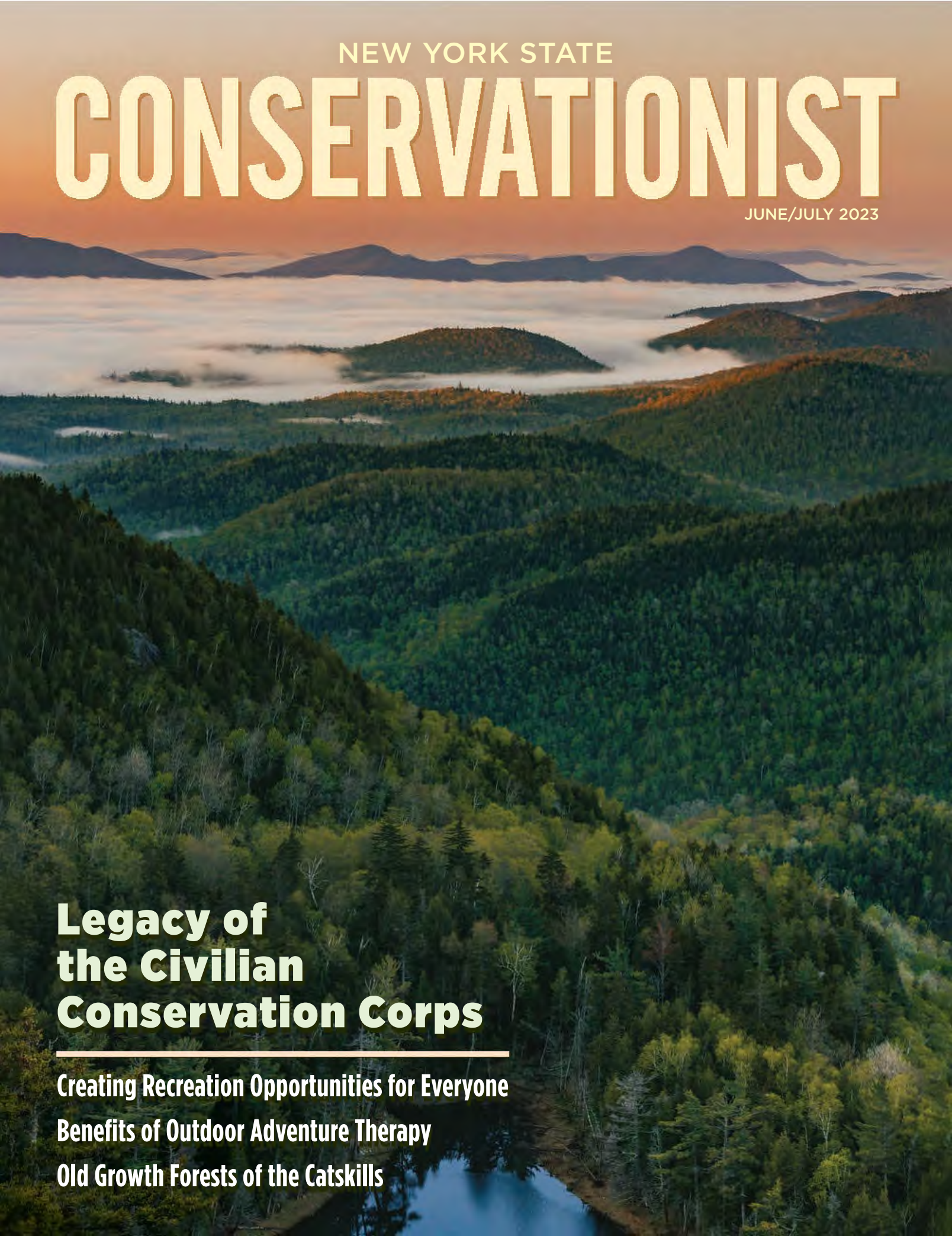
NEW YORK STATE

CONSERVATIONIST

JUNE/JULY 2023



Legacy of the Civilian Conservation Corps

Creating Recreation Opportunities for Everyone

Benefits of Outdoor Adventure Therapy

Old Growth Forests of the Catskills

Dear Readers,

As the warm summer weather welcomes adventurers from New York and beyond to experience New York's world-class outdoor recreational opportunities and breathtaking beauty, it's important to remember and renew our commitment to our shared responsibility of protecting our natural resources for future generations. Whether fishing, hiking, nature watching, or simply spending time outdoors (even in your own backyard), I encourage everyone to take a moment to recognize the power of the natural world around us.

In this issue of the *Conservationist*, readers can learn how a form of fishing therapy is connecting kids diagnosed with life-threatening illnesses to the magic of fishing, and providing the healing power of nature and peace that comes with spending time on the water (pg. 9). You can also read about DEC's ongoing work building hiking trails, campsites, boat launches, and scenic overlooks that are accessible to people of all ages and abilities, making the outdoors available to everyone (pg. 14).

New York's past is on display in an article about those historic markers that can be spotted along our roadsides (pg. 6). This issue also includes a piece recognizing the 90th anniversary of the founding of the Civilian Conservation Corps, the groundbreaking public works program that provided manual labor to support environmental conservation projects and the development of natural resources in rural areas (pg. 20).

Nature lovers can also discover the multiple benefits of that ubiquitous and colorful roadside plant, staghorn sumac (pg. 17). In our Species Spotlight feature (pg. 26), readers can learn about the insect that looks and acts like a bird, the hummingbird moth. All that, and much more in this issue of the *Conservationist*.

Lastly, don't forget that June 24th and 25th is a free fishing weekend in New York—you don't need a license to fish that weekend. It's a great way to try out fishing, and learn what makes it such a special and popular tradition in New York State, enjoyed by nearly a million anglers every year.

Sincerely,
Basil Seggos, Commissioner

NEW YORK STATE
CONSERVATIONIST

Volume 77, Number 6 | June/July 2023
Kathy Hochul, Governor of New York State

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Campers enjoying Fish Creek Pond Campground in Franklin County circa 1950s

Nick Drahos

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BACK COVER: Sunset on the Hudson River in Tahawus, NY; by Tony Colasurdo

RECOGNIZING Old Growth in the Catskill Forests

BY JOHN FRANKLIN | PHOTOS BY AUTHOR

During the last 300 years, the wild forests of the Catskill Mountains in southern New York suffered greatly from the logging, tanning, charcoal production, and rock quarrying industries. By 1870, the tanning industry led to the removal of most of the hemlock trees from the Catskills. From the 1870s to the early 1900s, countless tons of Catskill Mountain stone was shipped out by rail to pave streets in Kingston, Albany, New York City, and other east coast cities.

At the same time, the logging industry reduced the number of huge maple, cherry, birch, and beech trees. By 1885, an estimated 80 to 90 percent of the original first growth forest in the Catskills no longer existed. As late as the 1960s, logging was still being conducted in some lower elevations; to this day, some old stumps remain in the woods. As a result of all these damaging intrusions, vast areas of old growth forests in the Catskills have simply vanished.

However, about 135 years ago, some forward-thinking people in New York State understood the value of old growth forests and made significant efforts to protect those that remained. Most of the attention was given to the Adirondacks, but the Catskills quietly earned attention when the Forest Preserve was established in 1885. The lands in the Slide Mountain Wilderness in Shandaken, Denning, and Olive were some of the first lands protected.

It is ironic, but in a small way, the logging industry can be partially credited with creating the Slide Mountain Wilderness Area. Its existence today is partly a result of the lumber industry acquiring large tracts of forest land, removing all the valuable hardwood timber, then abandoning the land, and not paying its taxes. Over many years, New York State acquired acre after acre of this forest land, buying it from Ulster County, as a result of tax sales.

Four old growth trees found in the Catskills; first growth trees have never been cut or burned.

Old Growth or First Growth

An old growth forest is a stand of trees with specific characteristics, including not only huge trees, but minimal human disturbance, widely mixed-age trees, irregular canopy openings due to tree falls, standing dead trees or snags, pit-and-mound topography created by long dead windblown trees, multi-layered canopies, and late successional or shade tolerant trees. In old growth forests, trees die of old age and simply fall over, rather than being cut down. A first growth forest has never been cut and never burned.

In 1886, Townshend Cox (one of the new Public Forest Commissioners) hiked the trail to the Slide Mountain summit to publicly celebrate the recent creation of the Forest Preserve. He found the trail in poor condition, and as a proponent of the preservation of forest lands in New York State, he advocated for change. As a result, the hiking trail on Slide Mountain is one of the oldest wilderness trails in the state. And thanks to local support, it was the first public hiking trail in New York State that was created and/or improved with public funds.

In 1892, the New York State Legislature awarded the Forest Commission $250 "for completing the public path to the summit of Slide Mountain." Although $250 is a small amount in today's dollars, it represents the first state legislation to authorize a recreational trail in New York State. The 1893 New York State Budget provided an additional $1,000 "for the expenses of examination of title and [a] survey of lands owned by the state on Slide Mountain in Ulster County and other parts of the Catskills."

New York State was so concerned for the future of our forests, it made the purchase and protection of forest land part of the amended New York State Constitution, which was ratified in 1895. Rather than being an act of the Legislature, Constitutional protection of the forests could not be altered or negatively impacted by a whim of the State Legislature and without voter support.

Thanks to this early intervention by New York State, areas of the forest were spared, and today some large tracts of first and old growth still exist. The declaration of "Forever Wild" has been instrumental in stopping the rampant logging, barking (complete removal of bark around the circumference of a tree trunk or branch), charcoal, and quarry damage that was occurring throughout the Forest Preserve.

Although much of the land acquired by New York State has been logged or barked, there were many large areas of Catskill Mountain forests that were too steep or too remote to be accessed for cutting timber and transporting it out. The Slide Mountain Wilderness Unit Management Plan, created in 1998 by the Department of Environmental Conservation (DEC), confirmed that "the core lands making up the Slide Mountain Wilderness are believed to be virgin forest land" and the Burroughs Range and headwaters of the East Branch of the Neversink River are part of the largest continuous old growth forest remaining in the Catskills.

So, what does old growth look like? The United States Forest Service definition of old growth forests is "a stand of trees that is past full maturity and showing decadence: the last stage of forest succession."

Recently retired DEC staff member Steve Parisio next to a huge maple along upper Bisquit Brook with a massive low-taper trunk and a storm-ravaged upper canopy.

Evidence of this maturity can be found in numerous pockets of presumed old growth in the upper hardwood forests of the Slide Mountain Wilderness. Within this forest, you can find many old, huge maple, birch, beech, and cherry trees that are 24 to 48 inches in diameter at breast height (dbh). The numerous huge falls (a fallen tree), 10-foot-tall stumps, or standing snags found indicate that the forest is mature, and the trees are simply dying of old age, rather than being burned or logged.

Some Old Growth Forests Remain

During the last 50 years, Catskill Forest historian Dr. Michael Kudish has documented many significant areas of the Catskill Forest as first growth. More recently, during the last five or so years, he and Morton S. Adams of the Catskills Old Growth Forest Group determined there is actually quite a lot of old growth and first growth forest remaining.

Today, if you hike in remote areas of the Catskill Forest, you may find some wonderful old growth trees. You might notice them because old growth trees often have a distinct appearance that makes them stand out from the rest of the forest. Besides being huge, they are often recognizable by their unique shape. Trees that grow in a thick forest need to grow tall quickly to reach any available sunlight, and not waste energy on lower branches. Old growth trees that survive for several centuries usually have tall, thick trunks, with minimal taper (narrowing) that leads to a small crown at the top, much like a celery stalk.

Old growth trees must survive rough weather conditions and will often exhibit signs of severe storm damage. Wind and ice storms that have occurred over the course of several hundred years often leave exposed trees bent, broken, and damaged, sometimes making them appear rather grotesque. Every branch on a tree may break off in a storm, but the tree survives.

Another way to identify old growth trees is by identifying what is growing *on* them. Lichens and mosses are slow-growing organisms, and both take a long time to create large colonies. The New York State Old Growth Rapid Evaluation is a method used to determine old growth forests. It specifically identifies shingle moss (*Neckera pennata)*, wall scalewort *(Porella platyphylloidea)*, and tree lungwort (*Lobaria pulmonaria)* as old growth forest determinants. These are distinct species that are classified as old growth indicators because they are almost exclusively found on very old trees in pristine forest environments.

Like mosses, there is a specific group of lichens that are used as old growth indicators because most have narrow or specific tree type habitat requirements. Many old growth lichens have heavy reproductive spores that do not blow far from their current location. They need continuity, close contact with the proper tree type for a very long time. Finding old growth lichens in a forest tells us a lot about the history of the forest and current forest richness. During the last 30 years, 17 different old growth lichens have been found in Catskill forests, indicating a rich forest environment. Many of these lichens are small and difficult to see or identify in the field, but some are large and quite conspicuous.

On your next hike in the wonderful forests in the Catskills, keep your eyes out for these and other special old growth lichens, liverworts, and mosses. They are our best harbingers of future healthy forests. And keep an eye out for our wonderful ancient champion trees.

Steve Parisio next to a 49-inch dbh yellow birch found at Biscuit Brook. This is the largest measured hardwood tree in the Catskills. This huge tree was unfortunately dead with the trunk laying to the left of the 12-foot-high standing stump.

Old Growth Lichens and Mosses

Shingle moss (*Neckera pennata*) is considered an old growth indicator moss species that is often found on the lower trunk of ancient hardwood trees.

Wall scalewort (*Porella platyphylloidea)* is one of the specific leafy liverworts found in old growth forest areas; it looks like a moss, but has smooth branches.

Remember, these old trees are only here now because a long time ago, people like Townsend Cox cared about them enough to take action to preserve them. More recently, people like Dr. Michael Kudish and Steve Parisio cared enough about them to invest a significant portion of their lives studying and helping to protect the old growth forests of the Catskill Forest Preserve.

Old trees, and their associated old growth lichens and mosses, will continue to prosper as long as public support for them continues. Since the inception of the Catskill Forest Preserve in 1885, the State Forest Commission (later the Conservation Department and now DEC) has protected the fragile "Forever Wild" forest, while actively promoting sustainable public use of the lands within the forest.

Today, 135 years after the Catskill Forest Preserve was established, you can walk up the Slide Mountain trail, and, despite more than 6,000 pairs of hiker feet a year, you can still find these rare and wonderful old growth trees and mosses, liverworts, and lichens just a few feet off the beaten path. So, please remember to stay on the trail, carry in and carry out, leave no trace, and do not camp above 3,500 feet. This will help ensure that old growth forests will thrive and continue to provide wildlife habitat, while protecting species diversity, nutrient cycles, and numerous other ecological processes.

John Franklin is a DEC Steward working on lichens in the Catskill Forest Preserve and a member of the Catskill Old Growth Forest Group.

Storm damaged grotesque old maple on upper Slide Mountain showing ice damage over several centuries.

Lungwort (*Lobaria pulmonaria)* was found on an old growth maple in a hardwood seep on the trail to the summit of Slide Mountain.

Shaggy fringe lichen (*Anaptychia palmulata)* is able to achieve photosynthesis and can be found on old growth hardwoods like maples and birches.

Ghost antler lichen (*Pseudevernia cladonia)* found in the balsam fir forests on top of Slide, Panther, and Balsam Lake Mountains.

Tree skirt moss (*Anomodon attenuates)* is a moss that is often found in old growth areas.

Smooth lungwort (*Ricasolia quercizans)* another old growth species found in the Catskills.

Powder-headed tube lichen (*Hypogymnia tubulosa)* found on the summit of Slide Mountain.

NEW YORK STATE HISTORICAL MA

BY JOEL M. HERRLING
PHOTOS BY CATHY HERLING AND JIM HUGHES

Imagine hopping in your car and taking a drive, and on the way to your destination, discovering local historical places throughout New York State. Morsels of information can not only be acquired from books, classes, or the local library, but also by just peering out your windshield.

Perhaps you have noticed the blue and yellow signs sprinkled across the landscape. These are New York State Historical Markers, and they can be found almost anywhere something notable happened. With an estimated 2,800 of them across our great state, these gems provide the public with knowledge about significant events, individuals, and locales throughout New York.

In 1923, the historical markers program was conceptualized. Three years later, the Commissioner of Education was tasked with identifying sites that had historical significance from the colonial and Revolutionary War eras. In the early years, funding was provided for the erection of these markers. An application process was established, which required information about the location, along with supporting documentation that needed to be filed, reviewed, and approved.

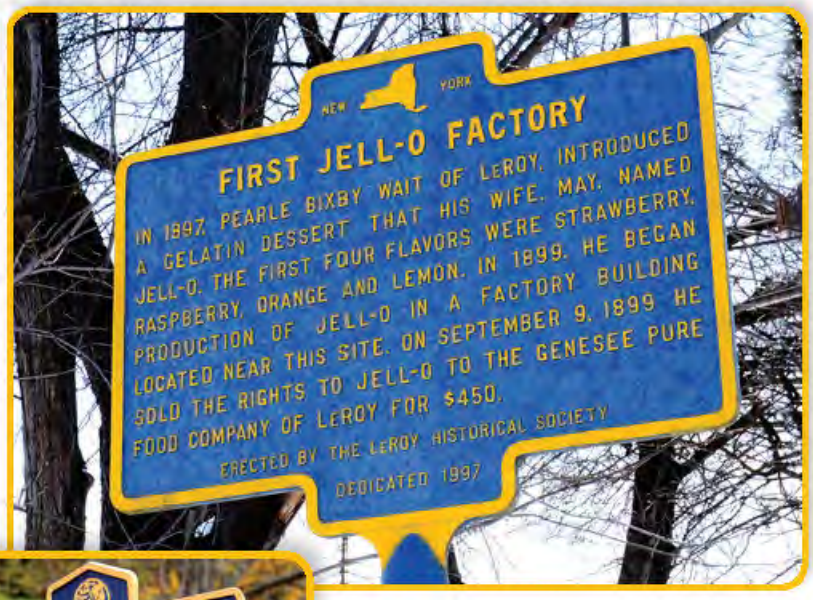
Many of the historical markers found along roadsides today were constructed between 1926 and 1936. After researching the program through the New York State Museum, it appears that funding ran out by 1939. Despite the lack of resources, the New York Office of State History of the Education Department continued to take an active role, assisting until approximately 1966. After the public's positive reaction to the markers, this program evolved from a short-term commemorative project into a long-term education program that was deemed a success.

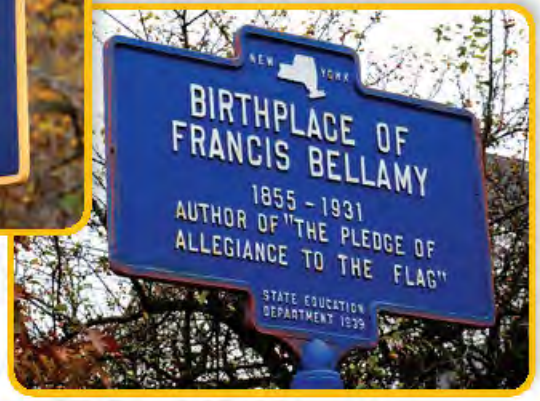
Unlike some other states, New York State does not currently manage the historical markers program. Now, it is up to municipalities to take on the responsibility of

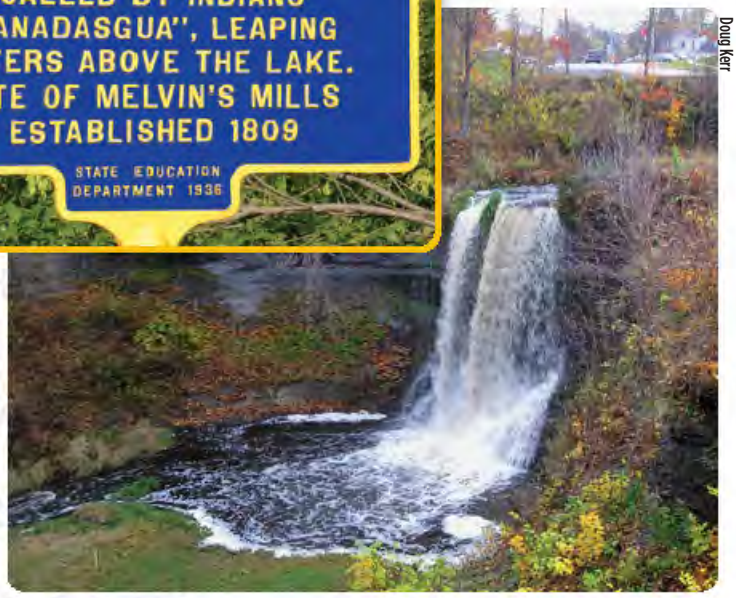
ARKERS

approval, installation, and maintenance of the signs. Despite this burden, markers are still being installed throughout the state by history enthusiasts, local governments, and historical organizations. There are no longer any requirements to have new markers approved by the Education Department if they are located on private property. Anyone interested in learning more about these markers should check with the appropriate county, city, or town historian or officials.

The William G. Pomeroy Foundation administers the New York State Historic Marker Grant Program, which provides funding for those wishing to pursue historical markers. The foundation states that one of its initiatives is to help local communities celebrate their history,







Doug Kerr

Photos, top to bottom: LeRoy, Genesee County; Montour Falls, Schuyler County; Mount Morris, Livingston County; Wolcot, Wayne County

H Seymour Squyer

Auburn, Cayuga County

and the foundation believes that these markers play an important role in historic preservation—serving a dual purpose of educating the public and cultivating tourism. The markers can provide some much-needed economic benefits to the municipalities in which they are placed. According to its website, the foundation funded more than 950 markers in all 62 counties of New York State since 2006.

Every county in New York State has at least one historical marker, with Cayuga County having the most. While the early focus was on important Revolutionary War events, over time, they have begun to encompass all historical eras.

Montgomery County has a sign that honors the gravesite of William McConkey, the owner of the ferry that George Washington used to cross the Delaware River in 1776. Another one of presidential reference is located in Nassau County at Sagamore Hill, where Theodore Roosevelt lived until his death in 1919. Roosevelt is celebrated with another sign in Erie County, at the Wilcox Mansion site, where he was sworn in as president in September 1901 after President William McKinley's assassination.

There are some interestingly odd historical markers as well, such as the one in Onondaga County about the Cardiff Giant. Labeled as "the greatest hoax in American history," it's where a so-called giant stone person was thought to have been discovered. Despite being a prank, its presence on the remote upstate farm caused a national sensation. The "Giant" is now displayed at the Farmers' Museum in Cooperstown. Another earthly discovery occurred in Albany County, where the Cohoes Mastodon was uncovered in 1866. After being pulled from the muck, the huge skeleton now resides in the New York State Museum.

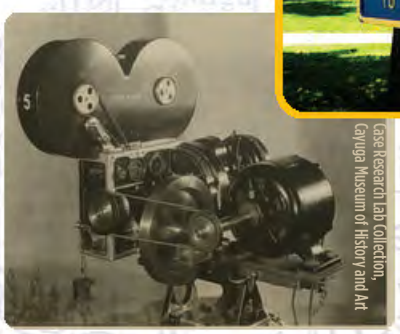
Celebrating New York State's rich history of agriculture is a marker in Delaware County at the site of an old Sheffield Farms building. This creamery was the first to pasteurize milk commercially and became one of the largest dairy product companies in the world due to its proximity to New York City.

Cayuga County is home to a variety of significant events and locations. Most people know about Harriet Tubman and her important role with the Underground Railroad; she is honored at her home just outside the city of Auburn. After her passing, she was buried in Fort Hill Cemetery, which also displays its own historical sign. Other notable people buried there include Theodore Case, a chemist who was one of the first to put sounds to movies, and John Hardenburg, a Revolutionary War soldier and the founder of Auburn.

There is also a major complex of buildings located in downtown Auburn that boasts a little-known fact. It is the Auburn Prison, which was constructed in 1817 with the help of its own inmates. The prison was renamed the Auburn Correctional Facility in 1970. During the 1840s, the convicts also manufactured sewing silk, which was a principal cash market in the United States. Outside of the county, very few people know that the first electrocution in the world took place in Auburn Prison in 1890.

Along with the modernization of everything, one can even download a smartphone app that will display the location of historical markers. The app allows you to read the text on the signs in case you can't stop along the highway, but don't be afraid to go see them in person. These blue and yellow historical markers have become a key resource to inform residents and hordes of tourists about our local history.

Joel M. Herrling is a freelance outdoors writer/photographer in Central New York, who enjoys spending time outdoors with his family.



Case Research Lab Collection, Cayuga Museum of History and Art

Auburn, Cayuga County

Casting Hope & Catching Dreams

BY MARIA VANWIE | PHOTOS BY CATCHING DREAMS, INC.

The waters during the days before had been choppy, then a wave rose out of nowhere. The aftermath of its crash left a silence like nothing I've ever experienced. A silence that would have beckoned a bountiful abundance of fish, if we had been fishing at our favorite spot. But this time, the shining sun was replaced by florescent lighting, and the subtle breeze against my cheeks was instead a cold air ventilation system. My three-year-old daughter and I sat on the edge of a hospital bed, swinging our legs, just as we had done countless times when fishing off the dock. The doctor was direct, "it's leukemia."

News like this brings immediate life adjustments. New routines, fears, and best practices, but it does not change all those interests that brought great joy before. Those interests are now key—medicine that doctors cannot prescribe.

In 2015, Captain Ned Librock, of western New York, recognized the positive impact his fishing boat could have on children, adolescents, and young adults facing a cancer diagnosis. Through the utilization of fishing therapy, Catching Dreams Charters, Inc. was born. Catching Dreams is a not-for-profit organization with a mission to provide young patients and their families a brief respite from the stress of treatments, while learning a new activity and spending time on the water.

What is Fishing Therapy?

Out on the water, in the warm sun's rays, there is a peacefulness. A continuum of slow-paced moments in time, accompanied by building anticipation. The thought of the instant when serenity will be overtaken by excitement. The thought (or hope) of the fish you've been dreaming of finally being reeled in.

This combination of calm and celebration, partnered with fresh air, brings a sense of fulfillment that can replenish power needed to deal with most uphill battles. Traditionally, cancer research has focused on improving treatments and outcomes. However, new treatment programs, such as fishing therapy, use recreational excursions to reduce stress and improve patients' quality of life.

Recent studies have evaluated the psychological effects of an outdoor adventure program on kids and young adults. Fishing therapy is viewed as a positive experience with multiple benefits, such as developing connections with others, rebuilding self-esteem, creating memories, and increasing self-compassion.

Fishing requires focus and attention, it diverts thoughts from stressors and conflicts, and can reduce anxiety. Researchers have found that simply being near water may improve physical and mental health.

A Day on the Water with Catching Dreams Charters

Using fishing therapy, Captain Ned and his team of professional captains are applying some science to the saying, "A bad day of fishing is better than a good day in the office."

The average trip is approximately five hours long. Each charter is provided free of charge and led by a certified Coast Guard Captain. All fishing tackle and supplies are offered. There are no out-of-pocket costs to participants, parents, or caregivers. Other family members are also welcome; however, to ensure an individualized fishing experience, trips are limited to two to three people.

In addition to consisting of therapeutic fishing charters, Catching Dreams provides education as part of their excursions. Each trip begins with a review of boating safety and the proper use of life jackets. The captain then discusses the species of fish they'll be trying to catch (which varies according to the season), the type of tackle and bait they'll be using that day, and the general strategy for the fishing trip. Participants are also shown the proper technique for catching and netting a fish.

Benefits of Fishing

In 2021, approximately 52 million Americans engaged in freshwater, saltwater, and/or fly-fishing activities. Fishing can have many physical and psychological benefits.

Fishing is a unique way to exercise, relieve stress, and relax, and is a good outdoor social activity. The motion of casting and reeling with a fishing pole can be helpful physical therapy for those healing from a medical procedure, and can increase strength, flexibility, and endurance. Fishing requires the use of your arms, legs, and core muscles, strenuously at times. In addition, walking to and from a fishing spot can be good cardiovascular exercise.

Learn More

Catching Dreams Charters take place on Lake Erie, Lake Ontario, the Finger Lakes, and the Niagara River. Weather permitting, these fishing adventures are offered throughout the spring, summer, and fall.

Visit **www.catchingdreamscharters.org** for more information.

Many types of wildlife are identified on most trips, including various types of birds (gulls, eagles, terns, geese, and ducks), and the occasional beaver or turtle. The captains may use depth gauges and underwater cameras to discuss the ecology of the waterbody, including the rocks and sand below the surface, the changing contour of the water bottom, and the water's clarity and currents. In addition, each participant is provided an opportunity to help the captain drive the boat on the way back.

Casting Hope

Upon the conclusion of each trip, the captain distributes educational materials about fish and angling, provided by the New York State Department of Environmental Conservation, to each family. Each child is also given a new rod and reel and various fishing accessories.

Catching Dreams Charters is 100-percent funded by individuals, corporations, and foundations. The long-term goal of Catching Dreams and its partners is to have a complete network of captains across New York State providing fishing therapy to every child with cancer who wants to go fishing.

Captain Ned and his team work closely with several pediatric hospitals and patient support organizations to coordinate these charters. Partners include: the Roswell Park Cancer Institute and the Courage of Carly Fund; P.U.N.T. Pediatric Cancer Collaborative; Camp Good Days and Special Times; the C.U.R.E. Childhood Cancer Association; Golisano Children's Hospital; and the Leukemia and Lymphoma Society.

A fishing excursion with Catching Dreams provides participants with a sense of community and a chance to just be a kid. Several participants noted that the best part of the experience was getting to spend quality family time solely focused on fishing.

Captain Ned explained, "This is the only business I've started where we hope to just break even each year, and we don't want any customers."

Catching Dreams

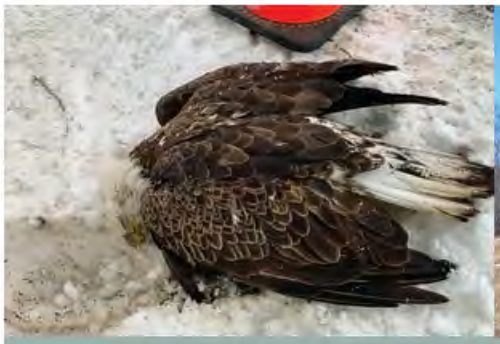
These days, our daughter, now six, looks forward to casting each line, and days spent by the water's edge are taken even slower. Each moment is appreciated more than the last, catching one dream at a time.

Fishing therapy may start as an organized charter, but fishing is an activity that participants can enjoy long after that first outing. Like each treatment plan, each fishing trip is unique, using different lines, lures, and bodies of water, but all participants hope for the same outcome. Win or lose, fish or no fish, there is an abundance of gratitude and appreciation for the experience.

Maria VanWie is the Managing Editor of the *Conservationist* and DEC's Publications Bureau Chief.

On Patrol

Real stories from Environmental Conservation Police Officers and Forest Rangers in the field



Bill Combs Jr.

Injured Eagle Flies Again—Schoharie County

On March 26, a three-year-old bald eagle found nearly lifeless on the side of a road in the town of Gilboa was able to fly again. On January 25, town workers plowing snow found the severely injured eagle in a snowbank on Flat Creek Road. They brought it to the Broome Center town maintenance facility, where ECO Bohling collected the eagle and transferred it to Friends of the Feathered and Furry Wildlife Center for rehabilitation. After more than 60 days in recovery, the eagle was successfully released back into the wild near where it was found. View the video here: **www.youtube.com/watch?v=acGERzULQiw**.

Capsized Canoe—Dutchess County

On March 27, ECO Wamsley received a radio call about a capsized canoe in Lake Geneva on Cold Spring Creek; three people were struggling in the icy waters and a fourth person was unconscious. The ECO arrived to find New York State Police and paramedics at the site attending to the group, all suffering from hypothermia, including the fourth individual who regained consciousness after being pulled from the cold water. ECO Wamsley supplied blankets to the group and helped carry out the injured boaters. Luckily, all individuals survived the incident. ECOs remind boaters to be safe and always wear a personal floatation device while boating.

Python—Suffolk County

On March 29, DEC Division of Law Enforcement Investigators tracked down and charged a suspected snake owner in possession of a six-foot-long reticulated python. Investigators seized the snake from a residence in West Babylon. These snakes are dangerous constrictors native to Asia, capable of reaching lengths of more than 20 feet, and illegal to possess in New York State without a special permit. The subject received a ticket for possessing the snake, and the snake was transferred to a reptile center out of state.


Carl Heilman II

Wilderness Rescue—Essex County

On April 16, Forest Rangers responded to a report of a fallen climber at the Spider's Web climbing area in Keene. The hiker had fallen approximately 40 feet and had significant injuries. State Police Sergeant Beck piloted a helicopter with Ranger Balerno. Rangers stabilized the 23-year-old from Connecticut, secured the subject in a litter, and hoisted him into the helicopter. Sgt. Beck then flew the climber to Marcy Field, where the patient was transferred to a LifeNet helicopter for transport to the hospital. To view a video of the hoist, go to: **dec.ny.gov/fs/programs/press/ForestRangers/HoistRescueKeene_April16_2023.mov**.

Law Enforcement—Wayne County

On March 22, while on patrol, Ranger Raffaldi saw two individuals walking through a cattail marsh. From a distance, Ranger Raffaldi observed the subjects collect and bundle cattails. If done with a permit, this is a legal activity. However, Ranger Raffaldi determined the 63-year-old from Sodus and 32-year-old from Lyons did not have the required permits. For centuries, the leaves of cattails have been harvested and utilized for wooden barrel caulking, and can be sold for monetary gain. The subjects were issued tickets for illegal cattail harvest.

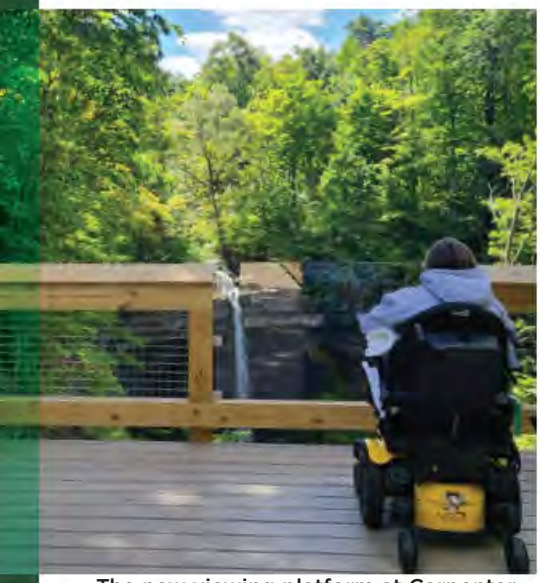
Wildland Fire—Putnam County

On April 8, Forest Rangers Horn and Russo responded to a wildland fire on a steep ridge near Stagecoach Road in Patterson. The three-acre fire was comprised of burning oak leaf litter and some dead standing oak trees. Rangers Patterson and Russo contained the fire, which was subsequently placed on patrol status.

HIKING WITHOUT BOOTS

Accessible Recreation on New York State Lands

BY LEAH AKINS



The new viewing platform at Carpenter Falls features a clear panel that allows children, wheelchair users, and people of short stature to get a better view of the stunning 90-foot cascade of water.

In spring 2020, I had the first of several "Aha!" moments that continue to inspire my work to create recreation opportunities on New York State lands that are accessible to people of all ages and abilities. At the beginning of 2020, I was hired by the New York State Department of Environmental Conservation (DEC) to be the Statewide ADA Accessibility Coordinator. Then, COVID-19 forced everyone to shelter in place and stay at home.

One bright Saturday morning, when people were just starting to feel comfortable gathering outdoors after the shutdown, I went to Looking Glass Pond in Schoharie County and came across several multi-generational families enjoying the sunshine and fresh air. These families presumably sought out this relatively remote forest retreat because they knew it had a picnic area, trails, and fishing and viewing platforms that every member of their family could enjoy together.

This outing was the first time I was able to get out to see one of the many accessible recreation features DEC built during the past few decades. After several winter months of sheltering in place indoors, studying how to make the outdoors more inclusive, it clicked: creating places where families can recreate together, across all ages and abilities, is good for all of us and the environment.

Looking Glass Pond includes one of the more than 50 trails that DEC built to federal accessibility standards, the design requirements of the Americans with Disabilities Act (ADA) and Architectural Barriers Act. The ADA Standards of 1991 mandated the basic accessible building elements that we are familiar with today, such as accessible parking spots, wheelchair ramps and lifts, toilet stalls, sinks, and showers. However, the standards for making outdoor developed areas accessible, including trails and camping, picnic, and viewing areas,

Discounts for New York State Residents with Disabilities

The following passes provide free day-use entrance and camping discounts at most sites managed by DEC and New York State Parks, and are available for people with qualifying disabilities:

- **ACCESS PASS-** people with permanent disabilities, go to: **parks.ny.gov/admission/access-pass/**
- **LIFETIME LIBERTY PASS-** veterans with disabilities, go to: **parks.ny.gov/admission/lifetime-liberty-pass.aspx**

Free and discounted fishing and hunting licenses for people with qualifying disabilities are available where New York State sporting licenses are sold, including:

- **Free fishing licenses** for people who are blind; and
- **A $5 sporting license** for veterans with a qualifying disability

New accessible trail and observation platform in Carpenter Falls Unique Area.

were not finalized until 2013. So, it's not surprising that most Americans are less familiar with what it means for a trail or campsite to be accessible for people with mobility impairments.

If you are among those less familiar with what it means for a trail to be wheelchair accessible, you may at first envision a level, paved path in your local park or along a river walkway that you visited. These developed trails are certainly important for getting us all outside and recreating in our communities, but it's equally important to create trails in more natural areas for people of all ages and abilities to get further afield from pavement and buildings, and provide choices appropriate with their hiking abilities and interests.

Fortunately, the trail accessibility standards provide us with a guide on how to achieve a broad variety of accessible trails, ranging from developed urban parks to forest outings in wilderness areas. Trails designed to be accessible have firm surfaces and gradual slopes interspersed with resting intervals where hikers can catch their breath. Often, these resting spots have a bench or interpretive signage to provide a place where someone can take a break, while others in their family or group hike farther. Accessible trails allow families to get outdoors together, fostering a strong connection with nature that is important for our health and well-being, as well as inspiring future conservationists.

Public involvement is critical to determining the specific needs for and interests in accessible outdoor recreation across New York's diverse landscapes. To ensure that we are hearing from target user groups, DEC has a public advisory group composed of people with disabilities and community organizations interested in advancing the accessibility of outdoor recreation in New York State. This citizen committee is named the Accessibility Advisory Committee (AAC). It is an active and essential part of planning for and creating accessible camping, hiking, fishing, and boating facilities on public lands, and serves as an official advisory body to both DEC and the Adirondack Park Agency.

The Albany County Nature Bus provides free wheelchair accessible transportation to the DEC Five Rivers Environmental Education Center and other natural areas in the county.

Envisioning outdoor facilities that are truly accessible to people with differing abilities, including wheelchair users and people with limited vision and/or mobility, can't be done in a meeting room alone. That is why the AAC hits the road several times a year to visit DEC campgrounds, state forests, wildlife management areas, and wilderness areas to identify how the State can provide more equitable access to all New Yorkers.

Spreading the word about new and existing accessible features on DEC lands is an important component of the AAC's role. Last Fall, Kathryn Carroll, AAC Vice-Chair and Disability and Program Director for the Association on Aging in New York, helped lead the opening of the Fisher Trail, a new accessible trail at Five Rivers Environmental Education Center (Five Rivers) in the Capital Region. (For more info, see Briefly in the February/March 2023 issue of the *Conservationist*).

Beach boardwalks and mobility mats are provided at a number of DEC Campgrounds and Day Use Areas to help people with limited mobility access the beach and water.

Carroll, who is visually impaired and uses a cane, knows firsthand how important trails like the Fisher Trail are to people with challenges in navigating outdoors. In 2022, DEC also completed an accessible trail to a new viewing platform of Carpenter Falls on the shores of Skaneateles Lake. Peyton Sefick, with the Fitness Inclusion Network, and Jason Page, a professor at SUNY Cortland and Director of their Inclusive Recreation Resource Center, participated in the ribbon-cutting of the Carpenter Falls project and publicized its opening in local media.

In addition to building accessible trails, camping areas, fishing piers, and boat launches, DEC has been adding adaptive equipment to our facilities. This equipment includes power mobility scooters available for public use at three of DEC's Environmental Education Centers- Five Rivers (Albany County), Reinstein Woods (Erie County), and Rogers Environmental Education Center (Chenango County). Five Rivers also has a wheelchair charging station, allowing visitors to charge their power wheelchair or mobility scooter, and explore farther afield on the center's many miles of nature trails.

AAC Member Lisa Tarricone of Taconic Resources for Independent Living demonstrates adaptive campfire cooking at Outdoor Accessibility Day at John Dillon Park.

Eight beaches at DEC Campgrounds and Day Use Areas currently offer beach access mats or boardwalks to help people using mobility devices get to the water's edge. These are located at Lake George Beach, Scaroon Manor, Rogers Rock, Ausable Point, Lewey Lake, Lake Eaton, Cranberry Lake, and North-South Lake. In addition, Lake George Beach has a beach wheelchair that is available for visitors on a first-come, first-served basis.

DEC provides the public with information about the range of these offerings on our Accessible Recreation web page, **www.dec.ny.gov/outdoor/34035.html**. The DEC Accessible Recreation Destinations web page is a county-by-county guide to DEC lands with recreation features designed to be accessible to people with disabilities. Scanning this page for icons of activities that you are interested in will help you identify where you can find accessible hiking, camping, fishing, or boating amenities.

For those interested in going camping at one of DEC's 52 campgrounds in the Catskill and Adirondack Parks, visit: **www.dec.ny.gov/outdoor/123041.html**.

DEC accessible campsites are intended for use by people with mobility impairments and offer an accessible picnic table and fireplace, along with a firm, graded surface suitable for navigation of a mobility device. To reserve a site, go to: **newyorkstateparks.reserveamerica.com**. This webpage identifies which campgrounds have ADA-compliant restroom and shower facilities, and accessible boating, fishing, picnicking, and hiking opportunities.

DEC is always looking for partners to promote accessible outdoor recreation in New York State. Please write to **accessibility@dec.ny.gov** with questions or comments. Together, we can ensure that as many people as possible are able to enjoy the wonderful natural adventures New York has to offer. And when more people experience New York's nature, new generations of advocates and conservationists are born.

Leah Akins is the DEC Statewide ADA Accessibility Coordinator.

Trails for All

Trails for All are sustainably constructed and accessible hiking trails that provide a diversity of opportunities for outdoor enthusiasts of all ages and abilities to get out in nature. These trails have gentle grades and a firm surface, combined with resting places along the trail, making them enjoyable for seniors, people using mobility devices or are visually impaired, and everyone who loves to explore the outdoors.

Going Native for Wildlife with STAGHORN SUMAC

BY SAM KREBS, MOLLY JACOBSON, AND MICHAEL SCHUMMER

Riddle me this! This plant is often confused with something poisonous, but its berries can actually be made into tea. This plant's flowers are visited, and its stems nested in, by native bees. This plant's berries provide food to birds, and deer and rabbits feed on its bark and stems. Nearly all of its parts are useful to wildlife or people. What am I?

The answer: One of the Northeast's most familiar characters—staghorn sumac (*Rhus typhina*), a true "super plant."

In recent years, more landowners have expressed an interest in creating wildlife and pollinator habitat on their properties using native plants. Yet, a common hurdle is selecting the right plants, not just for site conditions, but for ecological value. Must one choose between bee-friendly flowers and the woody cover that wild game prefer?

For New York's climate and soils, look no further: staghorn sumac does it all.

Not to be confused with poison sumac (*Toxicodendron vernix*), staghorn sumac is a shrubby tree native to a wide swath of the northeastern and upper midwestern United States and southeastern Canada. It is adaptable to a variety of conditions, and is abundant throughout New York State, with the exception of the Adirondack High Peaks. You've probably driven by its crimson clusters of fruit and fiery red leaves during autumn, along roadsides and edges of farm fields.

Staghorn sumac is common in "old-field" habitats before larger trees take over. It gets its name from the fuzzy brown branches that resemble a deer's velvety antlers (stags' horns!). It grows quickly, spreading out to form extensive stands by sprouting new plants from nearby roots, called root suckers. It can produce fruit after only a few years of fast growth. During spring, long, narrow dark-green leaves fill out its twisted branches, offering refuge for many critters. Songbirds like cedar waxwings (*Bombycilla cedrorum*) and black-capped chickadees (*Poecile atricapillus*) often create cup nests on its higher branches.

Samuel Krebs

Black-capped chickadees (*Poecile atricapillus*) are common visitors of staghorn sumac's berries during the winter.

Individual plants are either male or female, so at least two individual plants are needed to produce berries. In June and July, subtly beautiful green-yellow flowers bloom in large panicles, or clusters, atop the sumac's branches. Male flowers attract a variety of pollinating insects seeking to gather pollen, while female flowers offer nectar rewards, luring the insects to both flower sexes so pollination can occur.

One such visitor is the small carpenter bee (*Ceratina* spp.). Much daintier and more easily overlooked than its well-known cousin, the eastern carpenter bee (*Xylocopa virginica*), these tiny, metallic blue jewels nest in the sumac's pithy stems. Females excavate hollow tunnels to raise their brood, which feed on the pollen of the many flowers she visits.

Thanks to the pollinators' handiwork, hundreds of fuzzy red fruits replace the flowers in late summer. Each fruit, or drupe, is a seed coated in a thin, waxy layer blanketed in tiny red hairs. These drupes persist on the plant throughout winter, becoming a classic part of our scenic

Samuel Krebs

Staghorn sumac's yellow-green flowers bloom in June and July and develop into red berries during the fall.

Molly Jacobson

A frequent visitor to staghorn sumac flowers is the small carpenter bee (*Ceratina* spp.), a common native bee.

snowy landscapes, as well as an invaluable resource to wildlife when other foods are scarce. A diverse array of songbirds, as well as game birds like wild turkey (*Meleagris gallopavo*) and ruffed grouse (*Bonasa umbellus*), consume the fruits, and in doing so, provide a crucial service to the sumac in return. The germination of sumac seeds is enhanced by scarification, or weakening of the seed coating by abrasion, which occurs when they pass through the digestive system of birds and mammals.

Wildlife will eat more than just the drupes though, making male sumac plants a valuable food source too. Eastern cottontail rabbits (*Sylvilagus floridanus*) browse on the bark when snow covers other vegetation, and white-tailed deer (*Odocoileus virginianus*) snack on young sumac shoots, munching them straight down to the ground.

Animals aren't the only ones that can eat and enjoy the fruit. Just cut the red cluster of berries off the plant and take them home with you. If you lick your finger after picking, you'll immediately taste a tart, sour punch of flavor. The fruit is often used to make "sumac red lemonade."

Sumac is good for you: it's high in vitamin C, antioxidants, fiber, and monosaturated fats, like oleic acid, that can improve heart health. Its fresh fruit can also be sprinkled on top of salads to give them a flavorful twist. The berries can easily be dried by placing them under a lamp overnight, after which a fine red powder, derived from the seed coat, can be separated from the seeds using a blender and strainer. This ground up powder makes an excellent spice rub that can be added to fish and chicken dishes.

Encouraging pollinators and wildlife on your own property is easy with staghorn sumac. An early-successional generalist that is tolerant of drought and pollution, sumac should be planted where it will have ample room to colonize. Consider selecting a spot where you would like a hedgerow, rather than an individual shrub, since root suckers can spread quickly. A good way to create boundaries for the hedgerow is to plant near an impervious surface like asphalt that prevents root growth.

Sumac should be planted in early spring and can be transplanted from a young shoot or bought from a nursery.

Samuel Krebs

A female yellow-shafted northern flicker (*Colaptes auratus*) perches on staghorn sumac after eating some berries.

Make sure there is at least one female plant if you want fruit. An ideal location receives partial to full sun and has well-draining and disturbed (rototilled, etc.) soil. Watering during the first growing season is necessary, and initial mulching is recommended. Maintaining existing sumac is simple, with only minor pruning of diseased or dead branches needed.

The next time you're out walking the dog or driving home from work, be on the lookout for staghorn sumac. If you don't have any around, consider planting your own! This native plant will beautify your yard with bright fall foliage and lasting color throughout the dull winter months, while sustaining countless species of wildlife by providing food and shelter all year round. Staghorn sumac truly is one of the northeast's super-plants.

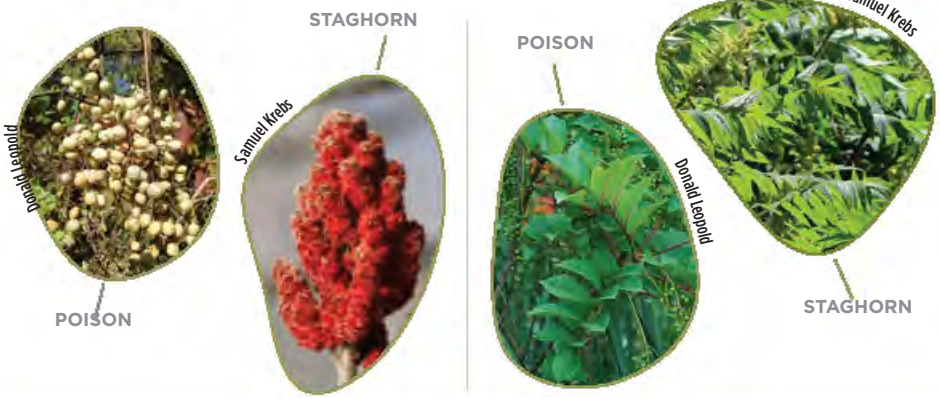
Currently, researchers at SUNY College of Environmental Science and Forestry and SUNY Oswego are investigating how the foraging behavior of songbirds on sumac changes throughout winter. Sumac, like all other flowering plants, contains polyphenolic compounds. These compounds are one of many ways that plants defend against animal herbivory (feeding on plants). Two of these compounds found in sumac, gallic and caffeic acid, inhibit the digestion of starches. Each has a phenolic ring that absorbs ultraviolet (UV) light. These rings are sensitive to changes in temperature, breaking down and decreasing in concentration throughout the winter.

Unlike us, songbirds have eyes that can see both visible and UV light. Because eating fruit high in these acids could be harmful, researchers hypothesize that the birds are able to see changes in fruit UV reflectance and decide to eat the sumac berries when reflectance has increased, thus signifying low acid levels and that they are safe to eat. Understanding the nature of this relationship could provide useful insights for habitat management, to support bird species currently experiencing population declines.

Sam Krebs is a graduate student, **Molly Jacobson** is a pollinator ecologist, and **Michael Schummer** is a senior research associate, with the SUNY College of Environmental Science and Forestry, Department of Environmental Biology and Restoration Science Center.

POISON SUMAC *vs.* STAGHORN SUMAC

Is it poison? Smooth and broad leaves, hairless twigs, and white berries in loose clusters are identifying features of poison sumac. Staghorn sumac has narrow and toothed leaves, velvety or hairy twigs, and bright red berries in tight clusters.



Samuel Krebs

Staghorn sumac can easily be recognized in the fall by its bright red-orange leaves.

THE 90TH ANNIVERSARY OF THE CIVILIAN CONSERVATION CORPS

BY MARTIN PODSKOCH | PHOTOS COURTESY OF NEW YORK STATE OFFICE OF PARKS, RECREATION, AND HISTORIC PRESERVATION

This year is the 90th anniversary of the founding of the Civilian Conservation Corps (CCC). The CCC was a public works program that operated from 1933 to 1942, as part of President Franklin D. Roosevelt's New Deal. It targeted single men, 18 to 25 years old, and WWI veterans who had difficulty finding jobs during the Great Depression. The program provided manual labor to support environmental conservation projects and the development of natural resources in rural lands.

During Roosevelt's first 100 days in office, he signed the Emergency Conservation Work (ECW) Act, commonly known as the Civilian Conservation Corps. Roosevelt proposed the ECW to Congress on March 21; it went through both houses of Congress and landed on his desk to be signed on March 31, 1933. He proposed to recruit thousands of unemployed young men, enroll them in a peacetime army, and send them into battle against the destruction and erosion of our natural resources.

Roosevelt said, "I propose to create a Civilian Conservation Corps to be used in simple work ... more important, however, than the material gains will be the moral and spiritual value of such work."

April 5, 1933 is considered the "birthday" of the CCC, as that is when Roosevelt signed the ECW's executive order, creating the CCC. On April 7, the first enrollee was selected, and by April 17, the first camp was in operation in the Shenandoah Valley, near Luray, Virginia—Camp Roosevelt. Through the ECW, Roosevelt brought together two unused resources, young men and the land. He promised he'd have 250,000 men in CCC camps by the end of July 1933.

The federal Department of Labor, through its state and local relief offices, was responsible for the selection and enrollment of applicants. Enrollees had to be single and unemployed men aged 18 to 25, who received Home Relief, a precursor of welfare.

The men enrolled for six months and worked a 40-hour week for $30 per month. The government sent $25 a month home to the workers' parents and the men had $5 spending money. By July 1, 1933, there were 275,000 CCC enrollees and 10,000 supervisory personnel in 1,468 camps. It was the fastest large-scale mobilization of men in United States history.

Roosevelt chose the United States Army to supervise the camps, which consisted of approximately 200 men each. The Army moved thousands of enrollees from induction centers to working camps in record time. It used its own regular and reserve officers, together with regulars of the Coast Guard, Marine Corps, and Navy, to temporarily command camps and companies. Enrollees received food, uniforms, shelter, and medical care.

During the summer of 1933 they lived in tents; later they moved into wooden buildings. CCC camps were located in all of the 48 states and the territories of Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands (St. Thomas, St. John, and St. Croix). There were separate camps for white enrollees, black enrollees, unemployed veterans who served in WW I, and Native Americans who worked on tribal lands.

There were 26 camps in the Adirondacks. The earliest camps were set up in Arietta, Eighth Lake, and Speculator (Hamilton County); Bolton Landing (Warren County); Tahawus, Newcomb, Schroon River, and Port Henry (Essex County); Wanakena and Benson Mines (St. Lawrence County); Paul Smiths, Tupper Lake, Goldsmiths-Lake Placid, and Fish Creek Pond (Franklin County). Later, camps were established in Boonville (Oneida County); Brasher Falls and Canton (St. Lawrence County); Brushton (Franklin County); Fort Ann (Washington County); Harrisville (Lewis County); Indian Lake (Hamilton County); Minerva (Essex County); Plattsburgh-Cumberland Bay (Clinton County); and Warrensburg (Warren County).

A camp superintendent was selected to plan, organize, and supervise projects on state and national forest land. Workers built trails, roads, campsites, and dams; stocked fish; built and maintained fire tower observers' cabins and telephone lines; fought fires; and planted millions of trees.

The CCC disbanded in 1942 due to increased employment opportunities, changes in public opinion, lack of funding, and the need for soldiers to serve in World War II.

The CCC program is considered by many to be one of the most successful of Roosevelt's New Deal programs. Roosevelt's "Tree Army" planted more than three billion trees on land made barren from fires, natural erosion, intensive agriculture, or logging. In fact, the CCC was responsible for more than half of the reforestation, public and private, in the nation's history.

Enrollees constructed trails and shelters in more than 800 parks nationwide. The CCC helped to shape the modern national and state park systems we enjoy today. The CCC's efforts were instrumental in creating 94 national parks and 741 state parks, enjoyed by millions of people each year, including young children, teens, older adults.

The Civilian Conservation Corps Legacy is a national organization that is "dedicated to research, preservation, and education of future generations to create a better understanding of the CCC and its continuing contribution to American life and culture." Anyone interested in learning about the work of the CCC Legacy and joining should visit **www.ccclegacy.org** or **facebook.com/groups/ccclegacygroup**.

Martin Podskoch is a Board Member of CCC Legacy and author of *Adirondack Civilian Conservation Corps Camps: History, Memories & Legacy of the CCC;* and two other books. His books are available at **https://martinpodskoch.com**.

A GIFT FROM DAD

BY SCOTT RAPP

I had just started the melancholy task of cleaning out my late father's closet shortly after my mother died. I began clearing the closet floor by pulling out a pair of his church-going leather shoes, some paint-spattered sneakers, and a rumpled pair of slippers, when I spotted the wooden stock of a mangled shotgun leaning against a back corner of the closet.

I reached for the stock and barrel and eased the dusty shotgun from the closet. It was the same pump-action, 20-gauge Mossberg shotgun I'd given to my dad as a surprise gift more than 50 years ago. Discovering the shotgun flooded me with bittersweet memories that began on a jubilant note with my high school graduation, and narrowly missed ending in tragedy a few years later. I hadn't seen the shotgun since the barrel blew up on my first attempt at hunting white-tailed deer.

The story begins when my parents surprised me with a single-shot, 20-gauge shotgun so I could start hunting small game. I couldn't wait to head into the woods with shotgun in hand, friends at my side.

"This will teach you to make good on your first shot," my dad told me, smiling that Christmas morning. Sound advice, like always.

Eighteen months later, I graduated from McQuaid Jesuit High School in Rochester. I had received a great education, played sports, and hunted rabbits and squirrels when I could squeeze in the time. It was a good life.

For my graduation, my parents threw a party in the backyard of our Civil War-era home in Lima, a rural village with a single stoplight, 15 miles south of Rochester. They invited some family friends who layered a wicker basket with Congratulations cards. They sipped beers and swapped funny stories before I opened the cards and counted $65 in cash. That was a lot of money back then; today it would be worth about $550 in buying power.

I felt like a prince and I wanted to share my windfall with my dad, who reigned king in my eyes. Even though he often worked 60 hours a week and helped raise five children, he found time to coach our Little League baseball teams, watch us play football and basketball, and put up with me playing drums. We rode horses together and he somehow found the time and money to pay for riding lessons for both of us. I knew he wanted to hunt too, but I also knew he would never spend the money on a shotgun for himself.

While my parents and their friends shared memories and laughter at the party, I snuck into my mother's car and bee-lined to a nearby gun shop that brimmed with hunting rifles and shotguns. There was no doubt what I aimed to do:

Dick Rapp loved hunting and riding his horses.

I bought a pump-action, 20-gauge Mossberg shotgun with my graduation money and then surprised my dad after the party ended. We hugged, his blue eyes brimming with tears.

My dad loved his shotgun and took up hunting with friends, while I pursued my college degree at an out-of-town university. He had a ball traipsing across the countryside, stalking pheasants and rabbits with his friends and retrieving dogs. Meanwhile, I was drumming with a rock and roll band at campus socials and Niagara Falls bars, which I found to be far more exciting than studying biology and calculus.

Fast forward five years, from my high school graduation to 1972. By then, I had decided to swap drumming in a band for a fledgling career in journalism. I started at a weekly newspaper near my hometown and then took an editing and writing position at the former *Geneva Times* newspaper (now the *Finger Lakes Times*) at the north end of Seneca Lake. Like most of my young newsroom cohorts, we loved what we were doing and couldn't have picked a more poignant and rousing time to sharpen our skills as budding journalists. The Vietnam War was raging, social upheaval was splitting the country, and the emerging Watergate scandal was shadowing Richard Nixon's presidency.

That fall, I made plans to go deer hunting for the first time with a friend who loved to hunt big game, when he wasn't hunting for great photographs to shoot for the newspaper. I borrowed my father's shotgun—the one I had given to him five years earlier—to hunt in a remote, wooded area about 20 miles south of Geneva. I spent the night at my friend Tom's house so we could get an early jump on the first morning of hunting season. We had eggs and venison for breakfast, and smeared blood from the meat on our faces. "Tradition," Tom said.

We bolted out of his house around 4:45 a.m., aiming to be in the woods by dawn. About four inches of powdery snow had fallen overnight. "That will help us track any deer," Tom said. "We'll be able to see a trail of blood in the snow if we shoot one and it spooks."

The fresh snow, however, wound up triggering an explosive mishap that could have turned tragic.

Author Scott Rapp (right) and his father, Dick.

We arrived at the woods just before dawn. The snow had stopped, but it was ice cold. Under cloudy skies, we trekked into the forest looking for a tree that I could climb to wait for an unsuspecting buck to strut within shooting distance. We found an obliging maple tree that was easy to scale and offered a couple of stout branches for me to sit on while holding my shotgun in position to shoot.

Tom trudged deeper into the thick woods. At some point, he swung around and plodded toward me, hoping to push a buck within my shooting range. I sat in the crook of the two branches, about 10 feet above a small clearing, which provided me with a perfect shot in nearly every direction. I sat ready with a slug in the chamber.

I did not have a doe permit, so I had to wait for a buck to rumble within range. I didn't have to wait long. I heard a couple shots echo in the distance and moments later a massive 10-point buck burst into the clearing beneath me. He stood quietly, 20 feet away, unaware that I was perched above him with a shotgun trained at his right, upper chest. I had a clear, broadside shot and squeezed the trigger. He collapsed in a flash. Tom had told me to sit still if I put a buck down, because they're likely to get back up and flee on adrenaline if you approach the wounded animal too soon.

I sat as still as I could, heart pounding, waiting to see what the buck would do. He was laying on his side, eyes wide open, head down, and groaning. Seconds later, he muscled back up and stood wobbly like a boxer stumbling to his feet after being floored by a punch. I pumped a new slug into the chamber and pulled the trigger again. Same result. The buck crumpled to the snow-covered ground.

Both shots seemed like they should have killed this big buck, but a minute or two later, he rose again on shaky legs, blood on the snow beneath him. He started to hobble away, but I wasn't about to let him stumble any farther. Fueled by adrenaline, I jumped feet first from the tree unaware the barrel of my shotgun was pointed downward toward the snow. I pumped a third slug into the chamber and fired again. The buck limped out of sight.

Dumfounded by what I had just seen, I leaned against the tree a few moments before starting after the deer. I trailed a wide swath of blood in the powdery snow, out of the woods into a rolling meadow. Good tracking terrain, like Tom had said. The buck was bleeding out and I knew I wouldn't have to tramp much farther to find him. I clambered up a small hill, when I heard a shotgun blast just before I reached the hill crest. Twenty yards ahead, two hunters in camouflage and scruffy beards hovered over my buck.

“Hey, I shot that deer,” I yelled as I approached them. That’s when I looked at my dad’s shotgun and saw the mangled end of the barrel. I had no idea what had happened.

“He’s ours now. We’ll send you his tail,” one of the hunters said with a snicker. The other laughed.

I saw no recourse, so I left them with a few angry words and a newly acquired bitter taste for deer hunting before I slogged back to the woods to wait for Tom.

Not only did I lose the biggest buck I had ever seen, but I destroyed my dad’s shotgun as well. The end of the barrel had blown apart like someone had detonated a grenade in the chamber. A large flap of the barrel had bent almost 90 degrees, and the explosion splintered the end of the barrel more than 10 inches back toward the trigger.

I was lucky, Tom said, after we joined up in the woods again. He was shocked at what had happened and said I had plugged the end of the barrel jumping out of the tree barrel-first into the snow. When I fired the third slug, the blockage caused tremendous pressure from the ignited gunpowder gases inside the thin metal barrel. With nowhere to escape, the gases detonated like an exploding pipe bomb.

Luckily, any shrapnel that discharged in the explosion missed me. There are plenty of online stories about inexperienced or careless hunters firing their shotguns without realizing their gun barrels were jammed. Some of those hunters suffered serious injuries. Yes, I was lucky.

My dad declined my offer to buy him another shotgun. We both got busy with other pursuits, our jobs, and families. We never hunted together again.

I waited almost 25 years before going deer hunting, near my home in the Ithaca area. I could have harvested a couple does on those hunts, but I always lowered my shotgun when they wandered within range. I’m not sure why I did that, and that was my last time hunting, even though the bitterness I first felt toward the sport had faded long ago.

Like my late father, I’m a bit of a hoarder, especially when it comes to gifts. A Depression-era child, my dad found it difficult to throw away anything, even his shotgun that was rendered useless on that hunting day 50 years ago this past deer hunting season. I’m not sure he realized before he died that when I would eventually find the shotgun, it would trigger in me vivid memories of that disheartening day and, more importantly, loving ones of him. I will always keep the shotgun in my closet, as a surprise gift from him. Thanks, Dad.

Scott Rapp is a retired, award-winning journalist and college educator. He and his wife Sandy live near Ithaca and enjoy traveling and spending time with their family.

SPECIES SPOTLIGHT

HUMMINGBIRD MOTH

BY SANDRA MITCHELL | PHOTOS BY AUTHOR

The seasons tick by as you enjoy coffee on the porch, watching the hummingbirds feed. Then, something else brightly colored zips by and hovers over a flower. Was it a small hummingbird, you wonder? You just may be lucky enough to have two garden jewels—the hummingbird and the hummingbird moth!

Description/Diet/Behavior

These moths are not related to the similarly named birds, but are also brightly colored and able to "hover" in place to feed. Like butterflies, they have curled mouthparts (called a proboscis) that can extend, allowing access to food in deep parts of a bloom, making them super pollinators.

In New York State, the hummingbird clearwing (*Hemaris thysbe*) is a common moth. Unlike butterflies, their wings typically lack scales, making them transparent, hence the name "clearwing moth." Their body looks furry up close and may be a variety of colors, ranging from greenish-yellow to tan, with a wide, reddish-brown stripe across its abdomen. Their colorful tail opens into a flared "fan" when feeding.

Why would a moth look so much like a hummingbird? Perhaps from convergent evolution, an evolutionary phenomenon where two very different species develop similar structures that perform similar functions.

Isn't a colorful moth flying by day more exposed to predators? Not if its predators are confused, and its similarity to a hummingbird slows those predators long enough to allow the clever insect to escape uninjured.

Additionally, the mimic routine might increase pollination effectiveness. Disguised as a bird, the moth can safely travel farther to find food, carrying plant pollens and increasing the distance over which it pollinates. However, some birds will eat these moths as a quick snack, as will mantids, spiders, and large wasps.

Hummingbird moths feed at a wide variety of plants, but prefer those with deep tubular flowers. Favorites include bee balm (*Monarda* spp.), Joe-Pye weed (*Eutrochium* spp.), purple coneflower (*Echinacea purpurea*), butterfly weed (*Asclepias tuberosa*), milkweed (*Asclepias* spp.), and butterfly bush (*Buddleia davidii*).

Life History

Hummingbird moths produce up to two clutches of offspring annually. Females entice males by releasing pheromones. After mating, they lay about 200 tiny, round, green eggs on the underside of select larval food plants, including honeysuckle (*Lonicera* spp.), cherries and plums (*Prunus* spp.), dogbane (*Apocynum* spp.), and blueberries (*Vaccinium* spp.). Both nectar plants and larval food plants are needed for a population to thrive.

The eggs take approximately six to eight days to hatch, producing camouflaged green caterpillars with a horn on one end. Eventually, the caterpillars drop to the ground, spin a loose cocoon, and overwinter well protected by leaf litter. Emerging as adults in spring, they appear vastly different, with a body covered in hair-like bristles called setae, three pairs of legs, a curled mouthpart looking like a party horn, and two sets of wings. It has completely transitioned from eating leaves to surviving strictly on nectar.

The life expectancy of these amazing creatures is pretty short, typically no longer than seven months, if they overwinter, with some surviving only three to five weeks. At summer's end, it becomes a race before the killing frost arrives. As leaves and flowers die, so will these insects.

Attracting this species to your yard

To attract these insects to visit your yard, plant native flowers with long, tubular necks for feeding. The female will need a place to lay eggs, choosing something like a honeysuckle or rose family plant. Provide plants native to your area and be a bit forgiving of the appearance of caterpillar food sources. Although the young don't typically defoliate vegetation, they will munch through some leaves as they develop. In the fall, leave the litter under these "food trees" intact, as this is where they will cocoon safely until spring.

Sandra Mitchell is a biologist, photographer, and avid naturalist based in New England. Photos available at: **www.sandra-mitchell.com/home**.

Fun Facts

- The tongue of a hummingbird moth is twice the length of its body.
- Some of these moths have a wingbeat of up to 70 beats per second, propelling them up to 12 mph.
- Hummingbird moths are diurnal rather than nocturnal, commonly feeding during the day; they also fly in the rain.
- New York and New England are home to large hummingbird moths that have wingspans of up to two inches.
- They are not dangerous and don't pose a threat to humans, as they do not bite or sting.

Robin Dropkin, Key Environmental Advocate, Passes Away

Commissioner Basil Seggos and the Department of Environmental Conservation offer our condolences upon the death of Robin Dropkin, a long-time advocate whose work helped protect and improve our environment and public lands. Ms. Dropkin served as the executive director for Parks & Trails New York (PTNY), where she led efforts to protect, expand, and promote parks, trails, and open space throughout New York State, including the creation of the Empire State Trail, a 750-mile trail stretching from New York City to Canada, and from Buffalo to Albany.

She also played a leading role in protecting, expanding, and promoting New York State Parks, fighting to keep green spaces open, and launching I Love My Park Day. Her efforts were integral to saving vital lands, while also supporting numerous groups that are strong, active stewards of our lands and environment. Ms. Dropkin had recently announced her retirement from PTNY, noting that "she couldn't be more proud of what we accomplished together." She truly embraced the phrase "leave it better than you found it," and we are grateful for all her contributions.

Discover Wildlife at the New York State Fair

DEC invites you to discover wildlife and learn about outdoor recreation opportunities at the New York State Fair in Syracuse from August 23 through Labor Day, September 4. Visit the Aquarium Building to learn about wildlife and conservation efforts, and to see live fish. You can also learn about important pollinators, ask conservation-related questions, get educational materials, and have fun. Join the Department of Environmental Conservation for a day of learning and fun at the New York State Fair. Stop by our table to subscribe or renew a subscription to the *Conservationist*. To learn more, go to: **nysfair.ny.gov**.

New York's Rail Trails Among the Best

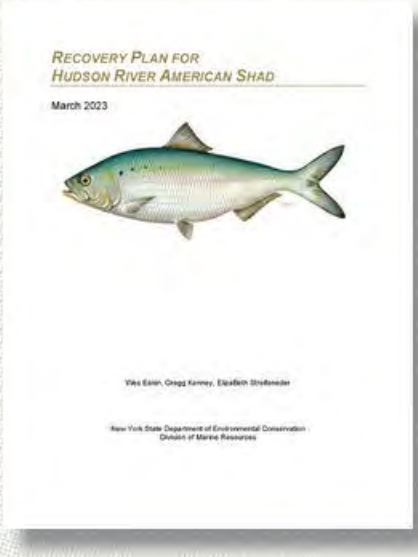
In February 2023, *Travel + Leisure* magazine released its list of the 15 best rail trails in the United States. Included on the list are two rail trails in New York State, the Empire State Trail, and the William R. Steinhaus Dutchess Rail Trail. For information about the Empire State Trail, see the June/July 2021 issue of the *Conservationist*, or go to: **empiretrail.ny.gov**; for information about the William R. Steinhaus Dutchess Rail Trail, go to: **www.dutchessny.gov**.

Camping Reservation Changes

DEC recently announced changes to making reservations at campgrounds, which will add flexibility and ease last-minute bookings. All New York State campgrounds will now accept reservations as late as the same day. The change will afford last-minute campers the security of a reserved campsite at any of DEC's 52 campgrounds. For more information on DEC-operated campgrounds, including a list of campgrounds and schedules, visit: **www.dec.ny.gov/outdoor/camping.html**.

Recovery Plan for Hudson River American Shad

DEC recently released the final *Recovery Plan for Hudson River American Shad*, an economically and ecologically important migratory fish species that once supported a robust fishery in the Hudson River. With the goal of long-term stock resilience, the plan outlines recovery goals and benchmarks, and establishes management needs, and the criteria required to re-open fisheries as DEC continues to gather data and identify challenges and potential solutions. For a brief history of Hudson River American shad and actions taken by DEC and others to rebuild the stock, see the April/May 2023 issue of the *Conservationist*.



LETTERS

DEAR READERS,

Recently, the *Conservationist* brought subscription operations in-house. As a result, account numbers (found on the mailing label) have changed and 1-800-678-6399 has been discontinued.

Both email and paper renewal/invoice notices will continue to be sent, but we encourage subscribers to save time and utilize our new online credit card payment system.

We're always here to help, email us at **magazine@dec.ny.gov** or call 518-402-8047. Account information is accessible online 24 hours a day by visiting **www.simplecirc.com/subscriber_login/conservationist-magazine**.

Sincerely,
All of us at the *Conservationist*

Loafing Around

Since retiring from teaching last year, I have been volunteering with the New York Marine Rescue Center, located in Riverhead in eastern Suffolk County, which is responsible for the New York Marine Mammal Health and Sea Turtle Stranding Response Program. One of the many different things I do with them is help out as an educator on board their winter seal cruises, which depart from Freeport in Nassau County and search for seals (respecting the required 150-foot distance, of course) in the beautiful, marshy islands in and around Jones Beach. I thought your readers might enjoy this photo that I shot of some harbor seals this year.

DOUG DEFEO | EAST MORICHES

Great shot, thanks for sharing! And thank you for the important reminder of keeping a safe distance from seals when they are encountered on land or sea. For more information about marine mammals in New York State, including where to report sightings or distressed animals, visit ***www.dec.ny.gov/animals/108573.html.***

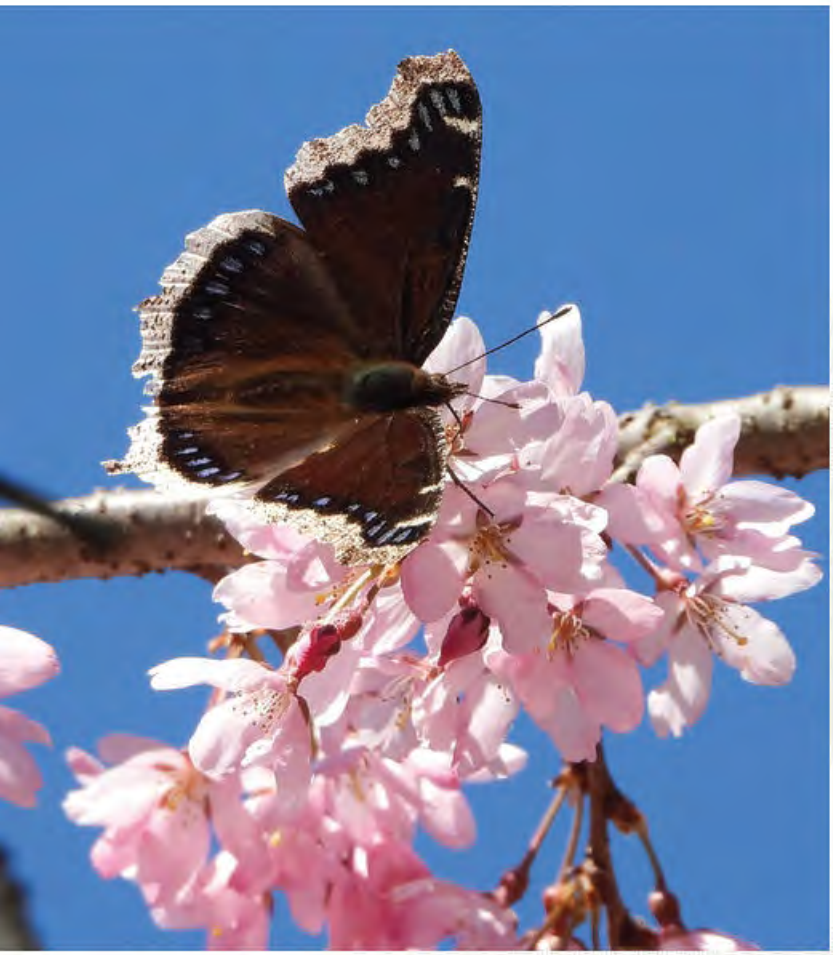
Family of Foxes

How unusual is it to have a fox have her young under a shed in your backyard? This red fox family suddenly appeared in our backyard one morning and have been living under the shed ever since. There must have been five originally, but we recently found one kit dead, although we never saw more than four playing in the yard. Could one have been sick from birth and unable to come out and play with the others or never got enough to eat?

ED SNYDER | WILLIAMSON

Red foxes are highly adaptable animals, often able to thrive in close proximity to humans. Members of the dog family, red foxes can be found in a wide range of habitats, from wooded areas and old fields to suburban yards and even cities. It's not uncommon for a female to choose to raise her young under a backyard shed or similar structure. It's hard to say why one died, it could have been from disease, not enough food, or it could have been the "runt" of the litter. The parents sometimes have more than they are able to fully care for, and when they are very young, the kits are susceptible to a number of different factors.

Just remember, these are wild animals, and they should not be approached, or offered food of any kind. Watch from a distance, but remember, even if you don't see an adult nearby, that does not mean the young need rescuing. If you care, leave them there! Learn more about young wildlife on DEC's website at **www.dec.ny.gov/animals/6956.html.**



Mourning in the Morning

I wanted to share a photo I took of a mourning cloak butterfly visiting some cherry blossoms early this spring.

LAURA ANN | SELDEN

Beautiful photo! Mourning cloak butterflies are found throughout much of North America and are a species that overwinters as adults. Although they will occasionally feed on nectar, their preferred food is tree sap, especially from oaks, and rotting fruit. Caterpillars feed on a variety of trees, including willow, elm, cottonwood, aspen, birch, and hackberry.

CONTACT US!

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Ask the Biologist

Q: When splitting some firewood, I came across this apparently healthy grub worm in the middle of a solid piece of red oak. It was more than three inches long and made its home tunnel in otherwise healthy hardwood. I have been splitting wood for 50 years and was an arborist for quite a few years, but I have never seen such a large grubworm living in a formerly healthy red oak tree. What can you tell me about this interesting fellow?

BRUCE STUART | DOUGLASTON

A: *The large grub is a carpenterworm moth larvae (Prionoxystus robiniae), which are fairly common and found throughout most of the country. They bore into a variety of live deciduous tree species and eat their way into heartwood, where they'll live and develop for two to four years before emerging as adult moths. They are considered pests because their boring damage can weaken the structure of their host tree, causing branches to snap in heavy wind, leaving the tree vulnerable to secondary pests. They can also ruin the quality of the wood, making it unusable for lumber. All that being said, they are native, and their populations are controlled by a number of natural predators, such as woodpeckers. Outbreaks are very rare, and management is almost never required, so this is nothing to really worry about.*

—LIAM SOMERS, ENTOMOLOGIST, FOREST HEALTH DIAGNOSTIC LAB

Back Trails

Perspectives on People and Nature

Underwater

BY R. MOORE

As a kid, I thought I'd grow up to be a mermaid. I spent hours in the water—in our tiny backyard pool, Olympic-sized pools for the swim team, and the ocean whenever possible. The only thing better than being in the water was being beneath it, so I just needed to grow some gills and fins. Upon reflection, I also could've wanted to become a swamp monster.

Alas, I've grown up and am still not a mermaid, but there are other ways to explore beneath the waters of New York State. There are saltwater sites along Long Island and New York City, and lots of freshwater inland waterways and waterbodies everywhere else—the Hudson, Mohawk, and St. Lawrence rivers, the Erie Canal, the Finger Lakes, two Great Lakes (Ontario and Erie), and countless smaller lakes, streams, ponds, creeks, waterfalls, and bogs.

If you also lack gills, there are other ways to stay oxygenated underwater, ranging from the simple (freediving) and inexpensive (snorkeling) to the slightly pricier (scuba diving) and extravagant (personal submersibles). The appeal of freediving is in its simplicity: take a breath, submerge, then resurface for air. Record holders can do this for more than eight minutes; my personal best is 60 seconds.

I can't get that far in a minute. So I learned to snorkel, albeit in a swimming pool: put one end of the tube in my mouth, leave the other end above the water's surface, add goggles or a cyclopean snorkeling mask. With the top of the tube extending into the air, I can remain face down, leisurely watching underwater wildlife and plants. Granted, there aren't much of these in a swimming pool, so I tested out my snorkel in a pond. The water was so murky, I swore I was swimming in a kale smoothie, and snorkeling works best when the water is clear. Visibility (how far you can see) in the water is linked to turbidity (the amount of particles suspended in the water), which are affected by currents, sediment, debris, animals, and plants. To go deeper, I'll need to take scuba (Self-Contained Underwater Breathing Apparatus) classes.

For now, my scuba dreams are a fantasy—much like my childhood dreams of being a mermaid—but if I looked underwater, what could I see? There are shipwrecks in Lake Champlain and crayfish in some creeks. There are plants and fish to observe, and trash to clean up. There are turtles, old tires, Atlantic sturgeon, and rusting automobile parts. I've been diving into books and websites, rather than our turbulent waterways, and I've learned that the tidal Hudson River contains wrecks of historical and cultural significance, but can be difficult, if not downright dangerous, to dive in.

The St. Lawrence River, as part of the St. Lawrence Seaway, is similarly enticing and complicated. Both the Hudson and St. Lawrence rivers have strong currents and low visibility and are traversed by large vessels with big propellers. The best advice for hikers also applies to divers—know about the location before you go, always be prepared, never swim beyond your skill level, never swim alone, and take only photos, not artifacts, plants, or animals.

So if you want to swim, snorkel, or scuba dive in New York, come on in—the water's probably chilly and murky, but it's a whole other world underwater.

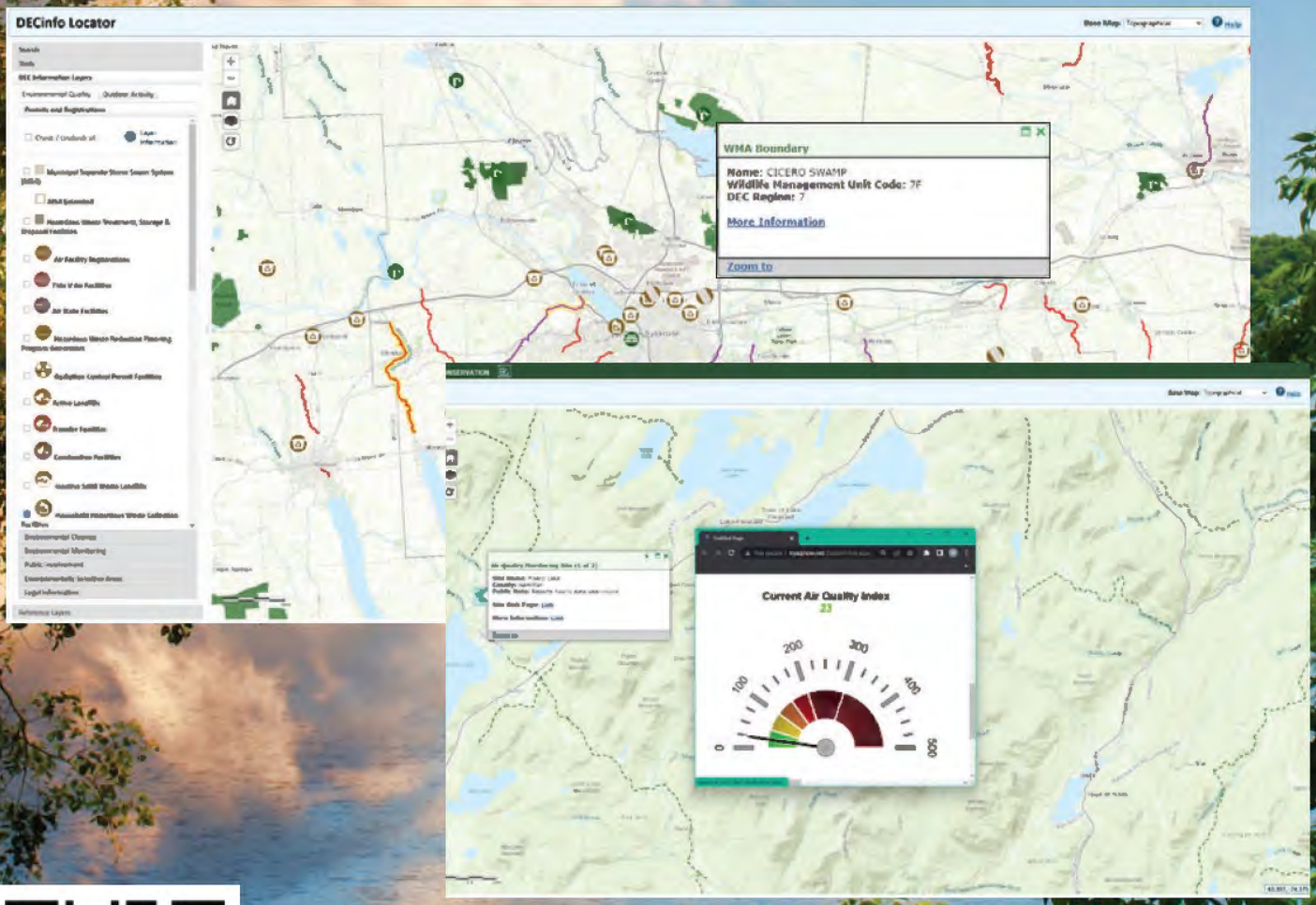
R. Moore is a Public Information Specialist with DEC.

DECinfo Locator

interactive mapper

The DECinfo Locator interactive map is an easy way to find documents and information about facilities that DEC regulates in your community.

With more than 80 data layers available through one map, you can download permits, cleanup plans, air monitoring data, well information, etc. There are also outdoor activity layers, so you can find hiking areas, boat launches, and your favorite fishing streams, complete with applicable regulations for that stream. It's one-stop shopping for much of DEC's information.



For more information, visit the DECinfo Locator website at **on.ny.gov/DECinfoLocator** or use your phone to scan the QR code.

NEW YORK STATE | Department of Environmental Conservation

Follow us on Instagram @nysdec

Heading outdoors in New York? We have a beautiful state. Let's keep it that way! #LoveOurNYLands

Remember to follow the Leave No Trace Principles: 1) Plan ahead and prepare; 2) Travel and camp on durable surfaces; 3) Dispose of waste properly; 4) Leave what you find; 5) Minimize campfire impacts; 6) Respect wildlife; and 7) Be considerate of other visitors.

@tcolasurdo