NEW YORK STATE

CONSERVATIONIST

JUNE/JULY 2022

Monitoring the Whales

The Search that Set the Standard

75th Anniversary of DEC Summer Camps

How to Help Protect the Adirondack Loon

Dear Readers,

New York is home to unmatched natural beauty, offering easy access to our ocean waters, lakes, streams, and forests that promote amazing outdoor recreational opportunities and drive local economies. The New York State Department of Environmental Conservation (DEC) is committed to protecting and responsibly promoting our precious natural resources, as we recognize the critical role they play in our lives.

One of the best ways to get the full New York State outdoor experience is to immerse yourself in nature by camping. Two-thousand-twenty-two marks the 75th anniversary of the **DEC Summer Camps Program** (pg. 30). In this issue of the *Conservationist*, you can learn all about some of DEC's ongoing efforts to connect people with nature, including the **First Time Camper Program** (pg. 20), which introduces kids and families to the wonders of the great outdoors.

Once you're out there, it helps to familiarize yourself with your surroundings. Dig up some helpful information on crawly critters in ***Meet the Earthworms of New York State—Charismatic Denizens of the Soil*** (pg. 34), or learn more about our feathered friends above by reading about ***The Ralph T. Waterman Bird Club's Bluebird Trail*** (pg. 24). Come across a Loon? ***A Rescued Loon and How to Protect Others*** (pg. 16) offers useful information on enjoying encounters while keeping these impressive diving waterbirds safe. Gone fishin'? Catch a few tips from ***All Signs Point to Fishing*** (pg. 10).

Whether you're hiking, camping, fishing, or birding, safety should always be your top priority, especially if your adventure takes you to remote wilderness areas. DEC's highly trained Forest Rangers are always there to help. ***How a Search Mission Helped Set the Standard*** (pg. 2) recounts a Ranger search-and-rescue effort to find a lost boy in the Adirondacks more than 50 years ago, and explains how that incident spurred efforts to improve our ability to locate people in need of assistance on State lands. Now, more than a half-century later, we continue to advise people heading into the woods to be prepared before they go, including reviewing tips and information available through DEC's Hike Smart NY initiative. To learn more, go to **https://www.dec.ny.gov/outdoor/28708.html**.

Summer is a spectacular time to explore and experience New York State's breathtaking beauty. From Brooklyn to Buffalo, unlimited outdoor recreational opportunities abound in the Empire State. Once you've armed yourself with the important information contained in this issue, get out there and enjoy it. Best wishes for a safe and exciting summer!

Sincerely,
Basil Seggos, Commissioner

New York State Department of Environmental Conservation

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Kathy Hochul, Governor of New York State

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Camping and smores, the perfect combination. Lake Luzerne, NY

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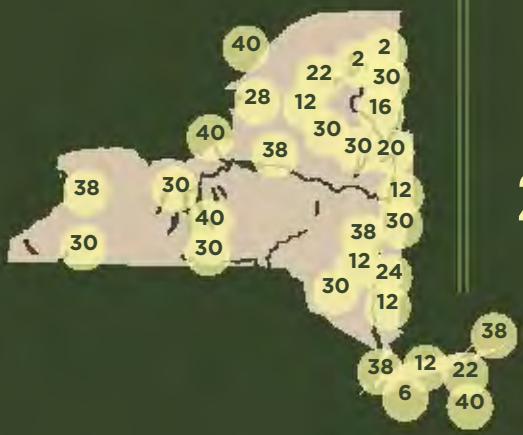


JUNE/JULY 2022 | VOLUME 76, NUMBER 6

Karen William

How a Search Mission Helped Set the Standard

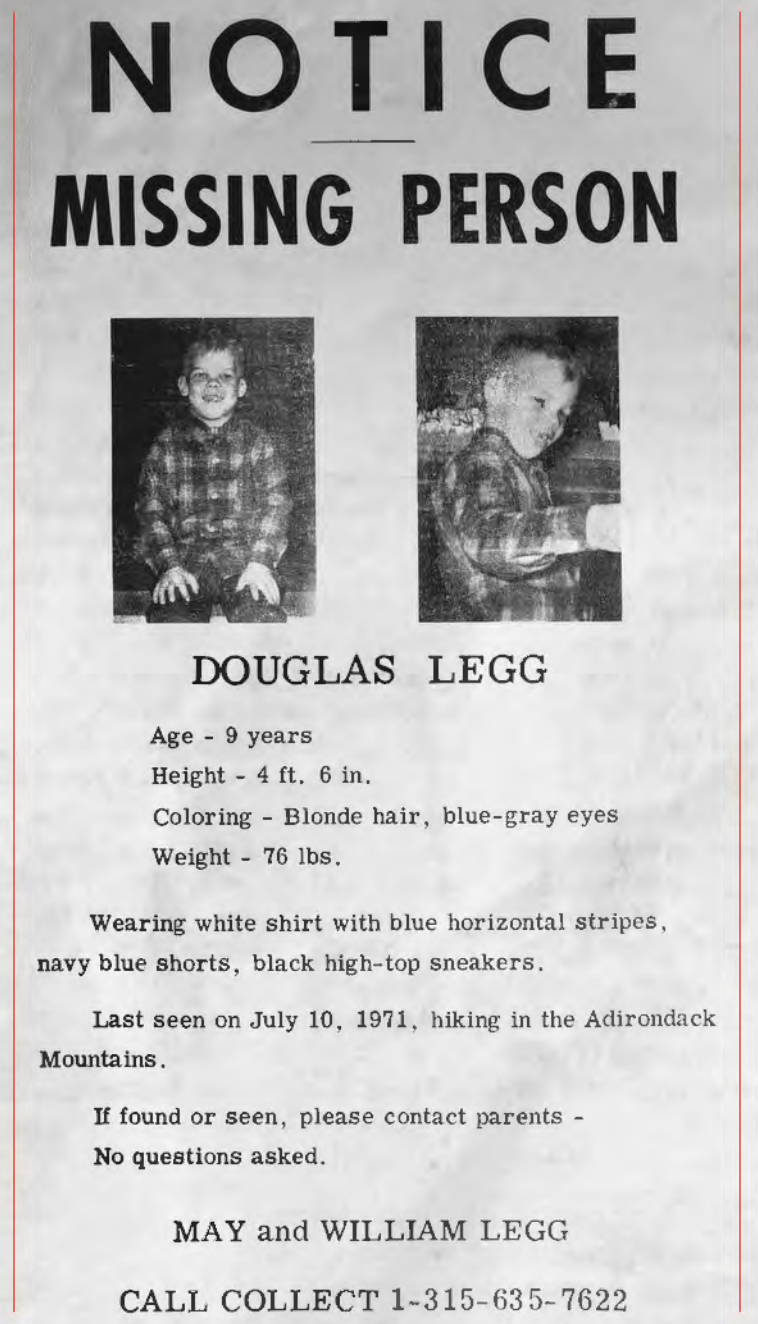
BY PETER BENOIT

The Adirondacks are known for the outdoor opportunities available in their tree-covered mountains and streams. On Saturday, July 10, 1971, eight-year-old Douglas Legg joined his uncle to spend the afternoon fishing. They headed toward Sucker Brook, whose waters entered Newcomb Lake on the northeast corner of the family's 13,000-acre estate, known as Santanoni.

Douglas was told to return to the main lodge in the family compound to change into long pants, as his uncle was concerned about a patch of poison ivy and his nephew's clothing–navy blue shorts. The two separated around 4:00 p.m. in a remote and densely wooded hemlock and spruce forest. Douglas Legg was never positively seen again.

Douglas' father, William Legg, alerted the Town of Newcomb Fire Department at 5:30 p.m., and a search around the family compound began; a flashlight pursuit was also initiated and continued until 9:20 p.m. No luck.

The following morning, local Fire Department members, Newcomb residents, the State Police, and Department of Environmental Conservation (DEC) Forest Rangers, Environmental Conservation Police Officers (ECOs), and other DEC staff returned to resume the search for the missing third grader.


NOTICE

MISSING PERSON

DOUGLAS LEGG

Age - 9 years
Height - 4 ft. 6 in.
Coloring - Blonde hair, blue-gray eyes
Weight - 76 lbs.

Wearing white shirt with blue horizontal stripes, navy blue shorts, black high-top sneakers.

Last seen on July 10, 1971, hiking in the Adirondack Mountains.

If found or seen, please contact parents - No questions asked.

MAY and WILLIAM LEGG

CALL COLLECT 1-315-635-7622

The Newcomb Historical Museum

Douglas Legg had some cognitive impairment, which may have compromised his survival skills and ability to return to the lodge after becoming separated from his uncle. However, a shoulder-to-shoulder search confirmed that the boy was not present around the compound.

At 11:00 a.m. on Sunday, July 11, responders began what would be a 21-day heroic search for the young boy. What began as a timely effort to locate Douglas quickly morphed into the largest search-and-rescue effort conducted for a missing person in New York State up till that time. No pine cones were left unturned. By July 13, searchers had covered 40 square miles of rugged and swampy Adirondack forest. Bloodhounds had picked up the boy's scent at one point, but it was lost after a heavy, mid-summer rain.


The Newcomb Historical Museum

Searchers take a break in the heat of the wilderness.

DEC Forest Ranger Gary Hodson recalls his search assignment, which began at the Sucker Brook drainage. Using his tracking skills, Ranger Hodson and a crew of 10 people searched the drainage and surrounding wooded swamps well beyond where Legg likely may have walked.

Forest Ranger Terry Perkins mirrored Ranger Hodson's efforts. With his compass and topographic map, Ranger Perkins searched distant drainages within the Newcomb Lake watershed from the point where the boy was last seen. But any clues to Douglas Legg's whereabouts remained undiscovered.

Ever optimistic, William Legg wrote a letter to the Newcomb town supervisor stating, "As long as there is hope, we will continue to search for him."

New York State Police Captain Richard DuPuy was in charge of the overall search effort. He coordinated the initial responders, as well as personnel from the Essex County Sheriff's Office, aerial grid searchers from Griffiss Air Force Base in Rome, Oneida County, Green Berets from Fort Drum, a Marine Reserve Unit from Syracuse, U.S. Army Special Forces, a helicopter crew, dive teams, horseback riders, students from Paul Smith's College, Adirondack Mountain Club members, numerous K9 units, Civil Air Patrol cadets, and walk-ons. Hundreds of ordinary citizens traveled to Newcomb to search for Douglas Legg.

On July 19, Captain DuPuy had the difficult task of coordinating an estimated 500 to 700 ground searchers, including some on horseback. After weeks of intensive ground, air, and water-based efforts, the search for Douglas Legg ended on August 1st.

From the onset, there were difficulties among the various agencies and how assets should be utilized. A consensus among personnel from responding agencies was that, "There is little doubt of the need for a trained rescue unit, familiar with the terrain and ready to move in to the Adirondacks area on short notice when an emergency develops."

Following the conclusion of the search, New York enacted a new law that designated the State Forest Rangers as the lead agency for all wildland search and rescue missions in the state. In October 1971 DEC created three specially trained search and rescue (SAR) teams, each comprised of 10 Forest Rangers and two alternates, to cover both the Adirondacks and Catskills.

Rangers were provided training in SAR operations, the establishment of ground controls, the utilization of volunteers, interagency communication, and first aid emergency skills. The Rangers expanded and refined the ground search techniques they had been utilizing for many years, and the program would expand further to training and certification of search and rescue community volunteers, as well as assisting the development of SAR volunteer teams.

John Solan, current Director of DEC's Division of Forest Protection, noted that under New York's Environmental Conservation Law, Rangers have been statutorily authorized to organize and direct all wildland searches. However, at the time of the Legg search, the Rangers had not yet gained that authority.

Solan noted that DEC's early adoption of an Incident Command System, developed in the 1970s, standardized the approach to the command, control, and coordination of emergency responses, and provided a common hierarchy that made responders from multiple agencies more effective.

In the mid-1980s, Forest Ranger Greg George was assigned to train his colleagues on the innovative SAR standard. As DEC personnel became experts in wildland searches, additional standardized approaches to search missions evolved.

Top: Searchers keep in sight of each other as they form their line in a relatively clear area and move into deeper brush. Bottom: Searchers wait to board trucks in front of Newcomb Town Hall. Trucks take volunteers to drop-off points in wooded areas. Photos taken July 1971

Greg George also taught Managing Search Function (now called Managing the Lost Person Incident, or MLPI) statewide, which provides the knowledge and skills necessary to perform as an initial Incident Commander in the event of a lost person incident, with the primary focus on the search element of a search and rescue effort.

Solan and other veteran Rangers noted that search missions today have evolved significantly from 1971, when Rangers often called upon an informal network of Fire Wardens, outdoor guides, and local fire and EMS to supplement Forest Ranger efforts during a search.

The readily available resources today include a highly-trained Ranger force, with technology-based assistance from handheld infrared cameras to detect heat signatures (presence of human life), and drones capable of providing video feeds of unreachable or treacherous terrain. DEC's Forest Ranger Advisory Committee meets regularly to review the best SAR practices with respect to equipment, technology, training, and search techniques.

In addition, the Forest Rangers are represented on the American Society for Testing and Materials (ASTM) National Standards subcommittee for search and rescue, which continually looks for ways to advance and improve the ability of state and local agencies to successfully respond to SAR incidents. The New York Federation of Search and Rescue Teams (FEDSAR), which is comprised of more than two dozen statewide independent SAR teams with hundreds of women and men, make themselves available to any official agency to assist in searches for a lost or missing person in New York State and the Northeast.

Concurrent with the Rangers SAR efforts, volunteer SAR teams were formed. In the first weeks of the Legg search, Bart Bartholomew of Fulton, New York, hosted an organization meeting where men aged 18 or older discussed the formation of a volunteer search and rescue team. Later, the Oswego County Pioneer Land Search and Rescue Team was organized, with 12 founding members.

By November 1973, FEDSAR had been formed, consisting of New York State Forest Rangers, Oswego County Pioneer Land Search and Rescue, and the New York State Police, with support from Griffiss Air Force Base personnel.

Throughout the years, FEDSAR has proven to be a vital tool to respond to lost and/or distressed people in the Adirondacks, such as the following incident:

On Monday, November 22, 2020, Ray Brook Dispatch received a call at 4:30 p.m. about a hiker on Allen Mountain who had not been heard from since the previous day. Ranger Martin located the hiker's vehicle at the Allen Mountain Trailhead. Under direction of Ranger Lt. Dubay, Rangers Martin, Arnold, and Lewis initiated a search of the trail and nearby intersecting trails and roads to locate the hiker.

The Rangers searched the trail up the mountain, reaching the summit at 3:00 a.m., but they did not locate the subject. The Rangers checked surrounding areas with negative results. An additional 10 Forest Rangers joined the response the following morning along with aviation support.

At 8:30 a.m. on Wednesday morning, Forest Rangers conducted a briefing at the Santanoni Command Post. Multiple crews were out in the field, having resumed search operations. A total of 23 Forest Rangers, several volunteer climbers, local town officials, and the New York State Police continued the search effort. Several inches of snow had fallen in the area, and State Police Aviation was on standby due to the weather conditions.

At 1:15 p.m., searchers located the subject alive and in good condition. The rescued hiker was then escorted down to a nearby landing zone to be evacuated by State Police Aviation.

The subject was transported by Newcomb Fire and Rescue Ambulance to the Glens Falls Hospital. The successful rescue operation involved personnel and equipment from the Essex County Sheriff's Office, State Police Bureau of Criminal Investigation, State Police Aviation, the Town of Newcomb Fire and Rescue, volunteer climbing guides, as well as Assistant Forest Rangers.

Incidents like this clearly show the need, and importance of coordinated rescue operations. The effort to improve SAR operations continues, as there is no shortage of SAR missions. In 2021, DEC Forest Rangers conducted 426 SAR missions, a yearly total that is hundreds more than just 10 years prior. One reason for the high number is the lure of the Adirondacks and New York's beautiful, sprawling forest.

State Forest Ranger Director Solan reflected on this high number, noting that, "In the last decade, even before the pandemic, we saw more and more people experiencing the great opportunities provided by New York's outdoors. Often, that means Forest Rangers are called into action, and their knowledge of the remote wilderness and terrain makes them the most qualified responders to help people when they need it most."

New York is committed to improving public safety and reducing the number of (and need for) Forest Ranger SAR missions. DEC Commissioner Basil Seggos announced a new program, Hike Smart NY, that focuses on helping people to safely prepare for their next hike by ensuring they have detailed information on gear, navigation, shelter, and weather, among many other topics. SAR missions declined nearly 15 percent in 2021, compared to the previous year.

Local communities are also providing support for emergency needs, including the town of Newcomb, where 420 town residents are committed to responding to any emergency—ranging from a structure fire to a wilderness SAR mission led by DEC Forest Rangers.

Would today's seasoned and highly-trained Ranger force, supported by other responding agencies and utilizing advanced technologies, have produced a different outcome in the Douglas Legg search? We can only speculate. But these dedicated men and women are committed to protecting the safety of anyone choosing to visit New York State lands. Clearly, preparation is crucial to all hikers, but the Rangers are ready to respond whenever necessary.

New York's highly skilled Rangers quickly respond to assist lost or injured hikers in all seasons.

Note: Being prepared for any outing is paramount to protecting your safety and the safety of others. Before heading out into the wilderness, learn how to hike smart by checking out the information available from DEC at: **https://www.dec.ny.gov/outdoor/28708.html**. If you have questions for a Forest Ranger in your region, a directory can be found on the DEC website. And if you're interested in joining the ranks of Forest Rangers, the DEC website lists the necessary qualifications.

Peter Benoit is a writer and nature photographer living in Queensbury, NY. He has volunteered for more than 30 years in wilderness search and rescue.

WHALE, WHALE, WHALE, WHAT DO WE HAVE HERE?

BY MEGHAN RICKARD

PRELIMINARY RESULTS OF DEC'S INAUGURAL WHALE MONITORING SURVEYS

Years of planning and preparation came to fruition on March 20, 2017, when the first flight of the three-year visual aerial survey project took off from the Monmouth Jet Center in New Jersey to look for whales in the New York Bight. Soon after, in October 2017, the passive acoustic monitoring project began, with the deployment of 15 receivers positioned across the Bight to listen for whales. The two projects would be the first long-term, systematic, fine-scale survey for large whales in our corner of the world.

Whales play a unique and essential role in the marine ecosystem. They increase primary productivity (whale poop is like fertilizer), act as carbon reservoirs (which helps mitigate climate change), represent ocean health, are charismatic species that draw attention to conservation issues, and provide food (in some places, like Alaska) and economic benefits through tourism. And we can't forget the natural value of their existence.

Humans have forced whales to navigate numerous man-made threats, such as entanglement in fishing gear, vessel strikes, climate change, and pollution. The 14,578-square-mile expanse of ocean known as the New York Bight, which stretches from Cape May, New Jersey, to the eastern tip of Long Island, is home to lucrative commercial fishing, the largest shipping port on the U.S. East Coast, and soon-to-be offshore wind farms.

There was an assumption that the New York Bight was primarily a migratory pathway for whales and not somewhere they stayed for extended periods of time. We knew from previous research that large whales had been seen in or around the Bight. Yet it remained a veritable "black hole" of data, and needed dedicated, scientifically robust survey efforts to inform management and conservation planning.

Meghan Rickard

Kate Lomac-MacNair, Principle Investigator of the aerial survey, sets up the data collection technology before take-off

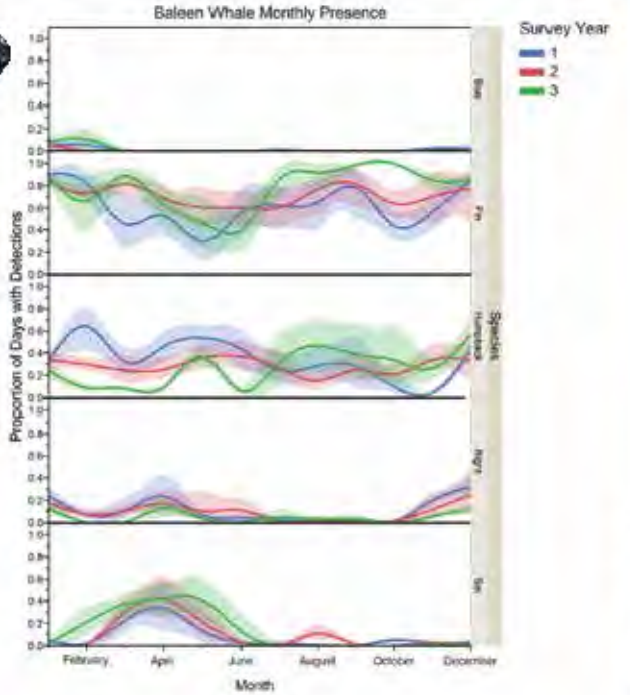
The focal species are blue whales (*Balaenoptera musculus*); humpback whales (*Megaptera novaeangliae*); fin whales (*B. physalus*); North Atlantic right whales (*Eubalaena glacialis*); sperm whales (*Physeter macrocephalus*); and sei whales (*B. borealis*). All six are listed as endangered at both the federal and state levels[1] and are designated as Species of Greatest Conservation Need in the New York State Wildlife Action Plan (2015).

The Whale Monitoring Program is trying to determine: "What species are here?", "When are they here?", "Where in the Bight can they be found?", and "How might these change from year to year?" To answer these questions, New York State provided funding for a three-year baseline study of monthly aerial surveys and 24/7 passive acoustic monitoring.

[1] Humpback whales are the exception, which were federally delisted in 2016.

Aerial Survey Summary

The aerial survey by Tetra Tech took place every month from March 2017 through February 2020. Over 40,000 nautical miles were covered by 263 flights. In total, the surveys recorded 318 sightings of 629 large whales, most of which (90 percent) we were able to identify to species.



Daily acoustic presence of baleen whale species across all years. The shaded regions represent the confidence interval (e.g., minimum and maximum amounts).

Humpback whales were the most frequently seen large whale species, followed closely by fin whales. Both species were sighted across the entire Bight and in all seasons. Sperm whales and North Atlantic right whales were also consistently present, but in lower numbers. Sperm whales were found only in the deep waters offshore in all months except May and November, while North Atlantic right whales were seen the most in spring and winter. Blue whales and sei whales undoubtedly occur in the New York Bight, but appear to be relatively rare. Both species were seen less than five times each and were found offshore; blue whales in winter and sei whales in spring.

For all species, sightings were highest during summer (June) and lowest in the fall (November). Spring sightings were dominated by fin whales, while the other seasons saw humpbacks as the primary large whale species. Sperm whales, humpback whales, and fin whales were seen with calves. A juvenile blue whale was also seen—likely the first photo-documented sighting on the U.S. East Coast. A unique sighting of a group of six sei whales involved distinct social behavior like belly to belly contact.

One of the priorities of this project was to photograph whales for species confirmation and to identify individual right whales. North Atlantic right whales are critically endangered—only an estimated 346 individuals remain. (Note: You can read more about the status of North Atlantic right whales in the October 2018 *Conservationist* article *Battle for Survival*). Experts at the New England Aquarium were able to identify 11 known right whales from survey photos, including an 8-year-old male sighted in May 2019 skim-feeding at the shelf break. Right whales aren't known to feed this far south or be that far offshore, which shows how valuable even one sighting can be.

The data analysis found that the six whale species have a combined average annual density of 6.3 individuals per 1,000 square kilometers (approximately 247,000 acres). Over the course of one year, an estimated 272 whales may be present in the New York Bight.

Photo by Chris Paparo

Passive Acoustic Monitoring Summary

The 15 acoustic receivers recorded sound 24/7 from October 2017 to October 2020. Cornell University's Center for Conservation Bioacoustics research boat the R/V *Jaegar*, deployed and retrieved the receivers, every three to four months. A total of 10,795 days of sound data was collected. Each whale species has its own unique sound signature. Computer algorithms and human analysis were used to identify these signatures and establish the daily presence of a species (e.g., an individual of a certain species that is vocalizing underwater within range of the receiver).

The complete analysis of the dataset revealed that all large whale species occur regularly in the Bight at different times of year. North Atlantic right whales, fin whales, and humpback whales were detected nearly every month. The presence of North Atlantic right whales peaked in the fall (November/December) closer to the harbor, and peaked offshore in the spring (April). For most of the fall through spring periods, right whales were present more than five days per week.

Humpback whale presence peaked in summer and fall across all sites. Interestingly, humpback songs were recorded—a specific vocalization made by males on breeding grounds, usually indicative of mating. How their song is being used in the Bight is still unclear. Fin whales were present nearly continuously, with peaks in summer and winter, and were present at least 50 percent of the time in spring and fall. They were detected at all sites, but mostly offshore.

Sei whale presence peaked between mid-March and mid-June at sites farthest from the harbor, coinciding with the April-only sei whale sightings during the aerial survey, though there was some presence through summer and fall as well. Blue whales were detected on the offshore receivers from December to February. Though it's too soon to tell, the likely reason is that blue whales are indeed migrating through the area.

Only some of the receivers were analyzed for sperm whale vocalizations; not all receivers were able to record at the higher frequency used by these whales. Sperm whales were heard at all four sites, with spring peaks and fewer detections during fall months. The majority of detections occurred closest to the shelf break, which was expected. Unexpectedly, however, there were also a number of detections at the site closest to the harbor, which indicates that sperm whales may be occasionally traveling far inshore.

This project also analyzed ambient noise levels (i.e., background noise). The COVID-19 pandemic began during the third year of the survey, which gave us a unique opportunity to see if there were changes in ambient noise due to the changes in human activity. The most drastic reductions of human activity occurred from April through June 2020, but we found no difference in the average noise level during those months, compared to the same period between 2019 and 2020. However, there was a significant decrease in the highest noise levels in 2020, likely reflecting a decrease in shipping activity.

What We've Learned

To see a whale is truly an indescribable experience and fortunately, the New York Bight is full of them. While we may see one or two species of large whales from shore, our inaugural surveys indicate that all species of interest occur in the Bight. Some species, like humpback and fin whales, are present so often that they may eventually be considered resident. Even so, species presence can change considerably from year to year. Both survey methods indicated that interannual variation should be expected and can fluctuate widely.

Sei whale (*Balaenoptera borealis*). (April 2019)

Common dolphins (*Delphinus delphis*) "nose-riding" a fin whale (*Balaenoptera physalus*). (June 2019)

Sarah Leiter, TT-NYSDEC

Juvenile blue whale (*Balaenoptera musculus*). (September 2019)

Darren Ireland, TT-NYSDEC

The aerial survey revealed much higher sighting rates of fin and humpback whales during the summer of 2018 than any other species or year. This was probably due to an increase in their favorite local food, menhaden (a small forage fish). Photos below from June of that year show a large number of humpback whales feeding cooperatively in a double bubble-net formation.

Similarly, the passive acoustic data showed higher right whale presence in Year 2 than in Year 1, and a decline in Year 3. This might reflect the recent distribution shifts of right whales, which are found less and less in their usual feeding areas. Based on opportunistic sightings in recent years, we also know that right whales have extended their presence in New York, which suggests they may not just be migrating through.

Our passive acoustic data showed that an increase in ambient noise from the lowest to middle sound level decreases a whale's communication range by greater than 60 percent. This consistent exposure to high noise levels in the Bight is, at the very least, a source of chronic stress for whales, which carries health consequences for them, just as it does for humans. For right whales in particular, the highest noise levels in their communication range went above 120 decibels five percent of the time. That level is the federal threshold for harassment to marine mammals, and the point at which sound becomes painful to the human ear. It's the equivalent of a chainsaw, a shotgun, an ambulance siren, or a clap of thunder.

A preliminary comparison of the passive acoustic data to a 2008-2009 passive acoustic monitoring project suggests that large whale occurrence has been increasing in the Bight during the last decade. Research by other organizations, like the NOAA Northeast Fisheries Science Center, also shows the same trend, which begs the question: What do we do next?

Where We're Going

There is still a lot to learn about our large whale species and their relationships to New York waters. We're interested in learning when these whales are here, and where we might find them within the Bight, but also why they are here. Is it an important place for finding food or a mate? Are some species more vulnerable to certain threats here? And what can we do to ensure the safety of whales, while maintaining necessary human activities?

The next phase of the Whale Monitoring Program will use the knowledge gained from the baseline surveys described here to resume our data collection efforts and continue to fill in the gaps. Ultimately, we aim to identify what management steps can be taken to help the recovery of endangered large whale species in the 21st century.

Meghan Rickard is a Marine Zoologist with the New York Natural Heritage Program and DEC's Division of Marine Resources.

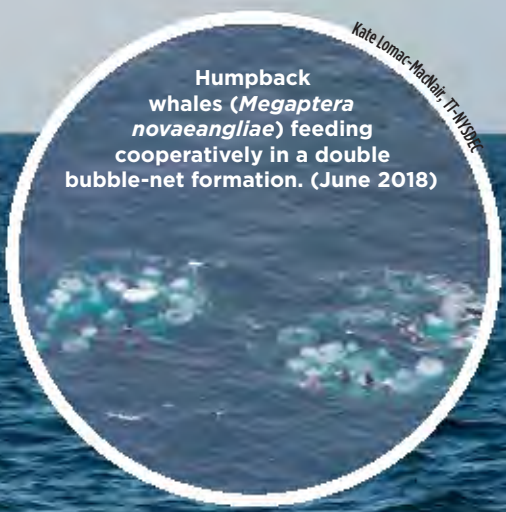
To see the reports from the aerial and passive acoustic surveys, visit: **www.dec.ny.gov/lands/113647.html**. To contribute to the whale monitoring effort, submit your sightings of whales (and other marine mammals and sea turtles) to the Flipper Files digital survey at: **on.ny.gov/flipperfiles**.

Sarah Leiter, TT-NYSDEC

North Atlantic right whale (*Eubalaena glacialis*) #4145, an 8-year-old male at the time of the sighting, skim feeding near the shelf break.

Darren Ireland, TT-NYSDEC

Sperm whale (*Physeter macrocephalus*) mom and calf pair. (July 2019)



Kate Lomac-MacNair, TT-NYSDEC

Humpback whales (*Megaptera novaeangliae*) feeding cooperatively in a double bubble-net formation. (June 2018)

ALL SIGNS POINT TO FISHING

BY JOELLE ERNST

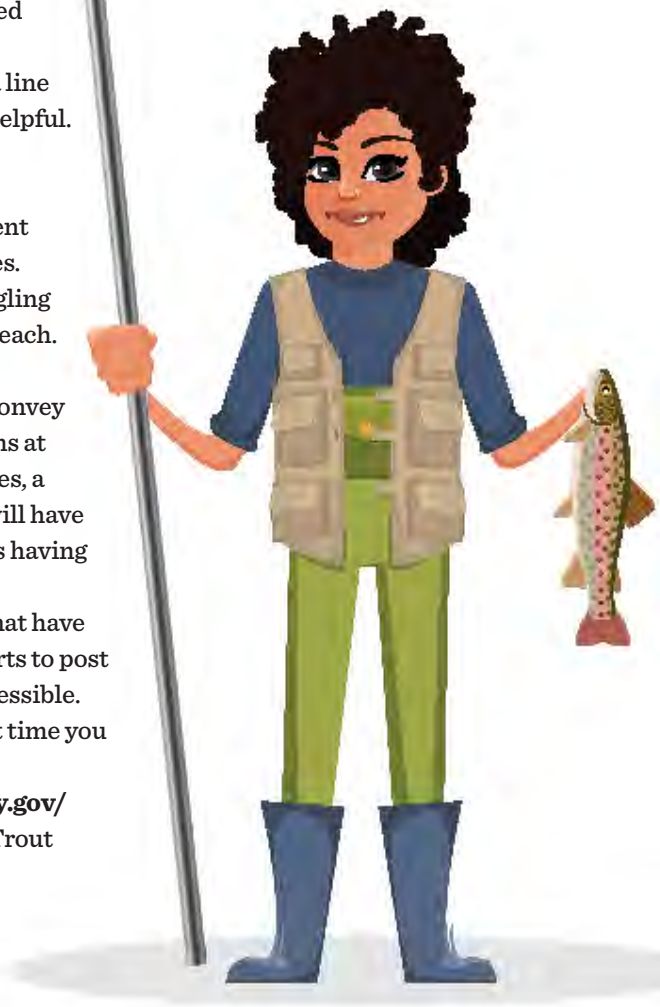
New York is considered one of the best fishing destinations in the country. When it comes to letting anglers know what opportunities exist and what the rules and regulations are, providing effective outreach is important. One tried and true method is signage, and with recent regulation changes, having key information right at the source is a no brainer. So, when you're out wetting a line this year, be sure to look for these signs. The information you'll find can be helpful.

Inland Trout Stream Management Signs

In 2021, DEC began implementing a new Inland Trout Stream Management Plan that groups stream reaches (segments) into five management categories. Each of these categories has its own set of regulations to achieve desired angling outcomes, based on the ecological and recreational potential of the stream reach. In addition to traditional outreach like the Freshwater Fishing Regulations Guide, press releases, and social media promotion, the most logical way to convey new regulations and their associated management categories is to place signs at the beginning and end of each managed stream reach. However, in some cases, a single stream can have specific sections that are managed differently, so it will have different management categories and regulations on the stream. This makes having this signage even more important.

DEC has already posted many streams that have public fishing rights and will continue efforts to post signs at other reaches that are publicly accessible. Look for the green and white signs the next time you are out fishing on inland trout streams!

For more information, visit **www.dec.ny.gov/outdoor/111015.html** or search: "Inland Trout Stream Management" on DEC's website.



A Trout Stream Map For Anglers

DECinfo Locator now features an interactive map of trout stream reaches that is color-coded by management category, so anglers can plan their next trip and choose the trout stream fishing experience they want to have. Check it out today! Visit gisservices.dec.ny.gov/gis/dil/index.html?REC

Big Panfish Initiative Signs

Next up in our debut signage series are signs for the Big Panfish Initiative. This experimental program is designed to determine if more conservative harvest regulations will lead to improvements to the size structure of sunfish populations (bluegill, pumpkinseed, redbreast) and create special opportunities for anglers to catch large sunfish. The regulations on these waters include a 15 sunfish catch limit per day, and an 8-inch minimum size, with a year-round open season.

New signage informing anglers about the experimental sunfish program and associated regulations can be found at public access sites on study waters. The 11 waters selected for this pilot program are: Blydenburgh Lake (DEC Region 1); Lake Welch (Region 3); Canadarago Lake and Goodyear Lake (Region 4); Saratoga Lake (Region 5); Sixtown Pond and Red Lake (Region 6); Cazenovia Lake and Otisco Lake (Region 7); Honeoye Lake (Region 8); and Silver Lake (Region 9). For more information on the Big Panfish Initiative, visit the DEC website: **www.dec.ny.gov/outdoor/124966.html**.

Largemouth and Smallmouth Bass Regulations Signs

As New York's #1 sportfish, largemouth and smallmouth bass (collectively referred to as black bass) are highly sought after by anglers, and with good reason. They're relatively easy to catch and a lot of fun to reel in, especially smallmouth bass. The statewide regulation for bass includes a catch-and-release season that provides year-round fishing opportunities. However, there are some counties in New York State that have special regulations where it's not permitted, such as the St. Lawrence River and eastern Lake Ontario in Jefferson County.

New signs have recently been posted at fishing and boating access sites to remind anglers that there is no catch-and-release season for bass from these waters. Having this information posted will hopefully clear up any confusion concerning the open season for bass in these areas.

For more information on freshwater fishing regulations, visit the DEC website: **www.dec.ny.gov/outdoor/7917.html**.

DEC is committed to ensuring fishing stays great in New York State, by providing sound management of sportfish populations. Remember, all signs point to fishing, so what are you waiting for?

Tight lines!

True or False?

Fishing for a species during its closed season, even if it s catch-and-release, is permitted in New York State.

False.

Joelle Ernst is the Education and Outreach Unit Leader in DEC's Bureau of Fisheries.

On Patrol

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

All Tangled Up–Suffolk County

On April 2, while assisting DEC Fisheries staff at a freshwater fishing derby at Belmont Lake State Park, ECOs Dickson and DeRose encountered a group of anglers who reported an osprey caught in fishing line. The ECOs and Fisheries Biologists quickly responded, and the ECOs safely detangled the osprey. It flew away uninjured and resumed its own fishing for the day.

Man Pulled from Burning Vehicle–Putnam County

On April 7, ECO Franz noticed a vehicle over the edge of an embankment at the intersection of Route 301 and Gipsy Trail Road in the town of Carmel. Officer Franz sprang into action after observing a man and dog trapped inside the vehicle. He crawled into the burning car through the passenger side, retrieved the dog, and pulled the driver out of the mangled vehicle, dragging him a few yards away before the car exploded. Emergency Medical Services transported the man and his dog for medical evaluation. ECO Franz, unscathed, continued his patrol that evening.

Trapped Fox–Rensselaer County

On April 5, ECO Crain received reports from a homeowner in the town of Nassau claiming she heard an animal in distress after it fell approximately five feet into an outdoor enclosure surrounding the house's furnace exhaust pipe. ECO Crain shined a light into the enclosure and saw a kit (young fox) partially hidden underneath the furnace pipe. The ECO utilized a ladder to get into the pit, captured the kit with a catchpole, and released it uninjured.


Carl Heilman II

Drone Mission—Ulster County

On March 29, Forest Rangers Martin and Franceschina conducted a drone flight over a 200-acre mine in Ulster County to assist DEC's Division of Mineral Resources to document the progress of a mine reclamation project. Rangers used multiple small, unmanned aircraft systems (drones) to collect photos and videos of the site. DEC maintains a large Unmanned Aviation Unit consisting of members from several divisions, including the Division of Forest Protection. Rangers use drones to assist with search and rescue operations, fighting wildfires, and non-emergency missions as requested. Flights over the mine will be conducted again later this year to document the progress of the project.

Rope Rescue—Herkimer County

On April 11, Raybrook Dispatch received a call from Herkimer County 911 advising that a hiker had sustained a head injury near the summit of Rondaxe Mountain. Forest Ranger Lt. Hoag and Rangers Evans, McCartney, Milano, Miller, Shea, and Thomes responded. The Rangers conducted the technical rope work necessary to safely lower the 57-year-old hiker, from Sherrill, down the mountain through four steep-angle locations to a waiting ambulance. The hiker was transported to Old Forge Airport, where Mercy Flight flew him to the hospital. Also assisting in the rescue were members of DEC's Division of Law Enforcement, EMTs from Old Forge Ambulance, Old Forge Fire, Inlet Fire, Eagle Bay Fire, and Webb Police.

Wilderness Rescue—Ontario County

On April 8, Forest Ranger Dormer responded to a report of a person with a lower leg injury. Ranger Dormer was joined by Environmental Conservation Investigator Lt. Didion, ECO Leavenway, New York State Police, and members of the Bristol Fire Department. Rescuers stabilized the injured leg, loaded the subject into a litter, and brought him to an ATV for transport to a Canandaigua Ambulance.

SPECIES SPOTLIGHT

RED MILKWEED BEETLES

BY BILL RHODES

During the summer, across New York State, you will spot groups of blooming, pleasantly scented common milkweed plants. Considered a weed, it grows on sundrenched hills, in valleys, at the edges of suburban fields, in vacant and overgrown city lots, and along busy roadways.

While most people may associate the monarch butterfly with the milkweed plant, few may know that another insect—the red milkweed beetle (*Tetraopes tetrophthalmus*)—also utilizes milkweed, taking advantage of the protection this plant offers them. Like monarchs, this reddish-orange, black-spotted beetle with long black antennae has adapted to feed on milkweed plants, which have sap that contains chemicals, which are toxic to other animals. This makes the insects distasteful to birds that might otherwise snack on them.

Description

The red milkweed beetle is an insect in the Cerambycidae family, more commonly referred to as a longhorned beetle. They are called this because almost all share a specific family trait—extra-long antennae. There are about 900 species of longhorned beetles in North America, with 344 or so occurring in the Northeast. Many, like the Asian longhorned beetle in New York State, are notorious pests of trees, their larvae boring into the wood and feeding on the softer inner layers.

Red milkweed beetles are medium-sized, attaining lengths of about half an inch—more when you include their long antennae. Like all insects, they have three body parts: the head, where the eyes, mouthparts, and long antennae sit; the thorax, where the six legs and four wings attach; and the abdomen, covered by a hard pair of wing covers, called elytra, underneath which the wings neatly fold.

Life History/Diet/Behavior

All insects go through either three or four life stages, depending on the species. Red milkweed beetles are holometabolous, which means they go through four stages. These insects start as eggs, which hatch into larvae (called grubs for beetles), and then enter the quiescent, pupal state, before transforming into adults. The adults are the stage which can reproduce; the larvae are the main eating machines.

Male red milkweed beetles are slightly smaller than females and will fly to the nearest milkweed plant if they do not immediately find a female to mate with—a strategy that almost always succeeds. If the number of available females is sparse, larger males will prevent smaller males from mating, but in most cases, all males eventually find a mate.

In early summer, the female red milkweed beetle lays her eggs at the base of the common milkweed plant or close by. The newly hatched grubs burrow into the soil or plant stem and feed on the plant's roots throughout the summer and into fall. They overwinter there, and in the spring may resume feeding, but soon pupate in small earthen chambers they create. After about a month, the adults emerge and make their way to the surface and up the milkweed plant, where they feed on the leaves, buds, and flowers.

Adult beetles are not immune to the sticky white sap of the milkweed and tend to feed "upstream" on the leaf, letting the sap ooze out and run downwards away from them. If they inadvertently get a mouthful of sap, they immediately attempt to wipe their mouthparts clean. If the sap hardens, the beetle will not be able to feed.

The milkweed beetle's bright red coloring acts as a warning sign to would-be predators. Called aposematic coloration, insects sporting bright, even flamboyant colors—such as the monarch butterfly or the yellow jacket—become associated with tasting bad or capable of causing pain, and birds and other predators learn to avoid them.

The red milkweed beetle is harmless to humans. In fact, if you spot one crawling on a milkweed leaf and touch it, it will more than likely let go and fall farther down into the plant, or it will fly off to get out of there as quickly as it can.

Bill Rhodes is a freelance writer and avid naturalist.

Fun Facts

- The red milkweed beetle's species name, *tetrophtalmus*, means four-eyed. The beetle's antennae are connected to the head in the middle of each eye, dividing each into an upper and lower segment—hence, it has four eyes.
- When handled, red milkweed beetles will emit a shrill squeaking sound. They produce this noise by rubbing together friction-producing structures located on two segments of its thorax. In the lab, scientists have also heard them purr.
- There are several species of milkweeds and, likewise, several species of red milkweed beetles. Each species, for the most part, specializes on a single species of milkweed plant, which, in places where their ranges overlap, prevents them from competing for food and egg laying sites with one another.

A RESCUED LOON and how to protect others

BY JENNIFER DENNY

John DiGiacomo

Fishing line entanglement such as this is all too common on Adirondack lakes and ponds.

THE COMMON LOON

had fishing line wrapped around its beak and neck. There were two fish hooks stuck in its mouth, and another embedded near the back of its head. Luckily, there did not appear to be any toxic lead sinkers in the mess. It was the first fishing line-entangled loon that I had ever seen in person, and I had the invigorating job of holding the loon steady during the difficult process of freeing it from the agonizing line.

The loon was weak. We captured it easily using a bright light, substantial salmon net, and as much finesse as our borrowed jon boat could muster. On shore, I held the towel-wrapped bird as tightly as I dared. It was a warm September night, and voracious no-see-ums quickly settled all over me, but I kept both hands on the loon to hold it steady. It was a large juvenile, having grown a lot since it hatched in June.

Dr. Nina Schoch, executive director of the Adirondack Center for Loon Conservation (as well as a veterinarian and wildlife rehabilitator), slowly but surely removed the line and hooks from the young loon. It was clear that her practiced hands had done similar procedures many times before. Other staff and volunteers from the Loon Center assisted Dr. Schoch, as she treated the bird's injuries. The loon didn't struggle much, probably because it hadn't been able to eat properly since the line became tightly wrapped around its head, beak, and tongue. It seemed that we had "interfered" just in time. Dr. Schoch did everything she could to give it a fighting chance, from cleaning its wounds to giving it fluids and antibiotics.

Dr. Nina Schoch and Jennifer Denny work together to free a juvenile loon from fishing line.

John DiGiacomo

John DiGiacomo

The lucky loon enthusiastically returns to the water after treatment.

Common Loons are excellent fishermen. In the Adirondacks, their diets consist largely of fish.

Ellie George

We soon released the loon back into the water. Happy to be free, it quickly swam off into the darkness, leaving us to wonder about its future. The road to recovery would be long. The injuries to its tongue and neck were pretty severe, but would hopefully heal with time.

We were overjoyed by the reports we received during the following weeks, that the young loon was fishing and diving as it should. What a relief!

Common loons are a Species of Special Concern in New York and serve as an important biological indicator. They breed on lakes and ponds in the northern parts of the state, typically raising one or two young per year. Loons spend most of their lives on the water and are the top predator in Adirondack aquatic ecosystems. Their summer diets include crayfish, salamanders, snails, and a lot of fish. Adults can be identified by their distinct black and white plumage, and variety of vocalizations. The haunting wail of a loon across calm water is a sound that's hard to forget.

Many outdoorsmen and women believe that when a common loon dies, it is part of an inevitable circle of life. This is sometimes true, but other times, human activities inadvertently shorten the life of a loon. Loons are long-lived (at least 20 to 30 years) and may reproduce many times, so the loss of one bird can have significant impacts on the future of the population. In the case of the fishing line-entangled juvenile, we saved it from certain death, but there are other loons in similar situations that we never know about or can't rescue fast enough. So, it's clearly better if these birds never need rescuing at all.

To address such threats as fishing line entanglement and lead poisoning to loons, as well as many other birds and animals, the Adirondack Center for Loon Conservation has introduced several programs, including the Lead Tackle Buy-Back Program, Fishing Line Recycling Program, and Loon-Friendly Lake Certification Program. By making a few simple changes to the ways we enjoy Adirondack

Nina Schoch

Loon chicks ride on their parent s backs for protection, and snuggle under their wings to stay warm.

Lead Tackle Buy-Back Program

Anglers! Do you have lead fishing lures, sinkers, or jigs in your tackle box? Did you know that lead can kill loons and other animals when they accidentally swallow it?

Help protect wildlife in your favorite fishing spots—it's easy. Turn in an ounce or more of your lead tackle to one of the outfitters below, and receive a $10 voucher to buy new non-toxic, lead-free tackle. There are many types of tackle that are safe for loons, including steel, tin, tungsten, ceramic, and sand, and using these can make a difference.

The Lead Tackle Buy-Back Program is a partnership between the Adirondack Center for Loon Conservation and fishing tackle outfitters throughout the Adirondack region. Bring your lead tackle to any of these outfitters:

- Blue Line Sports, Saranac Lake
- Crossroads, Chestertown
- Fish307.com, Lake George
- Hoss's, Long Lake
- Norm's Bait & Tackle, Crown Point
- Old Forge Hardware
- Pine's Country Store, Indian Lake
- Raquette River Outfitters, Tupper Lake
- Red Top Inn, Tupper Lake
- Woods and Waters, Saranac Lake

Visit **www.adkloon.org** to find the locations of participating retailers. More shops will be joining soon. By removing lead from your tackle box and only fishing with non-toxic sinkers and jigs, you may save the life of a loon.

Jennifer Denny

Fishing Line Recycling Program

The Adirondack Center for Loon Conservation provides fishing line recycling containers to volunteers who maintain them at boat launches, beaches, public docks, and other places regularly visited by anglers. It is important for anglers to recover any snagged or broken fishing line, since it can become a hazard for wildlife, causing severe injuries and even death.

The Loon Center's Fishing Line Recycling Program makes it easy to properly dispose of broken fishing line. Keep your eyes open for our white fishing line recycling containers, and use them to discard your spent line.

Want to maintain a recycling container yourself? Contact the Loon Center at **education@adkloon.org** or 518-354-8636 to learn more and to receive a container!

Loon-Friendly Lake Certification Program

Fishing line entanglement and lead tackle ingestion are just a couple of the many threats common loons face. The Loon-Friendly Lake Certification Program is a community-based stewardship effort that addresses other concerns as well, including:

- Loss of nesting habitat due to shoreline development;
- Human disturbance of loon nests and families;
- Injuries due to boating accidents; and
- Flooding of nests due to water level changes.

Through this program, the Adirondack Center for Loon Conservation provides lake associations and other interested groups with guidelines, training, and conservation projects to help mitigate these threats and ensure that their community supports breeding loons and the lakes where they live.

lakes and ponds, we can help protect loons and other wildlife from such devastating threats.

Participating in any or all of these efforts helps protect Adirondack loons from the unintended consequences of human activities. It's not hard to be a loon lifesaver. Collecting broken fishing line, fishing with non-toxic tackle, and maintaining a loon-friendly lake all reduce the need for rescues and help keep these birds healthy.

Even though we were happy to help the entangled juvenile loon last summer, it would be best if he or she never needed us at all.

Jennifer Denny is the Communications-Education Coordinator for the Adirondack Center for Loon Conservation in Saranac Lake.

The Adirondack Center for Loon Conservation is a 501(c)3 non-profit that conducts scientific research and engaging educational programming to promote and inspire passion for the conservation of common loons in and beyond New York's Adirondack Park. To learn more about the Adirondack Loon Center, visit **www.adkloon.org** or **www.facebook.com/adkloon**. You can contact the Center at info@adkloon.org or (518) 354-8636.











New York's First-Time Camper Program IS BACK

BY LAUREL REMUS

On a weekend with unsettled weather in late July 2021, the New York State Department of Environmental Conservation (DEC) partnered with Outdoor Afro to provide its members with a special First-Time Camper weekend at Luzerne Campground in the Adirondacks. Outdoor Afro is a non-profit organization dedicated to increasing inclusivity in outdoor recreation and conservation by providing opportunities for people of color to connect with nature.

DEC's First-Time Camper program has been successful for several years. However, in the last two years, COVID disrupted the opportunities offered through the program, which provides equipment, guidance, and instruction for first-time campers to try the experience in a safe environment without having to invest in equipment. The program hosts five families each weekend during the summer and provides guides for a weekend at a DEC campground, promoting family fun and adventure.

Although DEC was unable to hold a full program every weekend throughout the summer of 2021, the agency's Adventure NY staff could not bear to miss the whole season. We contacted Outdoor Afro's Albany chapter leader, Benita Law-Diao, and within two weeks we were oversubscribed with excited would-be campers. The weekend program was attended by one of the largest groups ever, with 28 people joining in the fun. Some campers even shared sites.

Everyone arrived on Friday (and yes, it rained despite the clear forecast) and one by one, the campsites came together. The participants didn't know each other before they arrived, but they were all family by Sunday. The children played in the woods and had a great time discovering a new environment. Folks set up fires and stoves, and dinner was on. No boring meals for these families; they had wonderful meals planned. And since camping "rules" always apply, we had smores as an appetizer, instead of dessert.

On Saturday, the participants were treated to a nature hike with a DEC environmental educator. Some folks swam at the beach, while others fished or just enjoyed the peaceful environment. Of course, it rained again on Sunday night (a theme apparently), but everyone had great spirits about it. The tents stayed dry, and blueberry pancakes were still on the breakfast menu. When it was time to pack up, everyone pitched in, helped each other, and the work was done in a flash.

Every First-Time Camper weekend is a fun and meaningful experience, but this one was extra special. The participants were so excited and thankful to be there, it was truly uplifting. Several of the families were planning future trips together before we left the site. Children who didn't know each other beforehand became good friends, and everyone planned to stay in touch. A great time was had by all, and lasting memories were made.

Camping is a special experience that helps people escape from their daily lives for a time, connect with nature, and leave their troubles behind. It has a natural way of bringing people together in a relaxed environment. Many participants grew up camping, while others never had the chance to try it. Providing these weekends for people to obtain the camping experience without the worries of "going it alone" is a special benefit. It's great to have happy campers all around, and we look forward to offering the First-Time Camper program for many, many years to come.

Laurel Remus is a Special Assistant for DEC's Adventure NY Program

DEC's First Time Camper program will resume for the 2022 summer season. Keep an eye out for an announcement of locations and weekends the program will be held, as well as how to sign-up.










Answering a Few Questions Can Improve our Marine Fishery

When it comes to marine fishing, we encourage anglers to brag about their catch. In fact, by sharing information as part of an on-site survey being conducted by DEC, you can help improve management of the fishery. From March through December, DEC staff will be at designated public fishing sites to conduct the coastwide Access Point Angler Intercept Survey. Surveyors will count the total number of anglers using the site and interview individual anglers to collect information about the number, size and weight of fish caught, the number of fish caught and released, the fishing gear used, and basic demographic info. The data collected from these confidential surveys will help NOAA and DEC assess the health of the fishery and maintain fish stocks. For more information on the survey, visit NOAA's Marine Recreational Information Program webpage at **www.countmyfish.noaa.gov** or the DEC APAIS webpage at **www.dec.ny.gov/outdoor/113218.html**.

Leslie Robertson for the NASF

Grants Available for Forest Landowners

Do you own between 10 and 1,000 acres of forest land and have interest in improving your woods? DEC's Regenerate NY program provides cost-share grants to New York State landowners looking to enhance forest regeneration on their property. Landowners who want to plant trees, control competing vegetation, restore a degraded forest stand, or exclude deer are encouraged to apply for project funding. This program is open until October 7, 2022, or while funds last. Grants are awarded on a first-come, first-served basis, so we encourage an early application. To learn more about the program, visit: **www.dec.ny.gov/lands/119950.html**.

Protecting Pollinators

DEC recently limited the use of pesticides that can harm bees and other pollinators. DEC is reclassifying certain products containing the neonicotinoid (neonic) insecticides imidacloprid, thiamethoxam, and acetamiprid as "restricted use" to ensure applications are limited to trained pesticide applicators in specific situations. Restricting the use of these pesticides enables DEC to collect new data to determine where, when, and how they are used, as well as their potential impacts. Pollinators contribute substantially to New York's environment and economy, and protecting them is crucial to supporting New York's environment, agricultural economy, and biodiversity. The reclassification will take effect on January 1, 2023.

New Fishing Regulations

Following a recent public comment period, DEC has implemented freshwater fishing regulation changes to expand fishing opportunities and make fishing as easy and enjoyable as possible. The changes reduce the number of special regulations, while still providing the protections necessary to ensure sustainable fisheries. Various special regulations are still necessary, particularly for waters that require unique management strategies to achieve desired outcomes. To learn more about the changes to the freshwater fishing regulations, go to **www.dec.ny.gov/outdoor/124258.html**.

Name Change

Spongy moth is the new common name of *Lymantria dispar dispar*, formerly known as the gypsy moth. The name was changed by the Entomological Society of America (ESA). The spongy moth is a non-native insect from France, and its caterpillars are known to feed on the leaves of a large variety of trees, including oak, maple, apple, crabapple, hickory, basswood, aspen, willow, birch, pine, spruce, hemlock, and more. Spongy moth populations rise and fall in cycles. Yearly variations range from very few and not noticeable (most years), to large numbers with significant leaf damage and tree defoliation. To learn more about the spongy moth, go to **www.dec.ny.gov/animals/83118.html**.

Moose Research Project

DEC and partners have launched a new moose research project in the Adirondacks. Last winter, 14 moose were fitted with GPS collars as part of a multi-year project assessing moose health and population. Previous moose research in the Adirondacks has helped researchers better understand adult moose survival and reproduction, but little is known about calf survival and dispersal. By collaring calves and monitoring their survival to adulthood, biologists will be able to investigate factors limiting moose population growth in New York State. For information about moose biology, current research, or to report moose sightings, visit: **www.dec.ny.gov/animals/6964.html**.

Bill Combs Jr.

THE RALPH T. WATERMAN BIRD CLUB'S

Bluebird Trail

BY SUSAN GILNACK

As I was looking out my kitchen window in early January, I saw an eastern bluebird perched on a fence, scanning the bare ground for insects. I quickly retrieved my binoculars so I could get a better view of him—what a beautiful bird and special treat for the beginning of the New Year!

As I admired him, I thought of Florence Germond, one of the founding members of the Ralph T. Waterman Bird Club in Dutchess County. She started the club's first Bluebird Trail in March 1962. I thought about all the work she and her helpers had done throughout the years so I could be standing there, enjoying this magnificent male bluebird.

Prior to 1962, it was difficult to find eastern bluebirds in Dutchess County. In fact, on the Bird Club's May 1960 Census, only six bluebirds were recorded. Fast forward to the May 2021 Census—108 bluebirds were counted!

The change began in 1960, when Florence was visiting her sister in Minnesota. She met a man who had success encouraging bluebirds to reproduce in nest boxes he had placed in specific locations. His success encouraged Florence to set up nest boxes back home to see if she could accomplish the same results.

After she returned home, she received support from another Bird Club member, John Matteson. He built 19 nest boxes during the winter of 1961-1962. Then another three nest boxes were donated to the club; hence the dawn of the Bird Club's Bluebird Trail!

On March 31, 1962, Florence and her helpers mounted 22 new bluebird nest boxes in Pleasant Valley, Stanford, and Clinton Corners, and then they waited for bluebirds to return in the spring to begin breeding. That year, the club's Bluebird Trail yielded six bluebirds fledged from those nest boxes.

Florence knew that success was on its way. She also realized that increasing the success would require a lot more work and dedication. An annual Bluebird Box Cleaning Day was established, and it became a March ritual where volunteers cleaned out nest boxes and made repairs to prepare for the spring breeding season.

What began with 22 nest boxes has grown to more than 400 mounted nest boxes that are monitored by 20 trail monitors! In 60 years of monitoring nest boxes, there have been 129 different trail monitors. During that time, there were two years when more than 1,000 bluebirds fledged—1,022 in 1992 and 1,021 in 1999.

Looking back through the Waterman Bird Club's records, we found that the early years had the same predator problems we still have today. However, there are two new predators on the scene—black bears and black rat snakes. Bears have been destroying nest boxes for the past seven years to prey upon the eggs and hatchlings. The snakes have been entering nest boxes and doing the same thing for 10 years.

Fun Facts on the eastern bluebird

- The eastern bluebird can see an insect 100 feet away!
- Bluebirds are one of the first birds to return north in the spring.
- In the fall, roosting flocks of up to 50 birds huddle together at night to stay warm.
- The eastern bluebird was named New York's state bird in 1970.

Bill Combs Jr.

James Southward and Florence Germond, April 5, 1962

Four bluebird babies in a nest box.

Linda Isaacs

Florence didn't know anything about how to build a nest box or set up a Bluebird Trail until she met that man from Minnesota who taught her both. There was no internet to provide bluebird information. She was a pioneer who learned by trial and error.

In the beginning, nest boxes were mounted on trees and wooden fence posts, but Florence quickly learned that this type of mounting made it easy for predators to raid nests and eat the eggs and/or hatchlings. She continued learning about predators and how to discourage them. She also had to find dedicated people who were willing to build and install nest boxes, and serve as trail monitors.

So much we know about bluebirds today is the result of what Florence and the trail monitors learned on their own and then passed on to others. Many of the original Bluebird Trails that Florence created are still maintained and monitored today by the Ralph T. Waterman Bird Club. It's a tribute to her vision and hard work.

Florence Germond passed away on October 13, 1994. She had monitored nest boxes for 32 years and was able to see that her Bluebird Trail fledged more than 1,000 birds in one season. But the work did not end.

Peggy Fasciani became the Bluebird Trail Coordinator in 1995, and Dorcas Brower followed her in 1996. I proudly became the Trail Coordinator in 2010, and still serve in that role.

Back in 1988, Peggy Fasciani and Barbara Michelin set up the southern Dutchess Trail in the towns of Wappinger, East Fishkill, and Hopewell Junction. They started with just 14 bluebird nest boxes, but the trail has now expanded to include 46 nest boxes. And Barbara's enthusiasm has never wavered; she has been a Trail Monitor for the last 34 years!

I know of many other suitable parks and preserves where there are bluebirds, and believe we should have nest boxes at those sites as well. However, we need more Trail Monitors for that to happen. Nest boxes and Trail Monitors will always be needed to ensure bluebirds' success because the natural cavities for nesting that they require are steadily dwindling. Our efforts can help change that.

From 1962 to 2021, the Ralph T. Waterman Bluebird Trails have fledged **33,929** bluebirds! I know Florence would be very proud of this number and the 129 Trail Monitors who have made it possible. We have seen what can be achieved, and I hope these efforts will continue to help bluebirds thrive and allow us to see and enjoy their beauty.

Susan Gilnack is the Committee Chair for the Bluebird Trail, Ralph T. Waterman Bird Club, Dutchess County.

Bill Combs Jr.

What to Watch for

SIZE

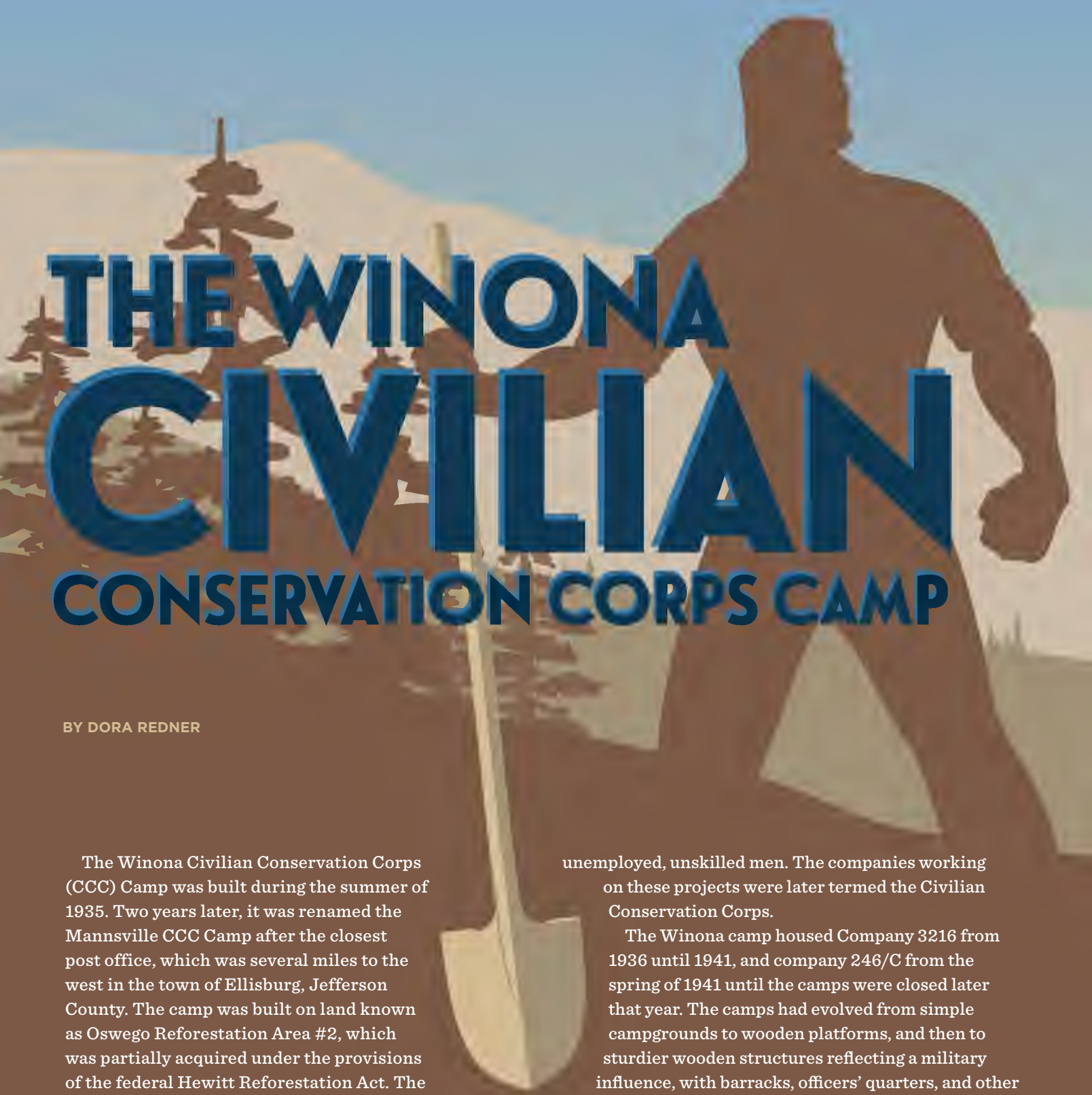
Bluebirds are about seven inches long.

APPEARANCE

The male is bright blue with white undersides and a rust-colored breast. The female is grayish blue, but otherwise similar to the male.

WHERE TO WATCH

Bluebirds nest in cavities in standing dead trees and in nesting boxes. Nesting boxes are set on posts five to six feet off the ground and come in pairs (one for the bluebirds, the other for the competition). Bluebirds eat insects, seeds, and berries, so look for them in fields, meadows, and orchards.



THE WINONA CIVILIAN CONSERVATION CORPS CAMP

BY DORA REDNER

The Winona Civilian Conservation Corps (CCC) Camp was built during the summer of 1935. Two years later, it was renamed the Mannsville CCC Camp after the closest post office, which was several miles to the west in the town of Ellisburg, Jefferson County. The camp was built on land known as Oswego Reforestation Area #2, which was partially acquired under the provisions of the federal Hewitt Reforestation Act. The camp is a rare surviving example of a unique and short-lived property type, and is considered the most intact and representative example of a CCC camp in New York State.

These camps were built in response to the Federal Unemployment Relief Act, signed into law by President Franklin D. Roosevelt in 1933. The Act called for emergency conservation work on public lands utilizing unemployed, unskilled men. The companies working on these projects were later termed the Civilian Conservation Corps.

The Winona camp housed Company 3216 from 1936 until 1941, and company 246/C from the spring of 1941 until the camps were closed later that year. The camps had evolved from simple campgrounds to wooden platforms, and then to sturdier wooden structures reflecting a military influence, with barracks, officers' quarters, and other facilities arranged in a quadrangle around a parade ground and flagpole.

The Camp Superintendent was Frank E. Jadwin, a former Conservation Department District Forester who played a key role in the acquisition and establishment of the state forest. The Camp Commander was M.E. King of Harrisville, Lewis County. There were two forestry foremen, and Captain John G. Rees oversaw

Company 3216 Camp S-116, Sept. 1939

Digging out from a mid-winter snowfall at the camp in 1936.

Camp S-116 CCC, Sept. 12 1939

construction. Fifteen men from the surrounding areas were also enrolled as "experienced men" or supervisors. Junior Company 3216 consisted of 124 men, of which 97 were detailed to park or forest work, with the remaining men detailed to camp work. All company men enlisted in the CCC were paid $30 per month—$25 was sent home, but if there was no one at home to receive the funds, that money was placed in escrow.

The Camp's primary mission was reforestation. According to work plans for camp S-116 dated from April 1935 to March 1936, additional work included the creation of fire breaks around open fields to reduce fire hazards, and construction and improvement of roads and truck trails using gravel obtained at no cost from borrow pits located on state land. Other projects included forest stand improvements by means of release and improvement cuttings; the creation and reconditioning of water holes, which afforded adequate fire suppression; tree and plant disease control; boundary line surveys; and water improvements, which included both stream enhancement projects and fish restocking.

An article in the *Jefferson County Journal* dated September 25, 1935 noted, "Sometime during the fall months there will be 6,000,000 trees planted in three of Northern New York's counties, (i. e., Jefferson, Lewis, and Oswego). One-third of that number will be planted in each county by men from the CCC camps. In this county, the men from camps near Williamstown and Mannsville will do the work. In Lewis County the men will be from camps near Harrisville and Hawkinsville. The total acreage is 11,000 acres. The types of trees to be planted are spruce, white pine, red pine, and larch, which will come from the state nursery at Lowville."

Company 3216's reforestation efforts started in Babbitt's Corners in the town of Rodman, Jefferson County, the area known today as the intersection of State Routes 177 and 189. Roughly 1,000 trees were planted per man, each day.

Formal education in the evening hours was authorized in the camp, along with first aid, journalism, photography, social dancing, the theory of boxing, the theory of chess, cooking, and English. Company 3216 had its own newspaper, *The Polaris*, which was published semi-monthly by the journalism class. The cover of the paper was blue and had a drawing of the North Star and a compass. Two hundred and twenty-five copies of the first edition were mimeographed and circulated throughout the United States, including copies sent to President

Roosevelt and to Robert Fechner, director of the CCC. The first edition of *The Polaris* was regarded as one of the best papers produced by CCCs in the United States.

Although only two of the camp's buildings remain—an office/supply building and a garage/shop building—the site still retains the footprints of its setting. With its landscape design and foundations, the site paints a picture of a parade ground surrounded by barracks and other facilities, and various outbuildings and structures can be reached by following clearly discernable stone paths. The camp's original water pump is still intact and functional, and the original flagpole is stored intact in the garage building. Today, the camp serves as the Department of Environmental Conservation's (DEC) Operations headquarters and storage facility, and is a home base for many events, including ski, snowshoe, and dog sled races.

The Mannsville CCC Camp is evidence of a very important phase in American history, one of the 67 CCC camps administered by the Conservation Department's Division of Lands and Forests. The several thousand acres of mature forestland, countless miles of roads and improved streams, and that mysterious circular waterhole located near the side of the road, are all a testament to the contributions made by the men of the Mannsville CCC Camp more than 80 years ago.

Dora Redner is a Forest Technician in DEC's Lowville office.

Cross-country ski tourathon

WINONA STATE FOREST

Visitors to the camp can also enjoy Winona State Forest, located on the boundary of southern Jefferson County and northern Oswego County. This 9,233-acre state forest offers many recreational opportunities, including, hiking, mountain biking, hunting, fishing, trapping, birdwatching, snowmobiling, horseback riding, cross-country skiing, snowshoeing, and more.

Winona State Forest is an example of how active and sustainable forest management and outdoor recreation can coincide, creating benefits for all to enjoy. As the trees planted by the CCC during the 1930s and 1940s matured, foresters marked stands for timber products, shipping logs to paper mills, pole mills, sawmills, and veneer mills around the world. Past and current forest management activities have created a foundation for which many current recreational facilities rely on. Many recreational trails were created on previous skid trails and parking lots were created on previous log landings. Active forest management within Winona State Forest still takes place today. Thanks to the combined efforts of so many people, the forest has become a pinnacle venue for outdoor recreation, and at the same time provides valuable forest resources.

The Winona Forest Recreation Association (WFRA) has a voluntary stewardship agreement with DEC and helps maintain and groom many of the trails within the state forest. They also hold multiple events throughout the year, including snowshoe marathons, a cross-country ski tourathon, IditaFat fat tire bike race, and the SnoFatShu snowshoe and fat tire bike duathlon. Sled-dog races are held during the winter months as well, if the conditions are right. More information about WFRA and the events they oversee can be found at www.winonaforest.com/.

2022 Marks the 75th anniversary of the DEC Summer Camps Program

BY SARAH CONLEY

Welcome to the Opening Circle. During the camp season, this is the time when campers, camp directors, counselors, camp aides, the camp cook, and volunteers join together to begin their camp journey. Through games, song and dance, skits, and poetry, the group shapes their intentions for the week ahead. Whether campers come by themselves or with a group of friends, they quickly become part of the camp family.

Now *you* are also part of the circle. You may be from the Southern Tier, Staten Island, the Capital Region, or beyond; everyone is welcome. You bring your own experiences, fears, hopes, and ideas. Who you are and what you bring is important because, as is modeled at camp, Everyone Has Something To Offer (EHSTO). The choices we make individually and as a group matter. As we will learn in our ecology lesson groups, everything is connected. Perhaps you can feel some of the magic that makes our camps so special.

It all began at Camp Danaca

In 1947, a 10-day program for boys was held at Ithaca College's Camp Danaca near Danby in Tompkins County. The New York State Conservation Department (later DEC), with backing from local sportsmen's federations, rented this camp and taught fishing, forestry, game management, and outdoor skills to 70 male campers, ages 12 to 16 years old. The cost to attend was $25 per person. Just as they do today, campers received a certificate at the completion of the camp session. The popularity of the program was so strong, it led DEC to purchase Camp DeBruce the following season.

Camp DeBruce in Sullivan County was a fish hatchery prior to being purchased by New York State in 1948. The camp is located in the Catskill Park and offers trout and fly fishing, hiking trails, and wild forest nearby. DeBruce opened for campers that same year and is the longest running of DEC's Environmental Education Camps. Like all of the camps, it remained a sport and fishing camp for boys until becoming co-educational in the 1970s.

In 1949, the camps program grew even more with the addition of two more camps. Alps Camp in Rensselaer County was a former Civilian Conservation Corps camp and Canandaigua Camp, located in Bristol, Ontario County, brought the total to four camps in operation. More than 500 campers attended that year, leading to the opening of another camp, Ray Brook in Essex County, in 1950. For two seasons, the state operated the five camps and participation rose to nearly 800 campers.

1952 brought restructuring and change to the camps program. Raquette Lake Camp in Hamilton County took the place of Camp Danaca. Alps Camp, a rental location that hosted fewer campers than many of the other camps, closed. Camp Rushford was built in Caneadea, Allegany County, replacing Canandaigua Camp.

Camp Rushford is located within the 4,560-acre Hanging Bog Wildlife Management Area. This tranquil site, positioned in the pine woods, includes a pond for fishing and swimming, camper cabins, a rustic log dining hall, and fields for archery and camp games. Rushford's location offers campers a chance to explore the Genesee River, the Finger Lakes Trail, and Letchworth and Allegheny State Parks on daylong and overnight trips.

For the next decade, the four camps operated with an increasing number of campers each season. By 1962, the number of campers was just shy of 1,600. The following year, Camp Ray Brook was replaced with nearby Camp Colby. Camp Colby was the first to go coed in 1971, followed by DeBruce in 1975 and Rushford in 1983.

What Campers Can Expect

At Camp DeBruce, Camp Pack Forest, or Camp Rushford, campers will enjoy adventures such as fishing, archery, boating or canoeing, hiking, birding, swimming, fly tying, orienteering, map making, shelter building, tracking, campfires, nature arts, journaling, herping (searching for reptiles and amphibians), a camper polar bear swim, and visits to sites such as mountains, state parks, beaches, bogs, and other locations.

In addition, campers will learn:

- Field lessons by collecting insects and discussing habits;
- Aquatics lessons by using dip or kick nets to collect macroinvertebrates, and discuss water quality;
- Forest lessons by investigating tree diversity, the importance of soils, and forestry; and
- General ecology, including habitats, human impacts, and energy cycles.

For children between the ages of 11 to 13 or 14 to 17 years old, a stay at camp is a great way to learn about nature, ecology, and how to enjoy and protect the outdoors.

Camp Colby, located near Saranac Lake in Franklin County, had been a summer retreat for theater professionals. Formerly known as "Camp Intermission," New York State purchased the camp from the William Morris Theatrical Agency. It had been a popular destination for entertainers who, while enjoying their summer break, would often perform locally for charitable organizations and hospitals. You can still find evidence of Colby's unique history today. When driving into camp, the Comedy and Tragedy masks are visible on the stone gate!

Camp Colby provides programming weeks for both 11- to 13- and 14- to 17-year-old campers. Popular trips from the camp include hiking in the High Peaks, paddling the Saranac Chain of Lakes, and visiting the Paul Smith's Visitor Interpretive Center. Like each of the camps, hunter education programs are offered for interested campers.

In 1970, on the first Earth Day (April 22), the Department of Environmental Conservation (DEC) was formed by combining the Conservation Department with relevant state programs to create a new agency that focused on environmental protection. DEC camps began to include Environmental Education programming, while continuing the tradition of offering sportsman education and conservation practices.

Through the '70s and '80s, DEC's camps placed increasing emphasis on environmental education, and lessons in field, forest, and wetland ecology became part of the camp week. Traditional camp activities such as fishing, hiking, and swimming were still included and, all together, offered campers a one-of-a-kind outdoor experience. Ecological concepts and themes are woven into camp activities–everything from monitoring food waste during meals to brainstorming solutions for water and energy conservation.

In the 1980s, Rogers Environmental Education Center in Chenango County offered the Teenage Ecology Workshop for older and returning campers. It was replaced in the 1990s with Camp Pack Forest, which is leased from SUNY College of Environmental Science and Forestry (SUNY-ESF). Pack Forest is located next to a beautiful 85-acre

lake with miles of trails and fields to explore. Pack Forest is named for Charles Lathrop Pack, who donated the land to SUNY-ESF for a working and teaching forest.

Today, DEC operates four camps: Colby, DeBruce, Pack Forest, and Rushford. Each camp offers sessions for 11- to 13- and 14- to 17-year-old campers who participate in ecology lessons, team building, fishing, hiking, swimming, and boating. Each camp provides overnight and day trip options for campers to choose from. Through the week, Leave No Trace, camping skills, and environmental conservation practices are modelled by a dedicated staff, many of whom were former campers themselves.

Campers can be registered by their families or sponsored by an organization to attend. Many sportsmen's clubs, non-profits, and other community organizations sponsor campers by paying their cost to attend. Generations of conservationists have been inspired by attending a DEC camp.

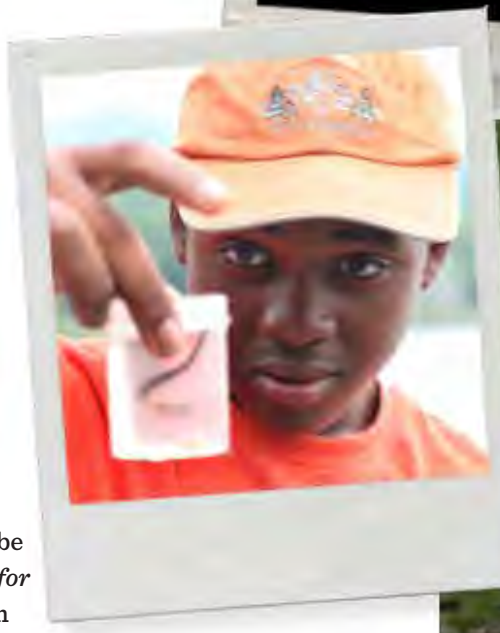
Return to Camp

Summer 2022 is our return to the big Welcome Circle. After a two-year hiatus due to COVID-19 safety precautions, DEC camps* will once again be full of life and learning!

Much of the camp magic comes from the people who have been a part of the program during the years. We invite former campers, staff, families, and sponsors to share their memories. In celebration, three camps* will be hosting 75th anniversary celebrations in June and July (*for more information, please view side bar*). We hope you can join us for one or more of these events to share memories, activities, crafts, and of course, a big opening circle.

Share YOUR magic!

DEC is looking for stories, photos, drawings, memorabilia, and more to commemorate the past 75 years of DEC summer camps. If you have anything you want to share, please reach out to EducationCamps@dec.ny.gov, or go to the DEC Summer Camps Facebook Page.



Sarah Conley is an Environmental Educator in DEC's Division of Operations, Albany. She attended Camp Colby and Camp Rushford as a kid.

*Camp Colby will remain closed in 2022 due to a lack of staff to operate the program and facility. Additional infrastructure upgrades and construction on a new dining facility will be completed for a 2023 opening.

Due to the COVID-19 pandemic and the requirements necessary to keep campers, families, and staff safe and healthy, please be aware that the specific details of how camp may operate in 2022 are subject to change based on the guidance from the New York State Department of Health and Governor's Office.

Join Us to Celebrate

DEC 75th Anniversary Celebration Events will be held on:

SATURDAY, JULY 23
at Camp Rushford
in Caneadea,
Allegany County

SATURDAY, JULY 30
at Camp DeBruce,
in Livingston Manor,
Sullivan County

For more information, visit the DEC Summer Camps Facebook Page or email EducationCamps@dec.ny.gov

COLBY PACK FOREST
1947-2022
75 years
RUSHFORD DEBRUCE

MEET THE Earthworms OF NEW YORK STATE

Charismatic Denizens of the Soil

BY JWORM WORKING GROUP

Unless you are an angler, you probably don't think about worms too much. But like many tiny organisms, worms are often viewed differently by different people. Anglers see them as bait, others see them as icky. But the earthworm is actually an interesting invertebrate.

New York State is home to about 30 different species of earthworms, although only five are native to North America. Most of New York's earthworms have been introduced during the past 400 years from Europe and Asia. They are generally out of sight, living on or in the soil, and are often encountered while gardening or digging for fishing bait, or on sidewalks around town on a warm, rainy morning.

Earthworms are engineers, modifying the soil through their burrowing and feeding activities. Some species excavate their homes up to two meters deep, while others live close to the soil surface, dwelling among decaying leaves and logs. They have a varied diet consisting of leaves and organic matter, fungi, and soil microorganisms. Some worms will also nibble on live plant roots, and occasionally eat fresh foliage or small seedlings.

Life History and Ecology

Earthworms in New York include annual species that overwinter in small cocoons (egg casings) and long-lived species that can survive several years by burrowing below the frost line. Depending on the species, earthworms may reproduce sexually or clone themselves (self-fertilize). Sexual species are hermaphrodites, possessing both male and female parts. Regardless of their lifecycle, all earthworms produce cocoons that hold one to many tiny eggs.

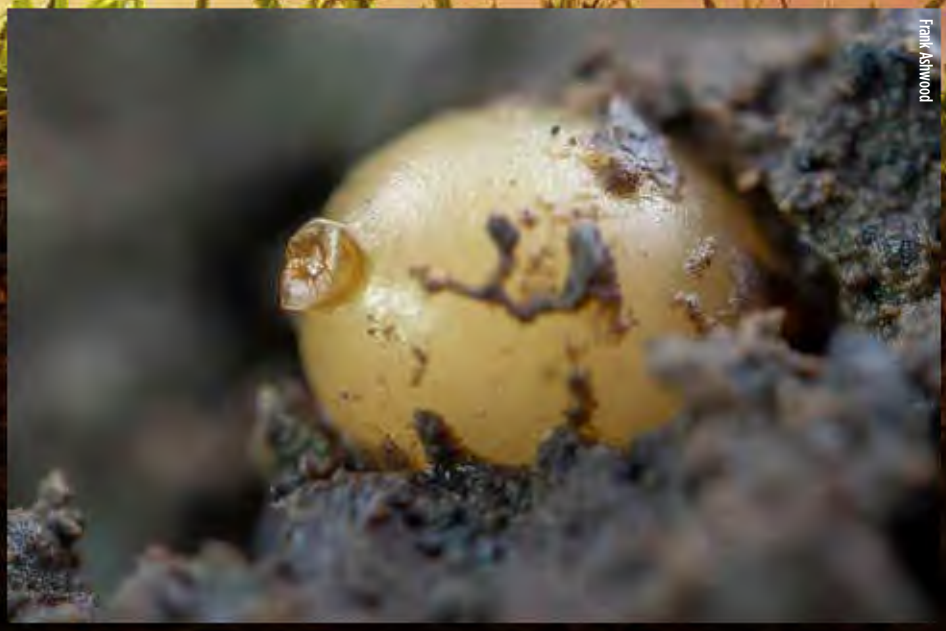
Earthworms are grouped by where they live in the soil. Some live on the soil surface (epigeic), others burrow horizontally in the soil (endogeic), and still others make deep vertical burrows (anecic).

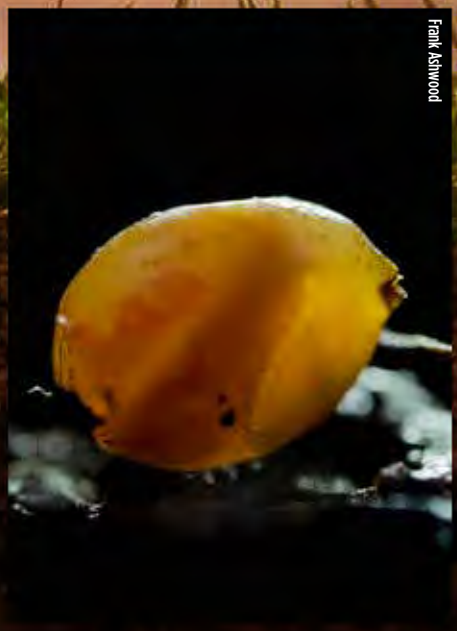
While all earthworms feed on organic matter, where they consume this food depends on where they spend time in the soil. Epigeic species consume litter at the soil surface. In contrast, anecic species pull organic matter into their burrows, but leave difficult to digest portions in small, recognizable piles at the soil surface called middens.

Through their burrowing and feeding behaviors, earthworms are highly effective at modifying the soil structure, chemistry, and biodiversity of soil organisms and plants. Often, the activity of non-native earthworms will aid the spread of invasive plant species, such as European buckthorn and garlic mustard.

Identification Tips

While all earthworm species can appear alike at a distance, where earthworms are found in nature can be helpful when trying to identify them. Each species tends to occur in certain habitats and microhabitats, such as within the leaf litter of a forest. Additionally, earthworm species distribute their casts (solid waste or worm manure) in distinctive ways. For example, Asian jumping worms create a uniform layer of granular casts on top of the soil surface, while the common nightcrawler and mud worm produce casts in small piles near the openings of their burrows.


Frank Ashwood


Frank Ashwood

Earthworm Cocoon

Earthworm species differ in size, color, and the shape and position of the collar, called a clitellum, which is the most conspicuous body structure of an earthworm. Most identifiable features of earthworms are only evident when the earthworm is mature, which is indicated by the presence of the clitellum (this structure makes the egg cocoon).

Earthworms can be reddish brown, grey, pink, golden yellow, or pale blue. Species that spend most of their time underground are usually pale pink or grey, whereas species that feed on the soil surface are typically dark reddish brown. All earthworms have a clitellum at maturity; however, its shape, color, and location differs depending on the type of earthworm. Counting the number of segments between the mouth and the clitellum is one of the ways biologists identify earthworms.

On the following pages we highlight a few types of worms.

Conservation and Reporting of Invasives

New York State has only a few native earthworms, and these are all found in undisturbed habitats. The native species listed in this article inhabit unpolluted wetland and stream ecosystems in many parts of the state and provide another reason to support conservation of these valuable habitats. There also is a small group of native litter worms called "bark worms" that are often found under the bark of rotten logs in mature forests. So, we can conserve our native earthworms by conserving natural forest and wetland habitats throughout New York.

Invasive earthworms transform soil and can have negative impacts on other organisms, including ground-nesting birds, salamanders, millipedes, trees, and forest plant species. Currently, there is not an effective method to permanently remove invasive worms from a location, which means preventing their spread into new areas is the best tool to decrease negative impacts.

Although earthworms are familiar animals, there is much that scientists do not know about the earthworms found in natural habitats in New York, making your sightings and contributions very important. There are multiple ways you can report sightings of native and invasive worms. In New York, invasive worm sightings can be reported to NY iMapInvasives, **www.nyimapinvasives.org/**.

JWORM Working Group is coordinated by the New York Invasive Species Research Institute:

Audrey Bowe, Project Coordinator, NYISRI, Cornell University

Andrea Dávalos, Assistant Professor, SUNY Cortland

Annise Dobson, Postdoctoral Researcher, Yale University

Brad Herrick, Ecologist & Research Program Manager, UW Madison Arboretum

Timothy McCay, Professor, Colgate University

Kyle Wickings, Associate Professor, Cornell University

SPECIES Profiles

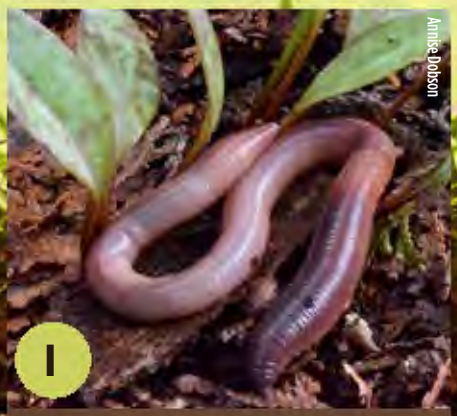
(**N** indicates native, **I** means introduced worms)

Mud Worm

The mud worm (*Sparganophilus eiseni*) is an earthworm of streamside and wetland habitats, both above and below the waterline. This worm makes characteristic little piles of castings at the surface that offer a clue to its presence. When found, this long, thin earthworm will coil into a tight ball. Its clitellum is very close to its nose and is creamy white and large. Although they can be four to six inches long when mature, mud worms appear very small when coiled because they are so thin.

American Gray Soil Worm

The American gray soil worm (*Eisenoides lonnbergi*) is sometimes called the bog worm because it can usually be found in bogs and other types of wetlands. In fact, within New York, this species has only been collected from wetlands. It is a large earthworm at maturity (six to eight inches long), with a color that varies among slate grey, reddish brown, and purple.



Common Nightcrawler, Canada Nightcrawler, Dew Worm

The nightcrawler (*Lumbricus terrestris*) is a deep, vertical-burrowing (anecic) earthworm species whose pigmentation reflects its habitat. This worm has a gradient from light pigmentation at the tail, which is usually below ground, to dark pigmentation at the mouth, which is frequently exposed. It has a characteristic flattened 'beaver tail' that facilitates its movement. Except for jumping worms, this is one of the largest pigmented earthworms commonly found in North America, ranging from 4 to 10 inches long.

Octagonal-Tail Worm

The octagonal-tail worm (*Dendrobaena octaedra*) is one of the most widespread earthworms in North America. Originating in mid-latitude regions of Europe, this is a leaf litter-dwelling (epigeic) species with a high tolerance to acidic soils and cold temperatures. It can be distinguished from other common earthworms by its deep purple coloring and small size (3/4 to 1 1/2 inches). In many places previously covered by glaciers, these earthworms continue to inch their way northward.

Justin Dalaba

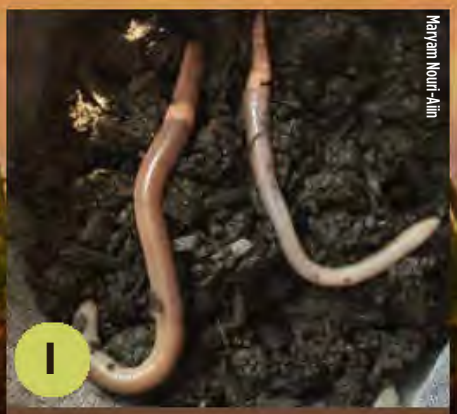
Red Composting Worm, Red Wiggler, Tiger Worm

The European red composting worm (*Eisenia fetida*) is the most commonly used earthworm in vermicomposting systems (using worms to recycle food scraps and organic matter into compost). It is rarely found in natural habitats, preferring compost piles where it sometimes forms very dense populations. It is a small, reddish earthworm, usually no more than four inches long. When stretched during movement, it can appear striped with yellow, because it does not have reddish pigment at the junctions between its segments. For this reason, it is sometimes called the tiger worm.

Chih-Han Chang, Soil Ecology and Biodiversity Lab, National Taiwan University

Green Stinkworm

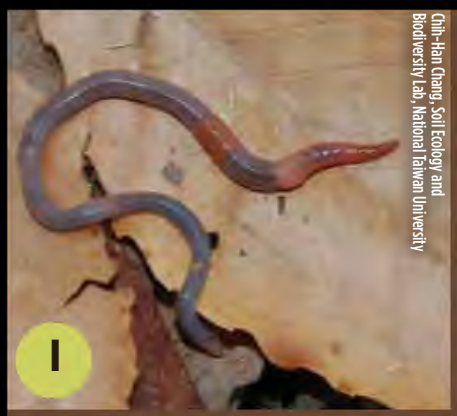
The green stinkworm (*Amynthas hupeiensis*) is a species native to eastern Asia that makes long vertical burrows and feeds at the surface at night (like a nightcrawler). Although they are in the Amynthas genus, they do not exhibit the same movement behavior as jumping worms. When encountered, these worms coil themselves into a ball and emit a strange, foul smell. In high abundance, they can be particularly damaging to turf grass through their casting activity.



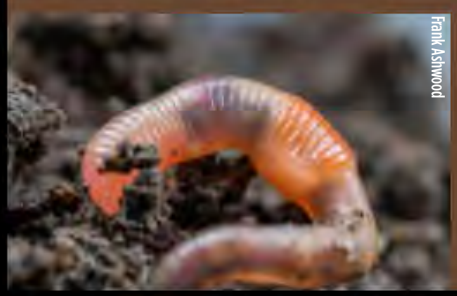
Maryam Nourr-Aiin

Jumping Worm

Native to East and Southeast Asia, jumping worms (*Amynthas agrestis, Amynthas tokioensis,* and *Metaphire hilgendorfi*) are spreading quickly into forests and horticultural landscapes throughout New York. These three species, which look very similar to each other, often co-invade. Their common name refers to their movement behavior. When disturbed, they thrash and often appear as if they are jumping. These earthworms are endo-epigeic; they live and feed within the organic layer (e.g., leaves, mulch, etc.) or within a few inches of the topsoil. As annual species, they hatch from small cocoons in the spring, grow to reproductive maturity in a few months, then die in the late fall, usually after the first hard freeze. Adult jumping worms have a milky white to pink clitellum near their head, in contrast to their reddish-brown pigment. They are highly effective at modifying the topsoil structure into loose, granular castings.



Chih-Han Chang, Soil Ecology and Biodiversity Lab, National Taiwan University



Frank Ashwood

Canadian Worm, Pink-Nosed Worm, Grey Worm

This group of closely related earthworm species (*Aporrectodea spp.*) look alike, and their classification is still under debate. Telling these species apart often requires access to molecular techniques, such as DNA barcoding. As a group, these species have an appearance that is patterned from the nose back: a pinkish nose, followed by a whitish area, followed by a brownish-grey body that is interrupted by a clitellum that is often orangish. At maturity, these species will range from three to six inches. They are found in temperate regions across the globe and range in habitat from urban to remote rural areas. They reside deep in the soil (endogeic), so they're either unpigmented or lightly pigmented.

Chih-Han Chang, Soil Ecology and Biodiversity Lab, National Taiwan University

Late Winter Cheer

Thought you might like this picture of an eastern bluebird during the latest, and hopefully the last, snowstorm [March]. We have a group of bluebirds that have been here for a while now. They may have wintered here. We feed them dried mealworms; maybe that keeps them around. A little brightness on a dreary snowy day!

ELLEN REHBERG | SCHOHARIE

Thank you for sharing your photo with us! Bluebirds do indeed overwinter in New York State and other northern areas, and dried mealworms are a great choice of food to provide for them. Although they are primarily insectivorous, they do adapt their diet in the winter months to eat a variety of fruits and berries, including sumac, red cedar, holly, dogwood, wild grape, hackberry, poison ivy, and others. They will also eat suet and sunflower seeds if available.

Odd One Out

I have recently observed this white-colored turkey in a flock of about 20 wild turkeys here on Long Island and was wondering if you could tell me a little more about the coloration. Is this a rare bird, and would it be an easy target?

NOEL GISH | RIVERHEAD

This could be a leucistic wild bird, but it might be a Royal Palm, which is a domestic turkey variety. It could also be a hybrid of a Royal Palm and a wild bird, but it is hard to tell from the photo. As far as it being a good target, it would definitely stand out more than the other turkeys, likely making it an easier target for both hunters and predators. Leucistic animals are often at a disadvantage due to their coloration and can have a shorter lifespan as a result of being easier to spot.

—MICHAEL SCHIAVONE, WILDLIFE BIOLOGIST, DIVISION OF FISH AND WILDLIFE

Red-tailed White Hawk

I am an avid birder, and I came across this gem out on a bird route one day—it is just magnificent! It was weeks before I finally got a picture that captured the true beauty of this bird, and I wanted to share it with your readers!

HANNAH MCCONNELL | BOONVILLE

This is a very magnificent leucistic red-tailed hawk–thanks for sharing! As we have talked about in previous issues, leucistic animals have a genetic condition where they are missing some of their normal pigments, resulting in the white coloration. We occasionally get photos of leucistic squirrels and deer, but leucistic birds are often harder to capture a good photo of, so this was a fortunate opportunity indeed!

A Tale of Tails

We had an exciting day recently; an ermine stopped by the backyard to poke around. I managed to get some photos of this cool little critter and thought you might like to see them!

BILL MASSARO | ELMA

Great photos! This is a tricky one, because the short-tailed weasel (often called the ermine) and the long-tailed weasel look very similar, with the main difference being (not surprisingly) the length of their tails. During the winter, both species turn white, with black tips to their tails, and the rest of the year they are brown above and cream-colored below. Short-tailed weasels have a tail length of approximately one-third of their body length and long-tailed weasels have a tail length of greater than half of their body length. Unfortunately, in all of these photos, the tail is either at an angle or the weasel is hunched, making it very difficult to tell! After much consideration and discussion amongst some of our wildlife biologists, the consensus is that your weasel is a long-tailed weasel.

Featured Photographers

We regretfully acknowledge an absence of recognition and credit to two of our talented photography contributors. The April/May 2022 issue included an article entitled "The Fiver Rivers Environmental Education Center: 50 Years Connecting New Yorkers to Wildlife" with several stunning wildlife images by Scott Stoner and Denise Hackert-Stoner.

Born and raised on Long Island, Scott Stoner is a lifelong conservationist, birder, and nature photographer. He retired in 2019 from a 31-year career with NYSDEC's Division of Water in Albany. An ordained priest in the Association of Roman Catholic Women Priests, Denise Hackert-Stoner has both a joyful curiosity and a deep spiritual connection with the natural world. She tries to capture the pure beauty within everything she photographs. To view more of Scott and Denise's work, please visit their website, **www.naturelogues.com**.

Ask the Biologist

Q: I noticed this foamy discharge from the bottom of a sweetgum tree on Staten Island this past November. Can you tell me what it is?

JOE DINAPOLI | STATEN ISLAND

A: *Thanks for sharing, and great question! There's a very good chance this is what we call bacterial wetwood or slime flux. If so, it may have a beery or alcoholic odor, as it results from fermentation. It is usually a chronic issue, but not very serious.*

—JASON DENHAM, DIVISION OF LANDS AND FORESTS

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Back Trails

Perspectives on People and Nature

The Big and Small – Both Endangered

BY PETER CONSTANTAKES

Keep an eye out for the pugnose shiner.

This sentence sounds like a warning from the local police department, urging you to protect yourself against a dangerous threat. But there's no need to be alarmed. The pugnose shiner (*Notropis anogenus*) is actually a very small fish—a minnow that is about two inches long—and it generally hides when threatened.

Unfortunately, the pugnose shiner is also an endangered species in New York. Its largest population is found in some regions of the Midwest (Minnesota, Wisconsin, and Michigan). Within New York its native range is in near-shore areas of Cayuga Lake, Lake Ontario bays, and the St. Lawrence River.

Populations of the tiny fish have been significantly reduced or extirpated (no longer exists) in many areas of the United States, and its range in Canada is also diminishing. But why is this harmless fish disappearing? The primary cause appears to be increased water turbidity. In other words, the pugnose shiner does not fare well in dark, cloudy water; it prefers clear water areas found in lakes and large streams with plenty of vegetation.

If you do encounter the fish, you'll see it has a light, straw-colored back, silvery sides, a white belly, and a black stripe from its lower jaw to its caudal (tail) fin. It also has a small, sharply upturned mouth that appears nearly vertical.

The pugnose shiner is protected under New York's Environmental Conservation Law (ECL), which hopefully will help its population rebound. So, if you do see one, please don't disturb it; its tiny population needs to be protected.

The tiny pugnose shiner shares something in common with another, starkly different water lover. The blue whale (*Balaenoptera musculus*), which makes its home in the ocean, is also classified as endangered in New York and under the federal Endangered Species Act.

The blue whale is the largest known animal to ever exist on planet earth; the longest blue whale ever measured was 110 feet long, and the heaviest weighed over 419,000 pounds. Yet despite its size, this species, too, has seen its population drop significantly.

Although it can be an intimidating (and amazing) sight due to its massive size, that size also made it a popular target of commercial whaling. It has been estimated that 2.9 million whales of various types were killed for commercial purposes in the early 1900s, causing the catastrophic decline of global whale populations, including the loss of up to 90 percent of blue whales.

The blue whale's average lifespan is actually 80 to 90 years. But it faces some major threats, including vessel strikes, entanglement in fishing gear, pollution, habitat degradation, and ocean noise (which can affect the whale's behavior).

Blue whales can be found in the New York/New Jersey Bight along the Atlantic Coast, stretching from the coast of Cape May Inlet, NJ to the eastern tip of Long Island. However, an aerial survey conducted by DEC's Division of Marine Resources and partners for the period March 2017 to February 2020 had only three sightings of blue whales, and an estimated five blue whales total.

Whether it's the tough sounding name of the tiny pugnose shiner or the intimidating size of a blue whale, it's imperative that we protect these endangered creatures. You can do your part by keeping an eye out for them and not disturbing them when you see the tiny pugnose fish or the humongous blue mammal.

Peter Constantakes is an Assistant Editor of the *Conservationist*.

FREE FISHING WEEKEND

June 25-26, 2022

Fishing is a great way to enjoy the outdoors, and DEC encourages everyone to take advantage of the quality fishing opportunities available across the state. Each year, we offer six free fishing days that allow individuals of any age or ability to spend some time fishing—no fishing license needed! This is the perfect time for you to reconnect with an old pastime, or introduce someone new to the sport. The next Free Fishing Weekend is fast approaching, so mark your calendars for June 25-26, 2022! And if you can't make that date, additional free fishing days include: September 24 (National Hunting and Fishing Day), November 11 (Veterans Day), and February 18-19, 2023.

To learn more and start planning your free fishing experience, and get some helpful tips, visit **www.dec.ny.gov/outdoor/89821.html**.

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A white-tailed deer grazes in the early morning hours during a beautiful sunrise in Geneseo, NY. Spring is a time of new beginnings, and you may start to notice more wildlife while you're outdoors. If you come across an animal while enjoying the outdoors, remember to give them space, use soft voices, don't feed them, and leave young wildlife where you found them (they likely have an attentive parent hiding nearby).

Photo by @kwphot0