FALL: Hunter’s Season

It Takes a Team
A Tangled Whale Tale
Deer Hunting
Safety First, Smiles to Follow
The Little Brown Bat Makes a Comeback?
Dear Readers,

It’s time to catch our breath. From COVID-19 and increased economic hardships to social unrest, we’ve faced many challenges this year. Nature always helps us reset.

During autumn, many people take to the woods, some to enjoy the beautiful scenery and others to pursue their dream buck. This issue of the Conservationist features personal stories about deer hunting, including the quest of a young teen hunting with her father, as well as photo tips on how to record a successful hunt. You’ll also enjoy reading about one long-time hunter’s lasting memory of the time he endured a cold, snowy morning in pursuit of a duck.

With more New Yorkers looking for ways to enjoy the outdoors during the pandemic, we are seeing tremendous interest in outdoor recreation—especially fishing, hunting, and trapping, including higher sales of big game hunting and trapping licenses.

New York is home to some of the nation’s best hunting and fishing opportunities. And DEC’s efforts to make sure hunters and anglers are able to purchase licenses and take hunter safety courses from the comfort of their homes, are making the outdoors even more accessible.

DEC continues to do our utmost to create great hunting opportunities and experiences and, hopefully, some lasting memories. We wish all deer hunters the best of luck this season, and have included a chart and drawings on page 10 to help you determine the age of the deer you bag.

In tribute to New York’s abundance of wildlife and the Halloween season, on page 20 you can read about the ongoing recovery of the little brown bat from a potentially deadly disease and why that’s a good thing. We also feature the bat in our species spotlight on page 22.

Protecting wildlife is critical to DEC’s mission, and you can read about how our agency and other partners helped to rescue a humpback whale dangerously entangled in a fishing net this summer (page 6). Another article set in the water (actually underwater), explains how the beautiful fall leaves we enjoy actually nourish fish, eagles, and humans when they drop off trees and accumulate in rivers and streams (page 15).

Nature is full of surprises and opportunities. I encourage you to explore all it has to offer.

While 2020 has been a challenging year for all of us, fall is a great time for families to connect with the outdoors. So get outside and take a deep breath. Stay strong, stay safe, stay healthy.

Sincerely,

Basil Seggos, Commissioner
**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. 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

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**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.org). 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.org

**DONATE DOLLARS-DONATE VENISON**

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

**Report Your Harvest**

- **ONLINE:** www.dec.ny.gov
- **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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FRONT COVER: Fall hunting by Andrew Breedlove
BACK COVER: Wood ducks by Melissa Rowell
I had been scoping out the weather forecast and mentally preparing for a frigid experience on the opening weekend of the 2019 regular deer season. I joked about not participating due to the cold, but knew I wouldn’t miss the opportunity. Friday, November 15, 2019, my husband, my daughter, and I drove out to my parents’ farm where we were pleasantly surprised to find my young niece visiting. While the girls hugged, danced, and played, the adults ate pizza and discussed strategy for the next morning. I asked to hunt from the ravine stand, and no one fought me on it.

Before heading to bed, my husband and I laid out our dozens of layers; it was forecasted to be in the teens when we were to wake up. It didn’t seem long before our alarms
signaled it was time to get up. We rolled out of bed and layered up. Mother Nature surprised us with 20+ degree temperatures, so we left the 12th layer behind.

After nibbling on Mom’s apple spice cake and having oranges, four of us (Dad, my husband, me, and my brother-in-law) headed out to our designated spots for the morning. Dad handed me five bullets and pulled out a red wool shirt and blaze orange vest for my outermost layers. I stuffed Mom’s muck boots with foot warmers and booted up.

I stepped outside, stocked my gun with four bullets (none in the chamber!), and set out, slowly, to the ravine. By 6:00 a.m. I was up in the stand, eager to see some action. It didn’t take long for my first deer sighting—two does walked along the forest line to my right. After that, it was pretty quiet until sunrise.

A coyote came down behind my stand from the field and slowly walked down to and across the ravine, eventually making his way towards the nearby cemetery. I saw another two does across the ravine up on the hill, galivanting back and forth, and pausing now and again. Dad was getting cold and let us know he was going to start moving from his position. Around 7:15 a.m., he texted the group that he’d jumped a couple of deer and they were heading my way. I kept my eyes peeled and took off my bulky gloves, just in case. Before I knew it, a deer came into view from up the ravine. I took a look at it through my scope and saw two decent sized spikes—a buck.

My heart started pounding, but I maintained a sense of calm. I didn’t even reach for my phone to text the group. This buck had a good-sized body. I decided that he would make a great harvest and that if I had the opportunity for a clean shot, I would take it.

The buck made his way up my side of the ravine and paused below my stand. As I got the crosshairs on him, he saw me and pivoted back to the ravine and ran down. When he got to lower ground, I grunted in an attempt to give him a reason to slow down. He took a couple of more leaps towards the reservoir and then paused, looking up my way. I told myself not to overthink it; I met my crosshairs with his killzone, took a breath, and shot. He bolted toward the brush along the reservoir. Once he was out of sight, I didn’t hear any sound. It was 7:22 a.m., not even an hour after sunrise.

I let everyone know the shot they heard was mine and after following the rule of thumb to wait at least ten minutes before approaching a perceivably shot deer, I texted the group that I was getting down from the stand. I caught sight of Dad making his way towards me and I stayed put until he made it to the center of the ravine. If the buck was still there and spookable, I would have seen movement.

I climbed down to the ground and met my dad in the ravine. I walked over to where I thought I had shot the buck and walked around a bit looking for blood. Nothing. My heart sank. I asked Dad to let me be while I checked out the brush, and he went back to the cemetery side of the brush while I navigated through on the stand side. I pushed my way through an opening in the brush and found the downed buck. I snapped a picture and sent it to the others for proof of my success. When Dad caught up to me, we exchanged a big hug and equally large grins. I had done it!

Dad dragged the buck out of the brush to a clearer spot for a look. It was a clean shot—through and through. I called Mom at the house and let her know—she was ecstatic. I was so proud and grateful. My brother-in-law drove down on the four-wheeler and we secured the deer to the vehicle. Then we all made our way back up to the farm for a celebratory breakfast and talk of a venison meal.

It had taken several years, but I did it—I got my first buck at age 29, the same age Dad got his first buck—a beautiful coincidence and a shared milestone I’ll never forget. Over the years, I’ve learned to have patience and appreciation for the hunting experience, no matter the outcome, and I now have the confidence that I’ll have good aim when the time is right.

Thank you, Dad, for sharing the wonderful, rewarding sport of hunting that so many generations of our family have enjoyed. I will do my best to carry on the tradition and always remember to be patient, respectful, safe, grateful, confident, and to follow through.

Charlotte Reed grew up in Upstate New York, and enjoys nearly every outdoor activity the area has to offer, including hunting, of course. She shares these passions with her young family and looks forward to many memorable experiences to come.
With more people seeking the outdoors as a way of recreating during the COVID-19 pandemic, there has been an increase in the number of hunting licenses sold. August’s strong opening day of sales saw many sportsmen and women purchasing their licenses. Hunting license sales are up 12 percent when compared to last fall’s license purchases. As more hunters take to the field—some of them for the first time—DEC reminds everyone to always exercise proper hunting safety practices.

Hunting is among the most popular forms of outdoor recreation in the state, drawing nearly 700,000 New Yorkers into the field each year. Hunting is a safe and economically important outdoor pursuit that helps manage wildlife populations and often provides local, fresh meat for families, while also fostering a greater understanding and respect for the environment.

Statistics show that hunting in New York State is safer than ever. Since New York’s Hunter Education Program was introduced in 1949, the number of hunting-related accidents has declined 80 percent. Using common sense and following the safe, responsible, and ethical hunting practices taught in Hunter Education courses will continue to keep people safe.

Obeying the following four cardinal rules of firearm safety is integral to staying safe during the hunting season:

1. Treat every firearm as if it is loaded.
2. Always keep the muzzle pointed in a safe direction.
3. Keep your finger off the trigger and outside the trigger guard until you are ready to shoot.
4. Always be sure of your target and what is beyond your target.

Also, before venturing out, be sure to let someone know where you plan to hunt, as well as your expected return time.

**Wearing Hunter Orange or Pink Saves Lives**

Although adult hunters in New York are not required to wear hunter orange (also known as blaze orange) or fluorescent pink, more than 80 percent of big game hunters and two out of three small game hunters wear these highly visible colors in the field. Wearing blaze orange or fluorescent pink prevents other hunters from mistaking a person for an animal or shooting in your direction.

New York State law does require hunters aged 14 and 15 (and their mentors) who are hunting deer or bear with a gun to wear fluorescent hunter orange or pink that is visible from all directions. The fluorescent colors can be displayed on a shirt, jacket, or vest with at least 250 square inches of Blaze Orange: Not Just for Hunters

Whether you are a hiker, hunter, nature photographer, or mountain biker, every outdoor enthusiast can benefit from wearing blaze orange, pink, or another bright color. Wearing bright colors allows you to be seen easier and from greater distances, especially during fall and winter. Bright colors also make it easier to be found by rescue personnel should you become lost, sick, or injured while recreating.

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DEC is experiencing an increase in sales of hunting and trapping licenses for upcoming seasons.

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Blaze Orange: Not Just for Hunters

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solid or patterned (50 percent) being fluorescent orange/pink, or on a hat with at least 50 percent fluorescent orange or pink.

Note that wearing bright and reflective gear in the woods this time of year isn't just highly recommended for humans; hunters should ensure that dogs are safe and easy to spot by dressing them in blaze orange or other bright colors as well.

Hunters don’t have to worry about being seen by deer when wearing fluorescent orange/pink afield; deer can’t distinguish orange or pink from green and brown.

**Tree Stand Safety Tips**

Tree stand falls are a major cause of hunting-related injuries and fatalities. The proper use of tree stands and full-body harnesses will help prevent these injuries and fatalities. Remember to:

- Read the manufacturer’s instructions and warnings before using your stand, inspect it every season (including straps and chains), and replace any worn or missing parts.
- Use a full-body harness with a lifeline and stay connected from the time you leave the ground to the time you get back down.
- Use a lifeline or safety rope that is secured at the base of the tree or stand and to the tree just above your head when you are sitting in the stand. Attach the tether from your full-body harness to the lifeline using a carabiner and prusik knot, which easily slides up and down the lifeline, keeping you connected at all times.
- Once you are safely in your stand and your tether is attached to the tree, raise your equipment into your stand. Always use a haul line, such as a strong rope, to raise and lower your unloaded gun, cocked crossbow, or bow with quiver up to the stand. Do not tie the haul line around the trigger or trigger guard on a firearm. Raise the firearm with the muzzle pointing down.
- Let a reliable person know the location of your tree stand (mark it on a map) and when you will return.
- Carry emergency equipment, such as a knife, cell phone, flashlight, and whistle, in your pockets at all times (not in your pack hanging in the tree).

**Only Hunt During Legal Hunting Hours**

Legal hunting hours for different game species can be found in the DEC hunting and trapping regulations guide, either online or as a hard copy. It is the responsibility of hunters to know those times for their hunting locations. The legal hours for big game hunting across the state run from official sunrise to sunset, which also can be found on the DEC website or weather data apps and websites. Not only is it unsafe to hunt deer or bear in the dark, it’s illegal.

**Fitness for Hunters**

Hunting is a physical sport. Walking while carrying gear, spotting, and shooting at game and dragging a carcass can be very strenuous. That’s especially true if you are not physically active, smoke, or have high blood pressure, elevated cholesterol, or other health problems. It is a good idea to build up your endurance well before hunting season. Activities that strengthen your heart and lungs can help ensure a safe hunting season.

In addition, hunters should always be prepared for winter conditions when venturing into the woods, as the weather can change quickly.

Following these safety guidelines, and using good judgment, can help ensure a safe and enjoyable season for all hunters in New York.

Jillian Trunko is the NY NASP (National Archery in Schools Program) Coordinator in DEC’s Division of Fish & Wildlife in Albany.

Visit DEC’s website (www.dec.ny.gov/outdoor/hunting.html) and YouTube Channel for more information on hunting and trapping safety.
A Whale of an Endeavour

BY ROBERT A. DIGIOVANNI, JR.
PHOTOS COURTESY OF AMSEAS

“The whale is free!”
These four words were cause for celebration of the dedication, teamwork, and commitment of a small group of individuals who successfully freed a humpback whale entangled in nearly 2 tons of gear.

Over the last decade, large whale sightings and strandings have increased considerably. The once rare sightings of humpback whales within the New York Bight—the coastal waters between Long Island and New Jersey—have become more common. Unfortunately, with these increased sightings, there has also been more strandings of large whale species (humpback, minke, fin, and North Atlantic right whale). What typically occurred once or twice a year more than a decade ago, now happens 12 to 14 times each year.

These changes have not gone unnoticed, and during the fall of 2016, the Atlantic Marine Conservation Society (AMSEAS) was formed. A not-for-profit with the mission of promoting marine conservation through action, AMSEAS works to engage the public and provide information about the whales, dolphins, seals, and sea turtles that share the NY Bight habitat, and the threats that they encounter within these waters. After noting the dramatic increase in large-whale events, AMSEAS has provided insight and recommendations to both the National Oceanic and Atmospheric Agency (NOAA) Fisheries Unit and DEC about preparing for future large-whale mortality events.
On July 27, 2020, NOAA notified AMSEAS about a report of a whale in distress from a possible entanglement near the Ambrose Channel, the only shipping channel in and out of the Port of New York and New Jersey. NOAA requested that AMSEAS confirm the sighting and assess the animal’s condition. DEC’s Bureau of Marine Resources was also notified, and AMSEAS personnel were deployed to meet DEC Environmental Conservation Officers (ECOs) aboard the agency’s patrol boat ENCON A5 at the U.S. Coast Guard Station on Fire Island.

The AMSEAS responders joined the team aboard DEC’s boat, The Lt. John Fitzpatrick (a.k.a. Fitz), to assess the condition, species, and behavior of the whale. They collected photo documentation on the nature of the entanglement and relayed the data back to the Center for Coastal Studies’ (CCS) disentanglement team. The team observed the humpback whale (later identified as a four-year-old calf) floating low in the water, with only its rostrum (tip of the upper jaw) and blowhole clearing the surface for short periods of time, allowing the whale to breathe.

While the animal was coming up for air, the boat crew approached cautiously and used a GoPro camera attached to a long pole to collect images of the extent of the entanglement. These photos shockingly revealed a mass of rope encircling the base of the whale’s tail stock, with a cluster of small orange buoys wrapped tightly against the animal.

DEC Environmental Conservation Police Officers (ECOs) joined a team to free a humpback whale that had become entangled by fishing gear and anchored to the bottom of the Ambrose Channel.

The team also monitored the whale’s behavior and its use of the surrounding water. They informed the disentanglement team and NOAA Fisheries staff that there was a confirmed entanglement, and that the animal’s behavior indicated it was in the precarious situation of being anchored, restricting its ability to swim freely.

The AMSEAS team prepared for the arrival of the CCS marine animal response team. AMSEAS and DEC personnel were asked to head out again the following day to confirm the animal’s condition and report any behavioral changes, while the CCS team worked through the logistics of getting to New York in light of COVID-19 travel restrictions.

On the morning of July 28, AMSEAS and DEC set out to assess the whale’s condition. This time, the boat crew was joined by a member of DEC’s artificial reef project, who brought along a remote-operated vehicle to allow additional visual assessment of the entanglement. The video footage revealed trawl gear binding the animal to the ocean floor 70 feet below, with steel cable mixed into the net and line. As the team assessed the magnitude of the gear on the ocean floor, they noticed that as the whale surfaced for air, the gear would rise and fall. During each difficult attempt to breathe, the whale would have to pull up the weight of the gear.

This information was shared with the CCS disentanglement team, and plans were made for the team’s arrival the following day. The response effort comprised three DEC vessels equipped with one small inflatable boat and a motor brought by CCS. The AMSEAS team was
joined by three specialists from the CCS disentanglement team at the Jones Beach State Park Boat Basin dock, and the joint team traveled to the animal’s position.

Once on scene, the three-person crew transferred to a 13-foot inflatable, motorized Zodiac boat and approached the whale to assess its condition and determine the severity of the entanglement. The team used specialized tools, including grapples with razor-sharp knives attached, safety knives on long poles, and Norwegian buoys approximately 18 inches in diameter, to attempt to cut away the net. Initial cuts proved promising, with small pieces of the net removed and small bullet buoys floating free from the whale’s tail area. However, as the day progressed and the sun began to set, it was obvious the team was dealing with one of the most challenging entanglement cases in the last decade.

The operation was halted due to darkness and the rescuers made plans to return at first light. It would be the fourth day of rescue operations. As the team debated on the best ways to deal with the entanglement, Scott Landry, CCS’ Director of Marine Animal Entanglement Response, said “I know this is a very difficult case, but we have not left a whale behind yet.”

The next day, sunrise was met with a flurry of activity as the teams departed. When they got underway, they were told that the 49-foot research vessel Nauvoo, from Monmouth University, would be joining the effort to help retrieve the gear from the ocean floor. While everyone was happy to have the extra help, there were concerns regarding the weight of the gear and the potential limitations of the vessel. So after consulting with AMSEAS, DEC officers on the Fitz put a contingency plan into action and sent a request for vessel support from the U.S. Army Corp of Engineers at Caven Point, NJ. The Army Corp immediately responded that they would send their 124-foot vessel, the Hayward, to assist. Meanwhile, the
on-site team continued its efforts to disentangle the whale, gradually freeing a bit of gear using a specially designed grapple with extremely sharp blades.

When the *Hayward* arrived, the rescuers decided to first attempt to use a grapple hook on the *Nauvoo* to secure the net. On the first try, they were able to grab the net and for the first time since the rescue effort began, they were able to see the entangled whale’s dorsal fin. Unfortunately, they did not have enough room to work safely.

To secure the gear farther away from the whale’s flukes (tail fins), they made a second attempt from the Zodiac. This was successful and the second grapple was set even farther away from the fluke, expanding the safety zone. The grapple was transferred to the *Nauvoo* and raised, allowing the team to see most of the animal for the first time. This also enabled the whale to be freed from its forced vertical position, taking significant weight off the animal. (We would find out later that the gear entangling the whale weighed over 3,900 pounds.)

Working together, the vessels transferred the line and gear to the *Hayward*, and the CCS team was able to work with the *Hayward* crew to raise and lower the gear as needed. The team found that the whale’s flukes were entangled in steel cable, and bolt cutters and a hacksaw were needed to free its flukes. After hours of herculean efforts, the animal was finally freed and able to swim again.

“The Whale is Free” came over the radio and the rescue personnel all breathed a sigh of relief. The vessels followed the animal for awhile, reporting over the radio that the whale was swimming well. The boats all returned to their ports and the CCS team was flown back to its home base on Cape Cod by volunteer pilots from Sea Turtles Fly Too. After cleaning the gear, the AMSEAS and DEC crews returned to base.

It took four days to free this whale, but the foresight and dedication of a small team working together with its network partners resulted in a great outcome—this whale was given a second chance at life.

Robert DiGiovanni, Jr. is the Executive Director and Chief Scientist at the Atlantic Marine Conservation Society in Hampton Bays.

**Post-script:** Dr. Artie Kopelman, aboard the Coastal Research and Education Society (CRESLI) whale watch vessel, reported a sighting of the whale off Montauk, Long Island on August 19, 2020.

After working for four days, the team freed the humpback whale from the almost 2 tons of fishing gear that had ensnared it.
By Jeremy Hurst

It’s that time of year again, when the smell of falling leaves and other earthly scents flood the air and trigger the hunter’s instincts. Hopefully, pre-season work of hanging stands, cutting shooting lanes, and most importantly, practicing with the implement of choice, will pay dividends this big game season. An often overlooked aspect of hunting is being able to properly age and size up one’s prey.

### Yearling Buck
- **Body Size**: similar to adult doe
- **Legs**: appear long and skinny
- **Muscles**: often not clearly defined
- **Body Shape**: slender, belly tucks up
- **Antlers**: thin, spread narrower than ear tips

### Older Buck
- **Body Size**: larger than adult doe
- **Legs**: appear stockier due to deeper chest
- **Muscles**: well-defined in shoulders and thighs
- **Body Shape**: belly flat or even sagging
- **Antlers**: spread almost as wide as ear tips on 2.5-year-old, wider if older

Antlered Bucks – Yearling or Older?

By identifying and passing up shots on yearling bucks this season, hunters improve their odds of seeing older-age, larger bucks in the years to come. Remember, though antlers can be helpful to distinguish young bucks, sometimes antlers can be misleading. Body characteristics are also very important. Here are some good ways to distinguish between yearling bucks and adult bucks:

![Image of deer]

These bucks from Washington County, NY demonstrate typical age-related differences in body size and antler growth.
Antlerless Deer – Doe or Fawn?

It can be difficult to distinguish adult does from fawn deer, particularly late in the season or anytime if the deer are alone. Though fawns provide excellent table fare, some hunters prefer to target adult deer. Taking adult female deer contributes to management objectives, and passing on buck fawns may allow some of them to be available later as antlered bucks. By learning the differences between does and fawns, hunters can make more informed harvest choices.

After the Shot

Check out DEC’s “Guide to Aging Deer in New York” at www.dec.ny.gov/docs/wildlife_pdf/deeragingny.pdf to learn how to age deer by looking at their teeth.

<table>
<thead>
<tr>
<th>ADULT DOE</th>
<th>FAWN</th>
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<tr>
<td>Body longer than tall (rectangle)</td>
<td>Body about as long as tall (square)</td>
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<tr>
<td>Long neck and elongated nose</td>
<td>Short neck and compact nose/head</td>
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HUNTING TIPS

• Wait until several antlerless deer are present before making a harvest decision.

• Doe fawns have a more rounded head shape between their ears

• Buck fawns’ heads appear flattened and may have visible antler nubs or “buttons”
I perfected my hunting skills over many years, beginning with a slingshot made from a tree limb and rubber cut from old car inner tubes. As I grew older the slingshot was replaced by a series of implements, each requiring a higher level of skill to master. Like many hunters, once I mastered one, I moved onto the next, always enjoying the outdoor experience.

Today, I recognize mastering the challenge of a new weapon had been more important to me than the food value of the game I harvested with it. Family and friends generally acknowledged my skills and I enjoyed their admiration and praise. I thought of the outdoors as an arena where I could demonstrate my skills, never truly appreciating its intrinsic value. It wasn’t till much later that an event occurred while duck hunting that forever altered my perception.

I had always admired the skill of hunters who could bring down high passing ducks, like those running to calm water to escape a storm on the lake. I didn’t know how much of their success was skill and how much was equipment. Late in my hunting career I was to learn; it was skill.

When I finally did master that skill, it gave me a real “rush” to make a clean kill on a passing duck. One fall a few years back, I had a phenomenal fall season of duck hunting. The number of ducks I brought home surpassed my family’s interest in eating them, but rather than stopping hunting, I cleaned the ducks and passed them around to family and friends. When the season finally ended, everyone was happy but me. I wanted to continue my success streak. Then, a second season opened in early winter that year, allowing me access to late arriving ducks from the far north. I had never tried hunting this late in the year, but the challenge excited me, and I decided to take advantage of it.

I chose a day with a strong north wind and lake effect snow, thinking that harsh weather would make the lake uncomfortable enough to drive the ducks inland. I rounded up all my gear, which had been scattered since the end of the regular season and made ready to hunt the creek that I had found so productive earlier.

I didn’t need to leave home as early as I did in the fall, as we were nearing the Winter Solstice. The extra sleep was appreciated because I knew the conditions would be bitter that morning. But my anticipation of a successful hunt finally drove me from my bed, and soon I was headed for the creek.

The snow had ebbed and the sky had cleared, but the plows had not yet cleared my usual parking spot. I mused if this was an omen. Should I forget my plans and return home? I had come a long way and had cleared my calendar to give me freedom for this morning’s adventure. No, I decided, I’ll stay and give it a try.
In my mind, I had already selected where I would stand. It was a big sycamore whose roots extended far into the creek. Common to this area, such sycamores often grow very large, and this particular tree was easily four feet in diameter. It would be a good windbreak to hide behind. But getting there proved a labor. The newly fallen snow reached my knees, but with its soft and delicate character, it freely flowed around my legs as I trudged on. Upon reaching my tree, I chose a position that avoided the wind, yet afforded a view of the stream. I stomped down the snow, loaded my shotgun and leaned back against my windbreak to wait.

By the glow in the east I knew the sun would soon be arriving. That would bring the warmth I needed to keep my hands subtle enough to safely handle my gun, plus the light for me to view what fall’s leaves had hidden. The view proved far grander than what I had expected. I could now see the full height of the trees and realized my sycamore was not the only tree of majestic dimension. Together, their canopies merged to create a cathedral-like ceiling above me.

I was grateful that nature tolerated my presence and glad I had made the effort to be here. I smiled as I waited for the sun’s light to show me more. Soon diamonds appeared, covering the snow. And then I noticed a veil had formed above the stream, as vapors from the water condensed in the frigid air. I wished then I could capture all these images and share them with others.

It was then I noticed a small spot downstream I hadn’t noticed before. It was moving upstream, against the current. It was definitely a duck, but as it grew closer, I realized it was not just a duck, but a male wood duck, one of nature’s most beautiful, delicate creatures, in both coloring and shape. And more importantly, it was an integral part of this scene that I knew nature might never share with me again. Instantly I decided to keep my gun mute. With its head down, the “woody” labored against the current, never looking up as it passed without seeing me. And I, in turn, never moved to scare it.

When I could no longer see it, I unloaded my gun, tossed it over my shoulder, and trudged back to my car. Pouring myself a cup of coffee from my thermos, I sat there reliving what had just happened. I wanted to remember every detail. I believed then and still believe today I had an epiphany that morning. Nature is a theater where I am as much a part of the cast as the animals.

David Kingsland is an avid outdoorsman who enjoys fly fishing and hunting.
Youth Hunts—Jefferson and Seneca County

On September 13, eight young hunters joined ECOs at the Sackets Harbor Sportsman’s Club in Jefferson County to learn about safely hunting waterfowl. The ECOs explained rules and regulations, hunting strategies and calling, and safety precautions, and took the young hunters shooting at the on-site range. The following Saturday, officers took the hunters afield for the Northeastern Zone youth waterfowl hunt weekend—17 ducks and two geese were harvested.

On October 10 and 11, ECOs participated in the 6th Annual Finger Lakes Regional Youth Deer Hunt at Deer Haven Park in Romulus. Young hunters, accompanied by ECO mentors from DEC regions 6, 7, 8, and 9, were taught about firearm safety, conservation, and hunter ethics. During the weekend, the youth hunters harvested 19 whitetails, making for a very successful hunt. These events work to foster a positive relationship between the state’s wildlife protectors and the youth who will hopefully become lifelong conservationists.

Wilderness Rescue—Ulster County

On October 14, DEC’s Central Office was contacted by a hiker’s girlfriend who reported that the hiker was overdue and unprepared for an overnight stay. Forest Rangers Slade and Martin responded to the call and located the 28-year-old hiker from Hastings-on-Hudson, about a quarter of a mile off the trail. The hiker said that he lost daylight on his descent and planned on using a cell phone light to get out of the woods, but he quickly lost the trail and fell over a five-foot ledge, injuring his left knee. The Rangers provided the hiker with food, water, and a light source and escorted him back down the trail. For tips on how to properly prepare and plan for your next outdoor adventure, visit: www.dec.ny.gov/outdoor/28708.html.

Bearly Made It—Herkimer County

On August 18, twelve Forest Rangers responded to a request for assistance with a search for a missing 19-year-old woman from Old Forge. Search teams found the woman the next day. The woman said she had been running on the Big Otter Trail, in the Ha-De-Ron-Dah Wilderness Area, when she encountered a bear with two cubs. The mother bear chased the woman through the woods, and the woman climbed a tree to escape. After darkness, the bears seemed to have left, but the woman stayed in the tree and waited until morning to return to the trail and walked back to Old Forge, where she was found by the search team. For tips on reducing and preventing conflicts with wildlife, visit: www.dec.ny.gov/animals/7005.html.

Great Egret, Great Recovery—Columbia County

On August 24, ECO Davey received a report of an injured Great Egret on Sutherland Pond at the Ooms Conservation Area in the Town of Chatham, Columbia County. The egret had a leg tangled in some discarded fishing line and its leg appeared to be damaged. ECO Davey paddled to the injured bird and untangled it from the fishing line, while avoiding its sharp yellow bill. The egret was transferred to Friends of the Feathered and Furry Wildlife Center, where staff placed a brace on the bird’s injured leg to stabilize a fracture. The bird will undergo rehabilitation and be released back into the wild.
HAVE A (SAFE) NEW YORK ADVENTURE
Hey Kids and Families - Are you finding that you’re spending more and more time indoors? Maybe getting caught up in a video game or watching what others are doing on social media? Getting outdoors and being an adventurer is way more fun! This guide will show you how to do it and how to stay safe at the same time.

Want to receive Conservationist for Kids at home? Subscribe to DEC’s Conservationist magazine!

You’ll get six issues of the award-winning Conservationist magazine each year, plus Conservationist for Kids in the October, February, and April issues. Call 1-800-678-6399 for information about how to subscribe. Or, write to us at:

NYS Department of Environmental Conservation (DEC)
Conservationist for Kids, 625 Broadway, 4th Floor
Albany, NY 12233-4502
kidsconservationist@dec.ny.gov
Get Outside!  

When you undertake an adventure outside, the benefits are plentiful. Outdoors, you’re physically active, adventurous, and often more social. You also get fresh air and vitamin D. Playing in nature helps you relax and improves your attitude, so you’ll be able to tackle homework and even sleep better.

You’re very lucky to live in New York State. We’re blessed with an abundance of natural resources like nowhere else, and there is plenty of public property that is open to everyone. In most cases, access is free and there’s a great area close to everyone. Did you know:

- There are 5 million acres of public lands managed by DEC
- New York has 5000+ miles of public trails
- There are 55+ state campgrounds and day-use areas
- New York has 400+ public boating and fishing facilities

We know that sometimes it can be hard to motivate yourself to get outside. Create a plan, check out locations you’d like to visit, invite your friends, and make it easy and fun. What are you waiting for? Take lots of pictures along the way and you’ll be the one everyone else is watching.

PLAY SMART • PLAY SAFE • PLAY LOCAL
Due to the ongoing COVID-19 pandemic, we are encouraging all New Yorkers to recreate locally, practice physical distancing, show respect for all outdoor adventurers, and use common sense to protect themselves and others.

Learn more and take the pledge to PLAY SMART • PLAY SAFE • PLAY LOCAL on DEC’s website at www.dec.ny.gov/outdoor/119881.html

Take a look at the adventures on the next few pages. They are grouped by category so you can easily find those that interest you most.
DEC is celebrating its 50th anniversary this year, and to celebrate, we are offering you a list of 50 suggested outdoor activities you can take part in—do one or do them all! Some of these adventures are more seasonal in nature, so if you can’t complete them right now, you can try to do them when the time of year or the weather is the best for these activities. Many of them can be completed in your own backyard or in your neighborhood, but some might mean taking a trip to a local park or other location. Make sure that you, your friends, and your family are playing it safe while on your adventures. Check DEC’s website for the latest updates about what places are open or closed, or if there are any specific regulations in place due to COVID-19.

We’d love to hear about some of your outdoor adventures, and what you did & learned. Tell us about where you visited and what you experienced. Please feel free to include photos and stories about your adventures. You can send them to us at KidsConservationist@dec.ny.gov.

ALL ABOUT CRITTERS:

___ 1. Find and identify 8 birds—Observe them and then try to determine the species from a field guide.

___ 2. Hear and identify 5 bird calls—Listen and determine the species from its call.

___ 3. Go out at night and try to find/hear an owl or other nighttime bird.

___ 4. Find at least 5 insects and identify 3 or more of them.

___ 5. Find and identify 2 insects that are doing good things for the environment.

___ 6. Go out at night and look for bats. Observe how they fly.

___ 7. Go outdoors after a rainstorm and see what creatures have emerged (such as earthworms and red efts). Try to identify each creature you find.

___ 8. Catch and release unharmed an aquatic creature from the water (e.g., crawdad, frog, water bug).

___ 9. Find 3 butterflies and try to identify them.

___ 10. Use a camera to “hunt” an animal and capture a picture of your “catch.”

___ 11. Find animal tracks and identify 2 animals from those tracks.

TAKING TIME TO OBSERVE WHAT NATURE OFFERS:

___ 12. Visually observe 6 different rocks and try to identify them.

___ 13. Dig in the soil (without disturbing any vegetation) and describe it. Is it sandy or more like clay? Look up the soil type you found.

___ 14. Identify what you find under 5 rocks, and then make sure to return the rocks to their original position.

___ 15. Find a plant that has seeds ready to be dispersed. Identify the plant and try to determine how the seeds are spread.

___ 16. Photograph 10 different wildflowers and identify each.
___ 17. Visit a DEC property to find and identify 6 different kinds of trees.

___ 18. Make a bark rubbing of 4 trees and use it for identification.

___ 19. Find and identify 5 different small plants found on a DEC property.

___ 20. Visit a DEC property and collect 6 fallen leaves from the ground. Identify each and then leave them in the forest.

___ 21. Look at the stars at night and identify 3 constellations.

___ 22. Find a DEC property where you can see different rock formations and exposed geological layers. Identify each of the layers. Suggested locations are available on DEC’s website.

___ 23. Go on a picnic with friends or family to a DEC property you’ve never visited before.

___ 24. Relax in a natural setting at a DEC property and describe the way nature makes you feel.

___ 25. Find a frozen waterbody that an adult has determined is safe and go ice fishing. Review the safety information at www.dec.ny.gov/outdoor/7733.html before heading out.

___ 26. Visit a DEC campground and sleep in a tent under the stars.

___ 27. Identify which direction the wind is coming from on 4 different days of the week.

___ 28. Go to a DEC property or State Park you have never visited before.

___ 29. Make a s’more over a campfire.

___ 30. Go for a winter hike or a walk of at least a mile.

___ 31. Go fishing in two DEC places you have not fished before.

___ 32. Find 4 places on DEC properties that you think are worthy of a selfie and take your picture. Be mindful of your surroundings (don’t step off a cliff!).

___ 33. Accompanied by an adult, wade in a stream and describe how it feels and what you discover.

___ 34. Cook a meal outside over a campfire for your family and friends. A tin foil meal is especially easy and fun.

___ 35. Take a hike at least 2 miles long and try to find a walking stick to help you on your way.

___ 36. Find a new hike on a DEC property that has a great view to photograph.

___ 37. Go on 3 hikes on DEC lands that you’ve never done.

___ 38. Find a place on a DEC property to read a book, and describe the site you chose and why.

___ 39. Help with a seedling or tree planting to benefit the environment: a wind break, wildlife cover, stream stabilization, soil stabilization, or reforestation. Find suggested Arbor Day activities on the DEC website or visit www.arborday.org.
40. Take a friend fishing who has never fished before.

41. Go on a walk/hike that is longer than you’ve ever done, to challenge yourself.

42. Find a place to hear and record your echo.

43. Find different types of clouds on two different days and identify them and the weather they bring.

44. Follow a path using a compass and map.

45. Take a friend or family member on a hike he or she has never done before.

46. Go paddling in a kayak or canoe somewhere you’ve never been before.

47. Visit a DEC property to hear a sound from a mammal you can identify.

48. Go on a winter hike with snowshoes or cross-country skis. See DEC’s website for locations that have equipment available.

49. Go on a hike to a fire tower.

50. Watch and photograph the sunrise or sunset in two different seasons.

51. BONUS: make your own nature or outdoor experience! And tell us about it.

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**LEAVE NO TRACE**

7 Principles of Leave No Trace

1. Plan Ahead & Prepare
2. Travel & Camp on Durable Surfaces
3. Dispose of Waste Properly
4. Leave What You Find
5. Minimize Campfire Impacts
6. Respect Wildlife
7. Be Considerate of Other Visitors

Make sure to follow any specific rules and regulations for the area you are visiting. Don’t pick plants or remove rocks/fossils/etc. that you might come across. Anything that you bring in with you should be brought back out. Don’t chase or harass wildlife – take pictures, but don’t chase them or get too close in order to get the “perfect” shot. Don’t feed wildlife. Not only could this put you in danger, but it could also make them more comfortable around humans, which is not good for the wildlife. For more information, visit the Leave No Trace Center for Outdoor Ethics website at [https://lnt.org](https://lnt.org).
HAVE FUN. STAY SAFE. BE PREPARED.

We want you to enjoy this adventure challenge, but we also want you to be safe. Make sure that you have an adult with you whenever you go out on an adventure. Staying safe on an adventure means being prepared. Following the Hike Smart NY guidelines is a great idea no matter what adventure you are on.

Be Prepared
Wear proper gear and attire, including:

- Moisture-wicking synthetic fabrics that keep your skin dry and help regulate your body temperature in both cold and warm weather - avoid cotton as it holds moisture
- Layered clothing is recommended even for summer hikes
- Light-colored clothing, which will make it easier to see ticks
- Waterproof, sturdy, and comfortable shoes or boots
- A watch or other time-keeping device
- Snowshoes and traction devices in the winter
- Also, use trekking poles, which will reduce leg fatigue and joint pain

Use Maps, Guides, or DEC’s Website to Plan Your Trip
Leave Trip Plans with Family or Friends
Be Realistic About Your Fitness and Skill Level
Check the Weather Forecast and Current Conditions

Prepare For Survival
Hike in a Group and Stay Together
Monitor Conditions and Turn Back if they are dangerous
At the Trailhead or Parking Lot (for all hikers young, and old):
- Conceal valuables, and lock your vehicle;
  save the DEC Emergency Dispatch number in your cell phone; sign trail registers and indicate the time.
*Don’t forget to sign back out when you leave!*

If You Are Lost or Injured
Stop where you are, try to remain calm, and assess the situation. Try to determine your location using landmarks and by listening for nearby vehicles.
Call 911 or DEC Emergency Dispatch (518-408-5850; in the Adirondacks 518-891-0235).

For more information about being prepared, safety tips, and what to do if you are lost or injured, visit DEC’s website at https://www.dec.ny.gov/outdoor/28708.html.
In order to better prepare for your adventures, here are some links to resources that cover many of the topics listed in the challenge.

**Watchable Wildlife**
GETTING STARTED
www.dec.ny.gov/outdoor/55423.html
I BIRD NY
www.dec.ny.gov/animals/109900.html

**Canoeing, Kayaking, & Boating**
GETTING STARTED
www.dec.ny.gov/outdoor/349.html
BOATING REGULATIONS AND SAFETY
https://parks.ny.gov/recreation/boating/

**Fishing**
GETTING STARTED
www.dec.ny.gov/outdoor/fishing.html
OBTAINING A FISHING LICENSE
www.dec.ny.gov/permits/6091.html

**Camping**
GETTING STARTED
www.dec.ny.gov/outdoor/camping.html
FIRST-TIME CAMPER PROGRAM
www.dec.ny.gov/outdoor/109909.html

**Exploring & Learning**
EDUCATION CENTERS AND PROGRAMS
www.dec.ny.gov/education/74.html

**Hiking, Biking, & More**
HIKING
www.dec.ny.gov/outdoor/351.html
HORSEBACK RIDING
www.dec.ny.gov/outdoor/101037.html
BICYCLING
www.dec.ny.gov/outdoor/101033.html
SKIING AND SNOWSHOEING
www.dec.ny.gov/outdoor/7718.html
ROCK AND ICE CLIMBING
www.dec.ny.gov/outdoor/101035.html
GEOCACHING
www.dec.ny.gov/outdoor/98952.html
PLACES TO GO
www.dec.ny.gov/outdoor/82098.html

**Accessible Recreation**
GETTING STARTED
www.dec.ny.gov/outdoor/34035.html
Autumn in New York

On the trees, and...
By late fall, foliage season is long over for us humans, but it is peak leaf season under the water. As fall advances and the last bus of tourists departs the North Country for home, fallen leaves that have accumulated in our ponds, streams, and rivers start a process that is critical for the nourishment of everything. From caddisflies on up the food chain to eagles and even people, the food supply in a waterbody originates in the form of fallen leaves.

The bright yellow and red piles that accumulate on river rocks and fallen branches are not yet ready for consumption by discerning invertebrates. The witch’s brew of natural chemical compounds that discourages insects from eating green leaves growing on trees can be just as repellent to creatures that scavenge freshly fallen leaves under water.

First, cold water must leach out those “nasty” chemicals. Imagine the process as soaking and resoaking a teabag. During this period, the leaves are also colonized by microscopic organisms. For a hungry invertebrate, the cleansed, layered leaves, covered in fungi, bacteria, and algae, make a sandwich that Dagwood Bumstead could be proud of.

If all leaves were created equal, then the river food supply would consist of a brief crop polished off by whatever ravenous insect species got there first. But, of course, not all tree and shrub species lose their foliage at exactly the same time, and their leaves decompose at different rates. Some leaves are tough, leathery, and laden with toxins. Certain laurels can release so much cyanide that entomologists have used them to kill specimens they want to study. Other species, such as linden, are comparatively soft and become an early underwater food source. Oaks and beech trees hold onto their tough leaves late into the season, and when those leaves finally do fall, they are slow to convert into an edible condition.

Variability in the timing of leaf fall, and in the rates at which leaves become palatable, means that edible leaves are available for most of winter. This is also the season when much aquatic invertebrate growth occurs. A caddisfly species called *Pycnopsyche gentilis* acts like a chronicler of the leaf supply. In fall and early winter, its larvae cut disks from leaves and use silk to make and line pencil-diameter casings in which they live. In early spring, as leaves become scarce and the larvae keep growing, they add to their cases using large sand grains.
This is why you can sometimes find cases with leaves at the back end and sand grains at the front.

Although fish aren’t typically leaf eaters, they do rely on the underwater foliage season. Several species of cranefly, caddisfly and stonefly larvae, fattened up on leaves, are protein-packed snacks for hungry trout, salmon, and bass. Without invertebrates, fish would go hungry. And without some knowledge of invertebrates, few anglers would know what to put on a hook to lure a spectacular brook trout.

The cleanest streams host most invertebrates, and simply counting the number of species can be the basis for an interesting study. Each fall, I visit forested and urban streams with biology students from Saint Michael’s College. One year we found more than 20 species of invertebrates in a river downstream from a state forest. However, a nearby brook that drains suburban neighborhoods and parking lots hosts fewer than half as many invertebrates.

Macroinvertebrates that inhabit a more rural river include clean-water loving giant stoneflies and an assortment of mayflies. I have yet to meet a stonefly in the brook because the community is dominated by midges, craneflies, and a particularly tough caddisfly that makes its living by filtering particles from the water. A view into the world of submerged invertebrates is just a bunch of leaves away. You can easily lift an intact chunk of leafy habitat from a streambed for your study, and your equipment can be as simple as a basin of stream water. Just drop a handful of streambed leaves into the basin and the observations can begin. Rinse and remove the leaves one at a time to reveal the small creatures living among them.

Familiarity with the names of each and every invertebrate is a fine aspiration, but simply counting the number of different organisms is the first step to measuring biodiversity. Water-filled ice cube trays are wonderful for sorting the catch of the day. Remember to keep them in the shade ( ironic for ice cube trays) so you can release your detainees unharmed.

Leaf peeping season is brief, but bug peeping lasts all year!

Declan McCabe is a Professor of Biology at Saint Michael’s College in Vermont.
During and after a memorable hunt, most hunters want that perfect picture to remember it by. With the increased quality of cell phone cameras and the usage of social media, it is easier than ever to capture and share that special moment. However, it is important to remember that photographs in poor taste can negatively impact the public’s view of hunting. Here are a few tips to keep in mind:

- Show respect for how the animal is depicted. Take photographs before field dressing and clean up the animal as much as possible. Avoid sitting on, standing on, or straddling the animal.
- Photograph more than just the animal. Include the hunter, hunting companion, hunting dog, etc. A lot of work and effort goes into hunting, so the photo should reflect the experience, not just the end result.
- Be aware of how the person/people in the photo may be viewed by others. Take a few minutes prior to the photo to clean up.
- Take photographs in the field. “Tailgate pictures” don’t capture the hunt the same way as a photograph taken in the field near where the animal was harvested.
- Any firearm in the photograph should always be unloaded with the action open.
- Practice proper hunter safety! Unfortunately, many photographs show a hunter with a firearm that appears to be directly pointed at themselves. Presumably the firearm is unloaded, however, the first rule of firearm safety is to treat every gun as though it is loaded. Remembering and practicing the four rules of firearm safety is extremely important!
- Quality lighting is a must! Nothing ruins a photo easier than harsh shadows or general poor lighting. If you have harsh shadows, try using the flash even though it is bright. This will help lighten the shadows.
- Experiment with angles and composition when taking photos. Learn about the “rule of thirds” in photography. That means the image should be composed so that the subject is slightly off center and the horizon doesn’t fall into the middle of the image.

Remember, always take respectful photographs that capture your success and the reasons why you hunt.

Joshua Stiller is a Wildlife Biologist in DEC’s Albany office.
Most people aren’t fond of bats. Bats are not pets; you can’t hug a bat; and they’re not good at following directions. However, bats are often misunderstood, and they actually play an important role in environmental health and the U.S. economy. While some bats disperse seeds that help maintain forests, and some bats pollinate plants and flowers, bats in New York State are insectivorous, meaning they eat insects that destroy crops and spread disease.

There are more than 1,000 unique species of bats worldwide and about 47 different species in North America. The most common bat found in New York State was the little brown bat (Myotis lucifugus)—note the word was, up until the impacts of white-nose syndrome.

White-Nose Syndrome

The greatest threat to populations of the little brown bat is a disease known as white-nose syndrome (WNS)—named for a white fungus (Pseudogymnoascus destructans) that grows on the bats’ skin during hibernation. First observed at five caves in upstate New York during the winter of 2006–2007, it has since spread rapidly, infecting 13 species of bats in North America and killing millions of bats in 35 U.S. states and seven Canadian provinces. Within several years after the arrival of WNS at a hibernation site, the number of little brown, northern long-eared (Myotis septentrionalis), Indiana (Myotis sodalis), and tricolored (Perimyotis subflavus) bats typically decreases by 75 to 99 percent.

In July 2015, U.S. Fish and Wildlife Service biologists estimated that at least 5.5 million bats had died from WNS. In New York, it has killed more than 90 percent of bats at underground hibernation sites.”

Some species of bats are experiencing near total collapse. In July 2015, U.S. Fish and Wildlife Service biologists estimated that at least 5.5 million bats had died from WNS. In New York, it has killed more than 90 percent of bats at underground hibernation sites.

This fungal disorder kills bats by infecting their skin, disturbing their hibernation, exhausting critical fat reserves needed for winter survival, and causing them to leave their hibernation site earlier than usual. The bats fly out of caves and mines attempting to find something to eat, only to discover that the cool winter weather means that there are no flying insects. The result—bats often freeze or starve to death.

“The fungus is spreading across North America primarily due to bat movement, but it’s important to recognize that people can also contribute to the spread from one hibernation site to another by carrying the fungus on their shoes, clothing, or gear,” explained Carl Herzog, a wildlife biologist with DEC’s...
“Once the fungus is introduced to the hibernation environment, it can sit there for years waiting to infect any bat that comes in contact with it. Bats that survive the winter can recover from the disease when they are able to fly again and feed in springtime, but these same bats get re-infected when they return to the now contaminated hibernation site in the fall. These bats then infect other bats until virtually all bats are exposed, and the whole cycle starts again.”

**Resistance**

While there is currently no effective treatment for populations of bats afflicted with WNS, we now have the first hints that the little brown bat may be evolving a natural resistance to the disease. In Eurasia, where WNS originated, many native bats contract the disease, but they deal with it much better than many North American bats. In New York, populations of the little brown bat seem to have stabilized within three years of the arrival of WNS, and the severity of infections has also reduced.

A December 2019 study, co-authored by Herzog, concluded that little brown bats may be developing a resistance to the fungal infection. Even though the fungus is present in their hibernation sites, an increasing number of bats are getting only a moderate infection or, occasionally, perhaps no infection at all.

A nine-year study at five of the hibernation sites where the fungus was first detected in North America revealed that the number of little brown bats hibernating at two of these sites has consistently increased since 2010. These findings suggest that after six to nine years of exposure, these populations of little brown bats may have evolved mechanisms to hibernate relatively well with the presence of WNS, which has significantly reduced the rate of their over-winter mortality.

DEC has also participated in two different university-based studies, one out of Bucknell University and another based at Rutgers, both looking for genetic evidence that remnant populations of little brown bats are starting to adapt to the disease. “A genetic explanation for better success against white-nose syndrome would be especially encouraging because of the potential for adult bats to pass on the resistance to their offspring,” explained Herzog. This hopeful work is ongoing.

Exactly how New York’s little brown bat population fares in the future remains to be seen. The outlook has been bleak, but now, more than a decade after WNS was first discovered at a cave in a State Park in New York, there is a glimmer of hope.

Tony Colyer-Pendas is an Assistant Editor with Conservationist. Carl Herzog is a biologist in DEC’s Albany office.
Scientific Name

*Myotis lucifugus*

Description/
Diet/Behavior

The little brown bat is a species of mouse-eared microbat found in North America. Bats are warm-blooded mammals, and are nocturnal, meaning they feed at night and rest during the day.

These bats usually eat flying insects, typically beetles, flies, mayflies, moths, lacewings, stoneflies, caddisflies, and mosquitos, and normally feed one or two times each night. The little brown bat has sharp molars and canines that are shaped in a way that allows them to hold onto their prey and consume it while the bat is in flight.

Bats do not build nests. The place where a bat sleeps is called a roost. During the day, the little brown bat will hide and rest in its “day roost,” which is often a space under roofs or eaves of buildings, in trees, or in woodpiles. They typically emerge at sunset to begin feeding and will then rest in their “night roost,” which may be near its day roost (usually in another part of the building or forest in which the day roost is located).

The little brown bat is not territorial. Some of these bats roost alone or in pairs, but many typically sleep in large groups. Males and females usually roost apart. Females form nursery colonies and roost with several females giving birth in the same area, preferring to roost in hot spaces.

Bats use echolocation to detect and catch insects. Similar to sonar used by ships, they send out a series of rapid (up to 200 per second) pulses of sound that bounce
Life History

The little brown bat usually gives birth to one baby per year and nurse their babies (called pups) with milk. Pups are born with well-developed feet, which enable them to cling to their mother and hang from a perch. Only the mother cares for the young. Babies are born in June and grow quickly, usually flying and hunting within a month.

On average, the little brown bat weighs less than half an ounce, has a wingspan of 8 to 10 inches, and a total body length of 2.5 to 4 inches. They are covered in a coat of glossy, cinnamon-colored and dark brown hair, with pale grey underneath. They have black wings with a bone structure similar to the thumb and four fingers of the human hand.

The oldest documented little brown bat found in New York State lived to be more than 34 years old, although few bats live this long. Predators include owls, hawks, snakes, and domestic cats. Animals such as weasels, minks, and raccoons are also a threat, as they may climb into areas where bats roost and eat them while they sleep during the day.

In the winter, the little brown bat will hibernate in caves and mines, usually returning to the same site year after year. During hibernation, a bat will reduce its body temperature, slow its heart rate considerably, and rely on its stored fat reserves to survive until spring. When temperatures become warm enough, in spring, bats emerge from their hibernation sites to find an above-ground roost; females typically emerge first. During the summer, bats can be found in attics, barns, sheds, buildings, beneath loose bark, or in cracks or crevices of trees. In the fall, bats migrate to their hibernacula (place where animals hibernate) for the winter.
New York’s Plastic Bag Ban is in Effect

On October 19, 2020, DEC began enforcing the law and regulations prohibiting the distribution of plastic carryout bags. Retailers who collect taxes are not allowed to distribute plastic carryout bags to their customers (with some limited exceptions). Plastic bag usage affects our communities and the environment; the negative impacts of these bags are easily seen, everywhere. You can do your part to prevent litter and reduce waste by bringing your own bag and reusing bags. You can also remind your family, friends, and neighbors to bring their reusable bags whenever they shop. DEC is committed to protecting our environment for current and future generations. By switching away from plastic bags, you will help us achieve that goal—and reap the benefits yourself. Visit the DEC website to learn more about the ban and the law: https://www.dec.ny.gov/chemical/50034.html.

Upgrades to Trail System

A three-year project to upgrade 36 bridge crossings along the Brookfield Trail System, in the towns of Hamilton and Brookfield in Madison County, was recently completed. DEC designed and constructed the new bridges and boardwalks to enhance public safety, provide convenient access for trail users, and protect the area’s natural resources. The 100-mile Brookfield Trail System traverses three State Forests (Charles E. Baker, Brookfield Railroad, and Beaver Creek) and is open free of charge. These trail upgrades will further enhance the outdoor experience for people of all ages. DEC encourages all New Yorkers to recreate safely, responsibly, and locally, and to always treat fellow outdoor adventurers with respect when enjoying the outdoors.
Reduce Waste and Improve Recycling

DEC is collaborating with three State University of New York colleges to benefit local and statewide solid waste management and recycling. Working with the University at Buffalo, the SUNY College of Environmental Science and Forestry, and Stony Brook University, this partnership will focus on developing innovative strategies to improve recycling and waste reduction, while strengthening New York’s economy and protecting the environment. Each of the participating SUNY schools will receive funding through the State’s Environmental Protection Fund to strategize how New York can bolster new markets and help municipalities and businesses streamline the recycling process, lower costs, improve public outreach strategies, and build capacity in the state. This new collaboration will help ensure New York’s legacy of environmental stewardship continues, both now and into the future.

Track Wildlife Through Radio Telemetry

The Northeast Motus Collaboration worked with DEC to recently install Motus Wildlife Tracking Stations at five Wildlife Management Areas across New York State. From these stations, researchers will attach tiny tracking devices to birds, bats, and insects to help learn more about when, where, and how these animals move across the landscape. Knowing more about migration and movements will help DEC better understand, manage, and protect wildlife species that are too small to be tracked using other methods.

Advisory Group to Balance Public Use in Catskill Park

DEC Commissioner Seggos announced the creation of a newly formed advisory group to develop a strategic plan to address issues associated with the increased public use of the Catskill Park, and help ensure the protection of the park’s resources for current and future generations.

With more New Yorkers getting outside and exploring the Catskill Forest Preserve, this increased use could potentially impact the region’s natural resources and quality of life. The advisory group, which includes representatives from local and state governments, a variety of Catskill organizations, and tourism experts, will develop strategies to balance public use and environmental protection, promoting safe and enjoyable recreation experiences, sustainability of the region’s natural resources, and a vibrant local economy. The group will finalize and submit a strategic framework with its recommendations to Commissioner Seggos by the end of 2021.
**Nice Find**

My sons and I observed this snake on one of the trails at Five Rivers Environmental Education Center in August. Can you confirm if this is a black rat snake?

BEN PIERSON | ALBANY COUNTY

This is a nice find! Today’s taxonomy calls it an eastern rat snake, Pantherophis alleghaniensis. Currently, they are only known to be in the very southern portion of Albany County, in the Coeymans area. I believe there was one in the Albany Quad circa 1975, so this is definitely a record that should be added to the Herp Atlas database.

—Al Breisch, DEC Wildlife Biologist (Retired)

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**A Holey Tree**

Can you tell me what caused these neat rows of holes in this tree?

DIANA F. | OSWEGO

These rows of holes are telltale signs of a sapsucker. These birds, which are a type of woodpecker, will drill rows of holes in the tree bark and then feed on the sap that comes out, along with any insects that might be there.

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**Three’s A Crowd**

I photographed these three young bucks in a yard in the Village of Saranac Lake on my way to work one morning.

FOREST RANGER KEVIN BURNS | BELMONT, NY

Thanks for sharing with us! We wonder if they will be so brazen once hunting season is underway...
Ask the Biologist

Q: I was surprised to see a lamprey attached to a carp in the Kinzua [Allegheny] Reservoir as I was boarding my sailboat one day in August. Are they common outside the Great Lakes and Finger Lakes?
— ANDREW DICKSON | CATTARAUGUS COUNTY

A: Based on the photo and our knowledge of fish species distribution, this is actually an Ohio lamprey, which is native to and only found in the Allegheny River watershed in New York. They are similar to the sea lampreys that inhabit the Great Lakes and Finger Lakes, in that they are parasitic—attaching to a host fish to feed as adults—and they die after spawning. However, Ohio lampreys are much less abundant than sea lampreys are in other waters and aren’t known to have any serious negative effects on fish populations like sea lampreys can. They also don’t grow as large as sea lampreys and commonly use carp and suckers as a host species, likely because those species are so abundant in the Allegheny River and reservoir. Although they are fairly rare throughout their range and are listed as a species of greatest conservation need in New York State, we encounter them quite frequently during fisheries surveys in the Allegheny River basin.
—JUSTIN BREWER, DEC FISHERIES BIOLOGIST

46 Years A Hunter

Here is a photograph of all my back tags since 1974, 46 years’ worth of hunting.
JOHN TUCKER | BELMONT

What an impressive collection. Thanks for sharing

Battling Bucks

I thought your readers might enjoy seeing these bucks I recently photographed battling each other near my home.
BILL STRAITE | HERKIMER COUNTY

Fall is the time when white-tailed deer prepare for the upcoming breeding season, and bucks can be seen sparring with each other to determine dominance. You were lucky to be able to capture this.

Correction—In the August/September issue, the letter and photo of a bobcat used in the “Ask the Biologist” feature were incorrectly credited. The letter and photo came to us from Diane Soper in Voorheesville, and we regret this error.
—Conservationist Editorial Staff

CONTACT US!

Conservationist Letters, NYSDEC
625 Browadway, Albany, NY 12233-4502
magazine@dec.ny.gov
As a young, female outdoor enthusiast, I have been involved in hiking, fishing, hunting, camping, nature photography, and much more. I have learned to enjoy and appreciate simple things, like love, joy, and memories—not objects. One of my favorite outdoor activities is hunting.

I have been climbing a tree stand since I was 12 years old, sitting by my father’s side and learning the dynamics of the woods as I waited until I was old enough to pursue the sport legally. Today, I bow hunt and gun hunt, but prefer bow hunting because of the level of anticipation. I believe that hunting is a sport about watching and waiting, but hunting with the bow and arrow has taught me many lessons about the sport and the behavior of deer.

I have had deer come closer to me in a tree stand than I ever would have experienced in a blind, waiting for a distant shot. It’s a difference that not many can explain. Watching the behavior and swiftness of a deer from a tree is breathtaking; it is as if you blend with nature itself, able to study the animals and take home a rewarding deer when your time is just right.

Patience and persistence are major and crucial parts of the sport, especially when hunting with a bow. You need to wake up at insane times, sit in any weather conditions that Mother Nature brings, and accept the realization that you could succeed or fail. Though this is evident to most hunters, I don’t personally consider my last four years of hunting without taking a shot, as a failure. I look at it as a learning experience.

Every second I’m out there, in order to prepare myself for “my time,” I use that particular moment to study the ways of the woods, ways of the deer themselves, and ways of myself as a hunter. Even though I have had deer come close, but not close enough, and I followed them on foot while my toes and fingers were just about to freeze off, I have always promised myself that I could not and would not give up. Because when it is my time, it will be the right time.

That time for me, was the second day of the 2019 gun season. My dad and I walked to the tree stand on the lower land on a quiet, crisp, fall morning. The moon twinkled and the light reflected off everything in the woods. We climbed up, strapped in, and once settled, I closed my eyes until I heard crispy leaves rustling on the ground from a distance.

Dad told me to get ready, and as I grabbed the 30-30, the spike-horn approached us fairly quick. I shot after a two second pause and stopped him past a tree, with a grunt.

The deer ran out ahead of us and we waited for a short while. We climbed down and snuck over, following his trail to find him peacefully laying there, and then proceeded with the gutting process. Shortly after, we brought my first deer kill home to put the fresh, natural meat in the freezer. I was absolutely thrilled!

Even though I didn’t use a bow for my first buck, it was still rewarding. I had used all of the knowledge and skills I had accumulated from the times I had dedicated to the sport prior to this particularly satisfying hunt. In the end, it isn’t about the deer itself, but what one learns to earn the satisfaction of a successful hunt. Learning things like the ethics of hunting, safety, the ways of the woods, patience, persistence, drive, and how to find joy in the natural world around us, are the reasons that I love hunting.

Olivia DeMott is a high school student who loves outdoor activities, especially hunting. She also enjoys writing and photographing nature.
Hunting Q & A

Q: Is hunting dangerous?

A: The most dangerous part of a hunting trip is the drive to the hunting area. Safety courses and strict hunting laws have reduced potential dangers. Activities such as bicycling and swimming are many times more likely to result in injuries or death than hunting.

Q: Does hunting endanger wildlife??

A: No. Hunting is highly regulated. Limited seasons and bag limits ensure proper numbers of overwintering breeding stock. Too many animals in winter, when food is limited, can mean decreased survival for the whole population. Regulated hunting helps manage populations of some species to reduce crop and environmental damage, diseases, and road collisions. Also, the dollars spent by hunters are responsible for the restoration of many species of wildlife (such as bald eagles and peregrine falcons) in New York and the Northeast. Those same dollars support the purchase and management of over 200,000 acres of Wildlife Management Areas (WMA) across the state. WMAs provide wildlife habitat for game and nongame wildlife, as well as recreational areas where all New Yorkers can participate in hunting, fishing, hiking, cross-country skiing, and snowshoeing.

Hey Readers—We Want to Hear From You!

Conservationist celebrates its 75th anniversary next year and we want to hear from you. Tell us what you like and what you want future content to be about. Take the reader survey and help shape the future of Conservationist. Simply fill out and mail in the form below or take our online survey at www.TheConservationist.org.

*Note: All answers are anonymous, however, if you’d like to be entered in a drawing for a $250 gift card to a major outdoor sporting equipment dealer, give us your e-mail or mailing address.

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<td>☐ Recycling, renewable energy, paddling</td>
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<th>What environmental issues or other topics would you like to learn more about?</th>
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| Other:                                                                      |

OPTIONAL—to enter drawing, list your e-mail or mailing address below:
**Hunting Q & A**
(continued)

**Q:** Can anyone hunt?

**A:** No. Hunters must be licensed. To qualify for licenses, all hunters must first pass a Hunter Education course that covers safety, wildlife conservation, responsible use of natural resources, outdoor skills, and hunting techniques. Other special courses are required for bowhunting and trapping. Junior Hunters (12- through 15-year-olds) can hunt only under supervision of a licensed parent or guardian, or adult hunter designated in writing by the parent or guardian. Also, 14- and 15-year-olds can now hunt deer and bear. (See rules in Hunting Regulations Guide [www.dec.ny.gov/outdoor/37136.html](http://www.dec.ny.gov/outdoor/37136.html).)

**NYSDEC HUNTER EDUCATION**
To find a course: Toll-free 1-888-HUNT-ED2
On the web: [www.dec.ny.gov](http://www.dec.ny.gov) (Search “Hunter Education Classes”)

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