

NEW YORK STATE

CONSERVATIONIST

OCTOBER/NOVEMBER 2021

A person wearing a bright orange beanie and vest over camouflage clothing is kneeling in a field of dry, harvested crops. They are holding a long-barreled rifle vertically. The background shows a line of bare trees under a blue sky with scattered clouds.

Autumn is Ablaze with Outdoor Opportunities

Why I Hunt/Trap

Protecting Life in Our Marine Waters

Ranger Rescues—Hiking Safety Tips from NYS Forest Rangers



NEW YORK STATE
CONSERVATIONIST

Volume 76, Number 2 | October/November 2021
Kathy Hochul, Governor of New York State

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Dear Readers,

One of the best things about living in New York is the opportunity to experience all four distinct seasons, each providing a plethora of ways to embrace and enjoy the outdoors.

Autumn in New York is renowned for the breathtaking foliage that blankets the state's landscape. Nature lovers and outdoor enthusiasts of all ages and abilities can take in the colorful scenery regardless of where they live, whether taking a casual stroll in the woods close to home or a strenuous hike in the wilderness. Fall's spectacular beauty serves as an annual reminder of the importance of our work to preserve and protect the environment to promote healthy lifestyles and enhance quality of life.

For many New Yorkers, fall is also synonymous with hunting and the return of proud traditions that stretch back generations. New York State offers abundant opportunities to get out in the field; in fact, in this issue, you can read about changes we have implemented for the 2021 season to increase hunting opportunities and enhance hunter safety (see article on pg. 12).

Whether you are a hiker, hunter, or simply someone who enjoys being in nature, DEC reminds everyone to be safe when venturing outdoors. Even if you don't hunt, DEC encourages all who go afield to wear bright colors that allow you to be easily seen and identified. And always be prepared and take precautions in woods and forests—while DEC Forest Rangers and ECOs are highly skilled in conducting rescue operations (see articles on pgs. 6 and 13), it benefits everyone to take steps to avoid potentially dangerous situations.

DEC's mission is to ensure a healthy, accessible, and sustainable environment. It's an ongoing endeavor that requires our attention to address immediate issues, such as rescuing lost or injured hikers, helping to protect marine life (see articles on pgs. 2 and 14), and reducing harmful pollutants (see article on pg. 22), as well as considering the long-term consequences of threats caused by climate change. DEC's team of nearly 3,000 professionals is committed to meeting the environmental challenges of today with forward-thinking policies that protect the planet for future generations.

New York's magnificent outdoors are open to everyone year-round and DEC continues to preserve the precious natural resources we all share. Best wishes for an enjoyable autumn in the Empire State.

Sincerely,

Basil Seggos, Commissioner



Department of
Environmental
Conservation

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HUNTERS:

Want Older Bucks in New York? It's Your Choice

Many deer hunters dream of seeing and shooting a large buck. But there is great temptation for hunters to take the first buck they see, often a young buck, when the opportunity presents itself.

New York hunters can increase the likelihood they will harvest an older, larger buck simply by choosing to pass up shots at young, small-antlered bucks. Older bucks create more rubs and scrapes, and they are more challenging to hunt, and yield more meat—all things that may enhance the deer hunting experience.

Many New York hunters are already voluntarily choosing to pass on young bucks. As a result, the availability and harvest of older, larger-antlered bucks is increasing.

To see and take more older bucks, DEC encourages hunters to work with neighbors and hunting partners to cooperatively reduce harvest of young bucks, improve habitat conditions, and ensure adequate harvest of antlerless deer.

For more information, see
www.dec.ny.gov/outdoor/27663.html



VENISON DONATION COALITION

Help End Hunger

Hunters can donate venison to food pantries and soup kitchens throughout the state through the Venison Donation Coalition (VDC). One deer makes 160 servings.

VDC is a nonprofit organization that coordinates the efforts of hunters, deer processors, food banks, individuals and organizations to provide high-protein, low-fat meat to the hungry. If hunters donated one of every 100 deer taken, the program could easily reach 100,000 pounds of venison to feed the hungry.

It's easy to participate: simply bring your legally tagged and properly field-dressed deer to a participating processor (see www.venisondonation.com). There is **NO COST TO THE HUNTER!**

Hunters can also donate dollars to this program when they buy their license.

And you needn't be a hunter to contribute. Anyone can donate either online or by mailing a check to:

The Venison Donation Coalition
3 Pulteney Square
Bath, NY 14810

For more information, call

1-866-862-3337

or visit the website at

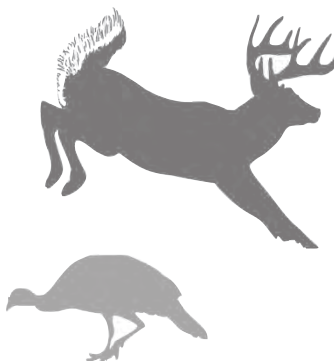
www.venisondonation.com

DONATE DOLLARS-DONATE VENISON

TAKE IT. TAG IT. REPORT IT. It s the LAW, and important for wildlife management.

Report Your Harvest

- **ONLINE:** <https://www.dec.ny.gov/outdoor/8316.html>
- **BY PHONE:** 866-426-3778
- **MOBILE APP:** HuntFishNY App can be downloaded from the Apple App Store or Google Play Store





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CONSERVATIONIST
Kids!

Sea Turtle

TRIAGE FACILITY:

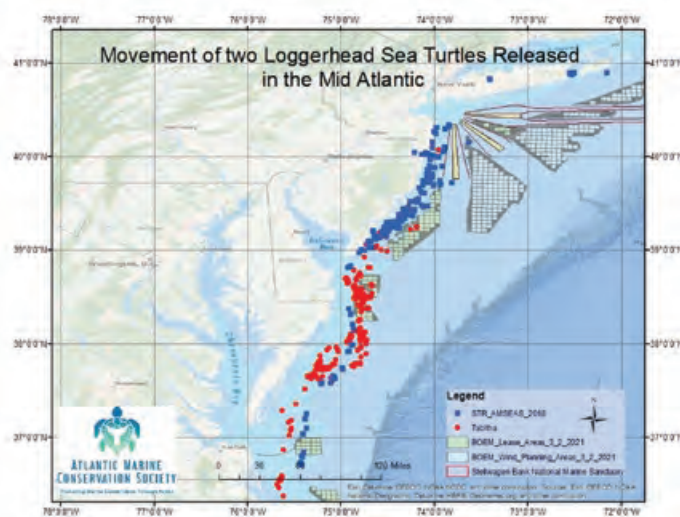
PROVIDING
CRITICAL CARE TO
COLD-STUNNED SEA
TURTLES

BY ROBERT A. DIGIOVANNI JR.

Sometimes even a species that has been around for 100 million years or more can use a little help.

Sea turtles and marine mammals face multiple challenges in the natural environment that may cause them to become sick or injured, requiring the expertise of trained professionals to assist in their recovery. Atlantic Marine Conservation Society (AMSEAS) was formed in 2016 to promote marine conservation through research, education, and outreach programs, engaging the public about their environment, and investigating strandings in areas stretching from Staten Island to the east end of Long Island and beyond. AMSEAS team members have been responding to and investigating strandings of whales, dolphins, porpoises, seals, and sea turtles, both live and dead, for the last three decades in New York.

In the first four years of operation, AMSEAS has responded to assess the health or investigate the cause of mortality of more than 1000 animals, including 349 sea turtles. In New York, we see four of the seven species of sea turtles found worldwide: green, loggerhead, Kemp's ridley, and leatherback sea turtles. Sea turtle mortalities are broken down into two main categories: natural or human induced. Natural causes include disease; bacterial, viral and fungal infections; age-related maladies; and cold-stunning (see insert on next page). Human-induced causes include vessel strikes, ingestion of debris, mutilation, entanglement in fishing gear or debris, contaminants, and noise.



AMSEAS partners with Sea Turtle Recovery to monitor released turtle movements.

Causes of mortality do not impact all species equally. Here in New York, 37 percent of loggerhead sea turtle deaths are attributed to human interaction, with 83 percent of those interactions resulting from vessel strikes. Atlantic green and Kemp's ridley sea turtles strandings have evidence of human interaction 18 percent and seven percent of the time, respectively, with 57 percent of Atlantic green sea turtles incidents and 50 percent of ridley sea turtle strandings attributed to vessel strikes. Stranding trends also vary by season, with loggerhead strandings occurring predominately during the summer and leatherback sea turtle strandings occurring in late summer and early fall, with evidence of entanglement, vessel strikes, and ingestion of debris.



In the first four years of operation, AMSEAS has responded to assess the health or investigate the cause of mortality of more than 1000 animals, including 349 sea turtles.

During the late fall and winter, AMSEAS and New York Marine Rescue Center (NYMRC) work together to respond to cold-stunned sea turtles. Cold-stunning, like hypothermia in humans, is a condition that impacts sea turtles in water temperatures at or below 50°F (10°C) for an extended period of time. Since sea turtles are cold-blooded animals, they do not have the ability to regulate their body temperature. The only exception out of the species encountered in New York is the leatherback sea turtle. Leatherback sea turtles are the largest of the sea turtles and can grow to more than six feet and weigh more than 1,500 pounds. Their size and mass make them less susceptible to cold-stunning, a phenomenon called gigantothermy.

When most people think of sea turtles, they envision warm sandy beaches and crystal-clear waters. As recently as the mid-1980s, scientists believed sea turtles encountered in the Northwest Atlantic were simply lost. Prior to 1985, sea turtle strandings in New York were rare, and the most commonly encountered species was the leatherback. It was not until historic cold-stun

events in 1985, 1986, and 1987 that the prevalence of sea turtles within these northern latitudes was deemed more common.

These events also prompted researchers to begin investigating the importance of the Northwest Atlantic habitat for sea turtles. A collaboration of the Okeanos Ocean Research Foundation, the American Museum of Natural History, the New York State Department of Environmental Conservation (DEC), and the University of Buffalo led to the development and implementation of stranding response procedures for sea turtles. The reoccurrence of cold-stun events, in conjunction with data from the pound net fisheries in New York, provided the foundation for assessing the health status and trends within the local sea turtle populations. This effort by researchers Stephen Morreale, Vincent Burke, Edward Standora, and Samuel Sadove built the program that would seek to increase our understanding of juvenile sea turtle habitat utilization within New York waters.

When sea turtles become cold-stunned, their consumption of food slows and their diving and swimming become compromised, ultimately leading to their complete immobilization. Cold-stunned sea turtles float on the surface, which increases their susceptibility to predators and vessel strikes. Once incapacitated, an animal is at the mercy of the wind and currents. Currents and wind within estuaries and Long Island Sound will often push the animals onto north-facing beaches; if left exposed to the elements and cold temperature, this will be fatal to the turtle. These animals often appear lifeless, so early stranded animals were often mistaken for deceased animals, collected, and placed in freezers for future examination.

Cold-stunning, like hypothermia in humans, is a condition that impacts sea turtles in water temperatures at or below 50°F (10°C) for an extended period of time.

REPORT COLD-STUNNED

SEA TURTLES TO THE NYS STRANDING HOTLINE

Sea turtles that come onshore in New York are most likely cold-stunned and require medical attention. This is especially true during the winter months and if you observe a sea turtle on the beach, please immediately call the **New York State Marine Mammal and Sea Turtle Stranding Hotline** at **(631) 369-9829** and relay as much information as possible.

DEC works in partnership with AMSEAS and NYMRC to conduct efficient, coordinated responses to all possible stranding events. The public plays an integral role in the response by promptly reporting these observations. The rescue team will need a detailed explanation of where the animal is located. If possible, write down the coordinates and/or mark the sea turtle's location with something, such as a stick or driftwood, that will be easy for the team to find. If you leave a voice message, be sure to include very specific directions and information, as well as your name and phone number so responders can reach you if they have any questions.

Remember: Never attempt to touch the animal, put it back in the water, or remove it from the beach. Sea turtles are federally protected animals and should only be handled by trained personnel. Cold-stunned sea turtles are lethargic and can easily drown if placed back in the water.

For more information on sea turtles, visit DEC's website at: <https://www.dec.ny.gov/animals/112355.html>

Cold-stunning is responsible for 48 percent of sea turtle strandings, with an average of 60 percent of the animals having no signs of life. The Kemp's ridley sea turtle (the smallest sea turtle in the world) is the species most susceptible to cold-stunning, accounting for 66 percent of cold-stunned sea turtles encountered. Historically, 83 percent of cold-stunned animals occur during the five-week period between November 20 through December 24, but this window can shift based on the intensity of the winter season.

In November 2020, AMSEAS opened a new triage facility for sea turtles in Westhampton Beach, Suffolk County, to provide critical care space for the endangered and threatened species. The facility is part of the commitment AMSEAS made to support the Specially Trained Animal Response Team (START) in times of crisis. The facility was granted authorization by the U.S. Fish & Wildlife Service in 2019, and now serves the Greater Atlantic Region to enhance regional assets with relief for mass-stranding events, such as cold-stunning

Historically, 83 percent of cold-stunned animals occur during the five-week period between November 20 through December 24, but this window can shift based on the intensity of the winter season.

events, while ensuring the safety of caretakers. This early preparation for unknown critical events that can overwhelm existing resources proved to be just what was needed for endangered sea turtles.

The 2020 cold-stun season had numerous challenges; people were on lockdown, but wildlife continued to move through their habitats, and the threats they might encounter did not change. Countless sea turtles washed up on the shores of New England, the mid-Atlantic, and even the Gulf of Mexico amidst reduced resources for response and care, and greater difficulty in preserving human safety while moving animals around the country. The increased number of stranded sea turtles quickly taxed the resources of the stranding network and prompted the National Oceanographic and Atmospheric Administration (NOAA) Fisheries Greater Atlantic Region office to ask AMSEAS if their critical care triage facility could become operational.

Although the landscape had changed considerably since 2016, AMSEAS turned to the local community and volunteers to fulfill the request. An inspiring amount of support allowed AMSEAS to start operations at the Critical Care Sea Turtle Triage Facility in less than



Loggerhead sea turtle being outfitted with a satellite tracking device at Sea Turtle Recovery located at the Turtle Back Zoo in West Orange, NJ.



Admission physical for sea turtles after transport.

100 hours, just in time to receive their first guests: 20 cold-stunned Kemp's ridley sea turtles rescued from Cape Cod only days earlier. A flight to Francis Gabreski Airport in Westhampton Beach, less than 10 minutes from AMSEAS' new facility, was generously provided through a collaborative effort with the not for profit organization Turtles Fly Too and NOAA Fisheries. On the morning of December 8, 2020, the team met the aircraft, loaded the animals (which were traveling in banana boxes), and transported them to the facility to receive fluids, medication, and wound care before being placed in hospital holding tanks.

Of the 20 animals received, 15 responded favorably to treatment and 11 of these were transported by Turtles Fly Too, a non-profit organization that helps relocate cold-stunned sea turtles, to Kennedy Space Center in Cape Canaveral, Florida for release. Traveling with them was an additional nine sea turtles from NYMRC in Riverhead, NY, nine from New England Aquarium (Boston, MA), and seven from National Marine Life Center (Bourne, MA). Two months later, three more Kemp's ridley sea turtles from AMSEAS and 11 from NYMRC were airlifted by Turtles Fly Too to Georgia for release. The sole remaining Kemp's ridley sea turtle was transferred to Sea Turtle Recovery in Orange, New Jersey for continuation of its rehabilitation, and is slated for release later this year.

This story, an enormous collaborative effort, is an example of why AMSEAS believes "Conservation Starts with You." Throughout my career, I have been involved in more than 5,000 marine mammal and sea turtle responses, and it's always been the public that reported those animals in need. Public participation in this process is critical to our understanding of stranding events and the rehabilitation and release of the marine mammals and sea turtles we assist. Join us in our journey to understand the threats facing these animals and their environment. The lessons we learn can help both them and us as we protect our natural resources. To volunteer or to take part in one of our community outreach events, visit our website www.AMSEAS.org or e-mail info@amseas.org. You can also follow along with us on Facebook and Instagram: @AMSEASorg.

Remember—marine mammals and sea turtles are protected under federal and state law. Please stay at least 50 yards away from a whale, dolphin, seal, or sea turtle. If your behavior affects their behavior, you are too close.

To report general sightings of marine mammals or sea turtles, call AMSEAS at 631-317-0030, e-mail sightings@amseas.org, or visit our website at www.amseas.org/report-a-sighting. If the animal appears sick, injured, or cold-stunned, please be sure to follow the instructions to report cold-stunned and immediately contact the NYS Stranding Hotline. See call-out box for additional information.

Robert A. DiGiovanni Jr. is the Founder and Chief Scientist for Atlantic Marine Conservation Society.



Kemps's ridley sea turtles in transport boxes at AMSEAS.

Five Common

1



2



FOREST RANGER RESCUES

and How to Avoid Them



photo credit: Eileen Mowrey



BY EILEEN MOWREY

DEC Forest Rangers conduct hundreds of search and rescue operations on State lands each year. Many of these rescues involve hikers, especially in the Adirondack and Catskill Forest Preserves. These incidents range from single Ranger responses conducted in a couple of hours to large-scale operations involving multiple agencies over the course of many days.

From injuries and illnesses to people lost in the vast wilderness, Forest Rangers often put their own safety on the line to help hikers in a wide variety of emergency situations. But they should be seen as the last line of defense. Instead of relying on their rescue services, it's important that hikers do everything they can to prevent emergencies from happening in the first place.

While accidents can occur to even the best prepared visitors, most hiking rescue scenarios can be avoided by properly planning, preparing, and making responsible decisions on the trail. Consider the five most common reasons for Forest Ranger Rescues:

1. Lack of adequate light
2. An ankle injury due to inadequate footwear
3. Being lost and not having a map and compass
4. Hikers intentionally separating from their group
5. Not enough fluid, e.g., dehydration

These situations have the potential to be life-threatening, but in many cases, they can be prevented. To help avoid future emergencies, let's take a look at some recent Forest Ranger rescues in the Adirondacks and Catskills to see how better planning and preparation could have prevented the need for a rescue.



3



4



5



#1 – Lack of adequate light

On May 14 at 8:46 p.m., Warren County 911 transferred a call to DEC's Ray Brook Dispatch from two hikers on Buck Mountain without reliable light sources. The pair relayed that they were still on the trail, but concerned their cell phone lights would not last until they got back to the trailhead. Forest Ranger Poulton arrived on scene at 9:29 p.m., walked up the trail, and located the hikers immediately. He then escorted the pair back to the trailhead. The incident concluded at 9:45 p.m.

Ranger Tip: A headlamp or flashlight is an essential item for any hike. Even if you think you will be done hiking before sunset, bring a light and spare batteries anyway. If your hike runs longer than expected for any reason—maybe you get lost or injured, or travel slower than anticipated—you may find yourself in need of a light to find your way.

Having adequate light can also help prevent additional emergencies; it's much easier to lose the trail or trip and injure yourself in the dark. A headlamp or flashlight can help keep you safe and on track even after the sun sets. Never rely on your phone for light, even if it has a flashlight feature. Phone flashlights drain the device's battery quickly, which can leave you without a light **and** without a way to call for help.



photo credit: Eileen Mowrey

Proper footwear is essential to preventing injuries, especially when hiking on rocky or muddy trails.

#2 – Ankle injury due to inadequate footwear

On December 29 at 11:00 a.m., Greene County 911 received a call from a hiker with an ankle injury on the Escarpment Trail near Layman's Monument in the Catskills. The hiker, who was wearing sneakers, slipped on the trail due to icy conditions. Forest Rangers responded, along with members of a local fire department. Once on scene, the responders implemented a rescue plan that included rewarming the hiker and packaging him in a litter to be carried out half-a-mile to the trailhead. The hiker was then transferred to an ambulance and transported to a local hospital for medical treatment.

Ranger Tip: Proper footwear is about more than just the comfort of your feet. The right footwear can help keep you safe on the trail, while the wrong shoes can lead to dangerous backcountry accidents. Always choose sturdy, waterproof shoes with plenty of support and tread for traction. Boots that come up higher on your ankle will help increase ankle stability and prevent injuries. Remember to break in your footwear before your hike to prevent painful blisters.

The same pair of shoes will not be appropriate for every hike. As seasons and trail conditions change, so do the requirements for what you wear on your feet. While a lighter boot might suffice in summer, conditions in the fall, winter, and spring require a shoe that will keep your feet warm and allow you to attach traction devices, such as microspikes, crampons, or snowshoes. Before you hit the trail, make sure your traction devices fit and stay on your shoes.

WINTER Hiking Safety

It is vital that hikers plan ahead and prepare for potentially dangerous winter conditions.

- Learn about the areas you will be visiting ahead of time, and check the weather forecast and trail conditions before you go. Hike with at least one other person, choose trails that match your abilities, and share your travel plans with another person (e.g., planned route and return time).
- Wear base layers of moisture-wicking fabric, insulating layers, and waterproof outer layers, and thick socks, waterproof/insulated boots, a winter hat, and gloves or mittens.
- Carry a pack large enough for all your gear, including extra clothing, water and high energy snacks, a first-aid kit, flashlight with extra batteries; trail map; and a fire-starter kit. And stay hydrated – drink water regularly—and eat and rest often
- Keep an eye on the weather, and head back immediately if conditions get worse.

For more information, including a video, visit <https://www.dec.ny.gov/outdoor/112826.html>.

#3 – Lost without a map and compass

On May 30 at 7:46 p.m., Hamilton County 911 transferred a call to DEC's Ray Brook Dispatch, reporting a hiker lost in the woods in the town of Morehouse. 911 was able to provide coordinates that placed the caller in a drainage area in the West Canada Lake Wilderness. Contact was made with the lost hiker and he was advised to stay at his location. Forest Rangers Thompson and Nally responded, located the 43-year-old hiker just before 10:00 p.m., and escorted him back to his vehicle.

Ranger Tip: Getting lost in the woods can be a scary and dangerous experience. Even the best navigators can get turned around on the trail. Having a map and compass—and knowing how to use both—will help you stay on track, or get back on it if you lose your way. Always bring a paper map of the area as well. Do not solely rely on phone images or maps. If the phone loses service or power, you will be left without a vital wayfinding resource.

A map and compass won't do much good, however, if you are not familiar with using them. Practice wayfinding at home or in public areas before you may need to rely on these skills in the backcountry. Study a map of the area before you begin your trip and take note of significant landmarks and trail junctions. Know your route and identify where you could possibly go wrong. Learn how to use a compass so you can orient yourself if you get off trail. As you hike, take a moment to check your map and confirm that you are still on your planned route. Catching mistakes as soon as possible will help you get back on track more easily.

1. Lack of adequate light
2. An ankle injury due to inadequate footwear
3. Being lost and not having a map and compass
4. Hikers intentionally separating from their group
5. Not enough fluid, e.g., dehydration



Rangers respond to hundreds of rescues each year, many that could have been prevented.

#4 – Hikers intentionally separating from their group

On March 13 at 6:41 p.m., DEC's Ray Brook Dispatch received a call from a 27-year-old hiker suffering from a sore knee while hiking to Mount Marcy in the High Peaks Wilderness. The hiker did not have a headlamp or flashlight, and reported that his four friends had hiked out ahead of him. Just before 10:00 p.m., Forest Ranger Sabo made contact with the hiker and his two friends, who had turned back to help him. Ranger Sabo and the hikers arrived back at the Loj parking lot at 11:16 p.m. and reunited the hikers with their group.

Ranger Advice: There is **safety in numbers**. Hiking with a buddy or a group is a good way to help you stay safe, especially in an emergency. More eyes means more people keeping track of the trail, and more bodies means more people to help if someone gets injured. If a hiking party needs to split up so that someone can go for help, at least one person should remain with the injured person to provide physical assistance and emotional support, as needed. Leaving friends without adequate gear puts them in a vulnerable position. While it is important for everyone to bring their own gear, water, and food, staying together can help ensure that everyone has access to these essential items.

#5 – Not enough fluid or dehydration

On June 5 at 1:45 p.m., Assistant Forest Ranger (AFR) France located a 49-year-old woman from Queens who was feeling lightheaded near the middle pool of Kaaterskill Falls. Forest Ranger Lt. Pachan, who was at the top of the falls, responded and gave the woman an electrolyte water mix and some glucose gel packets to help with hydration and energy in the 90-degree heat. The woman was able to walk under her own power for a short distance, but continued to feel weak and lightheaded. Forest Ranger Jackson and AFR Lasselle responded, along with Tannersville Rescue, Haines Falls Fire Department, Hunter EMTs, and a Greene County paramedic. The woman was packaged in a litter, given an IV for dehydration, and carried the remaining 0.3 miles to a staged ambulance at the trailhead. The hiker was transported by Hunter Ambulance to a local hospital for additional treatment.

Ranger Advice: It is impossible to overstate how important proper hydration is to safe outdoor recreation. Dehydration is a serious medical issue that should be avoided at all costs on the trail. Bring water on every hike, and pack more of it than you think you'll need. For longer hikes deep in the backcountry, bring a water filtration device as well so you can get more water if needed. Drink often and eat salty snacks to help your body retain the water. Also, hydrate the night before and the morning of your hike. Rehydrating on the trail can be tricky—avoiding dehydration from the start is vital to ensure your safety and success.

Eileen Mowrey is a Public Participation Specialist in DEC Region 5.

LOVE OUR NY LANDS

Earlier this year, DEC launched a new program, Love Our NY Lands, to encourage sustainable recreation and minimize adverse impacts on our natural resources. The program incorporates the seven principles of **Leave No Trace™** and promotes education and knowledge that not only will help preserve our state lands, but also reduce the occurrence of emergency and rescue situations.

For more information, visit:
<https://www.dec.ny.gov/outdoor/119881.html>

PREPARATION IS CRITICAL

Accidents can and will happen, but by properly planning ahead and preparing for your hike, you can avoid common rescue situations like these. To help hikers be as prepared as possible, DEC Forest Rangers launched Hike Smart NY, a program that outlines the 10 essential items every hiker should have, and provides tips for planning your excursion and staying safe on the trail.

Check out the 10 Hiking Essentials at <https://www.dec.ny.gov/outdoor/28708.html#Essentials>, and bring this list with you on your hike.

Always remember that planning your trip involves more than picking a hike. Choose a hike that is appropriate for every member of your group. Study your route and know the total distance, as well as any obstacles you might encounter. Check the weather for the day before your hike, the day of the hike, and the night after your hike. This will provide insight into current trail conditions, inform what you should wear, and help you prepare for an unexpected overnight. If weather conditions change during your hike, do not hesitate to turn around and complete the hike another day.

Make a timeline for your hike that includes the start time, your estimated time for arriving at your destination, a turnaround time, and your estimated return time. A turnaround time is the time you will head back to your vehicle even if you haven't reached your desired destination. Know how fast you move and estimate your travel speed based on the slowest member of your group. Before your trip, research where you will park and the local land rules and regulations for the area you will be visiting. Once you have your plan, share it with a trusted family member or friend who can report you missing if you don't return on time.

Hiking is a fun activity that can be enjoyed by outdoor visitors of all experience levels. However, it also has the potential to be dangerous if hikers do not plan ahead, prepare, and hike responsibly. DEC Forest Rangers are always glad to help a hiker in need, but preventing emergencies before they happen is the best way to keep everyone safe.

WHY I HUNT

New Goals for Old Hunters

BY DAVID AUGUSTYN
(HONORABLE MENTION WINNER, DEC'S WHY I HUNT
PHOTO ESSAY CONTEST, ADULT CATEGORY)

I do a lot of meditating in my tree stand, mostly on the beauty of God's creation and how blessed I am to still be a part of the hunting experience at the age of eighty-two.

About twenty years ago, I thought about where I was in my life's goals, accomplishments, hopes for the future. After much contemplating, I decided to devote some of my time to mentor a young person in bowhunting and the outdoor skills necessary to have a full experience and appreciation.

I am presently mentoring my fifth young person, Andrew. He is a natural bower. However, he did miss a couple of deer this past season, (buck fever you know), but the excitement in his voice and his expression stoked a fire in my bowhunting spirit. I smiled broadly, I laughed heartily, I cried happy tears, I rejoiced in his tales. You see, for Andrew it wasn't about taking a deer, it was about having an opportunity and the experience. He gave me new eyes to see, he renewed my heart, put excitement back into the old adventure. It was no longer Andrew hunting with me, it was me hunting with Andrew. I enjoy hunting with him so much, I now find myself doing more scouting to set up Andrew than I do for myself. It's no longer about me, it's about sharing with someone else. But of course I am a bit selfish; I know what I'll get back in long tales, excitement, enthusiasm, and fun, especially when Andrew gets his first deer. Oh, what a day that will be!

My disquieting spirit has been given a new purpose. And that lonesome feeling has been filled with unending questions and the joy of youthful laughter. The young'uns will push you; my advice: slow them down (a little), then jump in with both spirit and bow.

Teaching our youth the logistics—developing new dreams and goals in them—is the new challenge for us old timers! It's not about our trophies, or the stats we pile up,



Experienced hunters have a lot to give to the next generation.

or the writing we've done, but about the writing we are doing on a young person's heart and mind. We can become immortalized in them, in the stories they tell about their experience with us as they sit around a flickering campfire with future bowhunters. Perhaps we may generate new mentors for America's youth.

Let's forget about rekindling our own fire; why not just add some kindling to a small fire that's flickering with enthusiasm, with the light of eagerness, and the heat of excitement in our youth. Pile on the passion, hope, wisdom, and dreams on our youth. You might just create a new YOU!

David Augustyn of Batavia earned an honorable mention for this essay.

WHY I TRAP

Trapping with Grandpo

BY JEREMY RIEMERSMA
(HONORABLE MENTION WINNER, DEC'S WHY I TRAP
PHOTO ESSAY CONTEST)

One day when I was eleven, we had a mouse in our kitchen. I called my grandpo and he told me there were a few mousetraps in our garage; I grabbed them and set them. The next day I had the mouse.

We had a few weasel boxes and box traps my grandpo gave us, and within a month, I had caught four chipmunks, a deer mouse, and a vole. Hunting and trapping has always been a family tradition, used for nuisance control, and a way to get fresh, delicious wild game.

As a kid, I have enjoyed the outdoors and the activities they hold. Fishing, camping, hunting, trapping, and swimming in mountain springs have been a way of life for us. My sister and I would go out deer hunting with our father, and beaver and weasel trapping with our grandpo.

In 2018, my grandpo and I went to the New York State Trappers Convention. I bought a few traps, otter and mink lures, and learned a lot of information from trappers. The trappers told me, "Get your hunting and trapping license." I took the necessary courses and got my permits for each.

During 2019, I went on my first successful deer hunt; my grandpo and I successfully hunted a doe. I felt that feeling of pride. Grandpo cut the steaks, my grandma and mom wrapped them, I taped them, and my sister labeled them.

In the 2020 spring season I went turkey hunting, and even though we were unable to harvest a turkey, we had a good time. We had hens brushing against the blinds, songbirds chirping in the trees, squirrels running in the woods, and the wonderful sunrise off in the distance was worth it. We also went on a woodchuck hunt and managed to harvest one and, yet again, had that glorious feeling of happiness and self-pride.

The 2020-2021 fur season was my most productive and successful to date. I caught three opossums—one in my mother's backyard (so it wouldn't cause problems) and

two over at my father's house to prevent them from eating our rabbit or the neighbor's chickens. I also trapped three beavers: one that I had been trying to catch for two and a half years, and two because they had flooded a small stream and made it a massive beaver swamp. Finally, the kings of the season: two minks in the flooded swamp.

I have done what most people decided to abandon from history—harvesting fresh meat and wild fur, helping out our neighbors from potentially hundreds of dollars of damage, and keeping a family tradition alive. I enjoy both of these sports and would hate to see them die. I will participate in them and encourage people to do so until I am physically unable to. I encourage you to enjoy the sunrise and sunset, and take your family out there with you. Most of all, get a proud feeling of happiness and self-pride.

Jeremy Riemersma of Mineville earned an honorable mention for this essay.



Trapping can be an adventure with many benefits.

HUNTING CHANGES IN NEW YORK

As part of a continuing effort to improve hunting opportunities and safety, DEC recently adopted the following rules for deer and bear hunting:

- ➔ Hunting hours for deer and bear have been extended to include the full period of ambient light from 30 minutes before sunrise to 30 minutes after sunset, which aligns with national standards for big game hunting.
- ➔ Restoration of an antlerless harvest during the early muzzleloader season in the Northern Zone Wildlife Management Units (WMUs) 6A, 6F, and 6J, where current conditions indicate that the additional harvest opportunity is appropriate.
- ➔ Anyone hunting big game with a firearm, or accompanying someone who is hunting big game with a firearm, is required to wear a solid or patterned fluorescent orange or fluorescent pink hat, vest, or jacket. This safety measure reflects the fact that most two-party hunting-related shooting incidents involve a victim who was not wearing fluorescent colors.
- ➔ A single continuous bear hunting season in the Adirondack region in which all legal implements may be used.
- ➔ A nine-day season for antlerless deer in mid-September using firearms, crossbows, and vertical bows in WMUs 3M, 3R, 8A, 8F, 8G, 8J, 8N, 9A, and 9F, and using only vertical bows in WMUs 1C, 3S, 4J, and 8C. The increased antlerless deer season, based on public

input and assessments of deer impacts on forests, is designed to decrease the deer population or maintain a stable population.

- ➔ An extended late bow and muzzleloader season in the Southern Zone to provide a Holiday Deer Hunt from December 26 to January 1.

These changes were proposed in June, and DEC reviewed public comments before adopting the new rules.

Also, the New York State Legislature adopted a temporary program through 2023 for 12- and 13-year-old hunters to pursue deer with a firearm or crossbow under the supervision of a licensed adult hunter. Counties must pass a local law to opt-in to the program. Most upstate counties north of Westchester County have opted-in to the program. Before going afield, be sure to check the status for your county at [dec.ny.gov](https://www.dec.ny.gov/docs/wildlife_pdf/yth1213county.pdf) (search “deer hunting”)—or view a map of counties that have opted-in at https://www.dec.ny.gov/docs/wildlife_pdf/yth1213county.pdf.

For more information on the recent changes to hunting rules, visit: <https://www.dec.ny.gov/outdoor/8312.html>.

Young hunters now have an opportunity to hunt deer with a licensed adult mentor.



On Patrol

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

Bear Cub vs. Chicken Feeder—Greene County

In early July, in the hamlet of Round Top, a black bear cub was observed with a plastic chicken feeder on its head, an object unlikely to break apart or fall off without assistance. On July 10, ECO Smith, Lt. Glorioso, and New York State Police Trooper Alberts located the cub, which was accompanied by additional cubs and a sow. The sow was hazed away from the area to provide enough space and time for the responding Officers to secure the cub in a catch pole. Lt. Glorioso then cut the thick plastic collar of the chicken feeder and removed it from the cub's head. The cub was released back to the sow without injury. For more information on reducing human-bear conflicts, visit <https://www.dec.ny.gov/animals/6995.html>.



Rattlesnake on the Loose—Ulster County

On July 27, ECO Johnson responded to a 911 call in the town of Wawarsing to assist the Ulster County Sheriff with a rattlesnake found on a residential property. The ECO arrived to find the rattlesnake had coiled itself around a small tree in the front yard. Using snake tongs, ECO Johnson was able to secure the rattlesnake in a plastic container and remove the snake from the property. As a designated threatened species in New York State, best efforts are made to relocate rattlesnakes to a safe location near where they are found. For more information on rattlesnakes and what to do if you encounter one, visit <https://www.dec.ny.gov/animals/7147.html>.



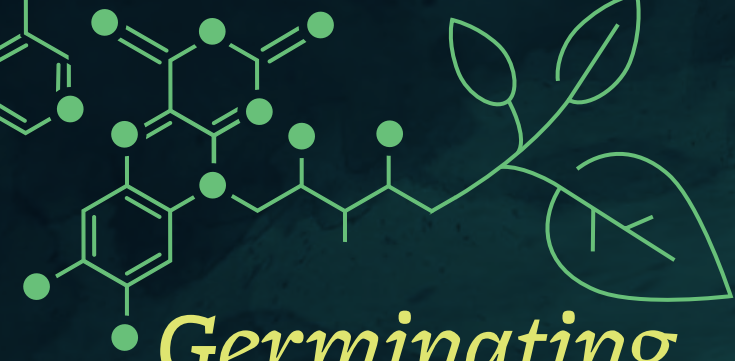
Wilderness Rescue—Greene County

On August 28, Forest Rangers were notified by Greene County 911 of an injured hiker on the Escarpment Trail south of the Catskill Mountain House site. Forest Rangers Dawson and Nelson, along with two Assistant Forest Rangers, responded to the call. A 45-year-old hiker from Mamaroneck had suffered a laceration to his lower leg after a fall on the trail. The responding Rangers bandaged the wound and stabilized the injury prior to extraction. With the help of the Rangers and crutches, the man was able to hike out to the trailhead.



Flood Response—Steuben and Lewis Counties

On August 18, Forest Rangers participated in responses and search-and-rescue efforts resulting from Tropical Storm Fred. Rangers assisted with evacuations in the town of Addison, partnered with DEC Environmental Conservation Police Officers (ECOs) and local law enforcement to assess flood damage in the town of Woodhull, and assisted in the search for a missing vehicle and driver swept into the flooded Tuscarora Creek. On August 19, four Forest Rangers assisted Lewis County Emergency Management in evacuating residents stranded along the Black River from rising flood water with an airboat. After multiple trips, seven individuals and their pets were ferried to safety.



Germinating a NATURE Lab

BY TONY COLYER-PENDAS, DANA McCLURE,
AND MAUDE SALINGER

A once abandoned building
has been transformed
into a community
resource.



Susan Pepe



Catherine Rafferty

Hands-on workshops teach
community members to study
the area's soil, water, and air.

What do you do with an abandoned and dilapidated building? Often, the building will be ignored and become a blight on a community. But there's an alternative: Turn it into a community resource by germinating a nature lab.

Located near the confluence of New York's Mohawk and Hudson rivers and the start of the Erie Canal is North Troy, an economically challenged community that has struggled to attain the prosperity it once had. However, using grants from the Hudson River Estuary Program and DEC's Office of Environmental Justice totaling more than \$473,000, a derelict building has been transformed into a collaborative resource for the North Troy neighborhood, revitalizing and improving the health and welfare of the area and the surrounding region.

Media Alliance, a community-based nonprofit organization, has converted an abandoned building into a do-it-yourself science laboratory and environmental education center named the "NATURE Lab" (NATURE = North Troy Art Technology and Urban Research in Ecology). The center is a citizen-science biology laboratory that includes a classroom and meeting space, a wet lab with an aquarium, and a dry lab with scientific equipment. It is used for conducting research on local urban environmental issues, including air, water, and soil pollution.



Contamination Leading to Environmental Justice

The NATURE Lab is located one block from the Hudson River. From 1947 to 1977, polychlorinated biphenyls (PCBs) were discharged into the Hudson River, causing a range of harmful effects to wildlife and people who consume fish from the river or drink its water. The river has also been impacted by mercury contamination, untreated sewage discharges, and high levels of bacteria from runoff mingling with sewage after heavy rains.

Since 2008, Media Alliance has been working in Troy to transform abandoned buildings and vacant lots, and to address the area's environmental challenges through education, art, access to resources, and inspiration. The reclaimed buildings now function as community resources, housing activities for youth and green job training programs, and hosting events that teach about the important role of the Hudson River. The buildings also provide spaces for public workshops to build science literacy skills and help people understand the concept and practice of environmental justice.

Environmental justice is the fair treatment of all people with respect to environmental laws and regulations; it helps disproportionately affected residents access tools to address environmental concerns. Environmental justice efforts are designed to improve disadvantaged communities that are facing disproportionate environmental impacts, which can range from the siting of industrial plants that may pollute the air and water in a community, to a lack of green space and natural areas, and even exposure to toxins in a workplace.

DEC's Office of Environmental Justice (OEJ) was established in 1999 to address the disproportionate environmental burdens experienced by low-income and minority communities across the state. The OEJ awards and administers grants to improve community health, safety, and sustainability, combat climate change, grow the clean energy economy, and protect the environment.

DEC's Environmental Justice Guiding Principles

DEC's Office of Environmental Justice is guided by the following principles:

- Participation and self-determination: all people have the right to participate in DEC's decision-making processes and to cultural, economic, political, and environmental self-determination.
- Respect and justice: DEC's policies and processes are based on mutual respect and justice.
- DEC believes that all people have the right to safe environments where they live, work, and play.
- Fair treatment of all people: no group of people should bear a disproportionate share of negative environmental consequences.

For more information about DEC's Office of Environmental Justice, visit: <https://www.dec.ny.gov/public/333.html>.

Providing Resources to Teach Stewardship and Transform a Community

In 2016, Media Alliance was awarded a River Education grant from DEC's Hudson River Estuary Program to teach residents of Troy and surrounding areas about the importance of the estuary. The grant was used to equip a wet lab with aquariums showcasing local fish species and wildlife, and a dry lab with microscopes. This equipment is helping to teach community members about the river, and to train them to monitor it for changes.

"When it comes to education, one of DEC's biggest priorities is connecting people with resources to promote environmental health," stated Chris Bowser, an educator with DEC's Hudson River Estuary Program and Research Reserve. "The NATURE Lab's passion and message impressed us. We want to empower anyone and everyone to be a scientist where it matters most—in their community, their home."

In 2017, Media Alliance was awarded a Community Impact Grant from DEC's OEJ. This grant supported workshops and hands-on projects designed to build a connection between local youths and the environment. These programs were held in a multi-use building in Troy that Media Alliance had previously acquired and renovated, but the facilities and space proved to be inadequate, as more space was clearly needed.

To accommodate the growing participation and attendance for the community programs, Media Alliance initially considered expanding and adding to the building. But in 2018, they were awarded two additional grants from

DEC's OEJ: a Community Impact Grant to provide more workshops and programs, and an Urban Environmental Education Center grant. The Education Center grant enabled them to refurbish and transform a neighboring 100+ year-old abandoned building into the NATURE Lab Environmental Education Center.

"Media Alliance has an excellent track record of combining public outreach with community-based science and biological art," explained Alanah Keddell-Tuckey, a member of the OEJ Community Impact Grant review team. "The NATURE Lab will provide a home for urban environmental education, and will offer a place where neighbors, artists, scientists, and all people from the area can participate in activities that empower the community."

Construction and renovation of the NATURE Lab began in March 2020; however, COVID 19 delayed the work substantially. In response to the pandemic, the building's design plans were modified to incorporate a safer air flow and filter system. Due to the dedication and commitment of Media Alliance, and DEC's grants, construction was completed in December 2020, and an opening celebration was held on June 27, 2021.

During the ribbon-cutting ceremony, small groups of attendees were led on guided tours of the building and the community science laboratory. Inside the building, Youth Scientist Fellows from the center's Water Justice Lab (see sidebar) conducted tests of Hudson River water samples. The samples were analyzed with equipment funded by the DEC River Education grant.



Water Justice Lab

The NATURE Lab Environmental Education Center houses the Water Justice Lab, a collaborative initiative between Riverkeeper and Media Alliance. Launched in June 2020, this program utilizes a water quality sampling laboratory to educate the surrounding communities about water literacy and water civics, and how to make a difference.

The Water Justice Lab is outfitted with microscopes, a UV light and viewing cabinet, and other science teaching tools and equipment. The equipment was donated by Riverkeeper and funded by a DEC grant and private donors. The lab will analyze the Hudson River waters in the area around Troy.

This partnership is designed to strengthen a network of environmental justice advocates focused on water issues in the Hudson River watershed. The Water Justice Lab also hosts the work of the Youth Scientist Fellows (three 14-year-old women of color and high honor science students from the area) working to educate and improve the community.

For more information on the Water Justice Lab, visit: <https://www.mediasanctuary.org/project/water-justice-lab/>.

Empowering and Enabling Change

In the newly renovated facility, the NATURE Lab houses a community biology laboratory used to teach science skills and environmental stewardship, and to study the local urban environment. This Biosafety-level 1 lab, like a high school classroom laboratory, is open to the entire community. It provides a place for workshops and classes that teach science literacy and basic microbiology skills, including hands-on research for environmental justice projects that study the area's water, soil, and air.

The NATURE Lab is providing a place for the area's scientists, artists, neighbors, educators, and students to study their environment, and to address the community's environmental justice challenges. The lab illustrates DEC's efforts to work with local communities to improve our environment.

Since 2006, DEC has awarded more than \$7 million in Community Impact Grants to community-based organizations for projects that engage communities around environmental justice issues and spur community driven solutions. The NATURE Lab already has the area's support, and with the financial support of DEC, it is empowering the community to repair, enrich, and strengthen its neighborhoods, from the grassroots up.

Tony Colyer-Pendas is the Assistant Editor of the *Conservationist*, **Dana McClure** is the Grant Administrator of DEC's Office of Environmental Justice, and **Maude Salinger** is the Communications Coordinator of the Hudson River Estuary Program.

Funding Opportunities for the Hudson River Estuary

Since 1999, DEC's Hudson River Estuary Program has offered grants to municipalities and non-profits located within its estuary watershed boundaries that implement Hudson River Estuary Action Agenda priorities. Grants are available for projects and programs to help communities advance stewardship of natural resources, enhance education about the estuary along the tidal waters of the Hudson, and improve access to the tidal waters of the Hudson for boating, swimming, fishing, and enjoyment of nature for people of all abilities.

Competitive grants are available for projects in the following categories:

- **Local Stewardship Planning:** to help communities in the Hudson River Estuary watershed increase resiliency to flooding, protect water quality and fish and wildlife habitat, and enhance natural resources.
- **River Education:** to support projects that enhance education about the estuary along the tidal waters of the Hudson and make opportunities to learn about the Hudson River Estuary more accessible.
- **River Access:** to fund projects along the shoreline of the Hudson River Estuary that provide new or improved accessibility at new or existing access sites for boating, fishing, swimming, and/or wildlife-dependent recreation.

For more information on DEC's Hudson River Estuary grants, visit: <https://www.dec.ny.gov/lands/5091.html>.

For more information on the NATURE Lab, visit: <https://www.mediasanctuary.org/initiatives/nature-lab/>

Jamel Mosely





Fall Colors

across New York

photo credit:
Howard Jennings

The colors of autumn reflect the beauty of nature and provide a sense of serenity and awe.

There's a scientific reason leaves turn colors in the fall—one that's based on chemistry. The green color of leaves is due to the presence of chlorophyll, a pigment that is critical to photosynthesis, the process plants and trees use to convert the energy from the sun and carbon dioxide into food they need to survive.

For much of the year, the high amount of chlorophyll in leaves masks the other pigments within those leaves, but when autumn arrives and days become shorter and colder, chlorophyll breaks down and the green color disappears. Other pigments, such as anthocyanin (red) and carotenoids (yellow and orange) do not break down, so their colors are able to shine through in fall.

Of course, beauty does not necessarily need an explanation. As the photos on the following pages illustrate, sometimes it's enough to simply enjoy the amazing colors of trees in autumn.



photo credit: Linda Ennitholt



photo credit: J. Priola



photo credit:
J. Priola



photo credit: Aaron Winters



photo credit: Linda Ehntholt

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photo credit: J. Priola



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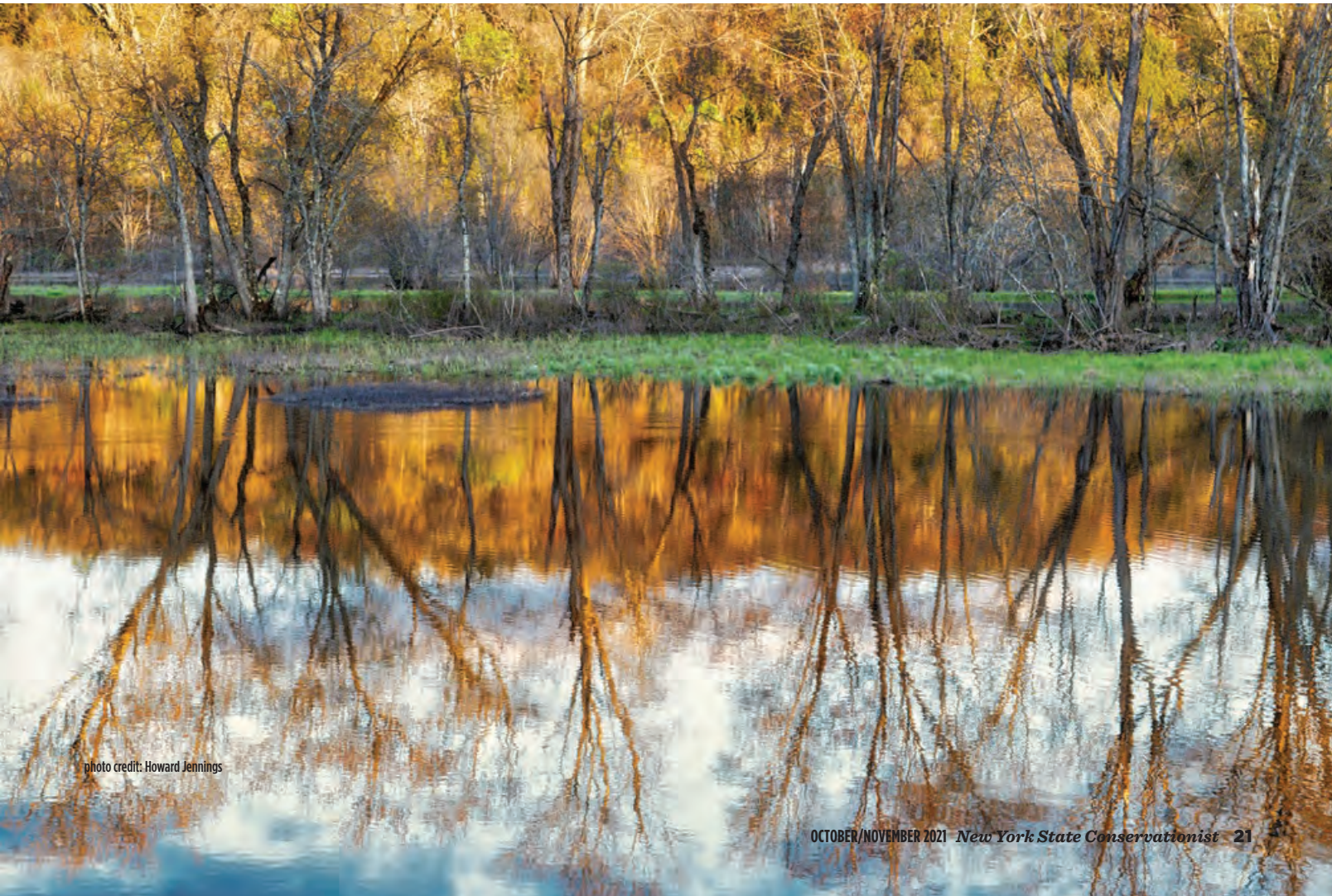
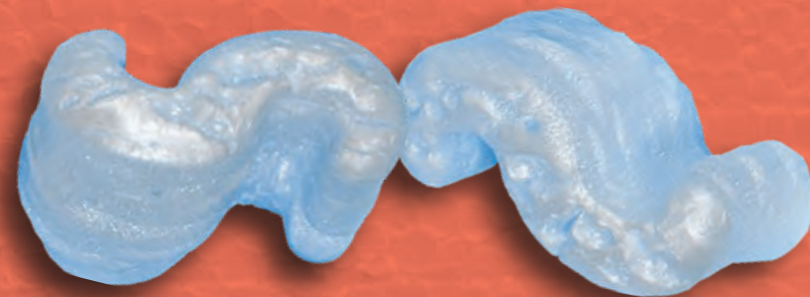


photo credit: Howard Jennings

Going Foam Free: New York State's Expanded Polystyrene Foam Container and Loose Fill Packaging **Ban**

BY GLENN HEWITT

It's fall, the sun is shining, and white, puffy clouds float by lazily. You think to yourself, "What a great day for takeout and eating outside." You go to your favorite lunch spot and order a sandwich and chips, which come in a seemingly harmless foam container that is easy to carry and keeps your food secure until you're ready to eat it. At the park, you sit down at a table, open your lunch, and slowly eat it while enjoying the beautiful day—the people walking by engaged in conversation, the ducks quacking on the pond, and the birds chirping in the trees. It all seems wonderful as you finish your lunch and head over to the trash can to throw away the container. The trash can is a little full, and you notice many containers like the one you are discarding. You place your container on top of the other trash and think to yourself, "It's fine, they'll be collecting the trash soon."



That's when the trouble begins. The wind soon picks up and the container you placed in the trash bin blows away. It's made of expanded polystyrene foam, sometimes referred to as EPS foam or mistakenly as Styrofoam™, and as the container blows around, it becomes litter. Eventually, it may succumb to the elements and begin to break down. But what you may not know is that the pieces that are left could be a danger to the environment. They will break down into smaller and smaller pieces that, over time, may become microplastics (plastic particles less than 5 millimeters in diameter),

which, while hard to see with the naked eye, are becoming a growing concern, polluting the water, soil, air, and even our food supply.

EPS foam does not biodegrade and can persist in the environment for years. Aside from a few uncommon mail-in or drop-off programs, EPS foam is not accepted in most recycling programs because it is difficult to recycle and has little economic value (although it still mistakenly ends up in recycling bins). As a result, EPS foam containers (often marked with #6) or packing materials often foul the recycling stream or are destined for disposal.

Recycling and Foam Materials

EPS foam containers are often marked with #6 inside a chasing arrows symbol, sometimes with the letters “PS,” which stands for polystyrene. The number on plastic containers, inside the chasing arrows, does not necessarily indicate recyclability, but simply identifies the type of plastic a container is made from, which can be helpful for recycling facilities. Most recycling programs in New York State do not accept foam containers or packaging for recycling, but people often mistakenly put these items in recycling bins. Foam containers and packaging that are incorrectly placed in recycling bins end up in the recycling stream along with bottles, cans, or paper, where the foam breaks apart and contaminates other recyclable materials, reducing their value and ability to be used to make new products. For more information about how to recycle properly, visit: <https://recyclerightny.org/>.



Impacts of EPS Foam Litter

It's not just that the discarded foam is an ugly sight that mars the environment. Marine, freshwater, and terrestrial wildlife can consume foam and other plastic litter. Consumption of various types of plastic litter can be lethal to wildlife because these plastics can block their digestive tracts or fill their stomachs. The plastics are not digested, leaving no room for actual, essential nourishment, causing wildlife to eventually die from starvation or injury. Although there are many cases of serious injury or death to wildlife associated with various types of plastic litter, it's underreported and the impacts from ingesting these plastics are not well understood.

Whether you are at the park, hiking in the woods, kayaking, or even walking on a sidewalk in your community, it's not uncommon to see EPS foam litter from takeout containers or packaging. This packaging is a concern for humans and the environment—in streamside surveys, and International Coastal Cleanup data, it has been found to be one of the top contributors to environmental litter. EPS foam has been detected in the Great Lakes tributaries and the Hudson River, and it was the most abundant type of plastic particle detected in a study of the NY/NJ Harbor. It's an aesthetic problem that also negatively impacts wildlife, waterways, and other natural resources.

New York State Taking Action

A new law passed in New York State, the “Expanded Polystyrene Foam Container and Polystyrene Loose Fill Packaging Ban,” will go into effect on January 1, 2022. Prior to the passage of this law, many communities in New York State, including New York City, had already banned many of these problematic EPS foam products. Many businesses have voluntarily stopped using foam containers and packaging, recognizing the negative impacts of these products. Products such as foam bowls, hinged takeout containers, cups, plates, trays, and many other items used for ready-to-eat prepared food and beverages are included in the ban, which also includes polystyrene loose fill packaging (commonly referred to as packing peanuts).

Entities covered by the law will be required to switch to containers and packaging that do not contain

EPS foam, such as containers made of fiber (some of which may be compostable), more easily recyclable materials, such as foil containers and polyethylene terephthalate (often referred to as PET and features the #1 recycling symbol), or even reusable or returnable options that can be cleaned and used repeatedly. Alternatives to packing peanuts include plant-based options made from starch, as well as various cushioning options made from paper, cardboard, and other fibers, or film plastics, like air pillows and bubble wrap, which can be recycled at many retail drop-off locations. Unlike EPS foam, many alternatives can be made with recycled content, which means recyclables can be used to make some of these alternative options, many of which are also biodegradable. There are a variety of alternative items that your favorite establishment will be able to switch to or that you will be able to find at your local store.



The new law will prohibit EPS Foam packing peanuts. There are alternative packaging and cushioning options.

New York State Requirements

Under this law, disposable food service containers that contain EPS foam and polystyrene foam loose fill packing peanuts will be banned in New York State. Disposable foam containers used for prepared food and beverages will no longer be allowed to be distributed, sold, or offered for sale in the state by anyone in the business of selling or distributing prepared food and beverages, or at retail and wholesale stores. Manufacturers and stores will not be permitted to sell or distribute EPS foam packing peanuts. Consumers will no longer find disposable food service containers that are made of EPS foam at restaurants, coffee shops, grocery stores, cafes, delis, retail stores, and a host of other establishments.



How Will the Ban Affect Me?

Consumers won't be directly affected by the ban or notice much of a difference other than receiving food and beverages in different kinds of containers. Consumers will also no longer be able to find the familiar white foam containers and packaging in stores, nor will you see EPS foam packing peanuts surrounding the products you purchase. There are also many choices you can make to further reduce environmental impacts:

- Check your local recycling guidelines at <https://recyclerightny.org/> to see if alternative takeout containers or packing materials can be put in your home recycling bin, or check the Recycle Right NY Recyclopedia to see if any film plastic packing materials can be recycled at store drop-off locations.
- Reduce waste when ordering takeout—be sure to indicate if you do not need utensils, straws, napkins, and/or condiment packets.
- Try switching to a reusable mug or tumbler, and prepare on-the-go beverages at home.
- You can also help reduce pollution by purchasing product alternatives made with recycled content, when possible.
- Bring reusable containers when you go out to eat so you can pack your own leftovers right at your table.
- Advocate for your favorite restaurant to switch to reusable takeout containers that can be returned later or ask them to provide reusables for sit-down meals.

The EPS foam ban will help keep the places we like to visit beautiful by reducing the amount of litter we see and will help improve the recycling stream so that more containers and packaging can be recycled into new products. It will also reduce waste as establishments and institutions will be required to switch to foam-free containers and packaging items, many of which are easier to compost, recycle, or reuse—meaning less waste going to landfills. The ban will also protect wildlife by reducing hazards caused when they ingest plastics, and help preserve natural resources for current and future generations. The EPS foam ban is a win-win, for the environment and for you.

To learn more about New York State's Expanded Polystyrene Foam Container and Loose Fill Packaging Ban visit <https://www.dec.ny.gov/chemical/120762.html>. You can learn more about International Coastal Cleanup data at <https://oceanconservancy.org/trash-free-seas/international-coastal-cleanup/> and read the NY/NJ Harbor Estuary Plastic Collection Report at <https://www.nynjbaykeeper.org/wp-content/uploads/2019/03/NYNJBaykeeper-Plastics-Report-February-2016-2.pdf>.

Glenn Hewitt is an Environmental Program Specialist with DEC's Bureau of Waste Reduction & Recycling.



Discarded foam containers are not just unsightly litter; when they break down, they can harm or kill wildlife.

Exemptions and Local Laws

- Certain non-franchise small businesses, as well as facilities that provide meals to people who are food insecure, may be eligible to apply for a financial hardship waiver to continue using foam containers.
- The law doesn't ban molded packaging, such as the puzzle-like foam holding products in place inside a box, or Styrofoam™ used in building and industrial applications.
- Also exempt from the ban are EPS foam products used to package raw meat or fish that will be cooked or prepared off-premises; prepackaged food filled and sealed prior to receipt at a covered food service provider; and rigid, hard plastic food service containers marked with #6 that are not foam.
- New York City will also continue to implement its local foam ban, which is already in place. All other local laws will be preempted by the State law; however, some counties with foam bans already in place may apply to DEC to continue implementing their local laws if they provide environmental protection equal to or greater than the State law.

CONNECTICUT HILL WILDLIFE MANAGEMENT AREA

BY ADAM PERRY AND TIM YEATTS

Worthy of more than just a casual drive through, Connecticut Hill Wildlife Management Area (WMA) stands out amongst other state properties due to its storied past and sheer size. Aptly named, Connecticut Hill WMA stretches over several hills, gullies, two counties, five townships, and two DEC regions. In fact, the property has grown to achieve and maintain its rank as the largest WMA in New York State. With its humble beginnings in 1928, at less than 4,000 acres, “The Hill,” as it is often referred to, has grown to 11,237 acres.

The WMA has hosted several research projects over the years, many involving Cornell students. The most notable project, from the 1930s-40s, was highlighted in “*The Ruffed Grouse: Life, History, Propagation, Management.*” This 1978 manuscript is still considered one of the most significant bodies of work on the study and management of ruffed grouse. The manuscript features illustrations by *Conservationist* founder Clayton Seagars, who you can read more about in the August-September 2021 issue.

Most of what is now known as Connecticut Hill WMA was lacking forest after the land was converted to small farms in the 1800s. In the 1930s and 40s, after becoming

state land, the Civilian Conservation Corps (CCC) restored the abandoned farmland to healthy forests. The forests found here today are due to the efforts of the CCC, along with the wildlife researchers who worked and lived in Cayuga. The CCC planted many tree species, mainly softwoods—such as white and red pine, Norway spruce, jack pine, and cedar—but also thousands of red oaks. A diversity of habitats, including streams and ponds, small fields, and some regenerating hardwood forests, can also be found across the property.

The Hill has been identified as an Important Bird Area for its extensive hilltop forests of American beech, oak, maple, hemlock, mature spruce, and pine plantations that are attractive to many birds. Northern goshawk, red-shouldered hawk, broad-winged hawk, wood thrush, hooded warbler, Canada warbler, scarlet tanager, and black-billed cuckoo are species that have been documented on the WMA. A dedicated spring birdwatcher can spot all these species and many more in the large mature timber stands, as well as in the site’s small, abandoned fields, newly regenerating forest stands, steep dark hemlock forests, vernal (seasonal) pools, and remote ponds.



Broad-winged hawk



Scarlet tanager

Why is it called “Connecticut” Hill?

The property was privately purchased from New York State in the 1700s and then sold to a different private owner. This purchaser was a resident of Connecticut who owed that state for a tract he purchased in Ohio. He struck a deal whereby Connecticut accepted the land in New York (part of which is now Connecticut Hill WMA) as payment. Over time, the land was divided and sold into private ownership, and used for farming and homesteading before being acquired by New York State and turned into game management lands in the late 1920s.



Wild turkey



Fisher

The WMA is very popular with hunters. Given its size relative to the road network, dedicated hunters can find plenty of remote locations when pursuing white-tailed deer, wild turkey, bear, ruffed grouse, cottontail rabbit, or American woodcock. The remnants of

homestead apple orchards that are maintained for wildlife food production can be good places to find many species. The less managed, more remote areas are popular with those looking for black bear or fisher. Trappers will find nearly all furbearers of Upstate New York around the WMA, especially in the many small ponds and human-made vernal pools scattered throughout. The same ponds are frequented by wood ducks, snapping turtles, green herons, northern water snakes, woodland amphibians, and many other species.

The expansive forested acreage offers a home for a variety of mature forest wildlife species. However, many species need young forest or a mix of forest types. As the plantings from the early days of ownership have grown, the diversity in forest age has decreased. Today, 95 percent of the property is mature forest. Management has shifted to thoughtful and responsible timber harvesting. Under DEC's Young Forest Initiative, cutting timber is a tool used to promote new young forest habitat that is critical to many species whose numbers have declined as New York's forests have matured. Once established, DEC will maintain the young forest acreage, along with the existing intermediate- and mature-aged forest, to provide a diverse, healthy forest benefitting a wide range of forest-dependent species.

Adam Perry is a Wildlife Biologist in DEC's Cortland office.
Tim Yeatts is a Forestry Technician in the Cortland office.

LOCATED IN the
Towns of Hector,
Catharine, and
Cayuta, Schuyler
County; Towns of
Enfield and Newfield,
Tompkins County
SIZE: 11,237 acres



Site Features



NOTES: Open year-round. However, wintertime visitors should be aware that most roads are not maintained and will be hazardous for driving. Visitors to the WMA can utilize a network of town and DEC administrative roads that provide good access to the various tracts of forest, and parking areas are scattered throughout. Kiosks located at major access points have maps and information on management activities, public uses, hunting seasons, and WMA regulations. Hunting, trapping, hiking, birdwatching, snowshoeing, and wildlife photography are all popular activities. The property also includes a habitat management demonstration area on Boylan Road designed to showcase various forest management practices and how they create different wildlife habitats.



HIKING: The Finger Lakes Trail passes through the property for about 13 miles, including the Bob Cameron and Van Lone loops, and is a popular route for day hikers.



DIRECTIONS: The WMA is accessible at numerous points. From State Route 13 on the east side, several roads lead into the property. Along the west side, Schuyler County Route 6 provides access via Swan Hill Road, Leonard Road, and Saxton Hill Road.



CONTACT: For more information on the management plan for Connecticut Hill WMA and access features, visit <http://www.dec.ny.gov/outdoor/9331.html> or call the Region 7 Wildlife Office at 607 753-3095 x247.



Habitat management demonstration area



Grand Opening of New DEC Marine Resources HQ

Governor Kathy Hochul recently announced the official opening of DEC's new, state-of-the-art Division Marine Resources headquarters on Long Island, which will ensure DEC is at the forefront of scientific research and environmental protection to safeguard our marine environments for future generations.

The facility will serve as the main office of the Division, which is responsible for the conservation and management of New York's marine fisheries and shellfish, as well as preserving and restoring critical marine habitats and protecting endangered marine life along New York's coastal shores. The building also houses the state's only U.S. Food and Drug Administration (FDA)-certified shellfish microbiology laboratory to ensure over one million acres of shellfish growing areas in New York's marine waters meet stringent federal requirements.

The LEED-certified building is equipped with numerous 'green' features and energy efficiencies, including ground- and roof-mounted solar panels, LED-lighting, and energy-efficient electrical systems.



Three New Wildlife Management Areas in Western New York

DEC recently acquired more than 1,700 acres in western New York to create three new Wildlife Management Areas (WMAs). The 526-acre Clear Lake Wildlife Management Area in the town of North Collins is the largest State-owned WMA in Erie County, and is comprised of the lake, mature forests, wetlands, and open fields. The 310-acre Genesee River WMA is located on the west bank of the Genesee River in the town of Willing in Allegany County, and contains mature forests, ridges, brushland, wetlands, and open fields. The Poverty Hill WMA is in the towns of Ellicottville and Mansfield in Cattaraugus County, and contains 950 acres of mature forests, wetlands, brushlands, and open fields. To learn about WMAs near you, visit: <https://www.dec.ny.gov/outdoor/7768.html>.



2020-21 Deer Harvest Estimates

During the 2020-21 hunting seasons, hunters in New York harvested an estimated 253,990 deer, an increase of 13 percent from the previous year. The 2020 estimated deer take included 137,557 antlerless deer and 116,433 antlered bucks. Hunters took 33,260 deer in the Northern Zone, a 10 percent increase from 2019, and Southern Zone hunters took 220,730 deer, a 14 percent increase. The number of licensed big game hunters increased to just more than 588,000, approximately 7 percent more than 2019; bowhunters increased 10 percent, reaching a new high of more than 251,000; muzzleloader hunters increased 6 percent to more than 253,600; and the number of youth deer hunters ages 14 to 15 increased by 23 percent. To view the 2020-21 Deer Harvest estimates, visit: <https://www.dec.ny.gov/press/122860.html>.



New Southern Zone Holiday Deer Hunt

Beginning this December, a “Holiday Deer Hunt” will extend the late bow and muzzleloader hunting seasons for deer in New York’s Southern Zone. The new season provides an additional seven days of late season hunting with bows and muzzleloaders. Hunters must purchase a bowhunting or muzzleloader privilege to participate in the late bow or muzzleloader seasons, and may use all deer tags valid during those seasons. Given the requirement for the use of primitive weapons, biologists do not anticipate a significant effect on deer harvest or local deer populations. The extended season will begin on December 26, 2021 and run until to January 1, 2022. For information on deer and bear hunting seasons in New York, visit <https://www.dec.ny.gov/outdoor/28605.html>.



“Big Time” Deployed to Help Expand New York’s Artificial Reefs

DEC recently added the vessel “Big Time” to the Fire Island Reef as part of the State’s ongoing effort to expand New York’s network of artificial reefs. Now part of the reef, the 55-foot steel Big Time provides a new spot for anglers and divers to visit, increasing opportunities for tourism off the coast of Long Island. Reef construction is part of the NY is Open for Fishing and Hunting Initiative, an effort to improve recreational activities for sportsmen and sportswomen, and to boost tourism opportunities throughout the state. For more information about DEC’s Artificial Reef Program visit: <https://www.dec.ny.gov/outdoor/7896.html>.



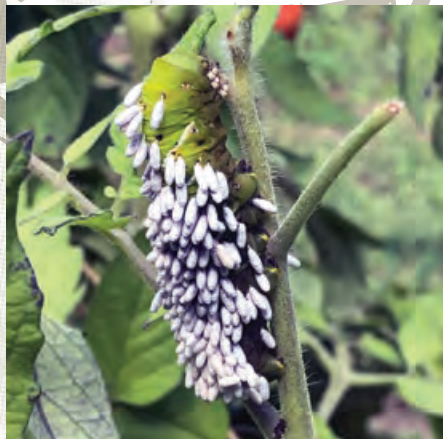
2020 New York State Hunter Safety Statistics

DEC recently released hunting-related incident reports for New York’s 2020 hunting seasons. The reports are consistent with the low incident rates observed in the state during the past 20 years. DEC documented 22 hunting-related incidents in 2020, including three fatalities that were self-inflicted and involved experienced hunters. Examination of the nine, two-party firearm incidents in 2020 reveals that the seven victims involved were not wearing hunter orange or pink when afield, which is a major principle of DEC’s hunter safety courses. All of these incidents could have been prevented if hunting safety rules had been followed. To view the 2020 hunting-related incident reports, visit: <https://www.dec.ny.gov/outdoor/49506.html>.



Milestone in Successful Trout Management Efforts

Biologists have discovered that lake trout are spawning in Lake Erie, and their eggs are successfully hatching. On May 14, 2021, DEC’s Lake Erie Fisheries Research Unit staff collected multiple recently hatched fry in fry traps on a rock reef about five miles west of Barcelona Harbor in Chautauqua County. This marks a key milestone in the restoration of lake trout in Lake Erie, after six decades of significant investments to improve the lake’s water quality and habitat, and promote sound fisheries management. Following decades of research, this finding validates that restoring wild lake trout populations is achievable. For more information on the restoration efforts, see *A Mighty Fish Making its Return* in the April 2020 issue of *Conservationist*.



Garden Eggs

These eggs have appeared on my tomato plants recently and in the past. They don't seem to bother the plants. I'm curious to know if they're there for a purpose, to feed on invaders of the plants.

JERRI FOWX | LINLITHGO

Thanks for sharing your photo with us! It looks like you have a tomato hornworm on your tomato plant. The white structures are cocoons from a parasitic wasp species. They lay their eggs under the skin of the hornworm, and the larvae feed on the hornworm from the inside, eventually forming the cocoons. Adult parasitic wasps will eventually emerge from the cocoons, and the hornworm will die. Hornworms are a known pest of tomatoes and other crops, but the parasitic wasps help to keep them under control. If you have any additional questions regarding these, we recommend reaching out to your local Cornell Cooperative Extension (CCE) office, as they are better equipped to answer questions pertaining to gardens and the pests commonly found in them. You can find your local CCE office at <https://cals.cornell.edu/cornell-cooperative-extension/local-offices>.



Tern Rescue

One day this summer, my neighbor and I noticed what we thought was a seagull struggling in the Oswego River near Phoenix. It appeared to be drowning. We raced out into the river—he in his rowboat and me in my kayak—where he scooped it up into his rowboat with a net. We brought it ashore and saw that it was hooked in both the bill and the foot with the same lure. We dismantled and removed the hooks without further injuring the bird. We tried to release it, but it couldn't fly, and it fell into the river where we rescued it once again. It had bands on both legs, so I searched online and found that it was a Caspian Tern, tagged as a juvenile near Hounsfield in Jefferson County, in June 2018, as part of the North American Bird Banding Program, a joint effort of the U.S. Geological Survey and Canadian Wildlife Service. After letting it rest for a few hours, we released it once again and watched it fly away, literally into the sunset. What a beautiful sight to behold! It was as good an outcome as we could have expected, especially given the condition in which we found the bird, but I wonder if there is anything to be learned from this experience about how sport fishermen can recover and/or dispose of their lures to prevent this kind of occurrence.

STEVE MCMAHON | PHOENIX

Thank you for sharing your story and photos with us, and kudos to you and your neighbor for rescuing the tern! Your story is an important reminder that when fishing, we should all be mindful about proper disposal of used or broken fishing line and lures. As your story clearly indicates, these are very dangerous to many different kinds of wildlife, and had you and your neighbor not been there, the outcome would likely have been very different. While you were able to successfully rescue and release the tern, we want to remind readers that they can always call their local DEC Regional Wildlife Office for help (during office hours only)—contact info is on our website at <https://www.dec.ny.gov/about/558.html>. After hours, our Environmental Conservation Police Officers can be contacted about injured wildlife. They can be reached 24 hours a day by calling 1-877-457-5680. You can also find a list of local wildlife rehabilitators in your area on our website at <https://www.dec.ny.gov/animals/83977.html>.



Ask the Biologist

Q: I'm worried about what has invaded this oak tree in Midwood, Brooklyn. It has a lot of bore holes and thick mats of dark-brown filamentous fungus. I've never seen this before. Is it something new that is threatening our local trees?

PAT RAPP | BROOKLYN

A: In consultation with the staff at DEC's Forest Health Diagnostic Lab, I would say that this appears to be secondary, and probably post-mortem, damage. In other words, dead tissue decaying as normal. That doesn't tell us why the tree is dead, but if this is not a more widespread phenomenon, the most likely explanation is the normal hard life of urban trees. The fungus is actually a slime mold, in this case, probably chocolate tube slime mold (*Stemonitis splendens*). Slime molds become very prolific following extended periods of rain, like what we experienced earlier this summer.

—JASON DENHAM | DIVISION OF LANDS AND FORESTS

Editor's note - you can learn more about the Forest Health Diagnostic Lab on our website at <https://www.dec.ny.gov/lands/79716.html>.

Fox or Coyote?

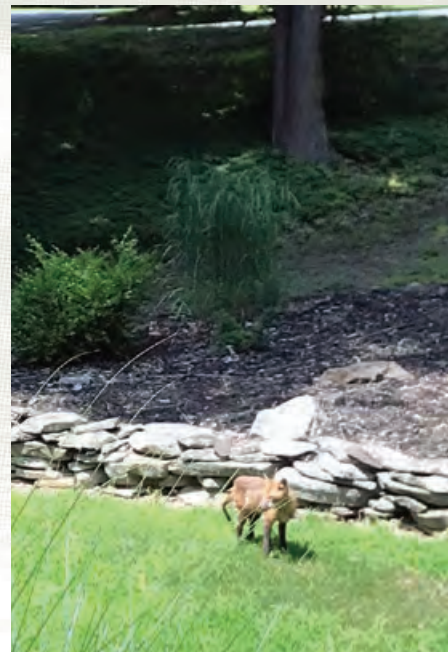
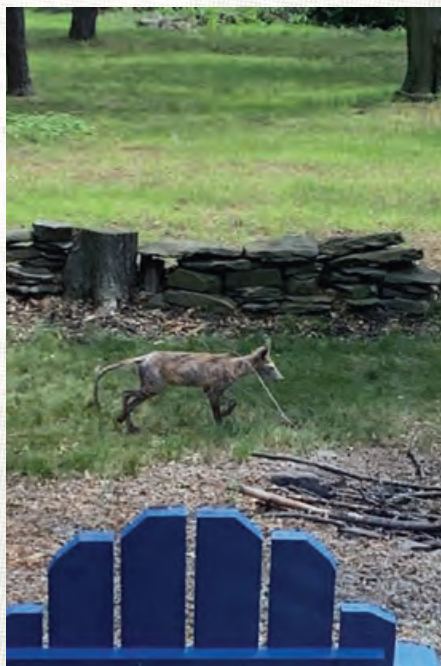
I spotted this animal from my living room window on a sunny afternoon. It laid down for a few minutes enjoying the sun. It seemed playful, not acting ill. My question is: what is it, fox or coyote? Most people are telling me it's a fox with mange, but I thought it might be a young coyote. Also, is there something that I can do for it, such as putting out medicated food?

CAROLYN HRANITZ | CHESTER

This is indeed a red fox with mange. Mange is a skin disease caused by parasitic mites that often leads to itching, hair loss, and the formation of scabs and lesions. Many times the animals will recover from mange, although serious infections can, unfortunately, lead to death. While your intentions are honorable, you should not put out any sort of medicated food for the fox, as it could be eaten by something else, which could be harmed by the medication. Also, feeding wildlife is highly discouraged, as it can cause the animals to become habituated to humans, leading them to become nuisances. Nuisance animals can cause property damage, injury, or spread disease to humans and domestic pets, and often have to be put down as a result. In this case, it is best to let nature take its course.

We received a similar photo (right) recently from Kevin Keating in Irondequoit, also showing a fox with a bad case of mange. Unfortunately, it is a somewhat common occurrence this time of the year.

Correction: in the Species Spotlight feature on the Northern Harrier in the Aug/Sept issue, we inadvertently misstated the weight of this raptor - the correct weight of the bird is 10.5 to 26.5 ounces



CONTACT US!



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Life on the Sea Floor

An Underwater Study of Plum Island's Benthic Habitats

BY MEAGHAN MCCORMACK, PH.D.,
DEC DIVISION OF MARINE RESOURCES

The Silver Sands Motel in Greenport, Suffolk County, a quaint family-run hotel, would be our accommodations for a five-day dive survey of the marine habitats surrounding Plum Island, a follow-up to an initial survey of the area conducted in 2019. When I arrived, I met the scientific dive team, which included Steve Resler, Janet Klemm, Dan Marelli, and Dave Winkler, on the beach of the motel overlooking Pipes Cove, with Shelter Island in the distance. The motel boathouse had plenty of room for our dive equipment and a field lab.

Plum Island, an 822-acre parcel of land roughly a mile and half off Orient Point, the eastern tip of Long Island's North Fork, has been shrouded in mystery among the public, historians, and scientists alike. The island is unique, given its proximity to densely populated suburban neighborhoods, because it has been left relatively undisturbed. Described by the nonprofit environmental group Save the Sound as a biological "linchpin," Plum Island is the first landmass in an archipelago of islands that extends to the northeast off Long Island, which also includes Great Gull Island, Little Gull Island, and Fishers Island; the archipelago is within a region where waters from Long Island Sound, Peconic Estuary, and the Atlantic Ocean converge.



Diadumene sp. (anemones)

Plum Island served as a station of the U.S. military from the Spanish American War through WWII. Since the 1950s, it has been home to the Plum Island Animal Disease Center, currently operated by the U.S. Department of Homeland Security, where scientists and veterinarians focus on disease spread among cloven-hooved animals.

Plum Island is situated within a broader region recognized for its ecological importance. The Orient Point-Plum Island Important Bird Area (IBA) provides breeding and foraging habitat for federally listed and state-listed endangered/threatened species such as the Piping plover (*Charadrius melodus*) and Roseate Tern (*Sterna dougallii*). The area also supports a variety of waterfowl in the winter months. Plum Gut, the water between Plum Island and Orient Point, is designated as a Significant Coastal Fish and Wildlife Habitat and is a popular recreational fishing spot.

In 2019, New York State declared the waters surrounding Plum Island—the area from mean high water seaward 1,500 feet—a Marine Mammal and Sea Turtle Protection Area.

In recent years, scientists have begun to document the plants and animals living both on the mainland and in the nearshore waters surrounding Plum Island, and have been astonished by the plethora and diversity of life in this area.

Yet, to date, there have not been any significant efforts to provide detailed information on the benthic habitats, which support the surrounding marine biodiversity. The term benthic refers to the seafloor, including its physical and biological attributes, and the organisms associated with the seafloor - those living either on, attached to, or in the sediment, are known as benthos. In coastal areas, benthic communities are incredibly productive regions that support a diversity of marine life and serve as nursery areas for larval and juvenile organisms. Filter-feeding benthic organisms also help to maintain water quality in the area by removing nutrients and contaminants from the water. However, benthic communities do not exist in isolation; they are tied to pelagic food webs (those associated with organisms that inhabit the water column above), playing a vital role in



(Left) Lion's mane Jellyfish (*Cyanea capillata*)

Photo by Steve Beeler, InnerSpace Scientific Diving



nutrient cycling, with benthic organisms providing food for higher trophic level consumers, such as adult fish, in the food web. (See www.nynhp.org/plumisland)

The initial dive survey, completed in 2019, was coordinated by the New York Natural Heritage Program (NYNHP) and InnerSpace Scientific Diving, with funding from Save the Sound and a generous private donation. Researchers found that the nearshore (≤ 30 feet in depth) benthic habitats surrounding Plum Island are incredibly diverse, supporting a variety of ecological communities and organisms, including areas with rare and sensitive species and habitats.

During the dive survey, the team battled against strong wind and tidally driven currents while towing meter-square quadrats (square frames used for sampling that allow scientists to identify and count organisms within set boundaries) and other sampling equipment along transects (lines) that ran perpendicular to the island. When the divers saw an area that represented the diversity of the region along the transect, they deployed a quadrat and recorded the life they found within it, including the

percentage of organisms (e.g., algae or fauna) within the quadrat. They also collected samples of algae and other organisms, such as bivalves, snails, crabs, sponges, bryozoans, and worms, which they could not identify during the dive. The survey provided a glimpse into the biodiversity and productivity of the subtidal communities surrounding Plum Island.

On the north side of the island, large boulders up to four meters in width provided holdfasts (anchoring structures) for seaweeds and surfaces for sponges, mussels, snails, and corals to attach to, while crevices provided shelter for mobile benthic organisms, such as crabs and sea stars, as well as fish. All available hard surfaces were covered with life. Even the seaweed itself provided a surface upon which other organisms thrived.

There are more than one hundred species of seaweeds in New York's coastal waters, including red, brown, and green seaweeds. While some seaweeds can be identified in the field, such as sugar kelp (*Laminaria saccharina*) and Irish moss (*Chondrus crispus*), others require a closer look under the microscope and, in some cases, even genetic analysis to confidently identify its species. On the south

eelgrass (*Zostera marina*) provides essential habitat for fish, including seahorses and flounder, and invertebrates, ranging from snails to scallops. Excess amounts of nutrients, such as phosphorous and nitrogen, can impact water quality, resulting in algal blooms that block sunlight from penetrating to the seafloor and negatively impact eelgrass (as well as water quality). During the past 100 years, seagrass meadows in New York waters have experienced dramatic declines. The Nature Conservancy has estimated that seagrass beds that once lined the shores of Long Island and Connecticut have declined by 90 percent.

The 2021 dive survey, similarly organized and supported by NYNHP, InnerSpace Scientific Diving, and Save the Sound, with funding provided by private donations, prioritized sampling quadrats in the unique habitat areas identified in 2019. To meet this objective, our dive team enlisted the help of additional divers and incorporated a more robust sampling design. Along each transect, divers analyzed nine 1-meter square quadrats, three at depths of 30 feet, 20 feet, and 10 feet, respectively, to describe the distribution of species and ecological communities surrounding the island.

To minimize our impact on the ecosystems, divers identified as many organisms as possible



(Left) Scientific Diver Dan Marelli recording quadrat data in an eelgrass meadow in the shallow waters off Plum Island.

side of the island, sandy soft-bottom habitat prevailed, which appeared barren, but in reality, was teeming with life where benthic animals live on the substrate (epifauna) or within the sediment (infauna).

The dive team also surveyed a seagrass meadow off the west end of the island. Seagrasses are a type of submerged aquatic vegetation that live underwater in estuarine or marine environments and have roots in the sediment. In New York, the seagrass species



Bryozoans and *Clathria (Microciona) prolifera* (red beard sponge)

Photo by Dave Winkler, InnerSpace Scientific Diving

Photo by Steve Reiter, InnerSpace Scientific Diving



***Halichoerus grypus* (grey seals) sunning on large boulders surrounding Plum Island.**

within the quadrat underwater, only bringing to the surface samples they could not confidently identify while they were performing the survey.

During one dive on the extreme southeast of the island, while performing a quadrat survey, Steve and Janet discovered that the mesh bag containing the samples had disappeared. When they returned to the surface, they were pleased to find the wayward sample bag floating nearby. They also became aware of several grey seals (*Halichoerus grypus*) in the area, a species commonly found in Long Island waters. We are fairly confident it was one of those pesky seals who stole the sample bag. Luckily, the bag didn't interest the seals very much, and they were kind enough to return it.

The divers also brought underwater photography and videography equipment to document the quadrats and any mobile benthic organisms they observed such as hermit crabs, spider crabs and lobsters (*Homarus americanus*) as well as any fish that swam through the sampling area. So far, from visual identification in the field and the review of photo and video footage, we have identified tautog (*Tautoga onitis*), bergall (*Tautoglabrus adspersus*), black sea bass (*Centropristis striata*), and scup (*Stenotomus chrysops*). The team surveyed seven transects surrounding the island, including areas along the south and north shores and within the western eelgrass meadow.

Although all the data has not yet been processed and analyzed, the divers made qualitative observations. Dan and Steve noted that they saw many more northern star corals (*Astrangia poculata*) and anemones, such as the lined anemone (*Edwardsiella lineata*), than they did in 2019. The northern star coral was the only hard coral species present in the nearshore waters surrounding Plum Island, although deep sea corals do occur farther offshore in the New York Bight. The northern star coral is a hardy creature with a large thermal range, living in habitats ranging from the

Gulf of Mexico to Cape Cod. Unlike hard corals in tropical climates that form reefs, northern star corals in our region form small colonies.

This species of coral is also unique among hard corals because it can survive with or without the symbiotic algae, also known as zooxanthellae, that other hard corals need to survive. Dave also commented with enthusiasm on the lack of marine debris in the area, describing the area as relatively pristine compared to the freshwater lakes in upstate New York where he does much of his work.

Colleagues at Cornell Cooperative Extension (CCE) who were monitoring shallower eelgrass meadows along the south shore of Plum Island also coordinated with our team. Researchers from CCE graciously performed quadrat sampling in eastern eelgrass meadows that our team could not access. Our divers also collected sediment samples from the eelgrass meadow along the western shore of Plum Island. CCE will analyze these samples to determine the sediment type/texture and the percentage of organic matter, reflecting the relative condition of the environment. They will then compare sediment samples from the western eelgrass meadow to those sampled in the eastern eelgrass meadows.

Back at the Silver Sands, in our makeshift field lab, samples were processed; animals were preserved in 70% ethanol, and algae were explored under the microscope before being sent to collaborators at CCE to be preserved for later identification.

Although the dives have been completed, much of the work is yet to be done. Many of the organisms that were preserved still need to be carefully identified to species using biological keys. Photographs and videos are also being processed to help identify species that were not brought to the surface.

To protect the habitats and species that contribute to these productive communities, we first need to document their presence. We hope this survey will help us do that, while also providing a framework for future scientific studies.

The benthic research is helping us learn more about what exists on and near the seafloor, and how it affects marine life and water quality. The divers are modern-day explorers, working to uncover vital information that will help us preserve and protect our marine ecosystem.

This work would not have been possible without the support from various groups, including DEC, Save the Sound, private donors, and local residents and businesses, who all share a passion for exploring and protecting the biodiversity of Plum Island.

Meaghan McCormack is a Marine Zoologist with the New York Natural Heritage Program and DEC's Division of Marine Resources in Kings Park.

Back Trails

Perspectives on People and Nature



A Life in the Woods

BY BOB STEGEMANN

Forests have been a big part of my life for as long as I can remember. As a boy, I played in the forest, rode bikes through the woods, and built a tree house as a refuge. Later, I went to summer camp in the Adirondacks, where I found and developed my passion for the outdoors. Camping and canoeing in New York's vast forestlands became part of me—it was the start of a lifelong relationship.

Spending time in the forest can be a rejuvenating experience. This is especially true in the fall when the woods are ablaze in color. I find the peace and solitude the woods offer totally relaxing. My family and I have spent many a day hiking and camping in the woods. I've loved sharing this with them.

While I always felt that forests brought incredible benefits to all of us, I didn't fully understand the breadth of our forests until I was working on my master's degree at SUNY College of Environmental Science and Forestry. It's astounding how much of New York State is forested—more than 18 million acres.

Following grad school, I began working in a career connected to the forest. My career was diverse, I worked for both State agencies and New York's forest industry. I learned much and reveled in how multi-faceted and resilient our forests are. Along the way, I discovered that New York has many committed landowners, government agencies invested in forest management, and

numerous organizations and groups helping to protect and use this valuable resource. I also realized that all of the viewpoints about forests held by such diverse groups are relevant.

It's the blend of these viewpoints that helps keep our forest healthy, continuing to provide so many benefits. When these views and goals are put together and enacted, our forests provide us with

- Scenic landscapes to hike, camp, hunt, and just enjoy exploring. Places like the Adirondack and Catskill Forest Preserves and wilderness areas fill the soul with wonder, provide a refuge, and support a critical rural tourist economy;
- Vast areas of habitat for a wide variety of plants and wildlife;
- Clean watersheds that protect drinking water (including the Catskill/Delaware Watershed area, which supplies New York City with much of its drinking water and is part of the world's largest surface water supply serving a major city);
- Millions of acres of sustainably managed working forests that provide jobs and wood products we all use every day; and
- A critical carbon sink in the defense against climate change, and a resilient landscape that mitigates flooding and other impacts of a changing climate.

New York's forests truly are an amazing resource. Yet, most New Yorkers, and certainly most

Americans, have little awareness of just how grand they are. While many think of New York as an urban state, approximately 61 percent of the state's land area is covered by forests—that's nearly an acre per person in this populous state. And it's been that way for more than a century. In fact, New York has more forest today than it had in 1900.

Whether it's Forest Preserve wilderness or managed public lands, industry lands, or private commercial forest, New York's forests are a vast and diverse resource that should be seen for all they have to offer—a resource that has been providing all of us services for centuries. Sustainably managed, our forests will continue to do so for future generations.

Now, in retirement, I can play in the forest like I did as a boy. I have a new appreciation for the woods. I've learned a lot about how diverse, resilient and important a well-managed resource—whether wilderness or a working forest—is to everyone and for New York. And it's there for all to explore and appreciate, whether you work or play in the woods or simply recognize how much our forests enrich our lives.

Bob Stegemann is the former Director of DEC's Region 5 office. He and his wife, Eileen, former editor of the *Conservationist*, live in the Adirondacks.

Hunting Q & A

Q: Why do people hunt?

A: Successfully harvesting a deer, turkey, or other game is only a small part of why people hunt. When asked why they hunt, people cite a variety of motives including:

- Closely observing wildlife and connecting with nature;
- Spending time outdoors with family and friends, reinforcing family traditions, and strengthening bonds;
- Securing a sustainable, local source of food; and
- Helping DEC manage game species like deer.

Q: Is hunting safe?

A: Yes! And it is getting safer! Over the past 60 years, the hunting incident rate has declined over 80% from 19 incidents per 100,000 hunters in the 1960s to 2 incidents per 100,000 hunters now. New York hunters have an excellent safety record, but recent adoption of regulations requiring fluorescent orange or pink for big game hunting with a firearm will help make it even safer. Hunters pursuing deer or bear with a firearm (or those accompanying them) must wear a fluorescent orange or pink hat or vest.

To find a DEC Hunter Education course, check www.dec.ny.gov or call 1-888-HUNT-ED2.



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Love Our NY Lands

The tens of thousands of acres of State lands provide many opportunities to connect with nature, close to home and throughout New York. These lands are open to everyone—for activities like hiking, camping, snowshoeing, cross-country skiing, and so much more.

Love Our NY Lands promotes steps you should take when outdoors to protect our lands and your safety. We strongly encourage you to visit the Love Our NY Lands webpage to prepare for any outdoor adventure and learn how to be a strong steward of our natural resources.

Remember, DEC professionals are available to assist you. From helping to plan a trip, ensuring trails are in good condition, or assisting people who are lost or injured, our staff is there to provide information and assistance.

Our State lands belong to all of us, and we want everyone who visits them to have a wonderful outdoor experience every time.

For more information, visit: <https://www.dec.ny.gov/outdoor/119881.html>.





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The Seven Principles of Leave No Trace

Being a good steward of our environment is essential to ensuring that everyone can enjoy the outdoors.

The seven principles of Leave No Trace provide a guideline for safe and sustainable outdoor activities. Follow these principles to improve your trip experience and minimize your impacts:

- **Plan Ahead and Prepare**
- **Travel and Camp on Durable Surfaces** (to prevent erosion)
- **Dispose of Waste Properly** (carry in, carry out)
- **Leave What You Find**
- **Minimize Campfire Impacts** (extinguish the flame when you're done)
- **Respect Wildlife**
- **Be Considerate of Other Visitors**



Hunters: Keep New York CWD Free!

The recent discovery of Chronic Wasting Disease (CWD) in Pennsylvania, near New York's border increases the risk of introduction to our state. CWD kills white-tailed deer and is a threat to our deer population. No deer are immune.

Do your part to limit the risks:

- Read and follow DEC regulations. If you plan to travel, check other states' regulations before you hunt.
- Do not import intact carcasses from outside New York.
- Only bring back deboned venison, cleaned skull caps and antlers.
- Put deer butchering scraps in the trash. If you put deer carcasses on the landscape in new areas, you could spread disease. Landfilling waste will stop disease movement.
- Report any deer that are skinny or acting abnormally to DEC immediately.
- Avoid using natural deer urine as urine may contain prions. Choose synthetic alternatives.
- Report violators! Call an Environmental Conservation Police Officer to report illegal activity - **1-844-DEC-ECOS** (844-332-3267)

We all need to do our part to keep deer healthy and protect New York's hunting traditions!

Visit www.dec.ny.gov and search "CWD".





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