Fishing New York’s Salmon River

The Mystery of Muller Hill
Adirondack Fire Tower Challenge
The Next Generation of Hudson River Educators
Dear Readers,

The sizzling summer of 2022 has served as a sobering reminder of the catastrophic consequences of climate change, and a foreshadowing of the frightening future we face if we fail to act with urgency. Thankfully, New York State is providing national leadership to protect the planet through implementation of the ambitious Climate Leadership and Community Protection Act, the most ambitious climate law in the nation, based on sound science and supported by historic investments to accelerate our transition to a clean energy economy of the future.

With unrivaled beauty and unmatched natural resources, New York has much to protect. DEC’s team of professionals takes great pride in protecting and enhancing our lands and waters, and is committed to growing the next generation of stewards to continue our proud tradition of environmental excellence. As part of that effort, we offer a program for high school students who want to learn about the ecosystems of the Hudson River (pg. 2). It’s a popular program that provides hands-on experience about natural resource protection, science, climate change, and much more.

In this issue of the Conservationist, readers can also learn about another amazing New York waterway, the famed Salmon River (pg. 24). Known for its world-class fishing opportunities, the Salmon River is a global destination for anglers of all ages and abilities. This article details DEC’s efforts to ensure these waters, and the fishing they provide, remain pristine for future generations.

Check out the Species Spotlight on the porcupine (pg. 28), or an article about the Atlantic Brant, a small, long-distance migratory bird that DEC is tracking to learn more about its movements and behavior (pg. 18).

Sincerely,

Basil Seggos, Commissioner

For more information on outdoor activities and opportunities, visit www.dec.ny.gov.
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The Next Generation

Next Gen undergraduate mentor and author Charity holding a softshell turtle caught from the estuary.
Today, youth all over the world are at the forefront of the struggle to end social disparities. They have taken the reins of many agendas and have become the true visionaries and warriors of their generation. I had the privilege to witness a part of this galvanizing takeover last summer, as a mentor to eight unique high school students, a.k.a., the Next Generation of Hudson River Educators.

What is The Next Generation of Hudson River Educators?

The Lamont-Doherty Earth Observatory of Columbia University focuses on understanding Earth and the natural world through scientific research. In 2020, its scientists and educators received a grant from the Department of Environmental Conservation (DEC) Hudson River Estuary Program to help develop a program called the Next Generation of Hudson River Educators (Next Gen).

This program is an immersive summer experience that engages high school students from underrepresented communities in learning about the diverse ecosystems of the Hudson River. The program’s mission is to provide students with meaningful education about this valuable natural resource, along with lessons about science, communication, climate change, and environmental injustice. The students can then pay it forward by communicating that information to their communities.

I was introduced to this program by working with the Rockland Conservation and Service Corps, an organization focused on educating and empowering youth through environmental stewardship. Along with 20 other members, I participated in remediation projects across Rockland County, and was a part of the Next Gen program for the summer.

The Importance of Community and Communication

The program stresses the importance of community. The students, who live throughout Rockland County, were placed at either Piermont Pier in Piermont or Emeline Park in Haverstraw. The program involved mentoring, with program leaders from the Lamont-Doherty Earth Observatory.

When I learned that one of our field research sites was in Haverstraw, I was consumed with excitement, because the site is literally down the street from my home. Engaging in field research with the students at Emeline Park transformed my perspectives about my environment and my community, and so did the other students and the residents living along the riverbank in this waterfront town.

After teaching the students about the estuary, they were asked to create several communication projects to share what they learned. These projects included educational videos, public service posters, games, and more. The students also interviewed Haverstraw residents about their views on the Hudson River, their knowledge of the estuary, and their level of engagement with it. Listening to the community voices was important; it was a way for students to not only learn about the community, but also from the community.

Students communicating the knowledge they learned was a big part of the program. One of the program’s main objectives was to educate the community and correct some of the misconceptions people had about the river and its estuary by encouraging community members to appreciate the ecosystem for its amazing qualities. Students openly shared the fun of catching fish with any community member who expressed curiosity about what we were doing. Communicating in different ways allowed us to reach an intergenerational and multicultural audience, helping the program’s efforts come full circle.
The Power of Place

As a native Haverstrawian, introducing the students to my home area had a great impact on me. I have lived in this town all my life. Haverstraw is not only a town rich in history, but most importantly, it’s rich in its culture and people. In the heart of the village, where our group was based, there is a dense Dominican population. It’s not just a village, it’s a community. One big family, where everyone knows their neighbor, and everyone lends each other a helping hand.

It became our prerogative to educate this community about their local environment. The village has historic ties to the Hudson River. It sits at the widest point of the river and contains critical habitat, so it was important for us to aid in re-creating a bond between the community and the estuary.

Working just down the street from where I live was one of the most impactful parts of the program for me, because I was able to see the change happening in MY community, right before my eyes. Helping to attract people to their local waterfront by talking with residents, engaging in educational activities with families, and never shutting down anyone who was curious about the work we were doing, but rather encouraging them to be part of it, was very rewarding.

Teaching community members, from young people to older adults, about the Hudson and its importance was not only transformative for me, but for the village of Haverstraw as well. A lot of the people from the village now know that the Hudson River is a safe and diverse natural resource, which entices them to visit the local waterfront with their loved ones. I witnessed many people approach our interns during our field days and question them about what they were doing.

The Power of Youth Voice

Inspiring environmental change is great, but creating environmental change is even greater. At the end of our program, we were able to take the data and the experiences we collected and present the information to the Village Board. When we shared some of our findings and challenges with the board, we also were able to offer some potential solutions to those challenges as well.

Another great initiative was the Hudson River Watershed Alliance Panel, which presented at the Alliance’s Annual Watershed Conference. One of the high school students from the Next Gen program and I were given the opportunity to be part of a panel with other youth environmental activists to talk about the work we had done in the estuary. We also addressed what work still needs to be done to protect it, and what we see as the role of youth in that future.

“The program really helped empower my voice, and I gained the confidence to advocate for my community,” said Arianna, one of the Next Gen students.
This past summer, I not only got to see my impact as an educator to my students, but also as a mentor. As an undergraduate student, aspiring journalist, and Haverstrawian, but also just an average 19-year-old, I was able to provide my mentees with valuable advice as they enter the world of young adulthood. I was able to make meaningful connections. Not only was I able to call myself their mentor, but also their colleague and friend.

It’s programs like the Next Generation of Hudson River Educators that keeps the fire burning for environmental change and justice. To see other young people taking the initiative to make real change provides me and many others with hope for a better future for our environment, and for our world.

Charity Dikson is a Journalism student at the New School University in New York City, and served as a mentor for the Next Generation of Hudson River Educators program.

Empowering Environmental Scientists

The “Next Gen” program is funded in part by an Education Grant from DEC’s Hudson River Estuary Program. There is growing support for Hudson River programs that engage populations who have been historically underrepresented in youth science programs. Several years ago, partners joined the National Science Foundation’s INCLUDES initiative (“Inclusion Across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science”). In addition to the Lamont Doherty Earth Observatory effort, related programs have been launched by the Hudson River Park Trust, the Cary Institute for Ecosystem Studies, and DEC’s Hudson River Research Reserve and Estuary Program www.hrnerr.org/tides. All of these groups engage young adults in immersive experiences, where they ask and answer important questions about ecosystems and equity. DEC continues to support programs like this that make science accessible for everyone, and provide platforms where emerging scientists can expand their research skills in a supportive community.
During the last 30 years or so, I have been fortunate to have climbed numerous fire towers throughout the Adirondack Park. Mount Arab was the next one to get crossed off the list as I get closer to completing the Adirondack Fire Tower Challenge. While I am halfway there, my two sons finally had an opportunity to experience their first fire tower. Watching them rush up the metal stairs while loosely hanging on to the rusty chain link fence that served as a makeshift guardrail, despite my repeated warnings, made me anxious, despite their fearlessness. Reaching the metal enclosure and seeing their faces stare in awe at the amazing 360-degree view of the surrounding landscapes made it all worth it and calmed my nerves.

The trailhead to the summit is located on Mount Arab Road, near the town of Piercefield in St. Lawrence County. A sizeable parking area across the road from where the one-mile hike starts provides ample space for cars and a family of four—and their dog—to get organized. Sure, we had done a few hikes before, but this was the first one with the new dog, and it had been some months since the kids had hiked any trails.

After crossing the road, the first stop was the large wooden trail register. Completing all the necessary information in the sign-in book became a valuable teaching lesson for the boys about how important this is for hiking/backpacking safety if something unforeseen should happen. There is also an interpretive hiking guide that provides information about the numbers on the trees (often noting points of interest), which are visible throughout the path up to the 2,525-foot summit.

Finally, we were ready to start the trek upwards. As we hiked, we talked about the Adirondack Fire Tower Challenge that had been started by the Glens Falls-Saratoga Chapter of the Adirondack Mountain Club after fire towers became such a popular phenomenon. There is even a special challenge for treks in the winter.

Of the 57 original steel Adirondack towers, 34 are still standing today, and you only need to summit 23 mountains to complete the challenge. According to the Glens Falls-Saratoga Chapter guidelines, you don’t need to climb to the top of the tower to cross the mountain off the list. Eventually though, curiosity will get the best of you, and you will want to see what the views are like!

History of the Fire Towers

Adirondack fire towers date back to the early 1900s, and while they were primarily used as lookouts to detect forest fires, they also offer spectacular views. They were the result of two fires in the Adirondack Park, in 1903 and 1908, which led New York State to rethink its methods of fire prevention and containment. The first Adirondack fire tower was built atop Mount Morris in 1909 and was originally constructed from logs, with steel replacing the logs around 1916. The observation station on Mount Arab was established in 1912, and the steel fire tower was erected in 1918.

The New York State Department of Environmental Conservation and the Friends of Mount Arab restored Mount Arab’s 35-foot fire tower in September 2015. Once part of a larger network of active fire tower lookout stations, it is currently one of only two towers in St. Lawrence County. While the
The trail was very well identified with trail markers and was only moderately steep for most of the hike. There are a couple of short sections that were more difficult, but my sons and the dog had no problem with them; in fact, they were waiting for me and my wife to catch up.

Following the interpretive guide, we reached the halfway point, which was next to a giant rock, and stopped for some water since we were in no hurry. The last part of the trail is exciting, as there is a small opening that provides a view of a small cliff that is part of the summit. Not much farther, the moderate trail opens onto the summit from behind the old fire tower observer’s cabin.

The kids wanted to check out the cabin first, which is now a museum run by the Friends of Mount Arab. They struggled to fathom what the observers must have undergone daily, since there was no technology or cell phones to occupy one’s time. What was it like to be up there alone for extended periods of time, with only an occasional hiker breaking the solitude?

Lasting only minutes at the cabin, we moved on to the fire tower. The structure was attached to the mountain by what seemed only a few strands of metal wires; it must be something to experience in a windstorm.

After climbing down from the fire tower, which was in decent shape, we found the geographical marker. Stepping into a clearing, we had another hiker take a family picture of us to document the feat. Hopefully, the experience and history will be something my two sons will remember for years to come, and they too will be able to complete the Fire Tower Challenge—but not before I do.

**Joel Herrling** is a freelance outdoors writer/photographer in central New York. He enjoys spending time outdoors with his family.

For more information about the Adirondack Fire Tower Challenge, go to: www.adirondack.net/hiking/challenges/fire-tower/

Fire towers are no longer used for forest fire detection, they remain as outdoor museums, places of recreation, and monuments to the region’s history. Mount Arab is part of the Fire Tower Challenge, as well as the Tupper Lake Hiking Triad, a one-day challenge to climb to the summits of Mount Arab, Goodman Mountain, and Coney Mountain, which totals more than seven miles of hiking, with about 2,000 feet of elevation gain.

Several groups who appreciate the historic significance of the towers have been working to restore the structures, making them safe and accessible to the public. There are numerous mountains in the Adirondacks that have fire towers, with the trails to each varying significantly in distance, elevation, and ascent. Along with Mount Arab, some of the other peaks that have restored towers include Blue, Goodnow, Poke-O-Moonshine, Hadley, Kane, and Snowy.

**For more information about the Adirondack Fire Tower Challenge, go to: www.adirondack.net/hiking/challenges/fire-tower/**
Who was Louis Muller and why is a State Forest named after him?

In 1807, Louis Muller arrived in New York City from France and immediately purchased 2,700 acres of land on a remote hilltop in Madison County. The following year, along with his family and entourage, Muller traveled to the village of Hamilton, where he directed construction and other improvements on his newly acquired estate in the nearby hamlet of Georgetown. Who was this reclusive Frenchman, with his small army of workers who cleared the frontier forest to build a hilltop estate?

Of all the stories inspired by Muller, none fail to mention that he was a man shrouded in mystery. Some claim he was the Count of Artois, who later became Charles X, King of France, or Charles’ son, the Duke of Berry. Others say he was a General in the King’s Life Guard, who defended Louis XVI and Queen Marie Antoinette when revolutionary mobs stormed the palace at Versailles and took the royal family captive. While there is much speculation about his identity, Muller’s arrival and departure in America are closely linked with the rise and fall of Napoleon Bonaparte.

By 1800, the French monarchy was abolished and Napoleon was consolidating power by attacking French nobles and other aristocrats. To escape the tyranny, many fled to Great Britain and Germany, while others emigrated to America. Historians speculate that Muller
was among those to escape the wrath of Napoleon, and that the secluded hills of Georgetown were his refuge in the American wilderness.

Muller’s fortress-like mansion was constructed of native cherry wood and positioned in a “secure location, beyond rifle shot from the nearest rock or tree.” An underground tunnel from the mansion to surrounding woods allowed for a quick escape and provided safe hiding for the $150,000 in gold that Muller was rumored to have brought from France.

A team of workers planted shrubs and fruit trees, diverted water to construct a trout pond, and erected a high fence “to keep game in and intruders out.” Born from Muller’s extensive impact on the area, the self-sufficient community of Bronder Hollow formed near the mansion, and included a school, sawmill, and homes for people employed by Muller.

Muller had a habit of never travelling far from his estate without two loaded pistols in his holster and the protection of armed bodyguards. While no reports of intruders were ever documented, the historical accounts suggest that Muller was a man who feared for his life and took extraordinary precautions to ensure his personal safety.

By 1812, the Napoleonic Wars had expanded the French Empire to include much of present-day Europe. Muller followed the news from Europe and would read aloud, to his employees, the dispatches of Napoleon’s “mad career of conquest and devastation.” He took particular pleasure in Napoleon’s crushing defeat in Russia and was convinced that the ill-fated campaign would be the Frenchman’s last.

In 1814, when Napoleon was defeated and the French monarchy restored, Muller suddenly packed up his family and travelled to New York City. He entrusted the care of his estate to a local agent and returned to France, presumably to arrange for his restoration to the French monarchy.

When Muller returned to Georgetown in 1816, he found the estate in shambles. The roads were rutted, the house was stripped of its furnishings, and the grounds choked with weeds. The agent charged with its care sold every object of value and departed with the proceeds. In Meditations of Artois, William Benton attempts to capture Muller’s somber mood at the time of his final departure from Georgetown:

I take my leave—I sure must speak
With trembling lip—sad home, adieu!
No more these rugged hills I seek,
Where oft my steps have brushed the dew
I look abroad—again I turn
Once more sad home, thy form to view;
My cheeks are drowned mid tears that burn;
But I must go—adieu!—adieu!*  

Muller returned to New York City and sold the estate for one-third the price he originally paid for the land alone. He sailed one last time for France, never to be heard from again.

In 1907, almost 100 years from first rising high atop Muller Hill, the mansion was consumed by fire and burned to the ground. In 1932, New York State established Muller Hill State Forest, and the following year federal Civilian Conservation Corps crews planted thousands of trees where Muller’s steps “once brushed the dew.” What remains today are sugar maple trees that line the driveway and a cellar hole where the mansion once stood.

The Department of Environmental Conservation (DEC) recently completed construction of the Muller Hill Historic Site. Users of all abilities are invited to follow the accessible trail, which meanders through the former estate to a scenic overlook on Muller Pond. There is no fee to visit the site, and visitors can explore the grounds, imagine the past, and ponder the mystery of Muller Hill. For more information, visit: www.dec.ny.gov/lands/8156.html.


Gregory Owens is a retired Senior Forester from DEC’s Sherburne office in Region 7.
Hiking with Old Friends

The Westhampton Dwarf Pine Plains Preserve is the kind of place where you walk in and initially scratch your head, wondering about what Long Islanders call natural beauty. It is a scruffy and scraggily place, where the pitch pines remind you of grandpa’s arthritis; scrub oak resembles some angled, pruned memory of a tree; and the soil looks like a sandy, struggling, overgrown volleyball court. However, perception is not fact, so your initial views can be changed by knowledge and the larger story. The scrubby scab you might initially see, is really covering health and wholeness taking place underneath.

Our “Old Friends” hiking group included me, Jim, Rose, Justin, and Ann. Between Jim and Ann, both extraordinary naturalists, no plant goes unnamed, and with Rose and Justin, no local story goes untold. The group is a walking World Book Encyclopedia (kids, look that up!) of local flora and history. I’m somewhere in between, mis-identifying plants, asking for more detail, and learning what’s local by Latin names and Peconic River punchlines.

We met at the parking area for the Dwarf Pine Plains trailhead, on the southern edge of the Suffolk County Water Authority building parking lot. The trailhead offers five interpretive signs about the pine barrens and dwarf pine plains, explaining its unique ecology adapted to the dry, acidic, and nutrient-deprived soil. Proximity to the water table partly defines Long Island’s ecology, and that proximity was determined long ago by glaciers. The stumpy pitch pines here (typically no taller than six feet) are the same as the lusher 30-foot-tall pitch pines growing in areas closer to the water table.

The well-marked trail winds its way through a stand of red cedar and pitch pine. Within a hundred feet of the trailhead, Ann and Jim had stopped 20 or 30 times to look at the reindeer and British soldier lichens, and the earthstars or “stomach fungi” that resemble scars on the scrub or bear oak trees. They move between scientific and common names, like Quercus ilicifolia and bear oak, and consult about the details. Rose and Justin stayed farther back and told stories about how, in their youth, the pine barrens was the kind of place people went to hunt, or perhaps for solace.
Why do we suddenly pay attention to our place? What shift in eye and heart happens that draws us into a world we have before mostly ignored?

“It was more like a blank space than a place,” Rose said.

“We didn’t think of it as much more than a place to get lost,” Justin added.

They told me about the preservation efforts. As development pressure on eastern Long Island expanded and intensified in the 1970s, the State started to purchase pine barren lands. Later, other entities such as the Pine Barrens Review Commission began to review development proposals. The Pine Barrens Society, a grassroots preservation group, started advocating for preservation of the pine barrens, culminating in the collaborative 1993 Long Island Pine Barrens Protection Act.

“The funny thing is that the very thing we ignored for so long, suddenly mattered,” Rose explained.

Part of the Act also created a comprehensive plan that defined a 105,000-acre pine barrens region, with one core area slated for no new development, and another area for compatible development. What’s so important about this history is how both sides of the political spectrum came together to work on water protection and the preservation of a natural space that “East Enders” had often taken for granted. They began to realize that what seemed to be empty, unused land was actually a defining part of the local identity. It mattered because they remembered and realized that they cared about this area because it is part of their place and even themselves.

We rounded another corner with Jim and Ann leading the way. They slowed as we came across a huge pitch pine rising 20 feet above the others. I asked Jim why it was larger.

“Maybe it found a pocket of water,” Jim answered.

“Perhaps it also found some healthier soil,” Ann added.

We circled the tree, looking for signs of why it grew so much larger than the others nearby. Someone suggested it was blessed by some pagan goddess (I confess that it was likely me).

We noted a trail that circled around the tree, which clearly showed that some previous hikers had also noticed how the tree stood out. They too must have paid homage in some way.

Why do we suddenly pay attention to our place? What shift in eye and heart happens that draws us into a world we have before mostly ignored?

I spent the day following Ann and Jim, listening and learning the names of things, asking about the connections between them, and trying to see a bit of the intricate whole that they see. I also turned an ear to Justin and Rose, who recounted the place stories that are as present as the bright red fruiting bodies on the British soldier (Cladonia cristella) lichen. Those stories deepened the experience for me, weaving people and nature into a fabric of place.

The Westhampton Dwarf Pine Plains is not an aspect of nature that evokes some easy postcard awe. It’s a place that asks that we learn to understand, and then, because of the effort, love its beauty, which is a more subtle relationship that brings us into the moment, recognizing its value.

Dr. David Taylor is an Assistant Professor with Stony Brook University.
On Patrol

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

Kitten Cup Caper—Chautauqua County

On May 31, ECO Dougherty responded to a call about an object in the middle of the road in the town of Ellery. Upon inspection, ECO Dougherty discovered a kitten with its head stuck inside a plastic fast food drink cup. The tiny animal was unable to lift its head off the ground nor pull its head out of the lid. ECO Dougherty removed the cup, but needed to cut the lid from the kitten’s head. This ordeal could have been deadly for the kitten, but easily prevented if the responsible party had properly disposed of the cup. The kitten was later adopted.

Can’t Drive There—Ulster County

On April 27, ECO Johnson responded to a request for assistance from the Ulster County Sheriff’s Department with a vehicle that had driven into a protected trout stream in the town of Kingston. The driver hit the side of a residence near the Sawkill Creek and then drove the vehicle down the steep bank of the stream believing he was still on a roadway. The vehicle made it approximately 200 yards downstream before colliding with a rock. The vehicle was removed with a large crane to mitigate damage to the stream. ECO Johnson issued the driver multiple tickets, which included disturbing the bed and banks of a protected stream, polluting the water, and disposing of refuse in a trout stream.

Bear Rescue—Albany County

On May 31, DEC Wildlife staff and Environmental Conservation Police Officers, as well as members of the Albany Police and Fire Departments, relocated a black bear into the Catskill Park. The bear was found in a tree in Washington Park in downtown Albany.
End of Watch—Essex County
On June 9, hundreds of people gathered to pay their respects at a memorial service held for Forest Ranger Captain Christopher Kostoss who passed away on May 31. Kostoss was 49 years old, served as a Ranger for 23 years and was involved in countless search and rescue missions.

Wilderness Rescue—Essex County
On May 21, Forest Ranger Praczkajlo responded to a report of an overdue hiker who had planned to climb Gothics Mountain. Ranger Praczkajlo was joined by Ranger Mecus and the two Rangers searched in the Roaring Brook Valley through the night with negative results. Twelve Rangers and volunteers from the Adirondack Climbers’ Coalition joined the search the following morning. Rangers located the 53-year-old hiker, from Saratoga Springs, approximately two miles from the Roaring Brook trailhead. He had fallen 80 to 100 feet down the slide and broke both of his legs. Twenty-one Rangers from Regions 4, 5, and 6 assisted with the carry out. New York State Police Aviation, with Ranger DiCintio serving as hoist operator, lifted the injured climber to safety. Due to weather conditions, the helicopter was forced to land in Ray Brook. The hiker was taken by Saranac Rescue to the hospital.

Wildland Search—Chenango County
On May 6, Forest Rangers were called to the town of Pitcher to assist with a search for two missing children, ages seven and nine. The children were last seen playing outside and were believed lost in a wooded area near their home. Ranger Lieutenant Wickens, and Rangers Chappell, Oldroyd, and Seeley began to search for the children. At 4:45 a.m. the following morning, Ranger Chappell located the children in the woods, cold but otherwise in good condition. The children were evaluated by EMS and reunited with their parents.
The New York Superfund Program
Creating Opportunities

BY TONY COLYER-PENDAS AND SARAH SAUCIER
PHOTOS BY EA ENGINEERING P.C. AND EA SCIENCE AND TECHNOLOGY

Tools are supposed to make our lives and specific tasks easier. However, historically, the production of certain tools sometimes created problems. But every challenge can present an opportunity.

From 1937 to 2015, the Dzus Fastener Company produced fasteners at a facility in West Islip, Suffolk County. To improve corrosion resistance, the fasteners were coated with metal plating that included cadmium and chromium—two toxic heavy metal contaminants. The manufacturing process produced wastes that were discharged into drywells and a leach field. These operations led to the contamination of soil and groundwater at the Dzus facility and a neighboring creek and lake.

The former production facility was located in a mixed residential, commercial, and industrial area, surrounded primarily by residential properties. Willetts Creek is just east of the site, flowing south between housing developments and two schools before reaching Lake Capri, an eight-acre, man-made lake. Fortunately, drinking water is supplied by the Suffolk County Water Authority and is not affected by site-related contamination—people in the area are not drinking polluted water.

Investigation—Evaluating the Challenges
The Inactive Hazardous Waste Disposal Site Program is managed by the Department of Environmental Conservation (DEC) and is a New York State program for
identifying and cleaning up sites where hazardous waste may have been disposed. These sites go through a process of investigation, evaluation, cleanup, and monitoring. The program is managed by DEC's Division of Environmental Remediation (DER), which is made aware of potential hazardous waste disposal sites in a variety of ways, including notification by the responsible party and citizen complaints.

In 1991, the Dzus Fastener site was added to DEC's Registry of Inactive Hazardous Waste Sites, and DER conducted environmental investigations of the site and surrounding areas. The investigations included sampling of soils, sediment, and waters at the former Dzus facility, Willetts Creek, and Lake Capri, and soil from the two schools, wetlands, and residential properties adjacent to the lake and creek. Numerous samples were collected, and groundwater monitoring wells were installed and sampled.

These investigations revealed that some areas were contaminated with cadmium, chromium, cyanide, and organic compounds. These contaminants were present in some of the soils and sediments of the Fastener site, in and adjacent to Willetts Creek and Lake Capri, and some residential soils. All but one of the soil samples from the school properties were below the restricted residential criteria. The one sample that exceeded the criteria was found behind one of the schools, at the top of a bank along the creek.

As a result of the initial investigation, the Dzus Fastener site was designated a Class 2 hazardous waste site, meaning it was a significant threat to public health and/or the environment and required action. A cleanup plan was developed and implemented for the area.

**Remediation of the Damage**

After an environmental investigation is conducted, the responsible parties (when known) often pay for an examination and evaluation of cleanup options. At sites where the responsible parties cannot be found, or are unable or unwilling to fund an investigation, the State pays for the investigation using money from the 1986 Environmental Quality Bond Act, known as the “State Superfund”.

The Dzus Fastener Company and New York State reached a settlement, with Dzus agreeing to clean up the site of the former production facility and reimburse the
Temporary sites were needed for testing and processing contaminated materials.

State $490,000. DEC performed subsequent work on the creek and lake using the State Superfund. Remedial investigations and feasibility studies were conducted, and cleanup alternatives were evaluated before remedies were selected and implemented. The remedy selection process includes public comment periods to gather community input before a cleanup plan is chosen.

This area presented multiple challenges for conducting the investigations and cleanup work. Temporary sites and infrastructure were needed for staging areas, access roads, and facilities for processing contaminated materials. DEC also needed to access residential and school properties. Several options for two temporary staging areas were evaluated—one was sited on the parking lot of one school, and the other on a small area on the running track of the other school. DEC worked with the school district and property owners to obtain access to the properties. All testing and processing activities were confined to the authorized corridor and the staging areas.

The cleanup of the site was originally completed in 1996, but the remedy was impacted by several storms, including hurricanes Floyd, Irene, and Sandy. These storms resulted in high-water events and erosion that dispersed and redistributed the contaminants along the creek and lake areas, as well as their wetlands and floodplains. The results of these storms required additional work in 2019 and 2020.

The Dzus facility cleanup included the excavation and dredging of contaminated sediment and soil, cleansing of the building floors, installation of a soil vapor extraction system, and decontamination and closure of the leaching pools. Additional restoration efforts included dredging the entire bottom of Lake Capri and a portion of Willetts Creek, and excavation of the soils of the impacted neighboring wetlands and surrounding floodplains, as well as the affected school lands and adjacent residential properties.

Seizing Opportunities

DEC seeks to implement remedies that are environmentally friendly, sustainable, and resilient. As noted, the West Islip area was impacted by several intense weather events during the last decade. In addition to Superstorm Sandy in 2012, there was a historic rain event in 2014. As part of the cleanup efforts of the Dzus site, DEC conducted a detailed climate resiliency assessment to ensure the engineered components of the remediation work would be able to withstand severe storms.

The removal of trees and other vegetation was required to access and remove the contaminated materials. Invasive plants that had become established along the creek were also removed during the cleanup effort. The areas have been restored with native plantings and seed mixes to promote a healthy ecosystem and provide valuable habitats for wildlife.

The West Islip School District used a footbridge that crossed Willetts Creek to provide access to the schools from the residential areas. The creek flowed through seven culverts beneath the footbridge. The flow of the creek was sometimes restricted because the culverts were often clogged with garbage and debris, causing the adjacent areas to flood.

The middle school footbridge has been replaced and the culverts that were blocked with debris and sediment were replaced with a three-sided box culvert to restore the flow of Willetts Creek and reduce flooding. In addition, the middle school athletic fields were sodded and new fencing was installed along the length of the creek adjacent to school property. This fence is an additional safety measure to prevent children from entering the creek.

Excavation at residential properties bordering Lake Capri required soil removal through the existing shoreline. In these cases, restoration included installing a stone shoreline along the affected portions of the lake to match the pre-construction shoreline and elevation. In addition, erosion control fabric was installed on the school properties and residential areas.

With the restoration of Willetts Creek, it now serves as a living classroom to help teach biology, ecology, and environmental stewardship to students of the West Islip Union Free School District. Educators also started a program with students to produce informational...
materials on native and invasive species, educate the local community, and assist with stream and wetland restoration.

**Restoration and Monitoring**

The former Dzus facility building was demolished and removed in November 2019, and the site is now covered with asphalt. As part of a planned renovation of the property, a developer will be converting the lot into commercial space that will include a market and gas station, a free-standing restaurant, and a retail center.

DEC’s goals for the cleanup of the site were to ensure the protection of public health and the environment. Cleanup and restoration was completed in 2020. Since the completion of the restoration work, the area has been in the site management phase, with long-term monitoring. The monitoring is conducted annually and entails sampling of groundwater, biota (flora and fauna), surface water, and sediment, as well as inspections of the stabilized areas.

The remediation of Willetts Creek and Lake Capri required a US Army Corps of Engineers permit to ensure the aquatic environments were protected. The permit requires DEC to implement a five-year monitoring program that includes monitoring vegetation survivability and the control of invasive species. In addition to providing food and shelter for a variety of wildlife, the native trees and shrubs prevent erosion of stream banks, minimize algae and weed growth, and reduce flooding.

In addition to the extensive cleanup of the Dzus Fastener site and adjacent properties, this project included the restoration of sensitive ecosystems with water quality improvements, the removal of invasive species, and new climate resiliency features to help prevent flooding. DEC’s continuing monitoring of the area remains part of ongoing site management and will ensure the cleanup provides long-term protection of public health and the environment.

DEC encourages the public to report potential hazardous waste disposal to protect public safety, human health, and the environment. To report an environmental violation, go to: [www.dec.ny.gov/regulations/393.html](http://www.dec.ny.gov/regulations/393.html). For more information about the New York State Superfund program, visit: [www.dec.ny.gov/chemical/8439.html](http://www.dec.ny.gov/chemical/8439.html).

**Tony Colyer-Pendas** is an Assistant Editor of the *Conservationist* and **Sarah Saucier** is the Chief of Remedial Section C within Remedial Bureau E of the Division of Environmental Remediation and was the project manager for the Dzus Fastener remedial activities.
The piping plovers skittering across Long Island beaches might seem plentiful in summer, but have you ever wondered where they go in winter? Perhaps you’ve noticed the abundance of eiders, scoters, and brant flying low over the bay in winter, before they disappear when the weather warms. Or have you ever looked up and seen flocks of gulls or geese heading south, then soon after been walloped by an Arctic blast that left you slipping and sliding down your driveway? These are the types of questions and observations that motivate wildlife biologists to better understand animal movements and migrations.

Migration and movement are incredibly complex behaviors, but critically important parts of the life cycle for most bird species. We’ve long understood the basics of seasonal migrations and known generally where most birds spend their summers and winters, but only recently have scientists had the technology to study movement at a finer scale, especially for birds and other small animals.

As part of an ongoing ecological study, researchers from the New York State Department of Environmental Conservation (DEC), the New Jersey Department of Environmental Protection (DEP), and the University of Saskatchewan are collaborating across Canada are studying the movement patterns of the Atlantic brant (Branta bernicula hrota), a species that many Long Islanders might be familiar with. Brant are the smallest members of the goose family—not weighing much more than a mallard (about two or three pounds), they are dwarfed by the familiar Canada goose. Though they share a genus, their life history and behaviors are much different.
than Canada geese. They get their nickname of “sea goose” because you’re most likely to find brant in marine bays and wetlands searching for their preferred foods of seagrass and macroalgae. You might also see brant pecking at grass on the golf course occasionally in winter, but you certainly won’t find brant nesting in the park in summer. They’ll be long gone to their breeding grounds in the Canadian Arctic, typically on one of the many islands in the Foxe Basin north of Hudson Bay.

Researchers are interested in studying brant for a few reasons, one being that they are long-distance migrants, so they are especially susceptible to weather extremes due to climate change, both during their migration and on their breeding grounds. Another reason is the boom-and-bust cycle of their reproduction. In any given year, most brant fail to reproduce successfully, but in some rare years there is a very high success rate across the entire population.

One of our goals is to understand how movement decisions, weather conditions, and other environmental factors, like food availability, affect their reproductive success. Previously, attempting to answer these questions was nearly impossible because their nesting areas are in remote areas of the Arctic and sub-Arctic, typically hundreds of miles from the nearest town. However, new innovations are helping us to study the birds during the breeding season without having to visit areas that are logistically difficult or downright dangerous to access.

There are two types of technology that are most commonly used to study animal movement: radio telemetry, and Global Positioning System (GPS) transmitters. Radio transmitters emit a high-frequency radio signal that researchers can use to track animals carrying these electronic tags. The benefit of radio telemetry is that the tags are lightweight, inexpensive, and can last a long time. The drawback is that researchers must be within about a mile of the animal and use a special signal receiver to detect it, so collecting data with a radio transmitter is very labor intensive.

These types of tags work well for animals that stay within a small area. They also require the researcher to triangulate where the bird may be by taking multiple readings and approximating the bird’s location. Often, this results in a lot of uncertainty (i.e., the bird is somewhere within this 500-yard circle).

A newer technology, GPS/GSM (Global System for Mobile communication) transmitters, is more expensive, but overcomes many of the limitations of radio telemetry. A GPS tag calculates the location of a tagged animal using positions estimated by a network of satellites. When the tag is in range of a GSM network, like one a cell phone uses, the data can be downloaded in almost real time. Just as Google Maps can keep updating your location even when you’re in airplane mode, GPS data is collected and stored on the tag when out of range, then downloaded as soon as the transmitter comes back into service. Location data provided by these transmitters can...
be extremely accurate (sometimes within six feet) and may be collected at any interval the researcher wants (e.g., every few minutes, once per week, or anything in between).

Until very recently (i.e., the last five to ten years), most of these tags were far too large and heavy for small animals, and did not have a battery able to last a full migration cycle. Recent technological advancements have made it possible to start using GPS transmitters on smaller animals. A widely accepted rule is that transmitters should be less than three percent of a bird’s body weight; any heavier and the transmitter could have negative physical effects and significantly alter migration and behavior.

Keeping pace with other shrinking GPS technologies in our everyday lives, like Fitbits and AirTags, GPS transmitters have shrunken enough in size and weight to move enough to deploy on even small ducks, large shorebirds, and other mid-size birds. Smaller transmitters also require small batteries, and as anyone who has ever taken a long road trip knows, actively transmitting a GPS signal requires a lot of battery power. To make sure the tags last much longer than a cell phone navigating with
Google Maps, many transmitters have a small solar panel that continually recharges the battery and extends the life span of the tag. The transmitters used today on brant-sized birds can last up to four years.

Some transmitters, including the ones we are using, have another impressive feature, an accelerometer that measures movement in three-dimensional space. Similar to the technology that allows a Fitbit to track the number of steps you take per day, researchers can use accelerometer data to attribute specific behaviors like flying, feeding, or resting. This data can provide an estimate of the amount of energy a bird expends in a day.

Our research project has deployed more than 200 GPS/accelerometer transmitters on Atlantic brant since 2019. Each winter, DEC and DEP staff work to capture brant when they’re using upland habitats like parks and golf courses. When they catch a group of birds, they band them and fit some of the birds that meet the weight threshold with the GPS transmitters.

We have tracked these birds to the farthest reaches of their breeding range on eastern Victoria Island to their closest summering range on Mansel Island in the Hudson Bay (see map of spring migration). These locations are 1,500 to 2,300 miles from their wintering grounds! Most of the birds marked in New Jersey pass through New York and migrate across upstate New York to get to James and Hudson Bays.

The transmitters can take many shapes, but the Atlantic brant in this study wear a backpack style transmitter that sits on the bird’s back, out of the way of the neck and wings, with the tiny solar panel facing up. It is held in place by an elastic cord that crisscrosses the bird’s chest and loops under its wings. The special cord must be able to survive the friction created by flying without causing pain or chaffing, and without deteriorating in the saltwater where brant spend most of their time.

All the Atlantic brant carrying transmitters left the GSM coverage area in the first week of June. Researchers will have to wait patiently to download the data when the birds return to southeastern Canada or the Atlantic coast in the fall. When they do, we’ll be able to use this data, along with data from previous years, to study exciting movement ecology questions. By linking high-resolution GPS data and behavioral information from the accelerometer with the hour-by-hour weather and climate data collected by weather stations and satellites around the world, we can better understand why and when brant go where they go, and why they do what they do.

Note: It is always exciting to see animals in the wild with bands, transmitters, or other research aids. However, if you see a brant or another wild animal with a tracking device, please do not approach it. Instead, please observe or photograph it from a distance so as not to disturb the animal or its flock. We encourage you to post band and transmitter observations on eBird. Any hunter who harvests an animal with a tracking device should call the phone number on the transmitter, in addition to reporting your bands. Thank you for being a citizen scientist!

Lindsay Carlson is a PhD student at the University of Saskatchewan.
BRIEFLY

2022 FIRE TOWER CHALLENGE
Are you up for the challenge? The Catskills Fire Tower Challenge encourages experienced hikers to visit the region’s five historic fire towers, as well as a new sixth fire tower that was opened at the Catskills Visitor Center in the fall of 2019. Successful participants will receive a commemorative patch, a one-year subscription to DEC’s Conservationist magazine, and be entered to win great outdoor prizes, including hiking accessories. For a complete list of rules, go to www.dec.ny.gov/lands/76620.html. Participants are encouraged to recreate safely and sustainably, by hiking in suitable conditions based on weather and experience level.

2022 OUTDOOR PHOTO CONTEST
New York State recently launched the 2022 Outdoor Photo Contest to highlight the best of New York’s natural beauty and special destinations among New York State campgrounds and parklands. The online contest runs through mid-October, with the winning images to be featured in statewide digital and print campaigns. A grand prize winner will be selected along with six category winners, prizes include gift cards and camping equipment. For more information and to submit an entry, go to www.nyphotochallenge.com.

NEW VISITOR CENTER IN LAKE GEORGE BATTLEFIELD PARK
Recently, DEC announced the opening of the new Visitor Interpretive Center at DEC’s Lake George Battlefield Park, which also serves as the new headquarters for the Lake George Park Commission. The Center will provide park visitors with a welcoming and inclusive space that guides them on a historical journey through artifacts and interpretive displays. Visitors can tour the Park and numerous other buildings and fortifications, including the ruins of an unfinished fort, now called Fort George. For more information about Lake George Battlefield Park, visit: www.dec.ny.gov/outdoor/113216.html.
**HABITAT & ACCESS STAMP**

The results are in! Voters have chosen the red eft to be the featured species on this year’s 2022-23 Habitat & Access Stamp. The red eft received 32 percent of the vote, the American kestrel came in second, the northern long-eared bat was third, followed by the Karner blue butterfly and the bluegill. Thank you to the nearly 1,000 participants in the survey! The 2022-23 Habitat & Access Stamp featuring the red eft will go on sale on August 1. Funds from sales of the Habitat & Access Stamp support projects to conserve habitat and improve public access for fish and wildlife-related activities. You can purchase a Habitat & Access stamp for $5 at: decals.licensing.east.kalkomey.com/products.

**NEW SUMMER FLOUNDER FISHING REGULATIONS**

DEC recently announced new recreational saltwater fishing regulations for the summer flounder (fluke) season that began on May 1. Changes will provide more opportunities for anglers by extending the season 12 fishing days to end on October 9, 2022, and decreasing the minimum size limit. In response to new interstate fishery management plan requirements, anglers are allowed four fish at a minimum size of 18.5 inches. For the current regulations in effect, go to: www.dec.ny.gov/outdoor/7894.html.

**DEC Launches New Paint Recycling Program**

Used paint is difficult to manage, with few available options for reuse or recycling. DEC has partnered with PaintCare, a non-profit organization, and recently launched a new program that makes it easier for households and businesses to safely dispose of leftover paint. The program will accept leftover latex and oil-based paints and similar products at drop-off sites throughout New York. More information about the program, including drop-off sites, can be found at www.paintcare.org/products/.
New Yorkers are asked to call PaintCare sites before dropping off paint to ensure they are open and can accept the types and amounts of paint for recycling.
The Salmon River, in Oswego County, is the most intensively fished water in New York State. The river supports year-round sportfishing opportunities and qualities that are rare, if not unique, in the continental United States. This world-class fishery not only offers salmonid angling opportunities almost every month of the year, but also affords the potential to catch trophy or even record-sized fish.

The Department of Environmental Conservation (DEC) is committed to ensuring this historic river continues to provide outstanding opportunities to cast a line and enjoy your time on these special waters. DEC’s Salmon River Fisheries Management Plan guides efforts and resources to enhance the Salmon River’s status as the state’s premier angling destination for lake-run trout and salmon (salmonids).

As you view these wonderful pictures, we’ve also listed some of the objectives of DEC’s management of this famed river to ensure current and future generations will have access to the Salmon River and some of the best fishing in the United States.
DEC’s Salmon River Objectives

New York State’s Salmon River is a premier, year-round angling destination for lake-run trout and, of course, salmon. The river earned its reputation from being a great place for sportfishing and a key attraction and economic engine for the region.

Despite its name, it’s not just salmon that attract anglers; the river has also become a popular place for steelhead. Known as powerful fighters, these fish appeal to anglers seeking the challenges presented by this aggressive fish.

Those who pursue steelhead recognize the battle these fish provide, especially when they begin adding weight to help them through the winter cold. These fish are also notoriously difficult to catch, which can be a somber warning to anglers, as steelhead runs are typically made when the weather is very cold and less than hospitable for many humans.

Despite such conditions, steelhead are the main catch of anglers from November to April, proving that, for some people, fishing is not just a relaxing sport in sunny, warm weather. Some people can’t wait to get on the river to test their skills, no matter the temperature.

Whether you are a seasoned angler or new to the sport, or like millions of people, you simply enjoy spending some peaceful time outdoors casting a line, the Salmon River is a great resource. And DEC is committed to ensuring it remains that way.

Tight lines.
Goals for the Salmon River Fishery:

- Improve and expand the existing network of angler access sites on the Salmon River and its tributaries, to provide satisfying angling experiences to a diversity of angler interests.
- Increase responsible stewardship of the Salmon River system’s fisheries resources and promote ethical angling practices.
- Maintain and improve high-quality habitats to support all life stages of lake-run salmonids. Strategies will protect and enhance instream habitat and include streambank stabilization projects to enhance water quality and benefit all life stages of trout and salmon.
- DEC fisheries staff review the need for additional protection of important spawning tributaries and work with volunteer groups and conservation organizations to improve riparian and instream habitat.
- In addition, DEC monitors changes in watershed land use and works to minimize adverse impacts on water quality, while maintaining a high-quality sport fishery from autumn through spring, which improves the quality of the summer sport fishery.
The greatest angling efforts on the Salmon River occur in autumn with the Chinook salmon spawning run, drawing large numbers of anglers. The coho salmon run also occurs in autumn, but it is smaller in comparison and these fish ascend the river more rapidly than Chinooks. Small numbers of Washington strain steelhead also enter the river in autumn; however, most ascend the river in late autumn/winter. Atlantic salmon and brown trout are less frequently caught in autumn, but trophy-sized fish are not uncommon. Large smallmouth bass are frequently caught, especially in the lower end of the river. The chances of catching these three species are greater in the summer and early autumn.
Walking the backwoods trails of one of New York State’s many hardwood forests, hikers might be startled to hear a cacophony of noises—squeaks, squawks, groans, and moans, with some occasional teeth chattering thrown in. Looking up, they may be able to spot the source, a large, dark, roundish animal, perched high above in a tree, at times precariously close to the tips of branches that don’t look strong enough to support its weight.

The source of the strange noises is the North American porcupine (*Erethizon dorsatum*), the second largest rodent in North America—only the beaver is larger. Porcupines are very vocal, and, if it happens to be mating season in the late fall, they are especially boisterous.

While there are 29 species of porcupines around the world, there is only one found in the United States. Our North American porcupine is a solitary animal, with males and females only coming together to mate, and females and their young staying together for several months as they mature. They can live for as long as 30 years, but their lifespan is generally much shorter in the wild, although they have few predators, given their unique defenses.

**Description/Diet/Behavior**

Adults can grow to be as long as 40 inches and may weigh 10 to 25 pounds. They are notorious for being covered in quills, as many as 30,000, which are hardened, hollow hairs loosely attached to the skin, with barbed points. Porcupines do not ‘shoot’ their quills as some might think, but they are still a defense to be reckoned with for any predator foolish enough to try to hunt and kill one.

Foxes, coyotes, bobcats, and other large carnivorous mammals found in the porcupine’s range might think they are an easy target, given their size and slow, ponderous gait. However, when threatened, a porcupine will erect its quills so that they project out from their body and turn their back to the predator, presenting them with a formidable wall of quills. As soon as an attacker gets close enough to touch it, the quills quickly and easily dislodge and embed themselves into the soft tissue of the unfortunate predator’s mouth and nose.
Aside from being painful, the barbs on the tips of the quills ensure they cannot be easily pulled out. In fact, the barbed tip tends to advance the quill even farther into the victim’s skin over time. In some cases, the porcupine’s quill defense may turn the tables completely, and the attacker could perish if the embedded quills cause infection or pierce an organ. Fishers are the only predator that often succeeds in killing a porcupine, provided they can flip it on its back, as its soft underbelly is not covered in quills, and is the animal’s “Achilles’ heel.”

Porcupines eat vegetation, often climbing to the very tips of tree branches to reach and eat succulent young shoots and leaves. Their hollow quills make them very buoyant, and they are good swimmers, taking advantage of this to feast on water lilies when in season.

**Life History**

Porcupines do not hibernate, and in fact they become “frisky” in late autumn, when other animals are preparing for the winter. Males begin to roam enlarged territories in search of receptive females, but they have to be diligent in finding a mate, as female porcupines are only fertile for about 8 to 12 hours per year. A female who is ready to mate sprays scented urine on the ground, creating an olfactory pathway for eager males to follow, and wanders around her own territory letting anxious males know she is available.

Males, for their part, eagerly seek out the females. They become very aggressive towards other males if encountered and will noisily and viciously fight one another, biting and scratching and at times mortally wounding a competing suitor.

When they finally do find a female, the male has the odd behavior of spraying her head and back with his urine, which signals her to lift her hind quarters and tail so that they can safely mate. This can continue for several hours or even days, with the two joining and separating repeatedly. Eventually the female walks away, indicating that she is no longer receptive, and they both go their separate ways.

A porcupine pregnancy lasts for about seven months, usually resulting in just one offspring, called a porcupette, which weighs about a pound. The newborn’s quills are still soft, and the mother must lick the newborn clean before the quills begin to harden, which begins in just a few hours. Young porcupines nurse for about 125 days, and when the mother porcupine grazes high in the trees, they sleep on the ground hidden away. Both sleep together through the night, until the porcupette is weaned, eating on its own, and ready to amble off to secure its own territory.

The next time you take a stroll along a backwoods trail and hear loud eerie noises coming from high overhead, don’t be surprised if the culprit is a large, needle-sharp, quill-equipped rodent, munching on tender shoots of tree branches. It’s fun to spot and interesting to observe, but remember not to venture too close. And if you are walking with an unleashed dog, be certain to keep it away if a slow-moving seemingly oblivious porcupine crosses your path. The porcupine probably isn’t worried, but your dog should be!

**Bill Rhodes** is a freelance writer and avid naturalist.

**Fun Facts**

- Porcupines are near-sighted, but they have an acute sense of smell and hearing. They often rely on scent-marking and a large vocal repertoire for communication.
- Porcupine quills have an antibiotic coating on them, which helps protect them from self-inflicted injuries and also reduces the risk of infection from quills for predators.
- Although porcupines are skilled climbers, falling out of trees is relatively common. One study found that 30 percent of porcupines had healed fractures, indicating they had fallen out of trees.
- Porcupine quills lie flat and point backwards when they are relaxed. When threatened, porcupines raise their quills so that they are erect and point in all directions.
- In winter, porcupines feed primarily on the inner bark of trees and may return to the same tree to feed for days or weeks.
- Porcupine teeth are covered by an iron-rich enamel, giving their teeth an orange-red color. Like other rodents, their teeth grow throughout their lives.
Who is Watching Who?

I was surprised to see this doe, early one morning in mid-June. Our two cats watched her feed her fawn just a few feet from our back porch. She appears to be just as curious as them. I think she must have felt safe there for the moment.

THERESA BARNUM | PRATTSBURGH

Fun photo! She definitely does appear as interested in the cats as they are in her, and you are right, for her to be standing there nursing her fawn, she must have felt pretty safe. Though fawns may attempt to nurse periodically into September, they actually begin eating vegetation at three weeks of age and are functionally weaned by 10 to 12 weeks, around mid-August.

Gray Blackbird

I thought you might enjoy this oddly colored red-winged blackbird that was visiting our birdfeeders this spring, which was photographed by my wife Stacey. We were able to determine that it is a male based on the faint red coloration on the wing, along with its call.

DAVE DELANEY | TRIBES HILL

Very interesting photo! As you said, this is a male red-winged blackbird, and you can just barely see the characteristic red and yellow patch on its wing. This bird is exhibiting a form of leucism, where some of the normal pigmentation is not present, resulting in a pale or white coloration over some or all of its body. Normally, this bird would be dark black, and the epaulets on the wings would be a brilliant red with yellow bordering, which is how they get their name.

Two Halves Don’t Equal New Wholes

Following the publication of the article on earthworms in the June/July 2022 issue, we have received some questions from readers who are concerned that invasive worms in their gardens might multiply after being cut in half by garden tools. Fortunately, this is just a myth—if an earthworm is cut in half, it won’t turn into two worms. While it is possible for the head half to survive and regrow a tail, if it was cut behind the clitellum, the other half will not survive. There are some species of worms known as planarian flatworms that can regrow from tiny slivers, but these are in a different phylum (high-level taxonomic classification) from earthworms.
A Mini Mantis?

I wanted to share some photos I took this spring of what I initially thought was a young praying mantis in my garage. After getting a few photos, it flew off into my backyard, and I subsequently learned that it was not a young praying mantis, but something called a mantidfly.

JEREMY TAYLOR | ATHENS

Great photos, thanks for sharing! This is indeed a mantidfly, sometimes called a mantis fly. Like the praying mantis, mantidflies are predatory, hunting other insects. Their larvae are also predatory, and a type of spider parasite. Females lay their eggs in locations frequented by spiders, and when the larvae hatch, they will attempt to land on the back of a spider. Once there, they will hide among the eggs the spider lays, and become enclosed in the spider’s egg sac. Inside, the growing mantidfly larva feeds on the spider eggs, eventually forming a small cocoon where it pupates, emerging as an adult mantidfly. I rarely encounter them even in the thousands of trap collection samples I process, so this is a very cool (and somewhat rare) find!

—LIAM SOMERS, ENTOMOLOGIST, DEC FOREST HEALTH LAB

Ask the Biologist

Q: Would it be possible for one of your wildlife biologists to comment on this photo of our resident fox? At first, I thought she was going through a molt, but she is looking very shabby. Looking at my videos, she appears to be acting normally, but she looks just awful.

JACK BULMER | BRUNSWICK

A: This fox has a fairly severe case of mange. You can see the hardened, thick skin on her muzzle that is indicative of this. Mange is caused by a mite infestation, and red foxes are very susceptible to it. Unfortunately, mange is often lethal in red foxes. Some do manage to survive and fight off the infection; their chances of surviving are highest when the infection occurs in the spring and summer. It’s possible that this fox will make it, though it does seem like a pretty severe case. You can try contacting a local wildlife rehabilitator—they don’t always take animals with mange, as it is very contagious, but there may be someone who would.

—MANDY WATSON, WILDLIFE BIOLOGIST, DIVISION OF FISH AND WILDLIFE

Editor’s note – we have since heard from Jack that a local wildlife rehabilitator is going to work with him on getting the fox some medication, and we will share any further updates in the October issue!
Back in the “boonies” of McDonough (Chenango County), surrounded by more than 9,000 acres of State lands, sits a two-room hunting “camp.” Built around 40 years ago on 25 acres, the rough-cut hemlock cabin boasts a kitchen and bathroom (toilet only), added circa 1990. With no running water, a small stream that is just a few yards away provides water for camp necessities. The lack of electricity and cell service enhances the natural setting of this rustic retreat.

The cabin’s occupancy began with two brothers. One was local and managed its upkeep and maintenance; the other lived farther away, moving between New York and surrounding states, but always returned to the camp for annual fishing and hunting trips.

A few years after the cabin was built, these two regulars were joined by their sons and a good buddy, and then by some sons-in-law. The family and friends continued to grow, and in some years, as many as eight people would be together at the camp to hunt.

I will never forget Dad’s legendary toast prior to his retiring for the night, after finishing his last glass of Jack Daniels, following a rowdy game of poker, “Good night Jack.” My brother and I will forever kid about how each year, our father “drank all the booze, shot all the big bucks, and won all the money at the poker table.”

Many of our other cherished times involved the hunting dogs that we brought to camp over the years. My nephew Rob and his buddy would drive up from Maryland. About six hours into the trip, as they were approaching Binghamton, the dogs would start whining and fidgeting, knowing they were getting close to camp.

The “bird dog years” started in the late 1980s, with Rob’s Brittany Montana, known as Monty, and his canine hunting partner Crosby, an English setter owned by one of Rob’s friends. The pair pointed many a grouse and woodcock in the McDonough woods. When Monty passed away, he was laid to rest in the south woods of our family’s property that adjoins the camp.

After these two beloved dogs were the next brace of bird dogs—Riggs, a Spinone Italiano, and Daisy, an English setter. These two learned the ropes quickly and provided many more cherished memories for their human companions. All the dogs knew and loved the camp, and were always happy to curl up next to the woodstove after a long day afield.

We are blessed with the next generation coming of age, who will soon take over the camp responsibility. We are now in our 70s and can no longer hunt for miles and miles, hour after hour. We spend more and more time in the camp, by the woodstove drinking coffee (and occasionally some other beverages) and talking of good times, as we wait for the sound of a single rifle shot, indicating a clean kill by a younger member of our family who will enjoy the camp as much as we have.

Douglas DeLong is a retired aerospace engineer living in upstate New York. He is a well-seasoned hunter of more than 60 years.
Did you know that DEC offers an enhanced digital edition of the Conservationist?

Available as a perk for paid subscribers, the Digital Edition is sent to subscribers who provide us with their email address. The enhanced Digital Edition of the Conservationist has many added benefits, including:

- Clickable links in articles that provide additional information on the article subject matter;
- Embedded video and audio content that enhances select articles; and
- An expanded photo gallery of reader-submitted images in the Letters section.

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Just a shrew on a shoe! Short-tailed shrews are common in New York, but rarely seen because they are primarily nocturnal and search for grubs and insects beneath leaf litter. They are also capable of catching and subduing larger prey like other small mammals due to their venomous saliva (no, we aren’t kidding). Shrews play an important role in ecosystems as they are a prey source for many other animals.

Photo by Rhyan Maier