping. But you quickly learn how easy it is to lose sight of your subject when taking quick peeks at your footing. Wildlife are there one moment, then gone the next. So, you learn to walk somewhat blindly to what's on the ground.

Having once been a hunter, pursuing wildlife with a lens came very natural to me. What used to be stalking quarry to obtain a meal became silent steps in hopes of capturing a behavioral shot. Both actions require ethical considerations, and neither will have a successful outcome if you disturb the subject.

I was raised to avoid disturbing wildlife. Before I head out to take photos, I make a point to learn about the habitat and species I may encounter. I try to understand what stresses various species, and why they get stressed. I also study when is the optimal time to photograph them. I approach on quiet foot and strive not to disturb their behaviors by my presence. If I become aware they're aware of me, I retreat. I certainly break eye contact and also make myself small, rarely standing at full height, if not outright crouched to the ground.

You can tell by an animal's body language when it is showing signs of stress, and when a photographer gets too close, you can see it reflected in his/her images. Bright eyes are nice, but startled eyes are different. Typically, the more the animal is aware of your presence, the more likely you are too close.

Over the years, I've learned that if the animal is motionless and staring at you, back away. If they've turned their body to bolt, back away. If they've even raised their head from what they were doing, back away. Often, if you just retreat a bit, they're likely to feel comfortable again and resume their natural behavior so you can get some great shots.



Drake mallard

In addition to not encroaching upon wildlife for a photo, it is also important not to manipulate their habitat. Clearing brush in front of a fox den, or breaking limbs to access a nest should not be a part of getting a photograph. If an animal is on private property, you should always obtain the landowner's permission before entering the property. Also, don't use smart phone apps to call in species for closer photographs. This can confuse wildlife and put them in artificial situations. This is especially important during breeding season when pressures are already high.

Another thing to remember when photographing wildlife is to always be courteous to residents who live nearby. Using your car for a blind is one of the best ways to achieve natural behavior shots, but it can also lead to irritated neighbors when cars are incessantly pulled over on their roads as folks descend on an area to photograph a unique species.

Lastly, know the laws and rules. For example, federal guidelines specify that folks approach no closer than 330-feet from an eagle nest. Staying that distance away minimizes unlawful disturbance and preserves our protected species. No matter the species, understanding

the fragility of courting, breeding, nesting, rearing, and migrating seasons are all crucial to the welfare of our wildlife.

I've always felt that when you care about the species more than the photograph, the images will tell a tale of wonderment to the viewer. It is my hope as a wildlife photographer to inspire in this way. My philosophy: the best you can be is a good example, and the best photography gear is your brain and heart.

Outdoor photographer **Laurie Dirkx** resides in Wayne County and is a frequent photo contributor to *Conservationist*.



Red fox kits



Gray squirrel



Snowy owls



White-tailed deer fawns



MALLARD DECLINE

CAUSE & ACTION

BY JOSH STILLER | PHOTOS BY AUTHOR

History of Mallards in the Atlantic Flyway

Mallards are one of the most abundant and most sought-after ducks in New York State and much of the Atlantic Flyway. Whether it is for their excellent table fare, the stunning iridescent plumage of a male “greenhead,” or their eagerness to respond to a hunter’s call, there is just something about the mallard that keeps hunters and birders flocking to the marsh each fall in pursuit of this crown jewel.

However, mallards weren’t always king in New York. In the early 1900s, many historical accounts mention mallards merely as occasional visitors; some breeding bird accounts from that time don’t mention them at all!

The current population of mallards found in New York and throughout most of the Atlantic Flyway (“eastern mallards”) is thought to be the result of slow, natural eastward range expansion, coupled with the release of captive-reared mallards. Captive mallards were released for additional hunting opportunity, and many were liberated

live decoys. Live decoys were banned in 1935, and as a result, many people simply released whatever stock they had in their possession. This combination of range expansion eastward and captive release created a foothold for mallards.

As far as ducks are concerned, mallards are the ultimate adapters. They can survive and produce young seemingly wherever they end up, provided a few basic needs are met. Historically, mallards were primarily prairie ducks. They thrived in the open grassland and parkland habitats found throughout North Dakota, South Dakota, and portions of Alberta, Manitoba, Minnesota, Montana, Nebraska, and Saskatchewan. Many of these wetlands associated with the grassy upland nesting habitat are seasonal, and the amount of available water and nesting habitat varies considerably based on the amount of precipitation received each winter.

To thrive in the east, mallards had to adapt. As humans altered the landscape and moved ducks around, mallards quickly began thriving in the less productive beaver

flowages, marshes, tidal marshes, urban parks, and farm pond habitats found in the Northeast. While these habitats are not as productive as the prairie pothole region, they are consistent from year to year, and provide enough suitable habitat to support a healthy mallard population.

During the first half of the twentieth century, mallards were becoming more common. Their population really took off from the 1970s through 1990s; at the same time, the number of mallards breeding in the prairie pothole region tumbled due to sequential years of drought, habitat loss, and overall poor nesting conditions. Because national hunting seasons were based on the most abundant ducks that occurred in the prairies, the U. S. Fish and Wildlife Service (USFWS) restricted duck season lengths and bag limits throughout the U.S. At one point, duck seasons were as short as 30 days with a three-bird bag limit in the early 1990s. Banding data suggested that few mallards from the prairies were harvested in the Atlantic Flyway, and biologists in the east weren't seeing the declines observed in the prairies. To justify more liberal seasons, biologists had to demonstrate the birds being harvested in the Atlantic Flyway were different and were not declining like the birds found in the prairies.

In 1993, northeastern states began one of the largest and most comprehensive ground-based waterfowl surveys in North America to estimate breeding waterfowl

populations throughout the region. The Northeast Plot Survey provides annual estimates of commonly breeding ducks and geese (e.g. mallards, Canada geese, and wood ducks) found in these areas. To convince federal authorities that northeastern mallards could sustain additional hunting pressure, biologists used banding data to demonstrate that local birds were produced in eastern Canada and the northeastern United States. Through these efforts, the Atlantic Flyway Council and the USFWS could begin managing eastern mallard populations independently from "mid-continent mallards." In 1997, a liberal, 60-day duck season with a four-bird bag limit for mallards was implemented and has been in place ever since.

Soon after the new season lengths and bag limits were implemented, the eastern mallard population, which includes portions of the northeastern U.S. and eastern Canada, peaked at approximately 1.3 million breeding mallards. Since then, populations have steadily declined a little more than 1% per year. The decline is even more evident in the northeastern U.S., where mallard populations have declined from a high of nearly 900,000 in 1998 to approximately 450,000 in 2017.

Whenever significant declines in wildlife populations are observed, many people naturally question whether the population surveys accurately reflect the real population.



Drake (male) mallard

Are mallards being miscounted? How do biologists know their numbers are accurate? Are they missing urban birds?

Luckily, biologists have many ways to measure mallard population trends over time. In addition to count surveys, biologists band more than 15,000 eastern mallards every year. Hunters and others who find banded waterfowl report the band numbers to the United States Geological Survey (www.reportband.gov) when they find them. From these band recoveries, biologists learn a lot about mallard migration patterns and life histories. Armed with this information, the biologists model mallard populations.

Estimates from these data suggest the same declining trend. In addition to banding data, the USFWS and Atlantic Flyway biologists use hunter surveys to estimate harvest every year. Despite no changes to season length or bag limits for mallards, harvest in the U.S. portion of the Atlantic Flyway declined 40% from 1998-2016. In the end, all data points to the same thing: eastern mallards have been declining for nearly 20 years.



Mallards are one of the most sought after ducks by hunters in the Atlantic Flyway.

Why Are Mallards Declining?

There is little doubt that eastern mallards are experiencing a long-term decline, but the question is, what is driving the decline? Measuring changes in population size is much easier than explaining why they are happening. Wildlife populations are balancing acts. Breeding population size in any year depends on how many birds from the previous year's population survived the full year (survival rate), and how many young-of-the-year birds from the previous year's nesting season made it through the winter and early spring (production rate). A long-term decline means that either survival or production (or both) is too low to maintain the population size. However, banding data indicate that eastern mallard survival rates are not measurably different now than they were in the 1990s, when the population was stable. Production estimates obtained from the USFWS Parts Collection Survey have not changed significantly from that time either. Yet the population decline is evident.

This indicates there may be an inaccuracy, or bias, in one of these critical data streams, in that survival or recruitment, or both, are consistently being overestimated. Assuming there is a bias in productivity or survival estimates, the question remains, why are eastern mallards declining? And what is causing lower productivity or survival? Biologists and researchers are hard at work trying to develop the right questions to find the answers. Right now, there are many potential causes being considered. For example, has habitat across the area gradually changed? Changes in habitat availability or quality can lead to lower productivity, even for a species like a mallard known to be extremely adaptable to habitat change. Another possible explanation, or theory, is that a decline in winter feeding sites or changes to agricultural practices results in lower survival or productivity the following breeding season.

A more recent hypothesis being discussed is the possibility captive-reared mallards being released into the wild may have been hybridizing with wild mallards at a high rate. The mixing may be frequent enough that the genetics of mallards are changing in a way that potentially makes them poorly adapted (i.e. they have lower productivity or survival) for the current landscape. Historically, large numbers of mallards were released annually by state agencies and private individuals to supplement wild populations. The state-funded mallard release programs have largely been discontinued, but permitted private shooting preserves and game bird breeders release these birds for recreational put-and-take



While mallard numbers have been declining, these birds are still one of the most numerous breeding duck species in the Atlantic Flyway.

hunting opportunity. Today, more than 200,000 captive-reared mallards are released in Atlantic Flyway states every year. While these released birds have a low survival (typically less than 30%), if even a small portion of the surviving birds are successfully reproducing, they could be having an impact on eastern mallard genetic diversity. Researchers from the University of Texas El Paso sampled wild mallards in the Atlantic Flyway and discovered evidence of significant hybridization, or genetic mixing, between wild and captive-reared mallards. However, when they examined birds from the prairie pothole region, they did not see evidence of mixing to the same degree. Much work must be done to see if there is any link between survival or productivity and the degree of hybrid genetics in wild mallards.

Beyond changes to habitat and hybridization, the decline could also be caused by hunter harvest or natural range contraction after mallards “invaded” the Northeast. Liberal season length and bag limits implemented in 1997 could have caused overharvest, especially over time. Mallard decline began shortly after the liberal seasons began; however, many people question whether this is merely coincidental, or a true cause-and-effect relationship. Also, it isn’t uncommon for a species that is new to an area to exceed the number of animals the land

can support over the long-term. In these situations, there is typically a population peak followed by a slow decline before stabilizing at a lower level.

While We Search for a Cause

In general, population changes are rarely driven by a single cause, and the recent decline in mallard numbers is likely no different. More than one of these factors may be contributing to the overall decline to various degrees.

Despite the decline, mallards are still one of the most numerous breeding duck species in the Atlantic Flyway. However, to ensure duck hunters and birdwatchers throughout the eastern mallard range continue to encounter large flocks of these beautiful birds, the Atlantic Flyway Council has recommended that USFWS reduce the daily bag limit for mallards from four birds per day to two. This reduction will allow time for biologists to better understand the likely causes of the decline, and the potential solutions. There is no defined endpoint for a two-bird limit, but biologists hope mallard populations will positively respond to the decreased harvest pressure, and eventually there will be additional opportunity for more liberal bag limits.

Josh Stiller is a biologist in DEC’s Bureau of Wildlife in Albany.

Rome Sand Plains:

Restoring a Special Place in Central New York

TEXT AND IMAGES BY ERNEST H. WILLIAMS



An open patch slowly becomes a field of wild blue lupines.



Surprising sand dunes, brilliant blue wildflowers, and rare butterflies await visitors to the Rome Sand Plains in Central New York. Hundreds of miles from the coast, eighty-foot high sand dunes alternate with peat bogs in a mosaic of habitats, and within a few yards, you can go from pitch pines on a dry dune to carnivorous pitcher plants in a bog.

Among the species that can be found in the area's sandy habitats are native wild blue lupines and dainty butterflies known as frosted elfins, a threatened species in New York State. The lupines display an intense blue color in late May and are shorter than the more familiar, pastel-colored garden lupines. Frosted elfins are small, with a whitish sheen or frosting on their brown-patterned

hind wings. Here, they depend completely on lupines for egg-laying sites and caterpillar feeding, and, not surprisingly, are found only where native lupines grow.

Centuries ago, periodic wildfires kept trees from dominating the landscape here, but nearby human settlement has led to fire suppression, allowing forest succession to proceed. The sandy areas in the Rome Sand Plains have been



Wild blue lupines (*Lupinus perennis*)

disappearing in recent years as trees have invaded, reducing availability of the open habitat required by the lupines and elfins.

To stop the decline of these species, The Nature Conservancy (TNC), DEC, and many volunteers—including biologists and students from Hamilton College and Morrisville State College—have been planting native lupine seedlings in the open sandy habitats for nearly 20 years. To make sure the right genetic strains are used, the seedlings are grown from seeds collected in the area. The most successful plantings have been in what was formerly an open sand mine that TNC bought from a private owner in 2003, and then sold to New York State in 2016. Staff from

DEC's Herkimer office now manage the site, and work closely with partners to expand lupines here and support frosted elfins.

For a number of years, lupine seedlings were planted in regular grids to assess their survival under different treatments. Results showed that the plants survived better when fireplace wood ashes were added to the soil, a treatment that adds nutrients and moderates soil acidity. Seedlings did not survive when planted among other vegetation. But in sites where the sandy soil supported their survival, the lupines grew to large sizes and spread naturally by the production of seeds. It has been exciting to find new



Frosted elfin (*Callophrys irus*)

patches of bright blue lupine flowers where bare sand used to be.

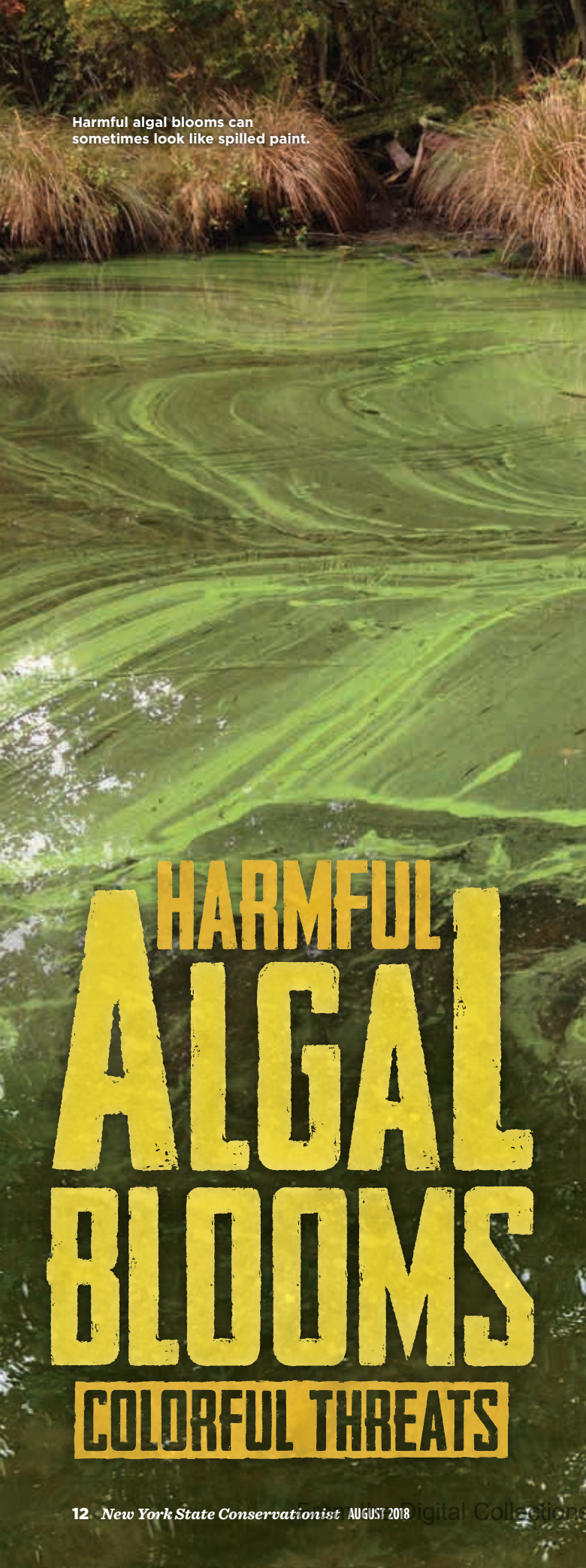
Since 2000, the coverage of wild blue lupines has increased, and the habitat for frosted elfin butterflies has expanded. But the need for active habitat management continues. Grasses, shrubs, and birch trees are now invading the planted lupine areas, threatening to choke them out. Efforts will be required to keep the habitat open in the future.

Nevertheless, the story at the Rome Sand Plains is one of restoration success. Both lupines and frosted elfins are more widely distributed than they were decades ago, providing enjoyment and a unique experience for visitors to this special place.

Volunteers plant lupine seedlings in a former sand pit.



A retired professor of biology from Hamilton College, **Ernest Williams** is a butterfly ecologist. He's been studying the frosted elfin population at Rome Sand Plains for the past 18 years.



Harmful algal blooms can sometimes look like spilled paint.

BY REBECCA GORNEY AND STEPHANIE JUNE |
PHOTOS PROVIDED BY AUTHORS

For many people, a lake is an oasis. When the weather heats up in summer, folks daydream about spending time at a lake—basking on the beach, swimming in crystal clear waters, or fishing from a dock. But there’s a problem that is affecting hundreds of lakes in New York—harmful algal blooms. Although the word “harmful” is clear, people may not know what a harmful algal bloom, or “HAB” is, and how it might affect their lake and potentially their health. Perhaps the best way to understand it is to go directly to the source.

Who am I?

I am cyanobacteria, an ancient microbe that has been living on the earth in some form for at least 3.5 billion years. Technically speaking, I am a photosynthesizing prokaryotic bacterium; however, you may have heard me called a blue-green algae or HAB (harmful algal bloom). Either name works for me.

Fun facts about me: I am partial to color. Depending on my type, I can appear green, blue-green, yellow, white, brown, purple or even red. I am not usually one to brag, but I am kind of big deal in the ecosystem. I supply usable energy to other organisms around me through photosynthesis, providing oxygen and sometimes serving as a food source for organisms like zooplankton. Those who know me would describe me as crafty or thrifty. I like to be prepared for any sticky, no-nutrient situation, so I store extra phosphorus in my cells, wherever I can find space. I also have this neat way to fix or transform nitrogen from the air, which allows me to eat when and where I want.

Despite being a single-celled organism, I am passionate about travel. Depending on my type and the weather, I can move throughout the water column using gas vacuoles (air pockets inside my cells), which allow me to travel between a lake’s surface and bottom. Or, I may just float, letting the wind push me around. (Take-home message: just because you saw me enjoying the lakeshore early in the morning doesn’t mean I’ll stick around all day.)

What do I look like?

Just like people, all cyanobacteria do not look alike. I come in a variety of colors and forms, and might be part of an overgrown colony that is clearly visible on a lake.

HARMFUL ALGAL BLOOMS

COLORFUL THREATS

Where can you find me?

My relatives and I can be commonly found in low densities in ponds, streams, lakes, marine waters, some soil and even in hot springs. Our main needs include nutrients (such as phosphorus and nitrogen), warm water temperatures, calm weather conditions, and plenty of sunlight.

Lakes or other waterbodies that are rich in nutrients can support excessive plant and algae growth, including cyanobacteria. I'm not particular about where nutrients come from; they may be from wastewater, septic systems, or runoff from agricultural land or urban areas. On occasion, mostly in nutrient-rich environments, I can grow quickly and become very dense. When this occurs, I am called a bloom.

Why are you seeing me more?

Each waterbody is unique, and causes of my blooms vary from lake to lake. My presence—whether or not it's a bloom—can be heavily dependent on local water quality and immediate environmental conditions. This explains, in part, why my abundance in some locations may change from year to year, but in other locations I show up every year.

Climate change has led to more frequent and intense precipitation events, as well as longer periods of dry and warm weather. As my ideal living conditions become common and widely distributed, blooms are occurring more frequently and in more locations. Factors that directly contribute to the appearance of blooms and their impacts are not totally understood by scientists. Though most agree that the increase in nutrient levels in a lake, particularly phosphorus (whether due to increased pollution sources or increased runoff events), plays a major role in bloom conditions, there are lots of factors to consider.

Should you avoid me?

An important reason why you are hearing more about me is because I can produce harmful compounds, called cyanotoxins. Not all cyanobacteria produce toxins, however, and types that are capable of producing toxins don't produce them under all conditions. Scientists still have a lot to learn about why cyanobacteria make these compounds. But one thing is clear: the best way to keep yourself safe is to avoid all contact with visible blooms.

Exposure to any cyanobacteria HABs can cause health effects in people and animals, so it is important to avoid touching or swallowing any water that has blooms, or inhaling any airborne droplets from those waters. This is true regardless of toxin levels. I can cause a lot of nasty symptoms, including diarrhea, nausea or vomiting; skin, eye or throat irritation; and allergic reactions or breathing difficulties.

Read the sidebar "Cyanobacteria and Health: *Know It. Avoid It. Report It.*"

Cyanobacteria and Health: *Know It. Avoid It. Report It.*

NYS's *Know it. Avoid it. Report it.* campaign helps educate New Yorkers about how to recognize blooms, how to reduce exposure, and how to report blooms to state and local agencies.

KNOW IT

- It might be a HAB if you see: strongly-colored surface water (blue-green, green, yellow, white, brown, purple, or red), a paint-like appearance, floating mats, or scums.
- NYS DEC's HABs website (www.dec.ny.gov/chemical/77118.html) has several informative webpages, including a photo gallery of HABs and non-harmful algal blooms, a FAQs page, and a notifications page which includes a map of waterbodies that currently have blooms (www.dec.ny.gov/chemical/83310.html).

AVOID IT

- Always stay away from blooms, scums, and floating mats in surface waters.
- Don't swim, fish, boat, or wade in areas with blooms, and don't eat fish caught from these areas.
- Boiling water does not remove HABs or their toxins. If you are not on public drinking water, bloom or no bloom, never drink, prepare food, cook, or make ice with untreated surface water. During a bloom, don't use untreated surface water for these uses even if you treat the water yourself.
- If you are on public water, your water is treated, disinfected, and monitored for drinking and household uses. Your water supplier will notify you of any issues with the treated water.

REPORT IT

- Report blooms to HABsInfo@dec.ny.gov, your local health department (contact info at www.health.ny.gov/EnvironmentalContacts), or harmfulalgae@health.ny.gov.
- Report HAB-related health symptoms to your local health department or harmfulalgae@health.ny.gov.
- Consider visiting a healthcare provider if you, your family, or animals are experiencing symptoms that may be related to contact with HABs.

What is NYS doing about me?

Under Governor Cuomo's direction, DEC, in close cooperation with the State Health Department, oversees one of the most comprehensive HABs monitoring programs in the country. Through coordination with citizen scientists, local health departments, and other concerned lake water advocates, DEC collects information on HABs from all regions of the state. More than 300 lakes are monitored each summer and hundreds of additional lakes with regulated swimming areas are inspected regularly. More information about DEC's HABs Program can be found on DEC's HABs website (see sidebar on previous page), including the Notifications Page, which has a map of current bloom locations around the state that is updated weekly. The Archive page provides historical data about previous year's notifications. You can also sign up through GovDelivery to receive free, weekly updates on HABs and other water-related issues through *MakingWaves*, DEC's Division of Water e-newsletter.

Several strategies can be used to try to control cyanobacterial blooms. Through the Governor's HABS initiative, the state has developed 12 action plans to address the causes of HABs in certain waterbodies. Both nutrient reduction and in-lake management strategies have been demonstrated to successfully mitigate the recurrence of blooms, and New York has a network of statewide water quality programs and laws that help control pollution and keep nutrients from entering surface waters. In addition, funding is available to municipalities, soil and water conservation districts and non-profit organizations for projects that reduce nutrient runoff. Visit DEC's one-stop HABS Funding webpage at www.dec.ny.gov/chemical/113733.html for more information on the \$65 million available to combat HABs.

See you on the water?

I have been here for billions of years, and will continue to live here for many years to come. The next time you are enjoying your favorite lake, pond, or stream, keep an eye out for me in the water. If you see me hanging around somewhere new, snap a photo, fill out a Suspicious Algae Bloom Report (found on DEC's website), and send an email to DEC at HABsInfo@dec.ny.gov or call DEC at (518) 402-8179.

I may be ancient, but I'm in the prime of my existence and ready to enjoy the water! So, if you want to enjoy the water and stay healthy—keep your distance.

Rebecca Gorney and **Stephanie June** work in DEC's Division of Water in Albany.



HABs and Pets

Keep pets away from discolored water or areas of water with floating mats, scums or blooms. Animal exposure to cyanobacteria cells or toxins can occur through swimming or wading, drinking water, grooming fur after swimming or wading, or eating or chewing shoreline debris when a bloom is present. In case of exposure, rinse your pet with clean water as soon as possible to remove algae from fur, and seek veterinary medical assistance if the animal shows any symptoms. Learn more about HAB-associated animal illness symptoms and prevention at www.cdc.gov/habs/pdf/habsveterinarian_card.pdf.

Report a HAB-associated animal illness to one of the following agencies:

- Local health department www.health.ny.gov/environmental/water/drinking/doh_pub_contacts_map.htm)
- NYS DOH—harmfulalgae@health.ny.gov or
- NYS DEC—HABsInfo@dec.ny.gov



STAFF SPOTLIGHT



Scott Kishbaugh: Lake Protector

Scott Kishbaugh spent his childhood splashing around in a small stream near Philadelphia, and, not surprisingly, was a huge Philadelphia Phillies fan. At a high school career day, he met a former Phillies meteorologist who was also a civil engineer and volunteer aquatic ecologist. Fueled further by his love of citizen science, this “Eureka” moment set Scott’s career path. He earned two degrees from Cornell and landed his dream job at DEC fresh out of college—32 years ago.

Scott has run DEC’s Citizens Statewide Lake Assessment Program (CSLAP) since it began in 1985, working with the New York Federation of Lake Associations to oversee a community of citizen scientist volunteers who help monitor and protect state lakes. The program has expanded from monitoring 25 lakes its first year to more than 160 lakes this year.

Scott was named Chief of the Division of Water’s Lake Monitoring and Assessment Section in 2009, and initiated DEC’s efforts to monitor and control harmful algal blooms. He is the senior author of both editions of *Diet for a Small Lake: The Expanded Guide to New York State Lake and Watershed Management*. He is an unflagging supporter of lake study, and a crucial resource for DEC, based on his understanding of aquatic plants and encyclopedic knowledge of most New York lakes.

Scott loves working with colleagues to solve problems, or answering questions of a third-generation lake resident. A “good” day for him is not unusual; at the end of most days, he is proud to think he “did okay today.”

The young boy who splashed around in a Philadelphia tributary now samples “some of the most beautiful lakes in the world.” When he thinks back to his motivation for what he does, he recalls sampling a small lake with serious water quality problems. A local family who swam in the lake was advised that DEC was working on the problem, but residents should stay out of the water because it could make them sick. As Scott and his colleagues drove away, he glanced in the rearview mirror and saw the family going back into the water. It was a stark reminder of the importance of DEC’s work to ensure clean and healthy lakes.

A drone captures images of an algal bloom on Owasco Lake.

THE RETURN OF ALEWIVES TO BEAVER LAKE

BY VICTORIA O'NEILL | PHOTOS BY BYRON YOUNG UNLESS OTHERWISE NOTED



On a surprisingly warm morning in late February, DEC staff, along with partners from The Nature Conservancy, Hofstra University, and Friends of the Bay, removed a gate at the top of a newly installed fish passage (also known as a fishway) at Beaver Lake in Mill Neck, Nassau County. Water flowed through the passage, ready to welcome the annual spring migration of alewife (*Alosa pseudoharengus*), and enable these fish to reach the lake for the first time in more than 100 years.

Also known as river herring, alewives are anadromous—meaning they spend the majority of their life in the Atlantic Ocean, only entering estuaries and freshwater tributaries along the eastern coast of the U.S. to spawn in the spring. During their migration, they provide an important food source for many species, including tuna, whales, seals, ospreys, eagles, river otters and herons.

Following spawning, adult alewives leave the freshwater environment (and their offspring) to head back to the ocean. Young-of-the-year alewife (i.e., less than one-year-old) remain in the freshwater systems and estuaries for the summer. When water temperatures begin to cool in early fall, they make the long journey to the ocean, but will return to spawn in their natal streams after reaching maturity (3-5 years old).

Alewife were once found by the thousands in numerous Long Island tributaries, but their populations have dwindled over the last 100 years due to overharvesting, bycatch, poor water quality, and the creation of impediments, such as dams and culverts, that prevent access to freshwater spawning habitat. Currently there are only two tributaries that contain numbers in the thousands, and a few others that have only a dozen or a few hundred fish. In recent years, U.S. Fish and Wildlife Service has considered listing alewife as threatened under the federal Endangered Species Act to protect the population, but ultimately determined it was not warranted; however, alewife remain a species of concern.

DEC and various partners on Long Island have been working hard to tackle the issue of manmade blockages to fish passage for alewife. In 2008, the Long Island Diadromous Fish Work Group, composed of government, academic, and environmental nongovernment organization members, was formed to monitor existing fish populations and enhance fish passage around Long Island. There are more than 120 tributaries on Long Island containing hundreds of dams of all shapes and sizes. Most of these were created to harness water power for use in grist mills, or to create ponds for ice harvest, cranberry

harvest, or recreation. But many have become obsolete.

Dams prevent alewife from moving upstream and reaching their spawning grounds. Alewives have sleek, slender bodies that are built for speed and quick movements through rapids, they are not equipped for jumping and have difficulty surpassing even a one- to two-foot obstruction. Fishways allow alewives to circumvent these obstructions by swimming over or around the dams. Although dam removal is the optimal choice to benefit fish passage, sometimes this is not possible. Engineered fishways are the next best alternative to providing upstream access for anadromous fish.

The dam at Beaver Lake and its associated grist mill were built in 1694 to harness water power from the Beaver Brook tributary. The dam created the impoundment of Beaver Lake and provided the energy needed to run the mill, but also destroyed upstream movement of anadromous fish. The mill stood until 1910, but the dam remains, serving as a key east-west thoroughfare for vehicles moving through the village.

During the 1990s, residents spotted a remnant run of alewives at the base of the dam and installed a makeshift fish ladder at the site. Unfortunately, this fish ladder did not successfully move fish over the dam. In 2000, DEC staffers Lisa Holst and Byron Young obtained Clean Water/Clean Air Bond Act funding to install a new fishway at this location. However, the fish ladder plan became complicated and costly to complete, and the project did not progress.

In 2013, Sally Harold at The Nature Conservancy-Connecticut was able to secure needed funding through various sources, including the DEC Bond Act, the National Fish & Wildlife Foundation's Long Island Sound Futures Fund, and the Friends of the Bay in Oyster Bay, to plan and design a new fish passage at the site. Thanks to this additional funding, the fish passage was installed during the summer of 2017. The 30-foot-long metal fishway, which resembles a ladder, allows fish to bypass the dam on a journey that reconnects the brackish waters of Oyster Bay to the freshwater of Beaver Lake and 1.5 miles of stream corridor.

Opening the fish ladder at Beaver Lake that February day was a proud moment for all the partners, but especially for Byron Young. Although he had retired from DEC, he remains actively involved in monitoring alewife spawning



Beaver Lake Dam Mill

runs on Long Island, and was on hand that day to witness the completion of the fish passage project. Now to see if alewives would use the ladder.

To boost alewife populations here and at other Long Island sites with new fishways, DEC and partners captured fish from the Peconic River (Long Island's second largest alewife run) and stocked them in these tributaries. Beaver Lake was one of the first locations to receive alewife. The goal is that the stocked adults will successfully spawn in the pond they are placed in, and the resulting juveniles will imprint on this waterbody and return in 3-5 years to spawn themselves, thus jumpstarting and revitalizing runs in these locations.

In 2018, DEC staff, Byron Young, and teams from Hofstra University and Cornell Cooperative Extension captured 300 alewives in the Peconic River and placed them in Beaver Brook. Approximately 200 alewives were



Alewife populations dwindled in many Long Island tributaries.

implanted with Passive Integrated Transponder (PIT) Tags, allowing Dr. Peter Daniels and his students from Hofstra University to use strategically placed receivers to read the PITs and monitor the movement of these tagged alewife. Receivers were placed at the top and the base of the Beaver Lake fish ladder to see if the tagged, stocked alewives would use the newly installed ladder. In addition, a video camera was placed inside the ladder to obtain a visual recording of alewife movement.

Towards the end of the 2018 spawning season, Dr. Daniels informed DEC that some of the tagged alewife were picked up on the receivers after stocking, and shadowy images of what looked to be nine alewives were detected moving up the fish ladder during spawning season. Volunteers also reported many sightings of osprey retrieving alewife from Beaver Lake throughout the spawning season.

These initial reports and findings indicate the stocking effort and fish passage installation are a success. However, there is still much work to do. DEC and its partners plan to continue to reintroduce alewife into Beaver Lake to nudge the spawning run, and monitor the fish passage to track its success and measure the size of the run. It's an ongoing challenge, but everyone is cautiously optimistic that in the years to come, the tributary will once again welcome thousands of river herring each spring on their annual journey home from the sea.

Victoria O'Neill works in DEC's Division of Marine Resources office in East Setauket on Long Island.



Old, non-functioning fish ladder at Beaver Lake, 2014



DEC staffer opening the new fish passage, 2018



Byron Young catching alewife in the Peconic River



Researchers tagging and weighing alewife

TUG HILL COMMISSION

Celebrating
45 YEARS OF
Collaboration

East Branch Fish Creek

BY KATIE MALINOWSKI | PHOTOS BY ANTHONY MACHIA, UNLESS OTHERWISE NOTED

When most people think of Tug Hill, the first thought that comes to mind is snow. For locals, it's a source of pride knowing they receive the most snow east of the Rocky Mountains. Yet, people may not know that Tug Hill is the third largest forested area of New York State, after the Catskills and Adirondacks. In fact, the region's dense forest core is approximately 275 square miles in one of the remotest parts of the state.

A Unique Working Landscape

Located between Lake Ontario and the Adirondacks, and bounded by Oneida Lake to the south and the Black River to the north and east, Tug Hill is a working landscape. Here, people balance conservation of natural resources with their use to create economic opportunities through recreation, forestry and

agriculture. Traditional land uses, including hunting and fishing, are highly valued by both residents and visitors.

Recognizing Tug Hill's unique character and natural resources, in 1972 New York State created the Tug Hill Commission—a small, non-regulatory state agency charged with “helping local governments and citizens shape the future of the Tug Hill region.” More than 45 years later, the Commission continues to work closely with local communities and residents to maintain the region's character and safeguard its natural resources.

Initially, the idea of the state's involvement in Tug Hill was met with significant resistance from local residents. The Commission held forums around “the hill” to listen to what people envisioned for the area. This led to a unique, grassroots

approach that provides assistance to local communities through community and economic development, natural resource protection, and technical assistance to local governments.

The Commission's nine commissioners (all unpaid volunteer residents of the region) are key to this grassroots approach, as is the model “circuit rider” program that provides staff to the region's five government councils. Being present in Tug Hill towns and villages on a daily basis allows the Commission to develop and nurture close working relationships with local citizens, and to understand their needs, issues, and concerns.

As a measure of how they are doing, the Commission conducts a survey of local leaders every five years. Results of that survey are reported to the Governor and the State Legislature.

Balancing Resource Protection and Economics

Along with the unique local-state partnership between its towns, villages and the Commission, Tug Hill's working landscape supports important activities and projects. The Commission works with local municipalities, state agencies and nonprofit organizations to achieve common goals, such as preserving the integrity of the region's forestlands and headwaters. Here are two projects that illustrate the results of these partnerships.



Fishing is a popular activity on the Salmon River.

Salmon River Watershed

The Tug Hill aquifer and a watershed on the western side of Tug Hill provide clean, cold water for the Salmon River Fish Hatchery in Oswego County. The hatchery is a major supplier of trout and salmon for more than 100 waters across an 11-county region (including much of Tug Hill), creating a great outdoor experience for anglers of all ages and abilities.

The Salmon River is a top recreational fishing destination, drawing an estimated 150,000 to 200,000 visitors annually. Consequently, conservation of the Salmon River watershed is a priority for the towns on Tug Hill. In the spring of 2017, Governor Cuomo announced the state would acquire two separate tracts of land totaling more than 6,000 acres. One of these acquisitions involved the purchase of 3,236 acres of land known as the Kendall Tract, located north of the Salmon River. Purchased by The Conservation Fund in 2015, and later acquired by DEC using \$4,750,000 in state

Environmental Protection Funds, the tract includes working forestlands in the towns of Redfield and Orwell, and provides vital economic support to local communities.

During negotiations for the property transfer, the Tug Hill Commission worked with DEC and local landowners on an agreement for the best use of the land. The Commission focused on a key priority of local residents—preserving the Stavemill Hunting Club and the land it was leasing on the Kendall Tract in the town of Orwell so they could continue a tradition that had been shared by generations of Tug Hill families.

The Commission held meetings with the hunting club, DEC, The Conservation Fund and the Tug Hill Tomorrow Land Trust, and reached an agreement that allowed the club to keep its building and six acres of land. The Stavemill Club would purchase the land from The Conservation Fund and donate it as a conservation easement to the land trust. All parties were satisfied with the arrangement.





Timber harvesting in West Leyden

What is a Working Forest?

A “working forest” is a designated area that is capable of producing a variety of forest products (including timber or wood products), while also providing recreation, wildlife habitat, watershed protection, and carbon sequestration, among others. Working forests allow public and private forest owners to continue to practice active, sustainable management—such as harvesting trees or practicing agroforestry (e.g., growing mushrooms, ginseng, etc.)—on these lands to produce wood products. These working forests often operate under certain management controls, supervision or certification, and include almost a million acres in northern New York under conservation easements held by New York State.

The goal of working forests is to provide a balance that provides (and often preserves) a full spectrum of their benefits for present and future generations, such as wood products, habitat and wildlife conservation, and accessible public recreation.

East Branch of Fish Creek

In Lewis County, the East Branch of Fish Creek watershed provides drinking water for the City of Rome. Much of the watershed land was historically industrial forest property that provided feedstock to the Lyons Falls Pulp and Paper Mill. When the mill faced financial problems in the late 1990s, the land was sold several times to timber investment management organizations, which worried many in the area, including the towns, hunting camp owners and lessees, snowmobilers and conservationists.

To address these concerns, the Tug Hill Commission organized diverse stakeholders to form the East Branch of Fish Creek Working Group. The group promoted the use of conservation easements, ensuring local property tax revenues to the towns, county, and school districts were maintained. In 1998, the state passed legislation to add the Tug Hill region to a list of locations where property tax payments must be paid on state-held conservation easements. Prior to that time, such payments were only required in the

Adirondacks, Catskills and an area surrounding the City of Rochester’s drinking water supply.

In 2002, The Nature Conservancy (TNC) purchased 45,000 acres of land that compromised approximately one-third of Tug Hill’s core forest. At the time, it was the largest land acquisition made by the nonprofit organization in New York. Ultimately, TNC retained ownership of approximately 14,000 acres and sold a conservation easement to DEC on this portion of the property. The conservation organization also agreed to a “payment in lieu of taxes” arrangement with the towns, even though it was not obligated to pay taxes due to its nonprofit status.

The state also purchased approximately 1,400 acres from TNC along the East Branch of Fish Creek, an area that is now a state forest. The remaining 30,000 acres were sold to a private timber company; DEC holds a conservation easement on this private timber land to prevent subdivision and development.

The end result is a unique mix of private, public, and non-profit-owned land, all protected from further development under a state-held

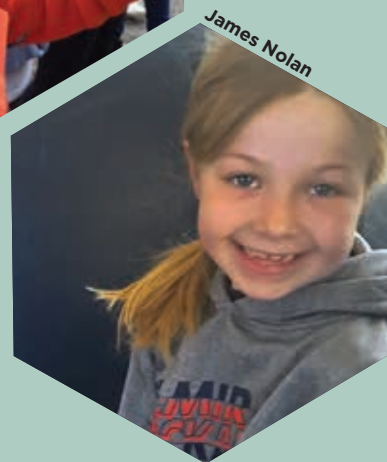
conservation easement. Public access for hunting and fishing is allowed on portions of the property, and snowmobile trails were secured as well. The East Branch of Fish Creek Working Group still meets periodically to hear from the landowners about ongoing activities and discuss solutions to any problems that arise.

A Bright Future

Tug Hill has become a year-round destination for those who love the outdoors. From fishing and hiking to cross-country skiing and snowmobiling, the area offers a variety of activities on its scenic lands. Interspersed with this are working farms and forests that continue their traditions and help support the local economy and communities.

And while members and staff of the Tug Hill Commission may have changed during the last 45 years, the Commission remains committed to helping protect, manage and promote this unique and amazing region now, and well into the future.

Katie Malinowski is the executive director of the NYS Tug Hill Commission, located in Watertown.



CONNECT KIDS PROGRAM

PROVIDING FIELD TRIP GRANTS TO NY SCHOOLS

BY SUSAN CARVER



“Field Trip!” Those two words can be magic to any young student. It means a trip on a bus with friends, visiting new places, experiencing new adventures, and learning new things. Unfortunately for many public schools in New York State, securing funding for field trips has been a challenge.

Enter the Connect Kids Field Trip Grant program. The brainchild of Rose Harvey, Commissioner of the NYS Office of Parks, Recreation and Historic Preservation (OPRHP), and generously funded in the 2016 – 2017 New York State budget through the Environmental Protection Fund, the program provides field trip grants to underserved schools. Connect Kids was so successful in its first year, that Governor Cuomo doubled the budget to one million dollars in the following year’s budget.

In the program’s first year, more than 30,000 school children visited DEC sites and state parks via Connect Kids grants. Field trips included a visit to a state park playground by students who do not have a playground at their school, a hiking adventure to the Hadley Mountain Fire Tower in the Wilcox Lake Wild Forest, and helping elementary students in a southern Adirondack school district connect with animals and their habitats, which directly ties into their first-grade curriculum.

In the program’s second year, field trip options expanded to include students learning to fish with DEC biologists, helping DEC staff stock fish, ice skating excursions, and service learning. With more than 250 designated destinations,



DEC photo



Jennifer Burke



Seth Jones



Christine Crowley



New York students can also try snowshoeing, experience New York State history, or explore dunes, gorges, forests, streams, lakes and meadows.

Feedback from participants has been overwhelmingly positive. Fifth-grade students from Ossining who visited Rockefeller State Park Preserve raved about their experience, saying, “This is the best day of my life,” and “I like discovering things. Nature is cool.” One Bronx 7th-grader reflected: “I will never forget how I walked so many miles at Bear Mountain (State Park) it helped me feel more accomplished.”

Kids aren’t the only ones who like the program. A Watertown elementary school principal summed up the grant program’s importance by stating, “The children at Ohio Elementary were very appreciative of being able to go to the various nearby parks: Sackets Harbor Battlefield, Wellesley Island State Park, Rock Island (Lighthouse) State Park, and the Pulaski Fish Hatchery.” Apart from the grant program, “many do not get the chance to get out of the city where they live.”

Another grant recipient reported: “Our students would not have had the opportunity to experience being outdoors without help from the Connect Kids program. They had a wonderful time and are very grateful for the experience.” And one teacher described how “for some of these kids it was their first time in the woods.”

Connect Kids is helping to ensure that every student in New York can get out and visit state parks and historic sites. And as these reports indicate, the program is doing just that.

Susan Carver is an environmental educator in New York State’s Office of Parks, Recreation & Historic Preservation in Albany.

CONNECT KIDS PROGRAM

The Connect Kids Field Trip Grant program is administered by OPRHP in collaboration with DEC and non-profit organizations that operate on state land. Any public school in a district with a Title 1 school (grades pre-K to 12 including school-sponsored clubs), Advantage After School Programs, 21st Century Community Learning Centers, Empire State After-School Programs, and village, town, or

county youth bureaus in communities with Title 1 schools are eligible to apply for a grant. Each class or after-school/youth bureau group is eligible for one transportation grant per academic year. Grants refund transportation costs (including subway and ferry costs), tolls, program fees, entry fees, and facility fees.



To learn more about the program, visit <https://parks.ny.gov/environment/connect-kids/grant-program.aspx>

On Patrol

Carl Heilman II

Real stories from Conservation Officers and Forest Rangers in the field

Contributed by ECO Lt. Liza Bobseine
and Forest Ranger Capt. Stephen Scherry

New Shotgun— Orange County

In late spring, ECO Adam Johnson received a midnight call from NYS Police for possible small game hunting violations and shots being fired in a residential neighborhood. ECO Johnson and ECO Jason Smith responded and met with the Town of Crawford Police Department, which had secured the scene. The ECOs found a skinned and butchered rabbit on the porch. The suspect quickly admitted to recently purchasing a shotgun and wanting to shoot at something. He also admitted to shooting three rabbits that day and attempting to shoot an opossum near his house that night. The subject showed the ECOs where he was shooting at the opossum, and they observed numerous spent shell casings in the backyard of the residence. The ECOs determined the subject fired multiple rounds within 500 feet of a nearby residence, and they seized the rabbit meat from a freezer at the residence. Since all small game hunting seasons had been closed for months, the subject was issued multiple summons for illegally taking protected wildlife, taking small game out of season, hunting without a license, and discharging a firearm within 500 feet of a dwelling. The shotgun and ammunition used to take the rabbits were seized as evidence.

Rescued Merlin Released— Cattaraugus County

This past April, ECO Robert Nosal responded to a complaint of an injured falcon in the yard of a residence in Randolph. He located an injured merlin—a small falcon that is slightly larger than an American kestrel—thrashing in some brush. He captured the merlin, which was unable to fly, and transported the bird to the Erie County SPCA. X-rays determined it had a



broken wing. The merlin underwent surgery for the broken wing, and on June 6, ECO Nosal received a call from the SPCA that it was ready to be released. He took the merlin to the same area where it was originally captured, and once it was released from the cage, the now healthy bird immediately flew away. The team effort by the Erie County SPCA and ECO Nosal saved this unique bird's life.

Movie Night— Albany County

Over a one-year period, Lt. David Pachan and Forest Ranger David Nally worked on a case to locate a movie admirer who was storing plastic bins of pornographic movie DVDs throughout the Rensselaerville

State Forest. In May 2017, Ranger Nally received a report of 5 plastic bins containing 86 DVDs in the State Forest. All items were taken as evidence and transported to the Stamford Office evidence locker for storage. In June 2018, Lt. Pachan encountered a vehicle parked deep in the woods of the State Forest. A male subject was in his vehicle with a laptop, and there was a plastic bin in the backseat, like those found in 2017. The subject showed Lt. Pachan where he had hidden 3 other bins containing 43 movies in the woods not far from his location, and admitted the five previously confiscated bins were his. Two tickets were issued for unlawful storage of materials and another for unauthorized motor vehicle use on state lands.

New York Outdoor Writers Association @50

*Connecting the public
with nature through
the written word*

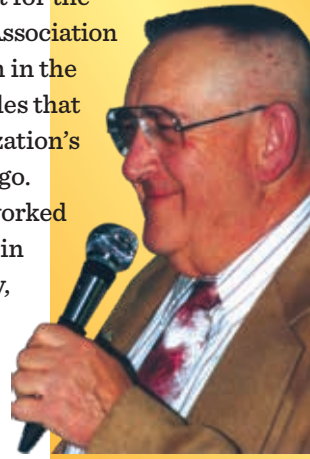
BY GLENN SAPIR | PHOTOS PROVIDED BY
AUTHOR UNLESS OTHERWISE NOTED



The year was 1967. Lyndon Baines Johnson was president. Gas cost 33 cents a gallon, and the Beatles released Sgt. Pepper's Lonely Hearts Club Band. In New York, outdoor writers were gathering in Lake George to learn from one another and to share thoughts and ideas.

Fifty years later, professional communicators from around the state converged on Lake George once again. This time, they met for the annual conference of the New York State Outdoor Writers Association (NYSOWA). A lot has changed since 1967, including much in the world of technology and communications. But the principles that each NYSOWA member pledges to uphold, and the organization's service to the public, remain as they were half a century ago.

NYSOWA's origin can be traced to two individuals who worked part-time as outdoor writers while holding full-time jobs in other fields. Hans Paller of Massena, St. Lawrence County, wrote the outdoor column for his hometown newspaper. Bill Hilts Sr. of Sanborn, Niagara County, had a variety of part-time positions, including hosting a local radio show and writing an outdoor column for the *Niagara Gazette*. Both were members of the national organization, the Outdoor Writers Association of America (OWAA).



Bill Hilts Sr.,
NYSOWA co-founder

“...to keep the public informed on matters relating to the earth's natural resources, such as proper management and conservation.”

Independently, Paller and Hilts recognized the benefits of OWAA membership, and they saw the success of professional outdoor communicator groups in other states. They began to contact New York-based OWAA members to gauge their interest in forming a group specific to New York. When the two learned of each other's intentions, they united their efforts.

Meetings in New York City and Oriskany in 1967 led to NYSOWA's formation. For the first few years, conferences were formal business meetings, but that changed when Joe DeFalco, who had a promotional business relationship with the Paramount Hotel in Parkville in Sullivan County's Catskills, chaired the event. The hotel went “all out,” providing red-carpet treatment for members and spouses, and combining professional development sessions with hands-on field events. DeFalco's efforts set the bar for future conferences; since then, a spring safari and an autumn gathering have taken place every year. Meetings have been held in all parts of the state, from Niagara Falls and Chautauqua County to Plattsburgh, Montauk and many points in between.

The group has long dedicated itself to craft improvement. And as stated in its Declaration of Principles, it seeks “to keep the public informed on matters relating to the earth's natural resources, such as proper management and conservation.” Members encourage the highest standard of ethics in the use of these resources.

At conferences, members and invited guests participate in sessions that help communicators stay on top of issues, be they environmental efforts affecting Lake George, or the pros and cons of placing antler restrictions on hunters. Speakers come from both the public and private sectors, and include DEC personnel and NYSOWA members themselves.



Helping its members deliver effective, accurate and well-written communications is a key goal of the organization. Providing members with opportunities to experience the outdoors, through planned hikes, birding walks, float trips, fishing outings and hunts in the locale of each conference is another important privilege of membership. Through these outings, members gain firsthand knowledge of the area's recreational offerings, as well as material for new articles and reports. This benefits the members, provides entertainment for readers, listeners and viewers, and generates economic activity for the region.

But NYSOWA reaches out to the public as well.

"I'd heard about a father and son hunting duo who were both quite ill," recalled Ed Noonan, a NYSOWA member from Saratoga Springs who writes a weekly column for the *Daily Gazette*. "I proposed to NYSOWA's board of directors that the organization sponsor a hunt for the two with Easton View Outfitters in Valley Falls, Rensselaer County."

The board liked the idea, and tapped into NYSOWA's scholarship fund to support the trip. Those funds are primarily raised at conferences through the auction of outdoor products donated by supporting industry members, as well as cash donations. Bass Pro Shops makes a contribution in conjunction with the annual Pass It On Award that it sponsors to recognize a NYSOWA member who has helped strengthen our outdoor heritage. Noonan wrote a touching article about the hunt, on which he served as the guide for young Mikey and his dad. Mikey successfully harvested an incredible pair of deer—first a piebald doe and then a piebald 8-point buck.

"There were a lot of tears that afternoon, and I was one very happy guide," Noonan wrote in his subsequent column.

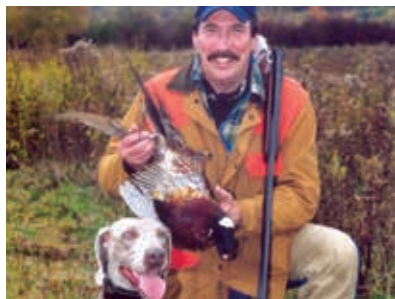
Noonan is the latest NYSOWA member to administer the scholarship program. By tradition, scholarships are awarded to New York college students studying journalism or environmental science. The Bob McNitt Memorial Scholarship, named after one of the organization's most dedicated members, is awarded in the amount of \$1,000.

"In the years I've been running the program," Noonan reported, "NYSOWA has awarded 27 of these scholarships."

A more recent addition to the scholarship program has been supporting youngsters who wish to attend a DEC summer camp. Dan Ladd of Fort Ann, who writes for several publications including *The Chronicle* in Glens Falls, oversees that effort.

Ladd notes the camp scholarships sometimes go unused. "If a family wishes to send their son or daughter age 11 to 17 to one of these week-long camps, but might have trouble coming up with the tuition, we will seriously consider sponsoring them," Ladd said. Applications are due to DEC in January, so now is the time for families to reach out to Ladd at adkhunter@roadrunner.com.

In January, NYSOWA awarded \$500 to the Southern Adirondack High School Clay Target Association to support the inaugural season of the high-school trap-shooting league that was scheduled to begin in Hamilton, Warren and Washington counties this past spring. "This program is a win-win situation for both students and the shooting sports," Ladd said. "I certainly hope more schools and sportsmen's clubs get involved."



“Through these outings, members gain firsthand knowledge of the area's recreational offerings, as well as material for new articles and reports.”



Schenectady Daily Gazette outdoor columnist Ed Noonan puts a congratulatory hug around a youth facing serious medical challenges. NYSOWA sponsored this hunt at Easton View Outfitters in Rensselaer County.

Just as McNitt's service is honored by the scholarship fund, another late NYSOWA member has a fitting award named in his memory. The M. Paul Keesler Outdoor Citizen Award recognizes an individual or organization that has raised public awareness of outdoor recreational opportunities and conservation issues in the state. Keesler, who founded the former *New York Sportsman* magazine, spent nearly five decades promoting and conserving New York's outdoor wonders through his writing and publishing efforts.

Among the 11 Keesler Award recipients honored since its inception have been Dr. Nina Schoch, founder of the Adirondack Loon Cooperative Program; Dennis Money, a significant force behind the NY River Otter Project, and founder of the Seneca White Deer Organization; Fred Evans, who initiated DEC's wild turkey trap and transfer program and is greatly responsible for establishing and popularizing turkey hunting in the state; William Schwerd, director of 4-H Shooting Sports in the state; and Ed Feldmann, who hosted a radio program on Capital District Outdoors, and served as a DEC press officer, where he worked closely with outdoor writers and was an outdoor ambassador at sportsman's shows and other public venues. Nominations for the Keesler Award are welcomed. Contact NYSOWA member and *Oneida Dispatch* columnist Leo Maloney at lmalone1@twcny.rr.com for details.

Perhaps the most important function NYSOWA and its members perform is to disseminate information to the public. Allen Benas, former administrator of the Clayton, New York, Take-A-Kid Fishing Contest, says that through the years the event introduced more than 2,000 young anglers to the enjoyment of fishing.

"Being on a shoestring budget and unable to afford statewide advertising to promote entries, the Chamber of Commerce relied 100 percent on NYSOWA members to report about it in their local newspaper or magazine columns and on their radio and TV broadcasts," Benas said. "This event could not have been the success it was without the help of NYSOWA."

Fifty years after its founding, the organization may not be on all outdoor-minded peoples' radar, but it continues to serve everyone in the state—and the natural treasures they prize. Learn more about NYSOWA at nysowa.org.

Glenn Sapir has made a career of contributing to national titles such as *Outdoor Life*, *Field & Stream*, and *Sports Afield*. He retired from the National Shooting Sports Foundation in 2014.



Bob McNitt



M. Paul Keesler



NYSOWA provides scholarships for students to attend one of DEC's Summer Environmental Education Camps.

ARCHERY IN SCHOOLS



Hitting All the Right Targets

BY JILL TRUNKO | PHOTOS BY ANDREW BREEDLOVE

“**W**hen you shoot, once the arrow is in the air, there is no changing it, but you can change and learn from when it doesn’t hit the ‘yellow,’” explains Coach Darren Bradt of the Genesee Valley Central School District (CSD).

Participating in archery can give students lifelong skills. Coach Bradt is just one of the teachers in New York State and across the country who are teaching this enduring sport to students through the National Archery in the Schools Program (NASP). Hitting the yellow bullseye is the key to higher points, but the concentration and patience it takes to hit the target are what makes archery so valuable to students.

NASP is a cooperative effort of DEC, private organizations, and school systems to engage more students in the educational process and increase the number of young people who participate in outdoor recreation. NASP is taught during school by coaches who have earned instructor certification, which gives them the tools and curriculum to make archery a safe and fun activity. Schools use standardized NASP equipment that is easy to use, adaptable to different abilities, and affordable for school districts. As a national program, NASP curriculum has been carefully created to ensure that with proper coaching instruction, a bit of practice, and a positive attitude, students will build confidence in their archery skills, which they can apply to the rest of their lives.

As Terry Hagenbuch, a New York NASP coach from Norwich City School District, says, “Once students are taught the ‘11 Steps to Archery Success,’ and realize that all the equipment is the same and the only difference is the archer, they learn that through ‘concentration and focus’ they can do well and succeed.”



Shooting at a close-range target increases success and confidence.



An archer competes in the 2018 NASP Archery Tournament.

The positive experiences students have with archery, supported by the guidance of instructors and safe range set-up, have driven NASP's expansion since its inception in Kentucky in 2002. Internationally, more than 2.5 million students and 14,000 schools participate in NASP each year. Since NASP was adopted in New York in 2008, more than 320 schools have joined the program, with more than 38,000 students participating annually.

DEC works with schools across the state, from Long Island to Niagara Falls, to provide opportunities for students to compete. DEC also hosts an annual statewide tournament open to all schools participating in the program, with the top student archers qualifying to compete at the national level. The NASP tournaments are an opportunity for student archers of all abilities to put together all they have learned, compete against their peers, and showcase their skills.

Lenny Brown, a long-time archer and coach at New Lebanon CSD, underscores the discipline that students exhibit while participating in NASP: "My administration was blown away when they came down to watch our virtual tournament being run with complete control, very little talking, and students responding quickly and safely to the whistle commands only. Probably the most important thing that occurred was that all but three students who competed were students who had never played in any extramural or interscholastic teams competition. It gave students who would never have an opportunity to compete or experience being part of a team the chance to see how much fun it was." Many schools across the state have started their own before- and after-school archery clubs, all driven by student interest.

Beyond competition, Coach Bradt fostered his students' interests in archery by creating an outdoor range. "With help from our club and summer archery program, I installed a 1-mile trail with 16 targets that has opened up opportunities for student and community members to get into the woods on our school property."

Genesee Valley is one example of how a NASP program can inspire students to try new outdoor sports that they may not otherwise have had the chance to try. According to the 2017 NASP Student Survey, because of participating in NASP, 39% of respondents own personal bows, 24% have taken a hunter education class, 43% have participated in fishing with a rod and reel, and 66% have participated in other outdoor activities.

NASP focuses on international target style archery, but the possibilities of how and where students can use what they learn through archery are endless. By attending a school that offers archery as part of its curriculum, students in grades 4-12, regardless of size, ability, or gender, have the opportunity to develop skills they can use for a lifetime.

Jill Trunko is the NY NASP Coordinator in DEC's Albany Office.

To learn more about the National Archery in the Schools program please visit, www.naspschools.org.

ERWIN

WILDLIFE MANAGEMENT AREA

BY MIKE PALERMO

Just west of Corning, looming several hundred feet above the Cohocton River and the busy Southern Tier Expressway, lies Erwin Wildlife Management Area (WMA). Located close to local communities, the property provides valuable access for nearby residents to participate in wildlife-dependent recreation, such as hunting, trapping, birding, and wildlife photography.

Erwin WMA was purchased by New York State in 1928, making it one of the state's oldest WMAs. Before being acquired, the property had been heavily logged for many years and various sections were burned over by wildfire. Under DEC management, multiple projects have been completed to improve habitat and public access, including road and trail construction, timber harvests to thin or regenerate areas of the forest, and development of several impoundments.

Nearly 95% of the property is forested, containing a diversity of forest ages and structure (layers that include trees, shrubs, and ground cover). This provides exceptional habitat for numerous wildlife species. The property's rich history of disturbance helped oaks to thrive and dominate most of the wooded area. To a lesser extent, northern hardwoods and hemlock occur on the northern slopes and in gullies, where they benefit from persistent shade and cooler, wetter growing conditions.

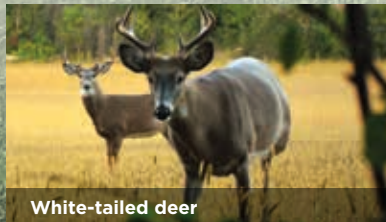
Approximately 250 acres of young forest are also present on the WMA. These stands were established by past timber harvests intending to regenerate areas where oaks were declining. Across much of New York, young forest habitat has been disappearing from the landscape in recent decades. This is due in part to fewer disturbances, which have allowed New York's forests to mature. The young forest on Erwin WMA provides outstanding habitat for several at-risk wildlife species and is an excellent example of how cutting trees can establish healthy forests for the future.

Several scattered fields and ponds located on the property provide valuable habitat diversity. Most of the fields are narrow strips along administrative roads or small isolated patches in the forest. Wild turkey and white-tailed deer use the fields when raising their young. The man-made ponds provide water for upland wildlife. Erwin Pond (also known as Kuehnle Pond) offers opportunities for public fishing. This 10-acre pond contains a variety of common warmwater fish species, including largemouth bass, sunfish, chain pickerel, and bullhead. Multiple vernal pools (temporary pools of water) also occur throughout the forest. These pools are important breeding sites for woodland frogs and salamanders because no fish are present to prey on their eggs and larvae.

Emily Bonk



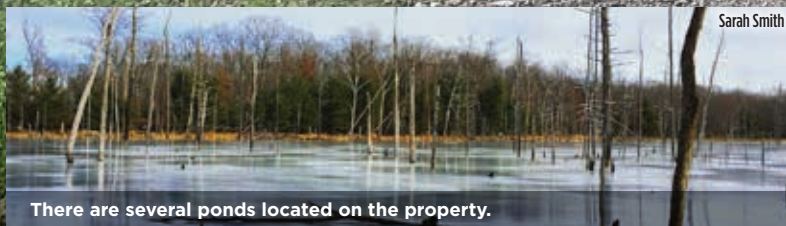
Erwin has a variety of forest habitat for visitors to explore.



White-tailed deer



Bluegill



Sarah Smith

There are several ponds located on the property.

**LOCATED 5 MILES WEST OF
CORNING IN STEUBEN COUNTY;
SIZE: 2,506 ACRES**



Site Features



NOTES: Erwin WMA is open to the public year-round. A network of trails and administrative roads provide access throughout the interior of the property. The roads and trails are generally restricted to non-motorized access; however, gates are open to allow passage of public motor vehicles on roads during the big game hunting season (October – December) and on some free fishing days (this does NOT include Off-Road Vehicles or All-Terrain Vehicles). Approximately 5.4 miles of gated roads on the WMA, including the road to Erwin Pond, are also available for year-round access by individuals with disabilities (www.dec.ny.gov/outdoor/2574.html). There are no bathrooms or other shelters on the WMA. Please be respectful of other visitors, carry out whatever you carry in, and adhere to other Leave No Trace principles.



DIRECTIONS: Located in the Town of Erwin, Steuben County, the property is accessible from the north on Smith Hill Road, and from the south on Weaver Creek Road and Beartown Road.



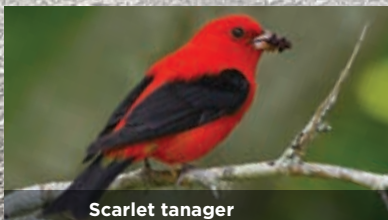
CONTACT: For more information, call DEC at (607) 776-2165 or write to NYS DEC, 7291 Coon Road, Bath, NY 14810. Also visit www.dec.ny.gov/outdoor/24434.html.

Hunting is one of the most popular activities on Erwin WMA, and game is plentiful for those in pursuit. The abundance of oaks and the acorns they produce provide important autumn food for several popular game species, including black bear, gray squirrel, ruffed grouse, white-tailed deer, and wild turkey. Young forest on the WMA provides abundant vegetation for deer, as well as the dense cover preferred by ruffed grouse and woodcock for breeding. Furbearers, such as bobcat and fisher, also occur here and provide a good opportunity for trapping.

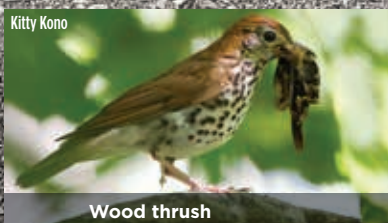
Birding is another rewarding activity on the WMA. The diverse forest habitats make this a convenient one-stop shop for a wide range of forest-dwelling songbirds. Regular inhabitants of mature oak forests include black-throated blue warbler, scarlet tanager, and wood thrush. The large patches of young forest attract brown thrashers, chestnut-sided warblers, and eastern towhees. Gullies on the property are reliable places to hear the long and complex song of a winter wren.

Erwin WMA truly is a gem among DEC's landholdings, providing abundant and diverse forest habitats and offering the public a reliable place to pursue their wildlife-related interests.

Mike Palermo is a wildlife biologist in DEC's Avon office.



Scarlet tanager



Wood thrush



Hunting is a popular activity here.

CATSKILL FISH HATCHERY

BY MICHELLE ZIEGLER | PHOTOS BY DEC

The Catskill State Fish Hatchery opened in 1946, when the NYS Conservation Department (now DEC) purchased the “Ward Robertson Hatchery” in DeBruce, Sullivan County. Shortly after the acquisition, the hatchery was relocated one-half mile up the road to its current location, as the former site became home to DEC’s Camp DeBruce, an environmental education camp for kids.

In the hatchery’s early years, several trout species were reared solely outside. Improvements to the facility in the 1950s allowed fish to be raised indoors. At that time, the hatchery was capable of producing 30,000 fry annually, just a fraction of current production.

In the 1980s, DEC made major infrastructure changes to improve the hatchery. Existing hexagonal ponds were replaced with rectangular ponds, and wells were drilled to provide additional cold, clean water. Today, the hatchery focuses on producing high-quality brown trout, stocking more than 350,000 in 12 southeastern New York counties, including on Long Island. The remaining trout raised at Catskill, approximately 400,000 brown trout, are transferred to other DEC hatcheries to be stocked throughout the state.

The Catskill Hatchery water system is complex, fed by Toad Spring, Henry Brook, Mongaup Creek, and drilled wells. The clean, pure water and consistent water temperatures provided by wells allow more than 700,000 fry to be raised inside the hatchery building during the winter. Toad Spring water increases the creek

water temperature used in the hatchery, which prevents the outdoor ponds from freezing. During summer, a combination of cool pristine water from Toad Spring and warm Mongaup Creek water provides optimal growth of the yearling brown trout. Adjusting water sources at such critical times is crucial for maintaining the health and well-being of the trout.

Starting in late winter, hatchery staff artificially alter the daylight length for the brown trout broodstock held at the hatchery by adjusting the amount of light they are subjected to each day. This allows the trout to reproduce (spawn) two months earlier than they would in their natural setting. Giving brown trout additional time to mature allows them to grow to the target length for spring stocking.

The spawning process begins in late August. Each week, 4-year-old females are checked for ripeness (ability to release eggs), and the ripe females are put in an anesthetic bath—to help reduce handling stress—along with 3-year-old males. Hatchery staff apply gentle, but firm pressure to each trout’s belly to release the eggs and milt (sperm). Water is then added to the egg/milt mixture to facilitate fertilization. Next, eggs are disinfected and placed in incubator trays for 30 days, where they receive treatments to prevent fungal growth. Each female releases about 5,000 eggs, and collectively, the hatchery produces between one and two million brown trout eggs. Approximately 800,000 eggs are kept at the hatchery; any additional eggs are shipped to other DEC hatcheries.



Brown trout eggs

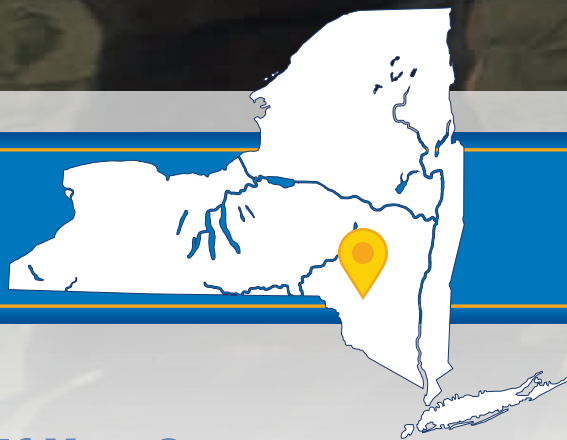


Brown trout sac fry



Stocking fish with a bucket

**LOCATED IN THE VILLAGE OF
LIVINGSTON MANOR AT
402 MONGAUP RD.**



If You Go

The Catskill Hatchery is located near the 14,800-acre State Willowemoc Wild Forest and DEC's Mongaup Pond Campground & Day Use Area.



LOCATION: 402 Mongaup Rd., off NY-17 west; Exit 96 (Livingston Manor); left onto DeBruce Rd; then left on Mongaup Rd.



VISITOR HOURS: Open 8:00 AM – 4:00 PM, Monday – Friday; 8:00 AM – Noon, Weekends & Holidays



SPECIES RAISED: Brown trout



PHONE: (845) 439-4328

SPECIES SPOTLIGHT

Brown Trout

- Primarily found in streams, but also live in ponds and lakes.
- Introduced into New York's waters in the 1880s, the brown trout's ability to tolerate warmer water than either of the state's native trout has allowed this species to do well in waters otherwise not able to support trout.
- Popular sportfish because they are relatively wary and a challenge to catch. They can withstand heavy fishing pressure better than other New York trout.



After eyes develop in fertilized eggs (a stage known as "eye-up"), dead or infertile eggs are removed either manually or with an automated egg picker. Live eggs are placed on trays in troughs, where they remain until they hatch in mid-October. Hatched trout (called sac fry) live off their yolk sacs for two weeks and then are weaned onto a dry high-protein diet. Fry remain in the troughs through winter and are moved outside into ponds in early spring to grow; 18 months later, the trout are nine inches and ready for stocking.

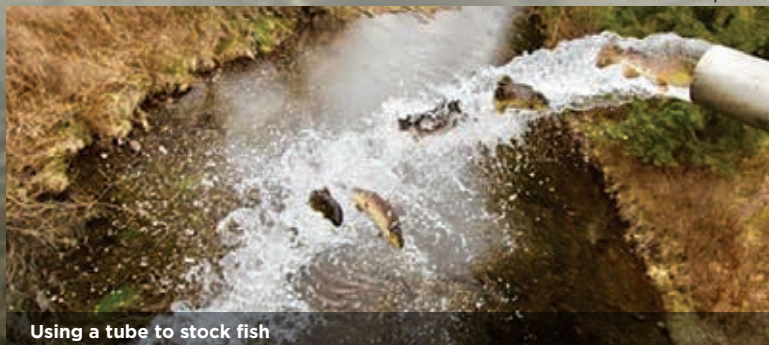
Catskill Hatchery staff welcome visitors to tour the hatchery. There is no admission fee, and the facility is open every day of the year. Beginning in late August, visitors can stop by on Tuesday mornings to witness the spawning process in action.

Stocking season kicks off in March and continues through May. Check DEC's website to see the list of counties stocked by DEC fish hatcheries, or contact your local sportsman federations to participate in stocking.

The Catskill Hatchery participates in the Trout in the Classroom (TIC) program in association with Trout Unlimited. In this important program, students raise their own trout in a classroom setting and release them in the spring. This past season, staff provided eggs to more than 200 schools. For more information on how your school can be a part of TIC, visit <http://www.troutintheclassroom.org>.

Michelle Ziegler is a fish culturist at the Catskill Hatchery.

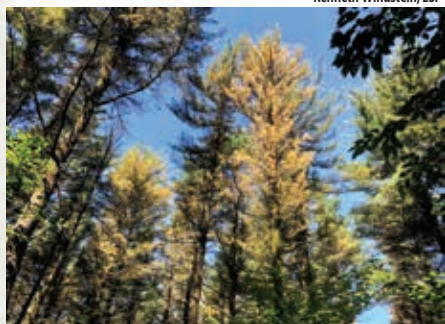
Judy LaVerde



Using a tube to stock fish



Kenneth Windstein/ESF



Protecting Pines

DEC's Forest Health Diagnostic Lab has received many calls from concerned landowners asking about white pine trees that are turning yellow. Foresters and plant pathologists call the condition White Pine Needle Damage (WPND), in which a mix of different fungi causes needles from the previous year or older to turn yellow, then brown, and fall prematurely. WPND is contributing to the decline of white pine stands and plantations across the state. Although the current season's needles continue to grow and appear healthy, the crowns of white pines may have a thin, more transparent appearance than normal. DEC Forest Health has been working with the U.S. Forest Service and other New England states to assess the severity of WPND across the Northeast. If you believe your stand has been affected, contact DEC's Forest Health Diagnostic Lab at 518-478-7813 or email us at foresthealth@dec.ny.gov.



Record-breaking Anglers

The weekend of May 5-6 was a good one for anglers, as two set new state fishing records for walleye and black crappie. Brian Hartman of Alexandria Bay eclipsed the 2009 state record walleye by more than 1.5 pounds when he caught an 18-pound, 2-ounce walleye from the St. Lawrence River on the opening day of walleye season. The very next day, William Wightman of South Dayton reeled in a 4-pound, 1-ounce black crappie from Lake Flavia in Cattaraugus County, exceeding the 1998 state record by five ounces. To review state fish records or report a catch, check out DEC's "Angler Achievement Awards Program" webpage, or contact (518) 402-8891 or fwfish@dec.ny.gov.



Calling all Pool Owners

DEC is asking pool owners across the state to be part of the seventh annual Asian longhorned beetle (ALB) Swimming Pool Survey during August to help identify the presence of these invasive beetles before they inflict damage on forests and street trees. ALBs have caused the death of hundreds of thousands of trees across the nation, including maple trees in New York City and Long Island. Pool owners can play an active role in monitoring ALBs and protecting trees in their yards, communities and nearby forests. DEC uses the information from pool owners to identify new infestations early and focus efforts to eliminate infestations. To participate, you need only a smart phone or digital camera, and the means to email or text photos to DEC at: foresthealth@dec.ny.gov. Pool owners should check for ALBs in debris collected from their pool filter and skimmer weekly. If you find an ALB, send a photo to DEC at: foresthealth@dec.ny.gov and freeze the insect in a plastic container. DEC will either arrange a time to pick up the beetle or advise the pool owner to discard the insect.

Hunter Safety Classes

Each year, more than 45,000 New Yorkers complete one or more of DEC's free hunter education courses—Hunter Education, Bowhunter Education, Trapper Education, and Waterfowl Hunter Education—which are taught by a cadre of dedicated volunteer instructors. Except for Waterfowl Hunter Education, the courses are mandatory for all new hunters and trappers in New York before they can obtain their respective sporting license. Course participants learn about firearm and bow handling and safety techniques, information on firearms and ammunition, proper gun handling and storage, specific laws and regulations, and more. To locate a course near you, visit DEC's website or contact a local DEC office.

For his outstanding service in teaching and promoting safe and ethical hunting practices, volunteer hunter safety instructor Kenneth Foster of Dutchess County was recently awarded DEC's Wayne W. Jones Award of Excellence. During the past 39 years, Foster has been involved in more than 80 courses, teaching hundreds of students. He is an active member of his local sportsmen's federation, recruits and mentors fellow Hunter Education Instructors, and regularly contributes to his community through shooting sports programs at the Pleasant Valley Trout & Game Club. The award is named for Wayne Jones, DEC's Hunter Education Program Administrator from 1992 – 2008.



Recycling for Reefs

The construction of a new, 3.1-mile bridge crossing the Hudson River north of New York City has another benefit beyond improving the state's transportation system—it will also improve marine habitats off the coast of Long Island. On May 31st, more than 1,000 tons of recycled materials, including girders from the former Tappan Zee Bridge near Tarrytown, were strategically placed at the Shinnecock Reef, significantly expanding this artificial reef. The reuse of the cleaned and recycled materials—which included 885 tons of bridge trusses, steel beams, and concrete deck panels, as well as three decommissioned NYS Canal boats—will support a diverse ecosystem for fish, lobsters, and other marine life. After materials settle to the sea floor, larger fish like blackfish, black seabass, cod, and summer flounder, will use the new structures. Additionally, encrusting organisms such as barnacles, sponges, anemones, corals, and mussels, will cling to and cover the material. Over time, these structures will create habitat similar to a natural reef. Under Governor Cuomo's leadership, the unique project is the largest expansion of artificial reefs in state history, and will significantly increase recreational fishing and diving opportunities.



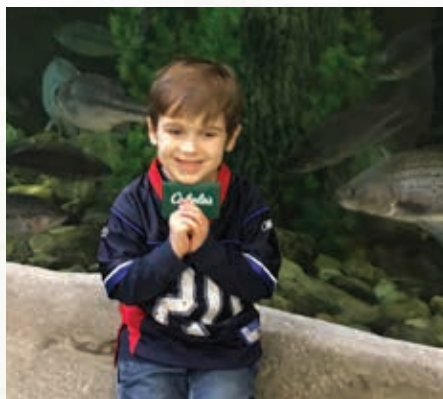
Porcupine Correction

A few of our readers gave us “something to chew on” when they challenged our suggestion to install well-placed aluminum siding to keep porcupines from damaging property (see April 2018 Letters). Porcupines love salt and are attracted to oxidizing metals. Aluminum flashing is still a good option, but place it so the porcupines can’t climb it or chew on loose edges.

Set for Life

Five-year-old Findlay Sacca proudly displays his lifetime fishing license.

Congratulations, Findlay! Lifetime fishing licenses are a great option for young children. You can purchase them on the DEC website, at a licensed retailer, or at the Great NYS Fair. Visit the DEC booth in the Aquarium Building at the Fair to get your fishing license this summer.



Is This Seat Taken?

Don’t you just hate when there are plenty of empty benches all around and you are trying to have a private conversation when someone decides they need to sit down right next to you?

KATHY SILVER
SAYVILLE, NY

What a great shot, Kathy! Both double-crested cormorants and painted turtles like to rest and sun on rocks and logs. The turtles obviously don’t feel threatened, since they aren’t drawn into their shells.



Ask the Biologist

Q John Fiester of Feeding Hills, Massachusetts found a family of red foxes with four white kits living under his shed. David Akin of Mayville, New York, discovered a silver fox sleeping under his porch. Both asked: How common are these?

A Red foxes come in a variety of color phases: silver, cross, melanistic, and samson. An all-white fox has a condition called leucism (a partial lack of pigment). While leucism is common in animals, all four kits having the same condition is very rare. In the case of the silver fox, neither I nor my colleagues have ever seen one in the wild, or even at a furbearer auction, and suspect it may have been captive-bred.

—MICHAEL SCHIAVONE, DEC WILDLIFE BIOLOGIST



Out of the Blue

We haven't seen indigo buntings around here in many years, and it is a delight to see them here now.

JANIE FERGUSON
CAMERON MILLS

Indigo buntings are found throughout the eastern United States, although their populations have dropped by a third in the past 50 years. To attract them to your backyard, fill a bird feeder with small seeds such as thistle (also known as nyjer).



Why, the Gall!

My kids and I were on a walk through the neighborhood and discovered these leaves with bizarre growths on them. What are they?

REBECCA PAVLIK
LANCASTER, NY

They are galls, abnormal plant growths caused by a variety of organisms, from insects and mites to bacteria and viruses. These are spindle galls (because of their pointy shape), made by a mite infestation.

—JERRY CARLSON,
DEC RESEARCH SCIENTIST



Three's Company

Jim Hill sent in this photo of three woodchucks living under his shed. While they are very cute, this spells trouble, since their burrowing can lead to serious damage to structures.

Woodchucks (or groundhogs) are members of the squirrel family. They create an extensive network of tunnels and burrows with several entrances. For help in removing woodchucks from your property, visit DEC's website and search for a Licensed Nuisance Wildlife Control Operator near you.

Enjoying the Digital Edition

I will be 70 next year and some of the tolls of aging have changed the way I now navigate my world. When the link for the April digital issue arrived, I opened it. It was pleasant and easy to stroll through the pages on the extra wide screen of my desktop computer—New York's stunning outdoors came even more vibrantly alive. Older age is a chance to embrace change, and therefore the online *Conservationist* gets a thumbs-up from this senior.

JEANNE LEHEW
POUGHKEEPSIE, NY

Thanks Jeanne, it's great to hear you enjoyed our digital edition of the magazine. It is available free to all subscribers, and contains extra photos and videos. To receive the digital edition (along with the printed copy), visit www.theconservationist.org and enter your e-mail under the Customer Service page.



First Things First

My prom date, Kelly Van Osch, shot his first turkey three hours before our senior prom! It had a 9" beard and 1 1/4" spurs.

SAMANTHA BARNES
DELANSON, NY

Congratulations Kelly and Samantha! That is a great looking turkey, and based on the length of the beard and spurs, is fully mature. Male turkeys use their spurs for fighting.

CONTACT US!

@ magazine@dec.ny.gov



Conservationist Letters
NYSDEC, 625 Broadway
Albany, NY 12233-4502



facebook.com/NYSDECtheconservationist

Back Trails

Perspectives on People and Nature

Nature's Wonder

BY TOM ALWORTH

It was a cool March morning when I raised my new binoculars, given to me as a birthday present, and scanned the sky above Rondout Reservoir in the southern Catskills. I was trying to catch a glimpse of a massive bird soaring high above me. I was eleven years old. And there it was, unmistakable, a mature bald eagle climbing through the morning sky. Suddenly, there were two—almost identical birds, with white heads and tails and broad, dark wings, circling. As I struggled to keep them in my binocular's view, the massive birds began to fly directly towards each other on what was sure to be a collision course. When they came close together, both birds rolled backwards and raised their sharp talons towards the other, as if to attack. But, what happened next was impossible to predict, unimaginable, and changed me forever.

Instead of attacking, just before they collided, the two birds appeared to stop in mid-air and gently clasp each other's talons. Then, locked together, they fell toward the earth. Instinctively, I lowered my binoculars, my mouth agape, not believing what I was seeing. This couldn't be real. Now just a tumbling ball of dark feathers, the birds plummeted together, somersaulting downward faster and faster toward the reservoir waters, locked together as one. My heart raced as they approached the water at freefall speed. I held my breath with anticipation. Then, an instant before hitting the water, both birds gently let go and glided apart, just above the water's surface.

There was perfect calm.



Jeff Nadler

Then, both birds began to climb once more, circling ever upward, round and round toward the heavens until they were high in the sky. As if once was not enough, again they flew directly toward each other, on another collision course.

This time, I was ready.

I raised my binoculars in anticipation. Again, the birds rolled backwards, and with clasped talons tumbled together in another death-defying fall, somersaulting free-form through the gray March sky. I followed them with my binoculars swiftly downward towards the water and witnessed, up close, their acrobatic, synchronized release—at the last possible instant, avoiding catastrophe and sure death, they let go from each other, perfectly.

I knew at that very moment I would never be the same. I had witnessed firsthand the mystery, awe and wonder of nature. I was hooked.

And I was lucky. I had a mentor who brought me to this place, who gave me the opportunity to witness the amazing courtship of eagles. This was his greatest gift to me.

Because of this experience, I know that the most important action we can take to protect the natural world is to bring young people into nature. People of all ages must be given the chance to witness nature's wonder. Bring them to a field or forest, a lake or stream, and give them the chance to witness the beauty and mystery of nature. Give them a chance to gain a new understanding of the natural world and of themselves.

Like me, they will never be the same.

Tom Alworth is Deputy Commissioner for Natural Resources at NYS Office of Parks, Recreation and Historic Preservation.



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