

NEW YORK STATE

CONSERVATIONIST

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JUNE 2019

Skaneateles Lake

Protecting a shared, vital resource

Stemming the Decline

Working to save the majestic white pine

Transforming Mines

New use for old mines

Flying Squirrels

Dear Reader,

As the warm summer weather welcomes adventurers from New York and beyond to experience our state's world-class outdoor recreational opportunities and unmatched beauty, it's important to remember and renew our commitment to our shared responsibility of preserving and protecting our natural resources for future generations to enjoy.



In this issue, you can learn about some ongoing community efforts to preserve the water quality of Skaneateles Lake (pg. 26), and steps you can take to protect waters in your community. You may also be surprised to learn how a DEC program is transforming abandoned mines into community assets (pg. 6).

Wildlife lovers can read about DEC's Reynolds Game Farm, the state's last remaining game farm, which is celebrating its centennial this year (pg. 10), or learn about flying squirrels, highlighted in the Species Spotlight on page 24.

The *Conservationist* continues to offer glimpses of rare plants and animals. Read about the northern monkshood plant (pg. 34), which is found only in the Catskills and a few out-of-state areas.

Readers can also see additional photos and information from DEC's WomenHuntFishNY Contest, which celebrates the growing number of women involved in hunting and fishing (pg. 13), and learn about our efforts to stem a threat to white pine trees in the Adirondacks (pg. 29). And, as always, we highlight facilities that are promoting DEC's environmental mission, such as the Bashakill Wildlife Management Area (pg. 22), Rome Fish Hatchery (pg. 32), and the new Frontier Town Campground (pg. 19)—these are all great places to visit this summer.

DEC's dedicated team of environmental professionals encourage everyone to get outside and take advantage of all that New York's incredible natural resources have to offer. Hopefully, we will see you at some of the great sites and facilities featured in the *Conservationist* all year round.

All the best,
Basil Seggos, Commissioner

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CONSERVATIONIST

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Andrew M. Cuomo, Governor of New York State

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FRONT COVER: Skaneateles Lake by Matt Champlin
BACK COVER: Flying squirrel by Melissa Groo

VIEW FROM AN ADIRONDACK CHAIR

A CALIFORNIAN'S VISIT TO THE ADIRONDACK PARK

BY ANNELISE JOLLEY | PHOTOS PROVIDED BY AUTHOR UNLESS OTHERWISE NOTED

Every summer during his childhood, my Southern Californian husband boarded a plane to upstate New York. After arriving and driving north, he and a medley of siblings, parents, aunts, uncles, grandparents, and cousins arrived at their destination: a cabin or cottage or camp on a lakeshore. There they settled into the traditional American experience that is lake life.

There aren't many experiences my husband and I haven't shared—but summers on the lake was one of them. For years he talked about flying together to upstate New York and driving to a lake, where we'd spend a week on the water with his boisterous, extended family. Finally, five years after we got married, we booked a trip.

We stayed at the cabin in the Adirondack Park. It wasn't the biggest lake house, nor did it have the most toys—jet skis, boats, and

wakeboards—but it was the most serene. I had previously backpacked in the Adirondacks and wanted to experience the park beyond its endless series of trails. Our Adirondack cabin, which belonged to my aunt and uncle, was tucked in the woods near Saranac Lake and edged up to a pond. It sounded perfect.

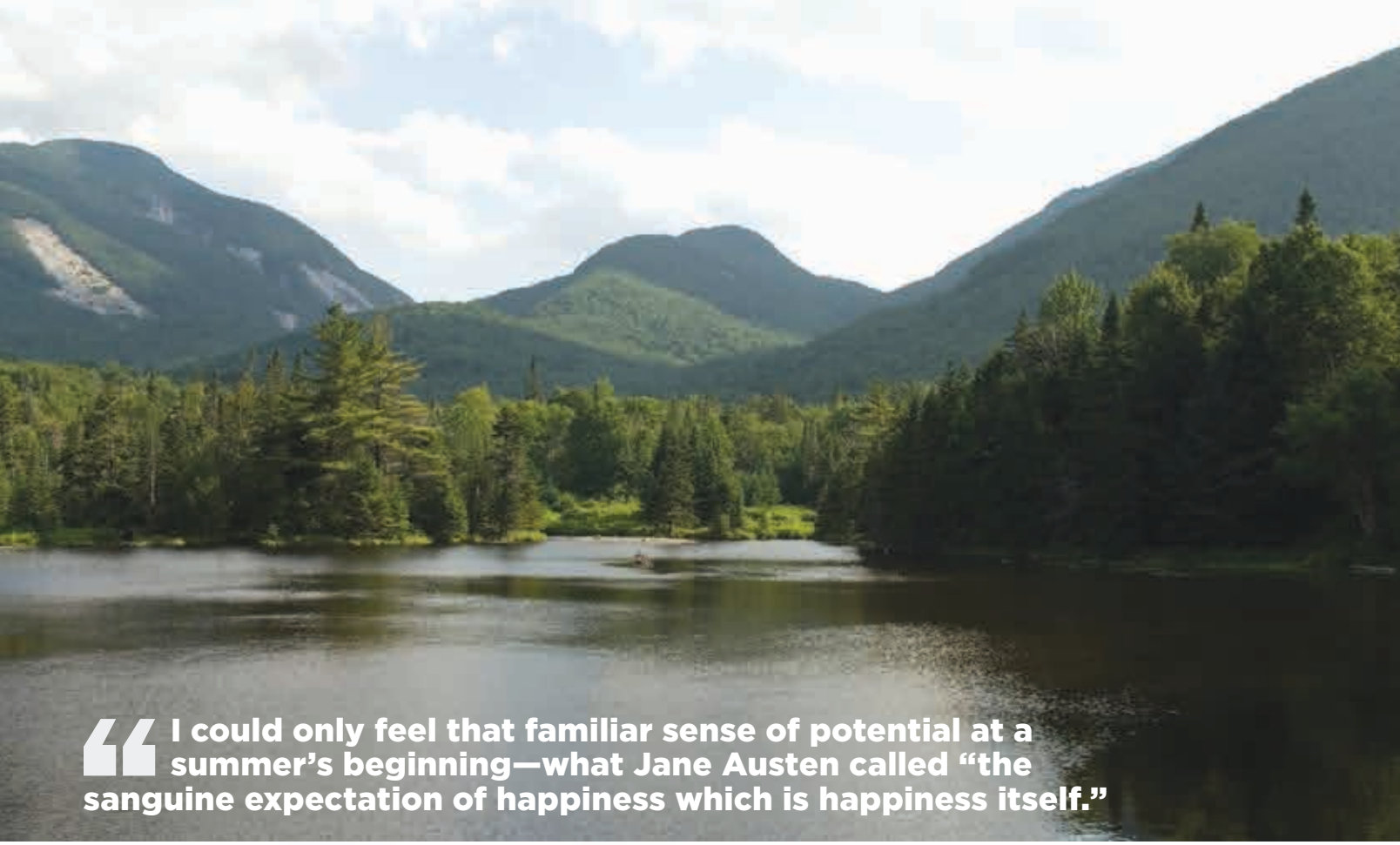
When inviting a loved one into a nostalgic childhood experience, it's typical to try to temper the guest's expectations. Not my husband. In his mind, summer days on a lake couldn't possibly fall short of his memories. He promised a lot of things: early morning paddles across silent water, swimming in the afternoons, drinks on the deck as the sun set, lazy hours to read. By the time we had landed, my vision of lake life was cemented.

On the night of our arrival, my uncle drove us from Albany to the Adirondack Park. The light shifted from dusk to dark as we



wound through wooded roads. As we approached the cabin, he grew more animated, pointing out barely-visible landmarks and passing along historical tidbits about the park. It was clear he fit in here, more at home in his Adirondack chair or a canoe than anywhere else. He and my aunt bought this cabin for their retirement, and they plan to grow old watching the water from their porch.

Though the weather in Albany had been humid, a typical East Coast summer day, the temperature dropped as we drove north. Outside the windows, the silhouettes of pines disappeared into the night and my cell service blinked in and out. Rain tapped and then hammered on the



“ I could only feel that familiar sense of potential at a summer’s beginning—what Jane Austen called “the sanguine expectation of happiness which is happiness itself.”

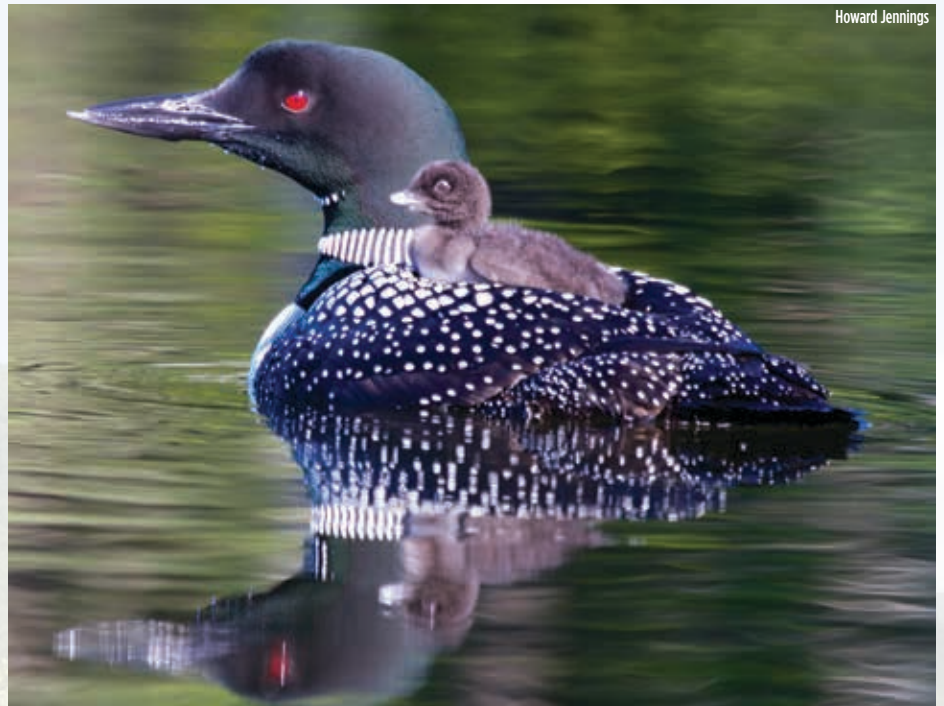


Cool temperatures couldn't stem our enjoyment of taking a boat out on the water.

windows, the glass was cold to the touch. I mentally rifled through my suitcase, searching unsuccessfully for a rain jacket amidst my optimistic shorts, tank tops, and bathing suit. By the time we pulled down the dirt road to the cabin, the sky was dumping water and the temperature had slipped to nearly 50 degrees.

"I'm sorry!" my aunt greeted us as we ran from the car to the cabin porch, shaking off droplets. "It was in the seventies last week!" We arrived in a June cold snap. The Adirondacks, it turned out, were indifferent to our long-awaited summer trip and our visions of sunshine and warm afternoons. The weather reports predicted highs in the low fifties and rain every day of our stay.

On our first morning at the cabin, we carried steaming mugs of coffee to the deck—where the thermometer read 47 degrees—and swaddled ourselves in blankets and down jackets. The house edges right up to the water, and the dock was partially submerged after a wet winter. Hummingbirds landed on the feeder and the pond was glass under the gray sky. Sunk deep into an Adirondack



Watching and listening to loons on the pond—"...that's the Adirondacks."

chair, each of us peered at the placid surface from beneath beanies and hoods. While it wasn't the sunny lounging my husband had described, it certainly was relaxing.

As a Californian, my summers consist of saltwater and waves. The placidity of freshwater, not to mention the ability to step out of a cabin and onto the shore, felt foreign. As I admired the surroundings, I couldn't help but compare it to

drought-stricken California. The dim light that filtered through the trees was green, the grass leading up to the pond was green, each leaf was green, and all I could talk about was how green everything was.

When the morning thawed, my uncle suggested we take the canoes out for a paddle. I was amused to learn that our hosts called them boats, not canoes: "Can you help me carry the boat from the garage?" "Careful when you put the boat in the water." My husband and I shared a "boat" while the others paddled solo. One by one we slipped into the water, leaving the damp woods and hum of mosquitos behind. The boats slid quiet as loons across the surface. As we set out, we received a crash course on certain strokes: the draw, the j-pull, how to turn and stall the canoe. We managed to stay afloat and dry as we crossed one pond and portaged to another.

Despite the chill, our paddling kept us warm. Rain threatened, but never came. Something rustled on the shore and my aunt glimpsed the rear-end of a martin, slipping shyly into the shadows. A few minutes later we saw an osprey make slow circles overhead.



The cool mornings were spent relaxing in Adirondack chairs on the porch with warm cups of coffee.



After a short portage, we were on our way, exploring another beautiful pond.

We passed islands that looked like heads of giants rising from the water, some lush and some bald in patches. We were the only ones on the water, soaking in what my uncle called “a nice little wilderness dose.” Beneath our paddles the water was the exact color of ponds at the mini-golf course where my husband and I used to go on dates, an opaque blue-green. I watched the trees on the shore slide by.

Up ahead a pair of loons lit on the water. One called to the other: a long woo-oo that sounded like a minor key note blown on a flute. My aunt told me it was their wail call, used to figure out each other’s locations. “To me, that’s the Adirondacks,” she said. “The loons.”

The weather didn’t change throughout the week, but our days at the cabin followed a similar routine as we honored summertime lake habits. We ignored the cold and marched onto the deck each morning, carrying coffee and blankets, ready for a busy few hours of contemplating the water. Eventually, we made breakfast and went for a hike in the

damp woods or sunk into chairs to read. In the afternoons, we drove into town for ice cream.

We ate grilled corn and ribs for dinner, a quintessential summer meal, and grinned at each other around the table from faces smeared with barbeque sauce. Back on the deck at night, we settled into our chairs, our coffee mugs replaced by wine or beer. “Help,” we called to each other, “I’m stuck in an Adirondack chair and can’t get up.” We passed the binoculars down the row of chairs and took turns aiming them at the loons who floated as motionless as wooden carvings on the water.

One night, my cousin lit a bonfire in their cast-iron kettle drum. The flames’ warmth extended across the grass and cast an orange glow onto the rippling pond. I couldn’t feel the cold thanks to a borrowed beanie and the fire in the kettle. I could only feel that familiar sense of potential at a summer’s beginning—what Jane Austen called “the sanguine expectation of happiness which is happiness itself.”

On our last evening, my husband and cousin pushed off from the dock and went fishing in a downpour. They sat in the dusk under sheets of water, fishing poles draped optimistically over the sides of their boats. From our living room perches, the rest of us watched them with sympathy, but they returned elated, having caught a single fish between them.

Once they’d dried and thawed, we headed into town for a final ice cream. Crossing the wet street, I paused. It was going on 9 p.m. but still dusky, summer solstice just around the corner. The pavement gave off a humid scent and all at once it smelled like summer: asphalt, pine, wet soil, new leaves. As I breathed in the season’s potential, I imagined a summer marked by cabins and woods and loons, and I liked how it felt.

Annelise Jolley is a San Diego-based writer and editor who covers travel and food. Her work has appeared in *Hidden Compass*, *Civil Eats*, and *Edible San Diego*, among others. View more of her work at annelsejolley.com.

NEW BEGINNINGS

for **OLD**

MINES

What happens when the dust settles
and the trucks are gone?

Thalle Industries, Inc.'s Fishkill Quarry is a great example of how mining and reclamation work can be done concurrently.

BY CHRISTOPHER S. MONACO, PG
AND CHARLES C. ROLL | PHOTOS
PROVIDED BY DEC

What happens when the dust settles, the trucks have gone, and the mine has closed its gate? We all know that mining is a necessary part of our daily lives; however, many people still believe that an “ugly hole” or “scar on the land” remains after the mining operation is finished. The reality is that former mines are all around us, but you may never actually realize it.

Many people shop in malls, work in industrial parks, or live in housing developments that were constructed at former mine sites.

A reclamation project in the town of Chester, Orange County, transformed a former quarry into a vibrant community sports facility with athletic fields and fitness trails.



“Over the years, many New York mines have received state and national awards for their outstanding reclamation efforts.”

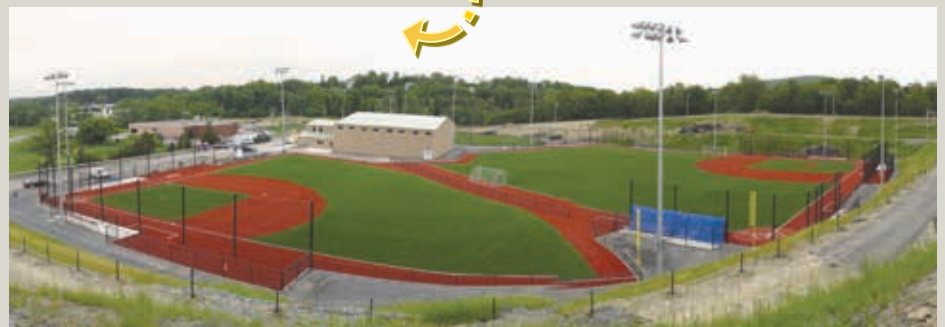
Believe it or not, you may even enjoy your favorite recreational activity on lands that used to be mines. Some mine sites have been transformed into popular golf courses, athletic fields, community parks, lakes for boating and fishing, and even works of art! Mines are also often reclaimed to provide wildlife habitat, and sometimes to encourage and sustain protected, endangered, or

threatened species. Some of our food is even grown on former mined land. The large expanses of evenly graded land and soils enriched to support vegetative growth can create a desirable agricultural environment.

This wasn't always the case. It wasn't until April 1, 1975, that the Mined Land Reclamation Law (MLRL) became effective. Under this law, the Department of Environmental Conservation (DEC) regulates mining activities that remove more than 750 cubic yards of material within 12 successive months. Once the mining activities have ceased, all

and sedimentation into nearby surface waters. Removing any debris or equipment from the mine also helps prevent ground or surface water contamination that could occur from leaking containers and equipment.

To receive a mining permit, an application package must be submitted to DEC for review and approval. The package must include a detailed description of the proposed mining operation and how any environmental impacts will be addressed, as well as a detailed reclamation plan. The reclamation plan describes the final land use, topography, and vegetation type for the property. Additionally, applicants must provide reclamation financial security such as surety bonds, irrevocable bank letters of credit, or assignments of certificate of deposit, to guarantee that reclamation will be completed if the permittee is unable or unwilling to perform this responsibility. On occasion, DEC has had to use this financial security to undertake the reclamation.



lands affected by mining that goes beyond the regulatory threshold must be returned to productive use, consistent with surrounding land uses and preferably enhancing property values.

The process of returning land to productive use is referred to as mined land reclamation. Reclaiming mines helps to protect water quality by stabilizing soils and reducing erosion

Over the years, many New York mines have received state and national awards for their outstanding reclamation efforts. One such mine in the town of Chester, Orange County, was reclaimed by the Frozen Ropes Baseball Company. The former shale quarry now includes athletic fields that can be configured to accommodate several baseball and softball fields, a regulation-sized

soccer and football field, and other turf sports like lacrosse. Reclamation also provided a year-round, state-of-the-art indoor sports complex. The quarry benches, or step-like levels along the rock wall, were repurposed as natural seating areas and include a fitness trail with a variety of exercise stations.

Another award-winning mine reclamation project was the construction of an 18-hole golf course in the town of North Hempstead, Long Island. This mine was an abandoned sand and gravel operation prior to being put back into a productive use. Today, golf enthusiasts putter around in small golf carts on lands where giant machinery once reigned.

Are you familiar with the Vietnam Veterans Memorial in Washington D.C.? The same architect who



A former sand and gravel mine is now home to an 18-hole championship course at the Harbor Links Golf Course in the town of North Hempstead, Long Island.

designed that popular, national monument also collaborated on the reclamation of a mine in the Hudson River Valley. Maya Lin was contracted by the Storm King Art Center to reclaim a former sand and gravel mine into an earthform sculpture. With material, time, and equipment donations from local

mining and horse stable operations, the site was transformed into the Storm King Wavefield—seven rows of undulating landforms create a sea of green grass that resemble ocean waves. You can almost hear the crashing sounds of surf on a beach! To promote the environmental aspect of this reclamation project, the artist kept track of all fuel used at the site, including fuel used to transport materials to the site, and planted enough trees to offset the carbon footprint of creating the artwork.

Thalle Industries Inc., located in the Hudson River Valley, was the winner of a 2018 National Association of State Land Reclamationists award. Thalle's mine is still active, but it undergoes concurrent reclamation (reclamation that occurs alongside mining activities).

DEC encourages concurrent reclamation to help reduce erosion and environmental impacts that could otherwise result if lands affected by mining activities are not stabilized through revegetation. In addition to the environmental benefits of concurrent reclamation, the reclamation financial security could potentially be reduced, which provides

Hauser Gravel Bank

**TOWN OF CALLICOON,
SULLIVAN COUNTY**

**RECLAIMED
SUMMER OF 2017**

The Hauser Gravel Bank was a 14-acre gravel mine located in the town of Callicoon, Sullivan County. DEC suspended the mining permit during the spring of 2012 due to the permittee's failure to pay annual regulatory program fees. The permittee also failed to reclaim the site. DEC seized the financial security and reclaimed the site with the seized funds.

DEC's contractor graded and contoured the site using earthen materials located in several small stockpiles. This initial earthwork ensured the establishment of proper grades and slopes. Since there was an insufficient amount of soil at the site to complete reclamation, the contractor brought in topsoil and distributed it evenly across the site. This soil provided a rich and stable medium for future vegetative growth. The final reclamation of the site included two ponds totaling eight acres surrounded by six acres of vegetated slopes.





Renowned architect Maya Lin designed the Storm King Wavefield for an 11-acre gravel pit reclamation project in the Hudson Valley. The design reflects the Hudson Valley art center’s mission of bringing nature and sculpture into harmony.

an incentive for the mine operator to not wait until the mine is depleted of material to begin reclamation.

While not all mine reclamation projects win awards, many sites are returned to valuable wildlife habitat or cropland. The ability to shape the land, enhance the soils, and choose the specific vegetation types offers endless opportunities to support the local biosystem and agricultural needs. Some endangered and threatened species only live in areas that have certain vegetation, and planting it on these large land expanses helps to quickly develop suitable habitat that can sustain these species.

DEC also uses seized financial security funds to perform reclamation activities throughout the state as part of the Abandoned Mine Reclamation Initiative. These lands would have remained barren and unproductive had DEC not established the financial security requirements to allow for their eventual stabilization and reclamation. Over the last two years, DEC has successfully reclaimed ten abandoned mines, with several more planned for this year.

A lot of time, effort, and money are spent to transform mined lands from an “eyesore” to an asset. So, while you’re enjoying your summer picnic in a park, eating your second ear of corn, or preparing to play a round of golf or snag that elusive fish from the depths of the nearby lake, it’s possible you are

“ The ability to shape the land, enhance the soils, and choose the specific vegetation types offers endless opportunities to support the local biosystem and agricultural needs.”

benefitting from the reclamation of a former mine. And if you can’t tell, that’s a sign of a successful reclamation project.

Christopher S. Monaco, PG and **Charles C. Roll** work in DEC’s Mineral Resources office in Albany.

Moran Gravel Mine

**TOWN OF PORTVILLE,
CATTARAUGUS COUNTY**

RECLAIMED SUMMER OF 2018

The Moran Gravel Mine was a 2.5-acre abandoned gravel mine located in a rural farming community in Cattaraugus County. The permittee voluntarily surrendered the mining permit, but then abandoned the site without performing the required reclamation. DEC seized the financial security and Division of Operations staff performed the required reclamation work.

DEC used several subsoil and topsoil stockpiles left around the perimeter of the site to reclaim the mine. Operations staff graded and contoured the mine faces to produce gently rolling surfaces with stable slopes that minimized health and safety risks, and returned the site to its former use as productive farmland. They also evenly distributed topsoil stockpiles across the site and seeded and mulched the area to minimize erosion and sedimentation during heavy rains. The Division of Mineral Resources approved the final reclamation of the site after its inspections found the revegetation was successful through a second growing season.





DEC'S

PHEASANT
& CHICK



PROGRAM



TURNS

100





DEC's Day-Old Pheasant Chick Program is celebrating its 100th anniversary this year. Since the program's official recognition in 1919, hundreds of thousands of ring-necked pheasants have been raised and released onto lands throughout New York State, supplementing the number of chicks produced by state-run game farms to provide hunting opportunities for this great game bird. Current program participation remains strong, allowing DEC to distribute more than 30,000 chicks annually!

The roots of DEC's Pheasant Program date back to 1909, when the state's first game farm, Rogers Game Farm in Sherburne (now Rogers Environmental Educational Center), would hand out extra eggs to farmers. The farmers would then place the eggs under their chickens, and those chickens would raise the pheasant chicks when the eggs hatched.

In 1919, the New York State Conservation Commission (now DEC) recognized the potential of this means of propagation, and assigned a game farm superintendent to run the newly recognized Day-Old Chick Program and assist in providing technical advice on rearing pheasants to all who needed it. A century later, the project continues to be a great success in getting the public, including young people, involved with the outdoors.

Anyone who meets the project guidelines can apply to raise pheasant chicks. A large portion of participants are 4-H'ers, local sportsmen and sportswomen, and conservation groups. Raising pheasants is a great opportunity to better connect with nature, and although the care and responsibility that come with raising an animal can be time-consuming, it is a rewarding and often fascinating experience. Raising pheasant chicks also makes a great project for school groups, scouts, or any other interested party. Eggs are available by request, and provide an excellent educational opportunity in the classroom.

(Center 2 photos) Students enjoy a tour of the game farm. (Far right) Game Farm staff prepare young birds to be moved from the nursery to the outdoors; Circa 1980s.



1950s incubator



Preparing chicks for shipping circa 1950s



At one time, there were as many as 12 DEC-run game farms across the state assisting with the program. Through the years, production was streamlined, and now all pheasants are produced at the Richard E. Reynolds Game Farm in Ithaca. The Reynolds Game Farm has been in operation since 1927, and its efforts are funded by the state Conservation Fund, which uses proceeds from hunting, trapping, and fishing license sales to support “the care, management, protection and enlargement of the fish, game and shellfish resources of the state and for the promotion of public fishing and shooting.”

If you are interested in taking a tour of the Reynolds Game Farm to see how DEC produces tens of thousands of pheasants each year, contact the Game Farm. To celebrate the centennial anniversary of the Day-Old Chick Program, this year’s participants will receive a commemorative patch.

There have been many changes over the last 100 years since the Day-Old Pheasant Chick Program began, but one thing remains the same: pheasant eggs and chicks are still available free of charge to approved applicants.

Raising and nurturing pheasant chicks can be a fun experience that will expand your view and understanding of wildlife. It takes time and commitment, but it is a rewarding experience from day one.

If you would like to learn more about the program, or receive an application, contact Reynolds Game Farm staff at 607-273-2768 or email wildlife@dec.ny.gov with the word “Pheasant” in the subject line.

Evan Wills is the Manager at DEC’s Reynolds Game Farm in Ithaca.



Wildlife staff and volunteers release thousands of pheasants across New York State each fall.

THE CHANGING FACE OF NEW YORK HUNTERS

DEC'S WOMENHUNTFISHNY

PHOTO CONTEST



BY EILEEN STEGEMANN AND
KATRINA TALBOT

Often when people envision someone hunting in New York, they picture a middle-aged man (or older) dressed in camo or bright hunter orange. But recent surveys have found that women continue to be the fastest growing demographic of new hunters throughout the nation, and we see the same trend happening within New York State. The same surveys have found that, generally, women's motivations for hunting are to spend time with family; put organic, free-range and locally sourced food on the table; and spend time in the outdoors.

That stereotypical "hunter image" that we often see in advertising and media is no longer accurate. There are currently approximately 53,000 women who are licensed hunters in New York.

DEC is happy to encourage women, young and old, to become hunters, support those who already hunt, and get women back into the sport who may not be active anymore. As part of an effort to recognize them, DEC held the first-ever statewide "WomenHuntFishNY" photo contest to get photos of real New York women hunting. The agency will use these photos to better represent our state's hunting population in future publications and marketing.

Susan Janowski

Ruth Ireland

Cathi Perkins

Annie Alexander



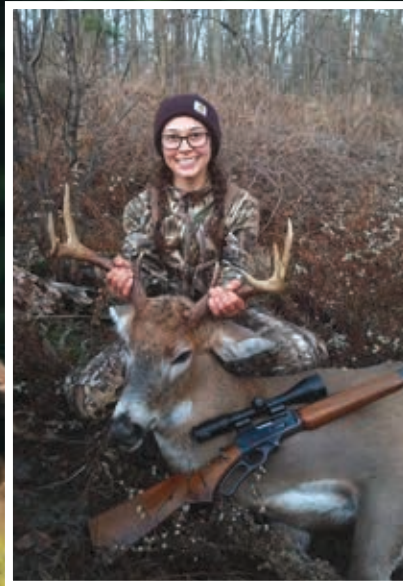
Kelly Mahar



Melinda Bessette



Lauren Maynard



Madeline Gibbons



Jennifer Gsell





The bigger motivation of the photo contest was to provide women with the opportunity to share their experiences, and represent sportswomen in a realistic and positive light, in the hopes of encouraging other women to become hunters and conservationists. The response to this contest far exceeded our expectations, with more than 2,000 entries, and photos from every region of the state. Hundreds of hunting stories and testimonials expressed how excited women are to have the opportunity to support and encourage fellow hunters, and to be recognized in the hunting community.

“Women have always been a part of the hunting community, and their numbers are growing. Looking at current media and advertising, you wouldn’t really see that. DEC is proud to share the images of these women and share their stories of conservation and community. Hunting and fishing are open to everyone in New York, and we will continue to support—and hopefully inspire—women and girls to be active in these outdoor sports.”—Katrina Talbot, DEC’s WomenHuntFishNY contest

The photos here are just a small sampling of the photos that were entered into the contest. The winners of the contest and more photos can be found on DEC’s Flickr page: www.flickr.com/photos/nysdec/sets/72157707390408894.

Tara Elwyn



Jessica Curtis





Women Angler Photo Contest

Following the success of the statewide photo contest for women hunters, DEC is sponsoring a new “WomenHuntFishNY” contest that will celebrate female anglers in the state. Photos can feature women and girls fly-fishing, or spinning rod fishing in New York. Use womenhuntfishny@dec.ny.gov to submit photo entries between June 17th and July 8th. Any fishing photos that were submitted to the hunting contest last fall will be automatically entered into this contest. Winning entries may appear in a future Conservationist and DEC marketing products and publications.

Note: All submissions become the property of NYS DEC, and its assigns, to use in advertising and promoting as we see fit.

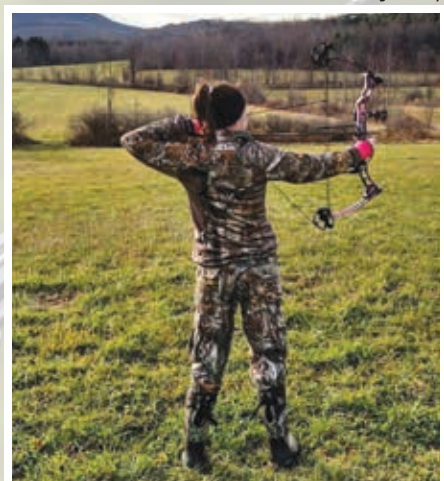


Aleah Brauen and Alexis Nikiel

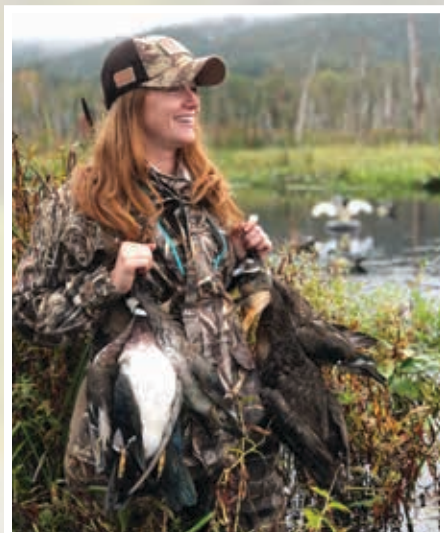


Renada Canaday

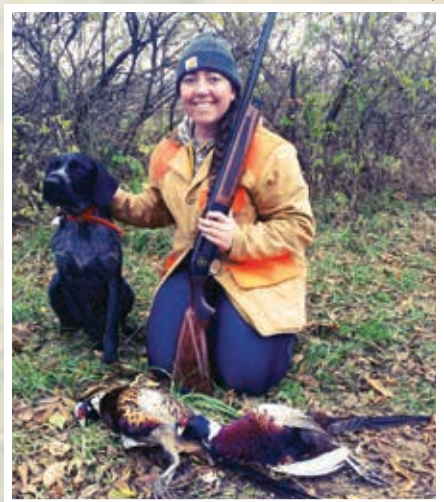
Megan Jenney



Brianne Huot



Sara Lavery



Eileen Stegemann is Managing Editor of *Conservationist*, and **Katrina Talbot** is a Wildlife Biologist and the New York Becoming an Outdoors-Woman Coordinator.

On Patrol

Real stories from Conservation Officers and Forest Rangers in the field

CONTRIBUTED BY ECO LT. LIZA BOBSEINE AND FOREST RANGER CAPT. SARAH B. GEESLER

Illegally Fish Netting—Rensselaer County

Shortly after midnight on April 21, ECO Brian Canzeri responded to a call of people throwing a net into the Poesten Kill along 1st Street in the city of Troy. ECO Canzeri observed a man fishing from a bridge as two other subjects threw a large casting net into the creek, pulling up several herring. ECO Canzeri stopped the subjects from engaging in additional illegal activity and issued tickets to all three for “taking fish by means not specified” due to the illegal use of the net. All of the fish were returned alive to the creek and the net was seized as evidence.

An Odd (and Stinky) Situation—Ulster County

On April 10, ECO Jeannette Bastedo investigated a complaint regarding a woman in the city of Kingston in possession of several wildlife carcasses. The woman was collecting dead wildlife she found— including a Cooper’s hawk, an opossum, a gray squirrel, several snakes, small birds, and mice—and keeping the carcasses in her living room. Most protected wildlife can only be possessed if legally taken during their respective open seasons, and a federal permit is needed to possess any live or dead migratory birds such as the Cooper’s hawk. Deceased wildlife, regardless of the cause of death, should be left to return to the ecosystem from which it came. The woman was issued a ticket for illegal possession of wildlife and the carcasses were removed from the residence.

Rescue by Raft—Cattaraugus County

At 10 p.m., Saturday, May 4, Cattaraugus County 911 contacted Forest Rangers about four lost hikers in the Zoar Valley Multiple Use Area. Two females, one from Silver Creek and one from Forestville, and two children became disoriented while hiking. The hikers contacted 911 and their coordinates were relayed to the Rangers. A regional swift water team was deployed, but was unable to reach the group due to rocks in the stream. Rangers John Kennedy and Nathan Sprague then proceeded to hike in with crews on each bank to pinpoint the hikers’ location. The group was located early Sunday morning and taken out by raft. All were in good health. EMS met the hikers at the parking lot, where they were evaluated and released.

Unexpected Overnight—Essex County

On May 18, Franklin County 911 transferred a call from a 30-year-old female hiker who had lost the trail while hiking Vanderwhacker Mountain. At the direction of Ray Brook Dispatch, the subject remained at her location overnight and began moving at first light. Several Forest Rangers worked through the night to locate her, and additional Rangers were dispatched to the search along with NY State Police Aviation in the early morning hours. The subject was located around 2:30 p.m. the next day by Rangers who were able to follow her tracks down a stream drainage.



Illegal Commercialization of Wildlife—Dutchess County

On May 3, ECO Zachary Crain received a tip about a mountain lion taxidermy mount offered for sale on Craigslist in Wappingers Falls. A fellow ECO mentioned he had seen the mount in the storefront window of a business there, so ECO Crain visited the business and explained it is illegal to sell parts of certain wildlife in New York. The uncooperative employee insisted it wasn’t being offered for sale and any further questions would be answered by his brother, the owner of the store. Within minutes, ECO Crain noticed that the online posting had been deleted. ECO Crain contacted the owner, who is now facing charges of offering for sale any part of certain wild animals and illegal commercialization of wildlife.

WELCOME TO **FRONTIER TOWN**



Department of
Environmental
Conservation

OPEN JUNE 28



Come check out DEC's newest campground—Frontier Town Campground, Equestrian and Day Use Area—which opens for campers and other visitors starting June 28. Considered a "Gateway to the Adirondacks," the site will link local and regional outdoor recreation experiences in the Adirondack Park.

The Adirondacks have always offered amazing opportunities to enjoy the outdoors—and the new Frontier Town Campground, Equestrian and Day Use Area will appeal to people of all ages and abilities. If you are looking for serenity or an active adventure in the beautiful Adirondack forests, Frontier Town offers traditional, equestrian, and RV camping. And as the Gateway to the Adirondacks, there are numerous opportunities for hiking, biking, and paddling within 10 miles.

Campers can easily access, explore, and fall in love with the Adirondacks at sites like Pharaoh Mountain, a 2,556 ft. peak with a 360-degree view of the ponds and lakes of the Pharaoh Lake Wilderness area. It's just minutes away.

If you like to paddle, it's just a short trip to Schroon Lake or Schroon River, Courtney Pond, or other nearby waters, and bikers can access the North Hudson Multiple Use Trail at the site of the old Frontier Town Theme Park and enjoy nine miles of forest trails that will appeal to all ages, especially kids.

The map on the following pages shows you the layout and features of the new property. For more information about Frontier Town, visit www.dec.ny.gov/outdoor/112046.html.



Schroon River

Prairie Junction Loop
Tent Camping

Stagecoach Loop
RV Camping

Manure Pit

Caretaker's Cabin

All Season Parking

Frontier Town R

NYS Route 9

WELCOME TO

FRONTIER TOWN

OPEN JUNE 28



Department of Environmental Conservation



Schroon River

Day Use Area

Registration Booth

1 - 21

Manure Pit

Stud Stall

Blacksmith Loop
Equestrian Camping

Main Entrance

To Boreas Ponds &
Vanderhacker Mt. Wild Forest

To Hammond Pond
Wild Forest



Parking



Viewing Platform



EV Charging Station



Picnic Shelter



Comfort Station



Water



Playground



AED



Refuse Collection & Recycling



Trailer Dumping Station



0 200 400 600 Feet

BASHAKILL WILDLIFE MANAGEMENT AREA

*Extensive Wetlands Are Home to a
Diverse Community of Fish, Birds, and Wildlife*

BY NATHAN ERMER

Bashakill Wildlife Management Area (WMA), located beneath the Shawangunk Ridge, 65 miles northwest of New York City, is home to one of southeastern New York's largest and most accessible wetlands. This 3,107-acre WMA contains almost 2,000 acres of emergent marsh and forested swamp, and is a premier destination for birding and waterfowl hunting. The Basher Kill, the stream that passes through the wetland's six miles supports a quality warmwater fishery and provides an enjoyable venue for flatwater paddling.

The protected, pristine wetland habitats and surrounding uplands form the basis for a diverse community of fish and wildlife, from breeding marsh birds and abundant neotropical migrants to river otters and the iron-colored shiner, a rare fish not found anywhere else in New York. Bashakill WMA is an ecological and recreational gem—a place where visitors can easily access New York's outdoors and form lasting connections with nature.

Although the WMA encompasses more than 1,200 upland acres, it is truly the Bashakill's wetlands, and specifically its emergent marsh, that attract wildlife and human visitors to the area. In the marsh, pickerelweed and arrow arum are the dominant plant species. Other common species found here include cattail and tussock-forming sedges. Invasive wetland plant species such as purple loosestrife and common reed are scattered in pockets within the WMA, but have not become so common that they have displaced native plants or compromised habitat integrity.

There are many reptile and amphibian species here, such as snapping turtles, pickerel frogs, and longtail

salamanders, and the deeper water of the Basher Kill stream channel supports coontail and pond weed, as well as floating vegetation such as spatterdock. The forested swamp habitats at the Bashakill's northern end are dominated by an open red maple overstory, with diverse shrub and herbaceous species in the understory, including buttonbush, winterberry, and marsh marigold.

High avian (bird species) diversity makes the Bashakill a magnet for the large community of local birders. Common breeding bird species include the wood duck, Canada goose, yellow warbler, and common yellowthroat. Other, less common species that nest at the WMA include pied-billed grebe, American bittern, and whip-poor-will. The WMA's two bald eagle breeding territories are focal points for visitors' attention, and people can appreciate these birds by using spotting scopes from easily accessible locations without disturbing the eagles.

Muskrat, mink, and beaver are distributed throughout the wetlands, and white-tailed deer, fox, and fisher can be found in the upland habitats and wetland periphery. The WMA contains a natural cave, Surprise Cave, which is not open to the public since it may contain overwintering bats that should not be disturbed.

The Bashakill WMA offers excellent recreational opportunities, many of which are accessible for visitors of all abilities. Because the area's waterfowl hunting is widely recognized as some of the finest in the region, the WMA has special rules. Waterfowl hunters must apply for an additional DEC permit by contacting the DEC Region 3 office at (845) 256-3098 (see sidebar). These permits help regulate



Monarch on a buttonbush



Long-tailed salamander



Common yellowthroat

**LOCATED IN THE TOWN OF MAMAKATING,
SULLIVAN COUNTY, AND THE TOWN OF DEERPARK,
ORANGE COUNTY; SIZE 3,107 ACRES**



Site Features



NOTES: Open year-round. Birding, waterfowl hunting, fishing, trapping, and nature photography are all popular activities. Trapping and waterfowl hunting require a special permit, which can be obtained from the Region 3 DEC Office. The WMA is known for its diverse wildlife, including 200 species of birds, and is a state-designated Bird Conservation Area. The WMA has fifteen miles of walking trails and several observation towers. There are two trailered boat launches and three hand launch sites. The site has several wheelchair-accessible features, including a fishing platform on South Road and a waterfowl hunting and wildlife observation blind on Haven Road.



DIRECTIONS: Located between NYS Route 209 and South Road, and bisected by Haven Road. South of the Village of Wurtsboro, the WMA is located just east of Route 209. Road parking areas are located on South Road, Haven Road, and Route 209.



CONTACT: For more information visit www.dec.ny.gov/outdoor/82727.html or call the Region 3 DEC Office at (845) 256-3098.

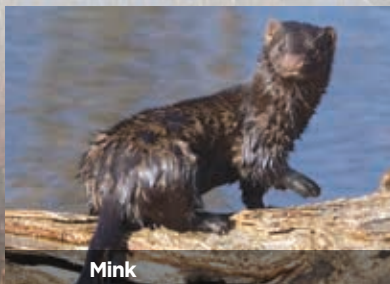
this activity and provide a better-quality experience for participants. Trapping is also popular due to an abundance of aquatic furbearers, especially muskrat and mink, and requires an area-specific permit. Birding and nature photography are enjoyed at the WMA year-round, and Bashakill photographers routinely capture breathtaking images of the area's abundant wildlife and spectacular landscape.

The D&H Canal towpath and the abandoned Ontario and Western railroad grade provide almost 12 miles of level, multi-use trails, and there is an accessible fishing platform at the water control structure. The accessible waterfowl hunting/wildlife observation blind provides opportunities for users of all abilities. Anglers routinely catch largemouth bass and bowfin, an unusual fish species that is widespread within the wetland.

The Basha Kill Area Association, an advocacy group composed entirely of volunteers, provides education and outreach to WMA users through a Nature Watch Program, and conducts an annual Bashakill clean-up day that is in its 38th year. The town of Mamakating has recently developed an environmental education and interpretation center adjacent to the WMA to further enhance the experience of area visitors. In addition, the New York-New Jersey Trail Conference, Northeastern Cave Conservancy, and Wurtsboro Boy Scout Troop all fulfill voluntary stewardship roles at the WMA.

The range of recreational activities at the Bashakill WMA reflects the diversity of this wetlands area and provides visitors with a wide choice of options to enjoy nature.

Nathan Ermer is a Wildlife Biologist in DEC's New Paltz office.



Mink



Largemouth bass



The Bashakill marsh, looking north from Haven Road.

SPECIES SPOTLIGHT

FLYING SQUIRRELS

BY JEREMY TAYLOR

Missouri Department of Conservation



Mention the word squirrel to many people and you are likely to get an assortment of tales of how they try to keep them [i.e., gray squirrels] away from their bird feeders, or how they try and deter them [i.e., red squirrels] from chewing on their wooden houses or decks. What you won't often hear about are stories involving flying squirrels—those small, wide-eyed critters that are largely nocturnal.

New York is home to two species of flying squirrels: the southern flying squirrel (*Glaucomys volans*) and the northern flying squirrel (*Glaucomys sabrinus*). Although they are not encountered nearly as often as other members of the squirrel family—which includes tree squirrels (gray, red, fox), chipmunks, and woodchucks—flying squirrels are found throughout the state. And while both species' ranges overlap in New York State, southern flying squirrels are typically found south of the Mohawk River Valley, while northern flying squirrels generally occur in the more northern parts of the state, and at higher elevations.

In North America, northern flying squirrels can be found from Nova Scotia to Alaska and south to North Carolina. Southern flying squirrels occur throughout eastern North America, from southern Canada to Florida, with isolated populations found in higher elevations in Mexico, Honduras, and Guatemala.

Description

Ranging in weight from 2-4 ounces, flying squirrels are the smallest (by weight) squirrels found in the state. Northern flying squirrels are light reddish-brown, with pale underparts, and reach lengths of 10 to 12 inches (from tip of nose to tip of tail). In contrast, southern flying squirrels are more mousey gray in color, with cream-colored undersides, and reach lengths of 8 to 10 inches.

Despite their name, flying squirrels don't actually fly, they glide. They have a furry membrane—called a *patagium*—that runs between their front and back legs along each of their sides, which they use to glide between trees. Like all rodents, flying squirrels have chisel-like front teeth. They also have sharp claws and very strong legs, both of which are used for climbing.



Melissa Groo



Habitat, Diet, and Behavior

Southern flying squirrels inhabit deciduous and mixed forests, while northern flying squirrels are typically found in coniferous and mixed coniferous forests. Both species eat a variety of plant materials, including leaves, fruit, seeds, and nuts, as well as tree sap, lichens, fungi, and even bird eggs and young nestlings. Southern flying squirrels seem to favor seeds and nuts, while northern flying squirrels rely more heavily on lichens and fungi. Like other squirrels, both will also visit bird feeders when available within their habitats. Unlike other squirrels, which are active during the daytime, flying squirrels are primarily nocturnal, and therefore not as readily seen as other members of the squirrel family. Due to their nocturnal nature, both species have larger eyes than their other squirrel cousins.

Flying squirrels can initiate a glide from a running start or by propelling themselves off a tree. Once in the air, they stretch their legs, causing the patagia to tighten into wing-like structures. They use their bushy, flattened tails to help steer, and just before landing raise their tails upward and pull their limbs forward, creating a parachute-like structure that slows their forward movement. Flying squirrels glide downward from tree to tree and can cover distances ranging from 15 to 75 feet, although longer glides of up to 150 feet or more have been observed.

While quite maneuverable and graceful in the air, they are rather clumsy on the ground and will often try to hide rather than run to escape predators. Both species are very social and can often be found sharing nests, especially in the winter when they huddle together for warmth. Neither species hibernates in the winter. The primary predators of both species are owls, although hawks, snakes, bobcats, raccoons, martens, fox, and even domestic cats will prey on them.

Life History

Both species of flying squirrels normally nest in abandoned woodpecker cavities or other holes in trees, but they will also nest in abandoned bird nests or clumps of twigs, bark, leaves, and moss placed in the crotch of a tree branch. Northern flying squirrels breed from March to May, with the female giving birth to 2 to 5 young after a gestation of approximately 40 days. Southern flying squirrels will breed in early spring and again in late summer, with the female giving birth to 2 to 7 young after a gestation of approximately 41 days. In both species, the female cares for the young, which are weaned at around the age of 60 to 65 days. The young begin to glide at around 5 to 6 weeks of age and become independent at around four months. Females will move their young to a different nest if they feel threatened, and once the young are independent, flying squirrels will change nests frequently.

Jeremy Taylor is the Editor of *Conservationist for Kids*.



Fun Facts

- Flying squirrels don't actually fly, they glide! They make use of large flaps of skin (called patagium) found along the sides of their bodies to move from tree to tree.
- The easiest ways to distinguish between New York's two species of flying squirrels—northern and southern—are their coloration and size. Northern flying squirrels are larger than southern, and more of a reddish-brown color. Southern flying squirrels are more of a gray color. The undersides of northern flying squirrels range from gray to cream-colored, while southern flying squirrels are more uniformly cream-colored to white underneath.
- Flying squirrels will readily visit bird feeders, but because they are nocturnal are rarely seen.
- Northern flying squirrels typically only breed once per year, while southern flying squirrels often produce two litters.



SKANEATELES LAKE

PROTECTING A SHARED, VITAL RESOURCE



Editor's Note: *Water is an important part of our lives, but so easily accessible that we often take it for granted. We simply turn on the faucet to get clean water to drink, and head to a nearby lake to swim or fish in summer. However, there are many threats to New York's waters that could affect our daily lives. Many of these issues have evolved over a long period of time; some date back decades. DEC and partners at the state and local level are working to address the many challenges our waters face, and New York has committed significant resources to protect and improve water quality. At the same time, there are several steps people can take to support these efforts, such as the actions related to the Skaneateles Watershed in Central New York that are highlighted in this article.*

BY SHANNON FABIANI | PHOTOS BY DEC UNLESS NOTED

In recent years, water quality issues like harmful algal blooms (HABs), invasive species, and increased turbidity events are becoming more common, affecting our drinking water, public health, and aquatic life. Scientists are researching, developing, and implementing programs to reduce the occurrence and impact of these water quality threats in lakes, streams, and other waters throughout the state.

As homeowners and residents, you can also take steps to help protect our water quality. Often, if people just make a few small changes, they will have a much larger positive cumulative impact.

Take the example of Skaneateles Lake. One of the Finger Lakes in Central New York, Skaneateles Lake is a popular recreational destination and a drinking water source for the city of Syracuse. For the past two summers, the lake experienced harmful algal blooms, leading the state and residents to take action.

Working with DEC, Cornell Cooperative Extension created a Resident's Guide, *7 Actions for Better Water Quality*, to help the public understand what they can do to help. The guide outlines DEC's *Harmful Algal Bloom Action Plan Skaneateles Lake* report, and explains easily achievable actions that residents can take, regardless of where they live:



Skaneateles Lake



Use less (or no) fertilizer on your lawn.



Plant native trees and shrubs along shorelines.



- It is recommended to have your septic tank pumped every 3-5 years; lakefront property owners should pump their septic tanks more frequently. Nutrients leaking from a septic system contribute to HABs, degrade water quality and soil health, and pose health threats to humans. By having their tanks regularly inspected and pumped, residents can prevent septic waste from entering the water stream. For more information on HABs, visit www.dec.ny.gov/chemical/77118.html.
- Use less (or no) fertilizer on your lawn. Always test soil beforehand to determine application need, since it is against the law to use phosphorous on lawns that don't need it. Phosphorous is a nutrient found in fertilizers, and is one of the leading causes of water pollution and HABs.
- Plant native trees and shrubs as riparian buffers along shorelines and streams to act as a barrier that will reduce the amount of nutrients and sediment going into the water. Under the surface, roots keep soil in place, preventing erosion and pollution from entering the lake.
- Keep grass taller (less mowing too!) and add more perennials. Keep slopes gentle. Avoid "hard armoring" like rip-rap, stone blocks, and other hard materials; instead, use "soft armoring" like live plants, logs, and vegetative mats. Natural shorelines are perfectly engineered to protect against erosion, from the natural slope to the plants' roots. Working against nature can have drastic negative impacts like costly structural damage that results from flooding.



Matt Conleady, NYTimes.com

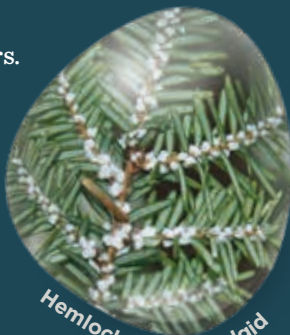
Skaneateles Lake is a popular recreation destination.

- Conserve your water use. Turn off your faucet when not in use (and make sure it's not dripping), take shorter showers, use water collected from a rain barrel to wash cars, and invest in water-saving toilets and faucets. This reduces the stress on a septic system, decreasing the likelihood of nutrients leaking into the water. If you have a private drinking water well, such water conservation can extend its life; if you are on public water, this may lower your bill.
- Everyone can help protect our waters. Boaters can take precautions to prevent the spread of invasive species by following the Clean, Drain, Dry protocol when canoeing, kayaking, or boating. Aquatic invasive species disrupt aquatic ecosystems and degrade water quality.
- Hikers can help look for and report any hemlock woolly adelgid (HWA) infestations on hemlock trees that line the shores of lakes and streams. HWA kills the hemlock trees that hold the shoreline in place. These trees prevent erosion, sediment loading, and nutrient loading to the lake.

Share this knowledge and take action. Take advantage of the groups and networks that exist to get involved and share these steps. Utilize agency and municipal resources and guidance. Remember that water is a shared natural resource, and the efforts that go into protecting it must be adopted and shared among the community as well.



Boaters should remove all aquatic plant material from their boats.



Hemlock woolly adelgid

Visit www.cceonondaga.org for more information about water quality programming in the Skaneateles Watershed, or www.dec.ny.gov/chemical/290.html for information on managing the waters close to where you live or recreate.

Shannon Fabiani is a Water and Ecology Specialist with Cornell Cooperative Extension in Onondaga County, NY. She enjoys camping, hiking, and trail running, and loves to inspire community-based stewardship for our shared natural resources.

WHITE PINE DECLINE

How DEC and partners are working to save the eastern white pine

BY JESSICA CANCELLIERE AND ROB COLE

While conducting an exotic woodborer survey in the white pine stands of Wilcox Lake Wild Forest near Wells, our Forestry team noticed that the white pines (*Pinus strobus*) were declining. This area is known for its majestic groves of old growth white pines that reach up to 200 feet tall and can be up to 5 feet in diameter.

Around this time, we also were receiving public inquiries regarding unhealthy white pines in the eastern Catskills and southern Adirondacks, and were aware of similar white pine damage observed in New England. First reported in 2010, the white pine decline had affected 62,000 acres of forest in Maine, and severe symptoms were also seen in southeastern New Hampshire, eastern Massachusetts, and eastern Connecticut.

By 2016, four fungi species had been identified as causing what is now called white pine needle damage (WPND). *Lecanosticta acicola*, *Lophophacidium dooksii*, and *Bifusella linearis* are species presumed to be native to the northeastern U.S., but historically had caused only minor disease in white pine. In 2015, a new species, *Septorioides strobi*, was detected in New York. This new species is known to have a fungi relative in Japan that attack Japanese black pine. Scientists suspect *Septorioides strobi* is the most pathogenic (capable of causing disease) of the four fungi species.



These fungi cause a white pine's previous year's needles to turn yellow, then brown, and prematurely fall from the tree. This causes the canopy to look thin, as only the current year's needles remain. The yellowing and browning of the needles are most obvious during May and June, followed by defoliation of affected needles by the end of July. As the defoliation spreads through the tree, it leaves behind thinned and weakened branches that become increasingly susceptible to other biotic (living) organisms such as fungi and plants, or abiotic (non-living) stresses, such as soil, water, sunlight, etc.).

Several other pests and pathogens also affect the health of white pines and contribute to white pine decline, such as white pine blister rust and white pine weevil. More recently, a pathogenic stem canker or perennial fungus known as *Caliciopsis pinea* was identified as a significant threat to white pine, affecting bark on the tree trunk and/or branches, causing profuse pitching, crown thinning, and reduced growth.

In 2015, New York landowners consistently reported white pine issues to DEC's Forest Health Diagnostic Lab. Early reports came from homeowners concerned about trees in their yard or individuals who noted sick-looking pines along the roadside. By 2016, white pine concerns were the most reported forestry issue, and many of these reports came from large forest owners and land managers concerned about declining timber value. Initial reports cited branch dieback and general decline, but not tree death. However, by 2018, whole-tree mortality associated with WPND was regularly reported.

“ One factor we noted is that increases in annual temperatures and precipitation have provided ideal conditions for WPND fungi, allowing them to proliferate to consistent outbreak levels. ”

White pine are not only an essential economic lumber resource, but also a crucial ecological component of our Northeast U.S. forests. So, it's not surprising that uncertainties regarding the long-term health of white pines have caused concern among public and private landowners.

As we reviewed landowner reports, we saw consistent tree damage occurring over a large geographic area. This is when we knew we were facing a broader, landscape-scale problem, and decided to conduct a more systematic survey of white pine stands across New York.

We contacted the U.S. Forest Service Northeastern Area office in New Hampshire to report the problem in New York and explore collaboration opportunities to address this threat. Other New England states were interested in conducting a similar study, and in 2018, a multi-state research project was launched to assess the severity of white pine decline

and develop management guidelines. New York currently has 30 long-term monitoring plots established across the state to collect stand data, track changes in tree health, and identify fungal pathogens present.

One factor we noted is that increases in annual temperatures and precipitation have provided ideal conditions for WPND fungi, allowing them to proliferate to consistent outbreak levels. Since 1950, the northeastern U.S. has experienced an increase in average temperature (about 1° C) and cumulative precipitation (about 165 mm) during the April–September growing season, with 2011 ranked as the wettest year on record. In addition, data collected from 2003 to 2014 showed that six years in that period ranked in the top



10 percent for annual precipitation, and four years ranked in the top 10 percent for average annual temperature. These climatic shifts provide favorable weather conditions for the development and spread of foliar (leaf) fungal pathogens.

The high density of eastern white pine within our region has also exacerbated the WPND problem. Through the early 20th century, much of New York was cleared for agriculture or to support the wood products industry. As these industries declined, white pine naturally grew on suitable sites, and now 100+ year-old trees fully occupy the sites. Since needle diseases flourish in crowded stand conditions where branches are close together and light and air cannot easily penetrate the canopy, silvicultural practices like thinning to reduce stand densities in WPND-infected stands will decrease the dispersal of associated fungi spores and increase crown light exposure, promoting growth, crown development, and tree recovery.

DEC's Lands and Forests staff are working with researchers and land managers across the white pine's native range to develop new silviculture guidance to improve the productivity and sustainability of eastern white pine. This includes more specific recommendations on when to thin stands, how much to remove, and the optimal time of year for harvests, which will reduce white pine susceptibility to the fungi that cause WPND and improve the overall resiliency of the stands.

New York's forests play a valuable role in our economy, outdoor recreation, and the health and sustainability of our natural resources. DEC continues to work closely with various partners to expand our understanding of white pine decline and determine strategies to stop this deadly disease and ensure the long-term health of white pines, the largest conifer native to the eastern United States.

Jessica Cancelliere is a Research Scientist in DEC's Forest Health Diagnostic Lab in Delmar. **Rob Cole** is a Forester in Forest Health in DEC's Albany office.



STAFF SPOTLIGHT

Jessica Cancelliere – Keeping an Eye on Forest Health

Jessica Cancelliere proves you can come home again. After growing up in the Capital Region, she moved to New Mexico after her high school graduation to pursue various interests, eventually realizing she wanted to find a job that was meaningful.

She returned to New York to be closer to her family, enrolled in school, and earned an associate's degree in Environmental Studies then a bachelor's degree in wildlife science at SUNY ESF. She was hired by DEC as a Forest Health seasonal worker, where her job was to examine insects under a microscope. She became absorbed by their strange natural histories and relationships with the organisms around them, and realized she wanted to be an entomologist. She earned her master's degree in 2014 and became a research scientist.

Jessica currently manages DEC's Forest Health Diagnostic Lab, which provides diagnostic services to the public and other agencies, primarily related to tree diseases and forest insect pests. Research is a key aspect of her job, as it promotes greater understanding of insect pests and diseases, and the way we manage them.

Jessica is proud to be part of the team that developed the Diagnostic Lab, noting "there is nothing else like it in New York." She loves communicating with the public and helping landowners who care about forests and want to learn more about pests and diseases.

Forest health is all about early detection of invasive pests and diseases. "If we find them early, we have a much better chance of being able to do something about it," she says, and "building strong relationships with the public is the way to enhance early detection—the 'more eyes in the forest' concept."

Jessica brings a passion to her job. When the lab started working on white pine, she found it depressing to see these ancient, majestic trees decline so rapidly and on such a huge scale. She initially felt helpless, but later "saw a way we could make a difference in the long run."

Her passion extends beyond her job, and includes her family. She spends most of her time outside of work wrangling her young children, and, not surprisingly, trying to instill a love of nature in them too.



ROME FISH HATCHERY

BY JOHN GRAY AND MICHAEL SICLEY | PHOTOS PROVIDED BY DEC

Rome Fish Hatchery is one of New York's largest fish hatcheries, and comes with a long, colorful history dating back to the mid-1800s. In 1851, Jesse Williams built the first commercial cheese factory on the site, using the vital resource of clean, cold water to cool the milk. Today, that same water source helps rear over 200,000 pounds of fish annually, which are then stocked into New York's public waters, providing excellent angling opportunities.

Fish production at Rome began in 1915 as a private hatchery by Harry Ackley, with contributions from other fish farmers. Dr. George Reid and the Rome Fish and Game Club contributed to the hatchery landscape until 1932, when the state purchased the property for \$1. Not long after this purchase, the state acquired Reid's holdings and sole rights to all the springs on the property. Later, the Rome Fish Hatchery secured the use of an abandoned pipeline from Delta Lake, which allowed it to drastically increase its production. The *Daily Sentinel*, April 21, 1934 headline read, "World's Largest Fish Hatchery and Rearing Station Is Now in Making at Hyland Mills."

For over 87 years, the hatchery has been an ever-evolving facility, with many construction projects, including building the Rome laboratory (FDCU), converting earth ponds to raceways, installing clarification ponds, and reconstructing main spring pond walls. Two of the larger and more visible projects occurred in the last 11 years. In 2008, pole barn structures were built over the east ponds to alleviate bird predication. The second project

was the construction of a completely new energy-efficient hatchery building, visitors center, and workshop that opened in 2011.

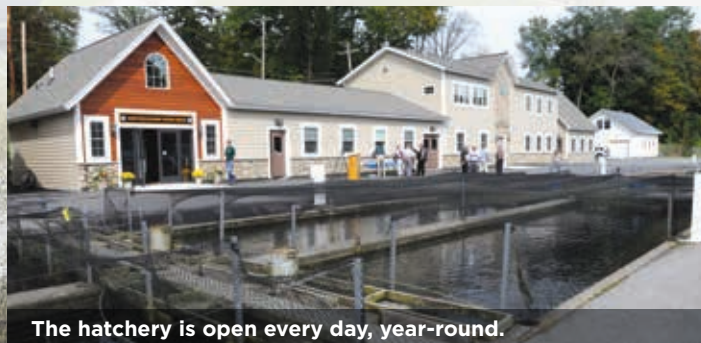
A truly amazing moment in fish propagation history came in the 1950s at the Rome Hatchery when the world-famous Rome domestic strains of brook and brown trout were selectively bred. These strains are resistant to a harmful hatchery disease known as *furunculosis* and have been shipped to several states and even to Europe (see "New York Fish Pathology Lab" in the February 2019 *Conservationist* issue.)

Rome Hatchery is a cold water grow-out facility, specializing in the production of brown and brook trout. It is one of two hatcheries in the state that raises and stocks a "Temiscamie cross domestic" strain of brook trout. This strain was created to facilitate better survival in the highly acidic ponds of the Adirondack Park, while maintaining the disease-resistant traits of the Rome domestic.

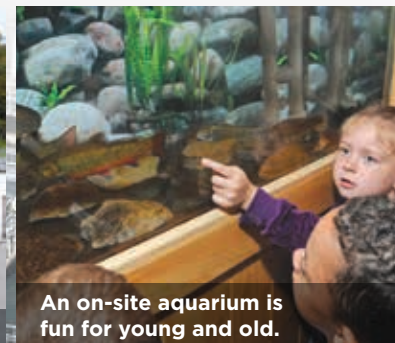
Come fall, Rome Hatchery begins its next stocking year class. In October, "eyed" eggs are being received from brood stock hatcheries such as Randolph (brook and brown trout), Catskill (brown trout), and Brandon Park (Temiscamie brook trout). Within a short time, the hatch house will be loaded with over 1.5 million brown trout eggs and hatching fry. In November and December, the facility changes over to brook trout eggs. Between the domestic brook trout (90-100,000) and Temiscamies (190-200,000) eggs, along with the brown trout fry and the current year class (900,000



Kids check out trout in hatchery ponds.



The hatchery is open every day, year-round.



An on-site aquarium is fun for young and old.

**LOCATED IN ONEIDA COUNTY
ABOUT TWO MILES NORTH
OF THE CITY OF ROME**



adult fish), Rome fish culturists must be diligent in fish care. Except for the Temiscamies, which are air stocked as fall fingerlings, the rest of the production remains in-house for at least 18 months before the fish are stocked in the spring.

In the spring and fall, fish culturist staff fire up the trucks and complete the journey for the fish raised at the hatchery. Although truck stocking is the most common way to get fish into public waters, Rome is one of only 3 hatcheries that air stocks remote Adirondack waters. Air stocking involves using both helicopter and float planes to access many remote waters.

Because of the vast amount of rearing space available and its geographical location, Rome Hatchery is sometimes referred to as the “central hub” of the hatchery system. Nearly half the fish produced annually at Rome are supplied to other hatcheries to meet their stocking requirements. Rome’s stocking area encompasses 12 counties, stretching from the Finger Lakes to the eastern state line, totaling over 450 different bodies of water.

The facility has been an important part of the community in Central New York and the Mohawk Valley. This hatchery welcomes several hundred visitors annually, with staff being told stories from individuals ranging in age from 20 to 80, mostly about happy childhood trips to “the fish hatchery.” We encourage you to visit the Rome Hatchery and start the next generation of stories to be shared.

John Gray is a Fish Culturist 2 at DEC’s Rome Fish Hatchery. **Michael Sicley** is the Assistant Manager at Rome Fish Hatchery.

If You Go

Rome Hatchery is open to the public year-round from 9:00 a.m. to 3:30 p.m. for self-guided tours. Tours for organized groups may be arranged by contacting the hatchery at (315) 337-1390.



LOCATION: 8306 Fish Hatchery Rd., Rome, NY 13440; off Rte. 46, two miles north of Rome.



VISITOR HOURS: Open 9:00 a.m. to 3:30 p.m., 365 days a year.



SPECIES RAISED: brook trout and brown trout



PHONE: (315) 337-1390

SPECIES SPOTLIGHT

Brook Trout (*Salvelinus fontinalis*)

Native to the state, the brook trout is New York’s official state fish.

DEC raises several strains of brook trout in its hatcheries, including Little Tupper, Windfall, and Horn Lake.

Rome Fish Hatchery raises “Little Toppers,” and is one of two hatcheries in the state that raises and stocks a “Temiscamie (Canadian-strain) cross domestic” strain of brook trout. This hybrid strain was created for better survival in some of the more acidic waters of the Adirondacks.



Visitor Center displays explain the hatchery process.



The hatchery air stocks fish in remote Adk waters.

Northern Monkshood

BY MICHAEL ADAMOVIC | PHOTOS BY AUTHOR

If you're a gardener, you may be familiar with the wildflower monkshood. In fact, various species of monkshood can be found in residential gardens, where they are valued for their uncommon beauty. Their slender form, interesting flower morphology, and bountiful cluster (raceme) of purplish-blue flowers make this genus among the most spectacular of North American wildflowers. However, one species, the northern monkshood (*Aconitum noveboracense*), cannot be bought and planted because it has a limited distribution and is federally listed as threatened.

A glacial relic, northern monkshood has dramatically declined in range since the end of the last Ice Age. Today it is limited to a few known, widely disjunct populations: the Midwest (Iowa, Wisconsin, and northeastern Ohio), and one in New York's Catskill Mountains, specifically Ulster, Delaware, and Sullivan counties. In New York, only a handful of documented sites still exist, occurring in isolated pockets that mimic the cool, damp conditions that were once ubiquitous during, and shortly following, glaciation. The plant grows on damp cliffs, among shaded seepage springs and talus slopes, and along wooded streambanks rich in mosses, ferns, and other shade-tolerant plants. All sites have either year-round cool air or water flow, and often both.

These plants can grow in areas with very little soil, and, like red columbine, are adept at colonizing rock crevices. Sometimes, they will sprout from rock ledges along streams, only inches from the waterline. Such precarious placement has been detrimental to the species in recent years, as larger and more frequent storms have caused severe flooding, which, in turn, has scoured this rare plant from its home. Increased deer browsing has led to significant population declines.

Northern monkshood typically flowers from mid-June to late August or early September, peaking around mid-July. This species is unmistakable when in bloom and can easily be seen on an opposite bank of a stream or brook, even amid the darkened environs of a dense northern hardwood forest, its typical haunt. The flowers resemble the bowed heads of pious monks enrobed in medieval-style hoods, and dot the erect flower stalks that can rise to a height of four feet. But what really catches the eye is the color. Its enchanting amethyst or royal purple hues radiate from the monochromatic forest; it's certainly an eye-catching plant that's not easily overlooked.



Monkshood grows along a brook lined with yellow birch, hemlock, striped maple, hobblebush, stinging nettle, tall meadow-rue, and various ferns and mosses.

— A Rare, Deadly Beauty

Despite its visual allure, it's best to keep your distance from these colorful plants; the monkshood's charming physical attributes conceal qualities that aren't so attractive or as innocent as the species' common name suggests. All parts of the plant contain extremely potent toxins, that grievously affect the heart and nervous system. Ingesting even minute amounts can prove fatal within hours, and absorption of the toxins through skin can be equally problematic.

The northern monkshood's European cousin, *Aconitum napellus*, has been used for millennia by a diverse audience ranging from trained assassins to farmers trying to rid themselves of troublesome animals like wolves—hence its other name, wolfsbane. While the toxins are most concentrated in the roots, there have been reports of sensitive individuals being affected by merely taking a whiff of the alluring blossoms.

Studies comparing the genetic make-up of northern monkshood to Columbian monkshood (*Aconitum columbianum*), a species native to the western U.S., have shown little genetic differences. As a result, some botanists lump the two species together. However, one thing for certain is that the Catskill population has been isolated for many thousands of years and deserves protection. A recovery plan devised by the U.S. Fish and Wildlife Service in 1983 states: "Like the search for a rare bird, the search for northern monkshood is the pursuit of a special quarry for many outdoor enthusiasts and nature photographers. These people are enriched by its very presence as a rare, wild thing."

The northern monkshood may not be well known or abundant, but this threatened species is another example of nature's beauty. If you happen to stumble across some monkshood while traipsing through the Catskill Mountains, please report your lucky find to the New York Natural Heritage Program. You can email NaturalHeritage@dec.ny.gov or visit the following link to fill out an online form: www.dec.ny.gov/animals/91024.html.

Michael Adamovic is a botanist at Catskill Native Nursery and also manages his photography business, Adamovic Nature Photography.



Plants are visited by a variety of pollinators, from bumblebees to swallowtail butterflies.



Help Improve NY's Marine Fishery

When it comes to marine fishing, DEC encourages anglers to brag about their catch, and to share that information via an on-site survey. From March through December, DEC staff will be at designated public fishing sites at specific times of the day to conduct the Access Point Angler Intercept Survey (APAIS). Surveyors will count the total number of anglers using the site and interview individual anglers to collect information about the number, size, and weight of fish caught—including fish caught and released—as well as the fishing gear used, and basic demographic info. The data collected from these confidential firsthand accounts will help NOAA assess the health of the fishery and maintain fish stocks.

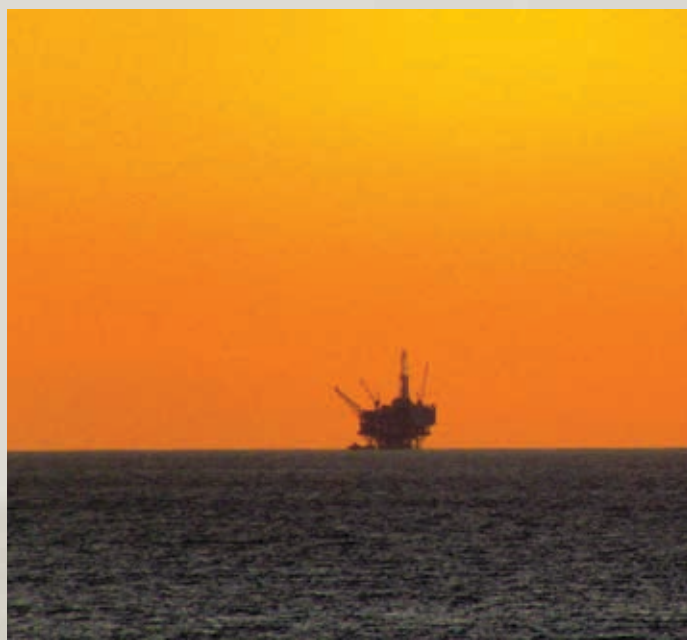
So, if you are saltwater fishing at a beach, boatyard, or other access point this summer, don't be surprised if someone inquires about your fishing success. By taking a few minutes to answer some simple questions, you can help maintain and even improve the fishery. For more information on the survey, visit NOAA's Marine Recreational Information Program webpage at www.countmyfish.noaa.gov or the DEC APAIS webpage at www.dec.ny.gov/outdoor/113218.html



Educating Hikers

Earlier this year, DEC Region 5 Forest Rangers and partners—Adirondack Mountain Club staff and Keene-Keene Valley Backcountry Rescue volunteers—launched Preventative Search and Rescue (PSAR) efforts to educate hikers at trailheads and on trails in the High Peaks region of the Adirondacks about preparedness and safety. Though this program, which is based on a federal program at National Parks, important messages were delivered to hikers face-to-face in the field—the most effective means of educating backcountry users. During the pilot weekend, the groups encountered more than 100 hikers on Cascade Mountain Trail on each weekend day, and found that approximately 40% were unprepared for their hike, the majority due to improper clothing or footwear.

This summer and fall, hikers can expect to see an increased number of Forest Rangers, educators, and stewards patrolling popular High Peaks hiking routes during holiday weekends through Columbus Day. PSAR builds on existing Forest Ranger efforts that promote hiker awareness and safety. DEC encourages hikers to stop and speak with the staff they encounter, answer their questions, listen to what they say, and ask questions. Hikers who properly plan and prepare before going out on trails will have significantly less impacts on natural resources, and a safer, more enjoyable experience.



Protecting NY's Offshore Waters

On April 29, Governor Cuomo signed into law a measure that bans offshore drilling and oil and gas exploration in New York State waters, including waters controlled by the federal government. The new law is an important step to protect the state's shoreline communities and ocean economy, which includes tourism, commercial and recreational fishing, and the Port of NYNJ, the largest port on the Atlantic seaboard and a major economic and employment engine for the state. An offshore fuel spill could cause serious harm to ecosystems, beaches, tourism, and our fishing industry. New York is leading a transition away from a petroleum-based society to one fueled by clean, renewable power that will better protect the environment. As part of this effort, the state is moving forward with plans to quadruple offshore wind production and meet a goal of having 9,000 megawatts of offshore wind by 2035, a key initiative to combat climate change.

BOOK REVIEW:

The Trails of The Adirondacks: Hiking America's Original Wilderness

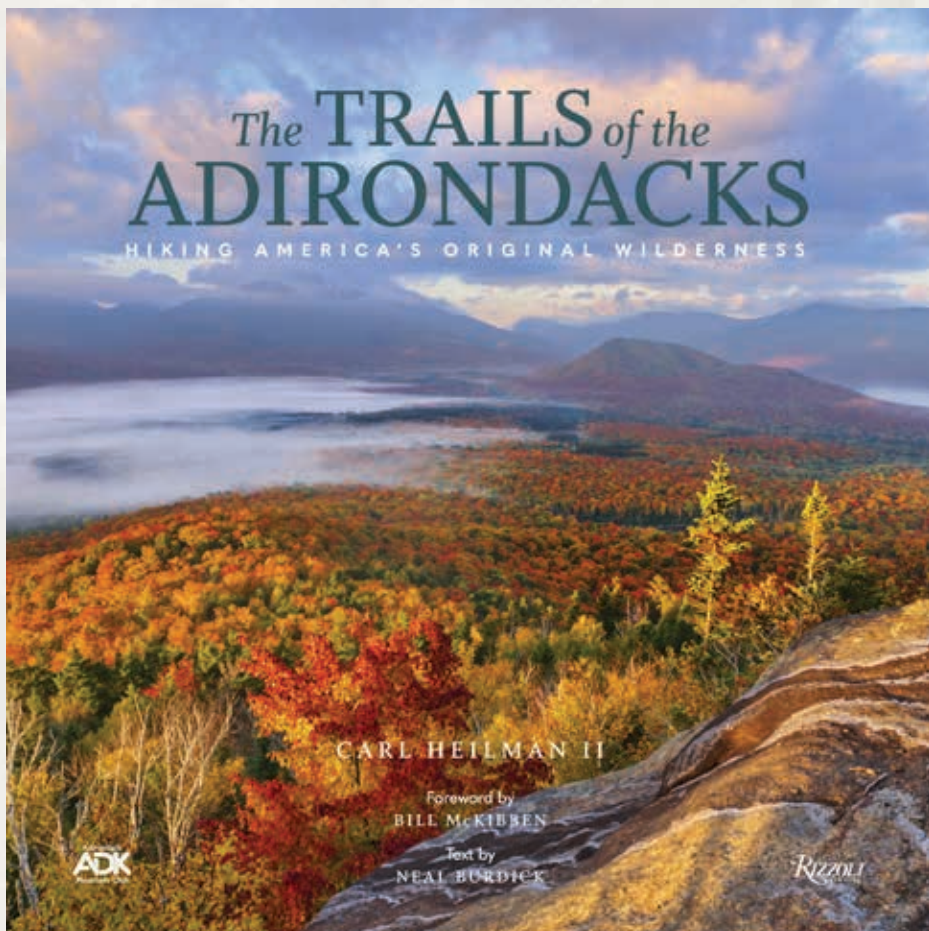
BY CARL HEILMAN II,
TEXT BY NEAL BURDICK
PUBLISHED BY RIZZOLI NEW YORK

REVIEW BY CONSERVATIONIST STAFF

How many times have you seen a picture of the Adirondacks and thought, I wish I was there? The rugged land, dense and colorful foliage, sparkling lakes and streams, and amazing views of and from mountain peaks can't help but draw people in.

Carl Heilman II has a unique vision that captures the beauty of the Adirondacks through a camera lens, making it seem like you are actually on an Adirondack trail. Along with text by Neal Burdick, editor of the Adirondack Mountain Club's *Adirondack Magazine*, this book brings the amazing scenery of a trail hike to life as you turn the pages, anxious to see the next majestic photo and the story behind it.

If you need some inspiration to head out on a hike in the Adirondacks, this book will provide it. And if hiking isn't in your immediate plans, you can just sit back and leaf through this striking book to enjoy some of New York's natural wonders, time and time again.





If You Care, Leave It There

I spotted this doe and her three fawns along the side of the highway and thought your readers would enjoy the picture.

CHUCK WOODSELL
CHAUMONT, NY

I spotted two raccoon kits walking through my backyard and watched as they ran playfully, side-by-side, smelling their surroundings, I noticed they found a small woodpile that helped them to practice their climbing on a small tree. The raccoon kits' faces are just adorable.

ALEX SHIPHERD
RANDOLPH, NY

Alex and Chuck did the right thing by watching these young animals from afar. The arrival of spring and summer also means the arrival of newborn and just-hatched wildlife. While some are learning survival from one or both parents, others normally receive little or no parental care. Often, wild animal parents stay away from their young when people are near. As such, people mistake these young for abandoned wildlife and try to rescue them. This is especially true of young fawns, cottontail rabbits, and fledgling birds. So remember the saying "If you care, leave it there," and try and familiarize yourself with what's normal behavior for these animals before assuming that they need help.



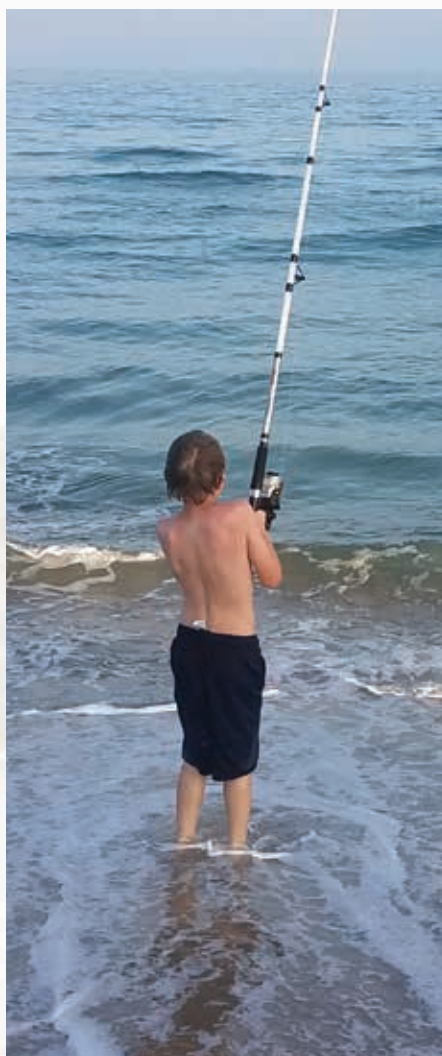
A Real Page-Turner

My 10 1/2-month-old granddaughter is an avid "reader." She is even learning to turn pages of this beautiful magazine.

KATALIN VOTIN, NYC

Glad to hear we are expanding our readership! Seriously, many of our older readers tell us that they began reading the Conservationist as children and still enjoy it today. Consider giving a subscription to your children or grandchildren, and continue a long tradition. See the back cover for information on how to subscribe.



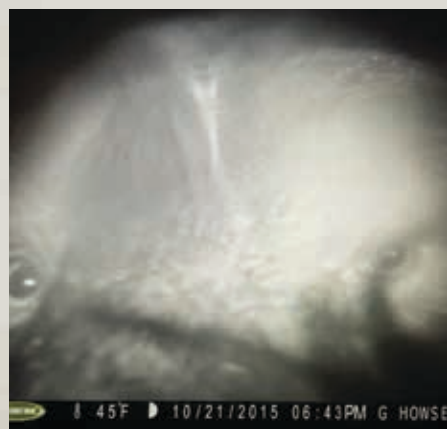


A Fine Day for Fishing

My kids and I had a great day of fishing in Montauk, NY. My son Ethan caught a couple of robin fish and black sea bass that day.

ERIC RANDALL
CONKLIN, NY

Congratulations Ethan! There are plenty of saltwater fishing locations on Long Island and New York City. And the newly expanded artificial reefs provide lots of opportunities for diving and offshore fishing. See the October 2018 Conservationist for more information about New York's artificial reefs.



What is It?

John Howse sent us the photo he captured on his trail camera at his hunting camp in Herkimer, NY. We are asking our readers to send their ideas for what animal is peering back at them.



Ask the Biologist

Q: I noticed in the Back Trails article “Three Rules,” you didn’t include skunks as one of the five members of the weasel family (river otter, fisher, mink, long- and short-tailed weasels)—why not?

—JEFF SPINK

A: Great question. Until recently, skunks were, in fact, classified as weasels in the family Mustelidae due to similar morphology (such as skull shape). But recent advances in DNA analysis indicate skunks are in their own family, which biologists have named Mephitidae. However, skunks and the rest of the ‘true’ weasels are both found in the order Carnivora and superfamily Musteliodea.

—MICHAEL CLARK, DEC WILDLIFE BIOLOGIST



Strolling through the Meadow

David Ellsworth (Atlanta, NY) sent us this photo of an Eastern meadowlark, taken in mid-March in Avon, NY.

The Eastern meadowlark prefers larger, adjacent areas of grazed pastures and grasslands. They remain year-round throughout much of the grasslands of the eastern United States. Although still common, the population numbers have significantly declined during the past few decades due to disappearing grassland habitat, mostly caused by development, forest succession, and large-scale agricultural operations.

CONTACT US!

@ magazine@dec.ny.gov



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Back Trails

Perspectives on People and Nature

A Quiet Darkness

BY RUSSELL SHEFRIN

A passage in a book first gave me the idea to try this exercise in connecting with nature. In *A Sand County Almanac*, the famous conservationist, Aldo Leopold describes sitting outside in the predawn hours on a July morning and listening as the birds began their dawn chorus. The image stuck with me, but it was several years before I decided to give it a try, and what a delight it turned out to be.

I live in a semi-rural area of western New York State—a region of regular, parallel valleys. At one time, the place had been cleared and intensively cultivated. But now, much of the land, which is too rugged for development, has reverted to what used to be called “a state of nature,” with dense deciduous forests where farm fields used to be. My house is situated near the floor of one of the valleys. To the east is a highway and other homes, but to the west lies a creek and a wooded valley wall beyond. My deck faces west and the house isolates it from the human-made world, so it occurred to me that my deck offers the perfect place to replicate Leopold’s experience.

It was the first week of July. Local sunrise was 5:42 a.m. While Leopold got up at 3:30 a.m., the best I could do was arrive a bit before 4:30. The darkness was still quite thick; the morning was warm, with temperatures in the seventies. I settled in my chair to see what would happen.

Two things soon struck me—the darkness and the silence. The former was enveloping, but not

at all uncomfortable, rather soothing in fact. The limited visual references and the mild temperature contributed to a sensation of floating in a light blanket. The silence, on the other hand, was initially a little unsettling. Then I noticed the creek. Sometimes a roaring river, the recent hot and dry weather had reduced it to its usual low summer flow, and it simply murmured quietly in the darkness. I was glad for its presence. I have read that absolute silence can become very disturbing to human beings. Our little creek sort of leavened the silence around me that morning, allowing me to enjoy the quietude.

So I sat, hearing only the muffled gurgling of the creek and able to see very little. In time, I had the sensation of being seated in a kind of semi-circular amphitheater of indefinite dimensions. To my right and left, darkened trees formed the curving “sides” of the venue, while the barely perceptible loom of the valley wall in front of me provided a kind of backdrop curtain. At times, I could almost feel myself merging with nature’s quiet pre-dawn darkness. But there was more delight to come.

The backdrop curtain soon gave a hint of brightening. Apparently, that was a cardinal’s cue. The bird announced its presence somewhere off to my left. It was the first birdsong of morning,

an opening performance. But it was brief and answered only by more silence. Several more minutes and a few more degrees of dawn would pass before birds began to sing persistently. A robin led the act and was soon joined by others of his species and more cardinals. Gradually, different birds joined in, presumably defining their respective territories or strengthening pair bonds, but to me, the effect was of creating a beautiful curtain of sound in front of the now more visibly defined valley wall backdrop. It was a dramatic and unforgettable counterpoint to the gentle silence that had pervaded the scene less than an hour before. And I had been a privileged member of the audience, maybe even a part of the play.

In *A Sand County Almanac*, Leopold observes that at daybreak, “not only boundaries disappear, but also the thought of being bounded.” Now I think I know what he meant.

Russell Shefrin is a semi-retired psychologist who has a lifelong love of the outdoors. He enjoys nature study, especially in his native Adirondacks and in his adopted Western New York.



FREE FISHING WEEKEND

June 29-30, 2019

www.dec.ny.gov

Jim Clayton

Each year, the last full weekend in June is designated as Free Fishing Weekend in New York State.

During those two days, anyone can fish the state's waters without a license, giving everyone the opportunity to sample the incredible fishing New York has to offer. Panfish, bass, walleye, pike, salmon, trout, and musky are just a few of the many freshwater fish species that you can fish for during New York's Free Fishing Days. And since no license is required, it's the perfect time to introduce a friend or relative to the sport.

New York also designates Sept. 28 (National Hunting and Fishing Day) and Nov. 11 (Veterans Day) as free fishing days, and sponsors a number of free fishing events across the state. Check out www.dec.ny.gov/outdoor/89821.html for more information.



**Department of
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See Page 24

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