

NEW YORK STATE

CONSERVATIONIST

OCTOBER/NOVEMBER 2022

The Evolution of Trail Cameras

Recruiting New Hunters

**Relocating Ospreys
and Their Nest**

**Drones Deployed to
Find Orphaned Wells**





NEW YORK STATE
CONSERVATIONIST

Volume 77, Number 2 | October/November 2022

Kathy Hochul, Governor of New York State

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Dear Reader,

Autumn is an exciting time in New York State. As the trees highlight their beautiful fall colors, it's a perfect time to enjoy hiking, hunting, and other activities that allow outdoor adventurers to experience the beauty and opportunities we have here in New York.

In this issue of *Conservationist*, you can learn about a joint effort by DEC and The Nature Conservancy to attract more diverse hunters, including people of color and others new to hunting. New York offers great hunting opportunities across the state, and the "Field to Fork" program provides assistance to people eager to create their own hunting traditions. I also encourage you to check out the venison recipe featured in this issue.

There's also an article about trail cameras and how they can help hunters land their prey and learn about the outdoors. It's also a technology that nature lovers can use to get a look at what's going on in the woods when humans aren't around. Great video can be caught on these cameras, allowing hunters and non-hunters alike to enjoy amazing scenes of wildlife.

When it comes to protecting our environment, DEC is deploying new tools to monitor activities that can impact our land, air, and water. DEC is using drones to locate abandoned gas wells. You can read about this effort, which is crucial to finding these wells and allowing DEC and partners to assess these sites and take appropriate action.

Another pressing environmental issue is marine debris. This issue of *Conservationist* features an article about the effects of marine debris in our waters and along our shores. The author highlights efforts to prevent plastics, food packaging including candy wrappers, and other debris from impacting Randall's Island, an important recreation area in New York City that attracts four million annual visitors.

We know that *Conservationist* readers enjoy learning about animals they don't see too often, if at all. I encourage you to check out the articles about the fisher and osprey to learn more about these interesting New York inhabitants.

All this and more in the October/November issue of *Conservationist*.

Sincerely,

Basil Seggos, Commissioner

For more information about exciting fall and winter activities in New York, visit: **www.dec.ny.gov**.



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 every successful hunter donated one deer every three years, the program could easily reach more than 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:** 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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SPECIAL INSERT

CONSERVATIONIST
for Kids!

FRONT COVER: Young buck crossing the Ausable River in the Adirondacks, by Joey Priola; **TOC PHOTO:** Snagging some dinner at Montezuma National Wildlife Refuge, by Aaron Winters; **BACK COVER:** Beautiful capture of the view from Giant's Nubble (below the summit of Giant Mountain) in the Adirondacks, by Daniel Stein (Instagram post)



MADINE NEDDIE

On Randall's Island

BY SARAH PHILLIPS | PHOTOS COURTESY OF RANDALL'S ISLAND PARK ALLIANCE





Plastic marine debris breakdown at Randall's Island in 2021.

Two thousand, three hundred and forty hours. That's how much time I've spent playing soccer on the fields of Randall's Island in New York City.

While super focused on soccer when I'm there, I often missed the bountiful natural surroundings of 4.5 miles of coastline and restored wetlands, or the 130 species of birds on the 516-acre island. Then, in March 2020, COVID 19 scourged New York City with high transmission rates and deaths, and the pandemic forced teenage students like me to shelter at home inside small apartments, away from friends, teachers, teammates, and normal life.

Randall's Island became our refuge of open space, clean air, and pristine parkland on which to walk, bike, kick a ball, picnic, and play, while staying socially distant and safe. Public use of Randall's Island surged during the pandemic, with a 60 percent increase in local visitors from East Harlem alone, and a total of 4 million annual visitors to this urban oasis. Randall's Island—always my recreational home away from home—now became my everything.

After benefiting for years from Randall's Island, I wanted to contribute my time and effort to serve a larger goal of strengthening the sustainability and accessibility of Randall's Island for future generations. In 2020, I reached out to the Randall's Island Park Alliance (RIPA)

and asked how I could help. Through interning with the Alliance, I learned about its grassroots initiative to study local marine debris accumulating along the island's shoreline, and at the same time, to galvanize volunteers to clean up the debris and protect the island's natural and restored habitats.

I joined this action research project first as a 'numbers cruncher' to analyze recent years of marine debris data, and then as part of the volunteer corps that meets a few times a year to clean up designated shoreline areas.

This volunteer-based research effort does not

meet strict academic standards of peer-reviewed research methodology, as the approach is social action-oriented and participatory by design. However, this research plays a vital role in large marine debris events, including the International Coastal Cleanup.

Marine debris is a growing threat globally to wildlife populations, the preservation of natural systems, and humans. Congress passed the Marine Debris Act in 2006, and amended it as recently as 2020, to address the environmental crisis of increasing marine debris polluting oceans and coasts. At a local level, from 2018 to 2021, RIPA analyzed marine debris aggregates across New York City natural water passages that surround Randall's Island, including the Harlem River, Bronx Kill, and East River.

The purpose of RIPA's research study was to build awareness of the magnitude of marine debris pollution in NYC's waterways and to spur local activism for water reclamation and cleanup efforts. Findings from this study identified the types of marine debris retrieved from Randall's Island over nearly four years, with a further breakdown of plastic trash, since that is the largest volume of pollutants.

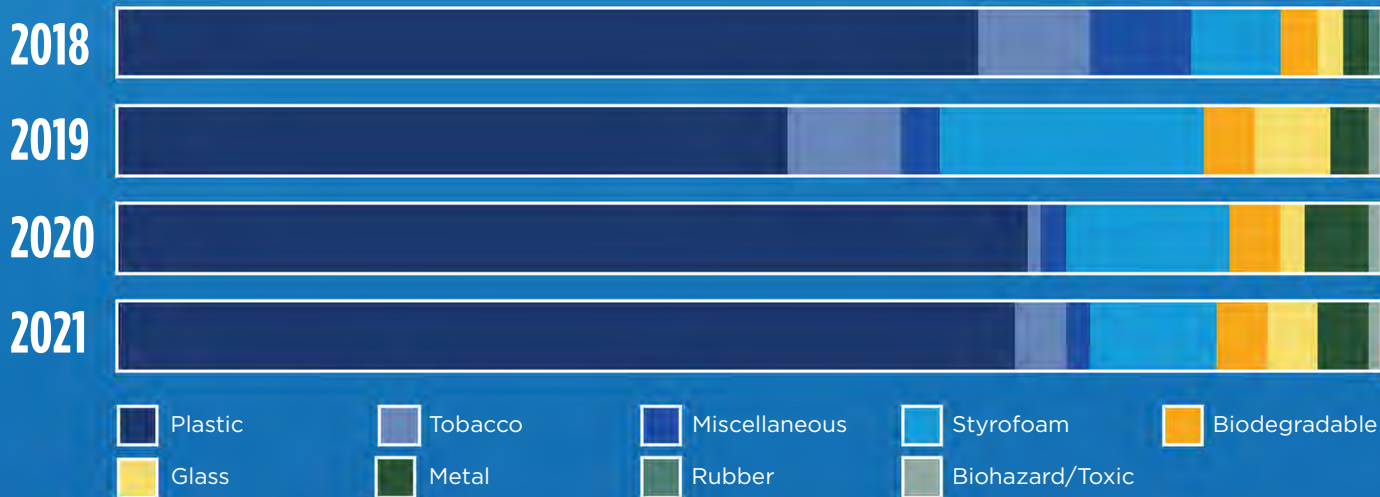
Problems Caused by Marine Debris

Marine debris, also known as marine pollution, includes a cluster of fishing gear, bottles, plastics, cigarettes, and food wrappers, among many other discarded materials. Together, these pollutants adversely affect the biodiversity of marine life and human safety.

Plastic accumulation dominates as the primary marine debris crisis, both because of the quantity of discarded plastic and its lack of biodegradability. Plastic can take up to 450 years to decompose in water, and during this prolonged time, marine life faces the risk of being trapped in the plastic or consuming the plastic debris, which in many cases leads to death.

Every day, ships discard approximately 5.5 million pieces of marine litter into the ocean. The US Environmental Protection Agency (EPA) estimates that 80 percent of marine debris is caused by packaging and trash buildup on land, which then makes its way into our waterways.





Marine debris collected at Randall's Island between 2018-2021.

The collective magnitude of marine pollution is alarming, with 5.25 trillion pieces of plastic debris discarded into the ocean, and the formation of mass clusters of marine debris, such as the Great Pacific Garbage Patch, which now exceeds twice the surface area of Texas.

Approximately 10 percent of species that encounter marine debris have ingested microplastics, such as microscopic plastic debris degraded from fishing gear and bottles, which then harms the animals' digestive processes and overall health. As a result, marine debris constitutes one of the most serious environmental and ecological threats to the physical world today.

Marine Debris around Randall's Island

Early analysis of marine debris collected over nearly four years from Randall's Island was organized into several broad categories, including plastics, polystyrene (e.g., Styrofoam), and tobacco-related products, among other groupings (see chart above). Since plastic litter exceeded all other garbage collected, we broke down this main category into three sub-groups: small plastic pieces; polystyrene (both small and large pieces); and plastics (large plastic materials, such as plastic bags and bottles).

In 2018, 68 percent of documented marine debris was plastic, while in 2019, plastics accounted for 53 percent of marine debris. Comparatively, in 2020, at the start of the COVID 19 pandemic, and with New York City as an early epicenter, 72 percent of marine debris collected was plastics. A year later, plastic debris around the island totaled 71 percent.

According to the study, in 2018 and 2019, nine percent of all marine debris collected from Randall's Island consisted of tobacco-related products, such as cigarette butts, cigarette boxes, lighters, and cigar mouthpieces. However, tobacco debris declined

significantly as a percentage of total debris collected during the pandemic—in 2020, only one percent of marine debris was tobacco-related, and in 2021, just four percent fit that category.

Recently, the number of plastic bags collected around Randall's Island has increased; however, plastic bags decreased as a percentage of total debris retrieved, a trend that may be a result of State and local ordinances. For years, the New York State Department of Environmental Conservation (DEC) worked to enact legislation levying a consumer fee on single-use plastic bag distribution from stores to incentivize reusable bags and reduce consumer reliance on plastic bags. On March 1, 2020, New York State implemented a ban and fines on the free distribution of single-use plastic bags by stores. Enforcement of the ban became effective on October 19, 2020.



Coinciding with this delayed implementation of the plastic bag ban, the presence of plastic bags soared to 10 percent of total marine debris plastic accumulation around Randall's Island in 2020. This high volume of plastic bag debris contrasted with marine debris collection data from 2021, when only six percent of the plastic collected was plastic bags, a 40 percent decrease from the prior year. While it is unclear if the plastic bag ban caused changes in human behavior that lowered the occurrence of plastic bag debris in Randall's Island waterways, or if New York City residents are now more environmentally conscious, it is a noteworthy and promising outcome that supports further study of steps to achieve greater environmental sustainability.

Another finding from the study showed that food wrappers, including candy wrappers and chip bags, consistently constituted the largest portion of food-related plastic discarded around Randall's Island waterways. Food-related plastic comprised nearly one-third of all plastic marine debris collected by volunteers, with 29 percent of the plastic retrieved in 2019 falling in the sub-category of food-related, then 28 percent in 2020 and again in 2021. Wrappers made up the majority of food-related plastic debris, which is typical. In 2018, 99 percent of discarded food-related plastic was wrappers; in 2019, it was 71 percent; in 2020, 94 percent; and in 2021, 86 percent. The largest plastic collection was in the "Other" category, which included miscellaneous items like chairs, shoes, and balls.

Despite the importance of these findings, some factors hindered the reliability of the results. Due to the volunteer nature of the study, marine debris items were not weighed,

and therefore, size was not significantly accounted for. In addition, human error in noting the items collected cannot be discounted.

Next Steps

Randall's Island offers unparalleled opportunities to research and apply lessons about urban environmental sustainability. RIPA states this goal explicitly: "As a public park that is also an island in the middle of New York City, the island has enormous potential as a resource for research into issues such as water quality and the success of restoration work in urban environments."

This four-year action research project to collect and analyze marine debris on Randall's Island provided important findings about plastic accumulation, a disaggregated breakdown that separated the materials into categories with an emphasis on food wrappers, and some shifting trends in plastic bags and personal protective equipment materials. Further study of legislative actions, such as New York's ban on single use plastic bags, will inform possible next steps to manage marine debris. Additionally, a closer look at pandemic trends may offer insights into changing human habits and City priorities. Clearly, this is a topic that can and should be addressed, as debris aggregation threatens the future of human health and shoreline ecosystems—issues that matter greatly to New York City and beyond.

Sarah Phillips is a student at the Spence School in New York City, an intern with the Randall's Island Park Alliance (RIPA), and a travel soccer player with Manhattan Soccer Club (MSC).



Volunteers collect discarded materials as part of a research project to cleanup and categorize marine debris found on the shoreline areas of Randall's Island.

FIELD



to F RK

Recruiting New Hunters to Create New Traditions

BY HANK FORESTER | PHOTOS BY NATIONAL DEER ASSOCIATION

We met on the back deck of The Nature Conservancy's office in Schenectady. Like the start of many Field to Fork programs, we hosted an online meeting first. Field to Fork is an effort to recruit new adult hunters from non-hunting backgrounds, and to connect individuals with diverse backgrounds through hunting.

Avery Toledo, a contract specialist from New York City, was at the meeting, sharing his prominent personality, deep New York accent, and, as usual, wearing a Sherlock Holmes hat. He joined the assembled group of hunters from across the county that night (Veteran's Day 2021), as part of a group of eight New York residents, all of them Black, Indigenous, or People of Color, going out on their first hunts.

Members from The Nature Conservancy (TNC), Hunters of Color (HOC), Backcountry Hunters and Anglers (BHA), the Department of Environmental Conservation (DEC), and the National Deer Association (NDA) were on hand for this event. They all were motivated by an alarming report from a 2016 National Survey of Fishing, Hunting, and

Wildlife-Associated Recreation that found that the 11.5 million hunters in the US were roughly 90 percent male and 97 percent Caucasian.

Representatives of these groups had been meeting on this topic for almost a year, convened by TNC, as part of an effort to increase hunting participation by providing more equitable access to land and hunting. TNC provided the land and the meeting place, HOC recruited the hunters, BHA served as mentors, DEC helped the members obtain their hunting licenses, and NDA helped replicate its Field to Fork program. This replication would condense the training and hunting into a four-day event, with follow-up hunting opportunities to be held after the organized event.

Avery saw a post on Twitter and applied for the program online. The group then selected candidates, including Avery, a 44-year-old male of Hispanic descent from New York City. Avery indicated that he had no family or friends who hunted, and although he too had never hunted, he was interested in "learning and continuing the hunting tradition."

He also highlighted his connection with nature and self-reliance, and noted that recreation and meat were his motivations for learning to hunt.

Avery is not alone. Research has found that as many as 24.7 million Americans want to learn to hunt, which equates to more than twice as many potential hunters than current licensed hunters.

The 2021 Field to Fork event was hosted by Paul Galley of TNC and was designed to attract new adult hunters. And if they learn to hunt, they can often replicate the process and recruit and mentor friends and family, including younger people. Identifying and targeting recruits is a key focus of our efforts.

Creating a hunter comes down to building confidence, which is best done through education, camaraderie, and community. The program is designed to give participants the knowledge to continue as hunters, but ultimately empower them through social support. If you hunt, you may have found this support through family or a hunting camp. New hunters need to be invited into this community, or one must be created for them. We've seen diverse groups come together over a shared passion for wild food and wild places, and that's exactly what happened at this event.

After having some pizza (with venison toppings) and a drink or two, it was time for introductions. Avery said he grew up in New York City, which “offered adventure and built character.” He is a father and hopes to make hunting a family tradition. *See page 28 for a recipe of Easy Venison Fajitas to share with your family.*

Mike Pouloupoulos, a volunteer from BHA, would serve as Avery’s mentor. Mike wanted to support the mission of the event and noted, “It sounds like a ton of fun, and I want to be a part of that and help out.” Mike also noted that he wanted to share his passions, with the hope of sparking interest in others. “I remember how excited I was during my first season afield. What a great way to experience that excitement again.”

Mike’s story is not too different from Avery’s, even though they come from different backgrounds. “I’m pretty green,” Mike said. “I’m also pretty proud. I started hunting in my mid-30s, about six years ago. Around then, I dedicated my time and energy to attend the safety courses and then get out in the woods and hunt whitetail. The way I saw it, I was running out of time to make a tradition in my life, and I went for it. No one in my immediate family hunted; I had never gone hunting as a kid, no one had offered to take me hunting.”

That evening we sat around a campfire and Lydia Parker, co-founder of HOC and a member of the Mohawk Wolf Clan, shared the Ohen:ton Karihwaterhkwen, a traditional thanksgiving address about the importance of relationships of all life force in Creation. Its purpose was to bring the minds of everyone at the gathering together, as one.

Early the next day, we all met at a private residence for our education and training portion of the event. The morning began with breakfast,

Forming a new hunter comes down to building confidence, which is best done through education, camaraderie, and community.

followed by safety and shot placement education. We trained all the new hunters on the crossbows they’d be allowed to use on the TNC property and rifles we planned to use on follow-up hunts where rifles were allowed. DEC staff also joined us that day to discuss regulations and hunting opportunities in New York.

We were fortunate to have rifles and optics supplied, and they functioned exceptionally well. Due to the light, crisp “Lightening Triggers,” everyone shot well.

After plenty of time to become comfortable and proficient at shooting, we ate lunch, geared up, and gathered for group photos before heading out. That afternoon, we sent the new hunters afield with crossbows on the Hannacroix Ravine Preserve, into ground blinds that we had put out a couple weeks prior. The weather was cold; we saw deer, but fired no shots.

After the hunt, we all gathered back at our host cabin. We shared stories and dinner, including corned venison Reubens, venison goulash, and venison tacos.

Mike recounted the hunting experience vividly: “Our heart rates skyrocketed a few times as deer came into sight. The first deer was a doe, trotting about 60 yards away, tail flagging. I thought a buck would be on her trail soon enough, and told Avery to be ready. Then a small buck came along, nose down, on the same trail. I bleat called quick and then grunted once, which caused the buck to run and start coming right down to us through the briar thicket, its nose still



Clockwise from top left: Mike Pouloupoulos (left) and Avery Toledo (right). Participants received training on crossbows and rifles, focusing on shot placement and safety. Meals for participants were prepared with fresh venison. Participants were also trained on field dressing a harvested deer.

down. Before he got to our clearing, though, he realized he was off her scent and headed right back and picked up her trail. I grunted again to give him something to think about later.

“About an hour later, I happened to look across to Avery and saw a small buck on the other side of the blind. It was milling about, right in the clearing. ‘Deer, der, deer, dear!’ I said, sounding like a machine gun. Avery jumped to attention, but he couldn’t position himself to get a clear shot before the buck walked over, getting as close as 10 yards from the blind. I was grateful that he was excited



about the opportunity, because I was disappointed that I hadn't seen the deer sooner.

"As we left the blind later, he mentioned how glad he was to be out in the woods hunting. I became so focused on the missed opportunity that his reminder, that we were in the woods hunting all the while, provided a better perspective. I value that moment; it was sincere and meaningful."

The next morning came early with "grab and go" breakfast and coffee, and everyone returning to their blinds. Deer were seen, but again, no shots were fired. When everyone returned to camp, we ate lunch and returned to hunting, while others had the opportunity to relax.

Between hunts, a local NDA member dropped off a hunter-harvested deer to demonstrate how to field dress,

breakdown, and process a deer (in case we didn't harvest a deer during the organized event). Spirits were high for the evening hunt, but Mother Nature had a different plan—severe weather hit the hunting property, just as our hunters settled into our blinds.

We decided to recall the hunters and err on the side of safety. The challenging weather helped form more camaraderie. Our hunters remained in high spirits and returned to the camp for cleaning and processing demonstrations, and a warm dinner of venison stew.

Avery wrote after the season that "although I was not able to harvest a deer, my two follow-up outings after my initial hunt produced many learning opportunities and good fellowship and camaraderie." His plan moving forward is to "continue learning from knowledgeable sources like books and hunting organizations, including the National Deer Association; that is why one of the first things I did after my first hunt was to become a member." Avery plans to "continue participating in local hunting organizations, learning archery, and practice my shooting. Last, and most important, getting out in the field as often as possible."

Mike reiterated Avery's testimony in a separate conversation: "Avery is eager to learn, and open to the

experience of spending hours in the woods. I know he's been researching on his own, as he would pepper me with questions and listen if I was offering details on what was happening in the woods. He now knows that if a blue jay is squawking, something is walking. It took me a few years to put that together."

Later, Avery sent a 'thank you' note that read:

"It was a perfect event; from arrival to leaving, everything was just perfect. Also, please thank the vendors who helped sponsor the event, from First Lite to Mossberg rifles, the excellent crossbows, and everything else you could put together to help induct a new set of hunters into the hunting family."

"It is impossible for me to explain adequately what the National Deer Association and their vendors did for me and my fellow mentees. From the technical aspect of hunting to the understanding of the responsibility we have as hunters and stewards of the People's vital resources, all the way to how you treated us. I am genuinely thankful. For me, you took a longtime dream and made it a reality."

"Field to Fork is helping me start a family tradition. My adult daughter will be joining me next hunting season. That is great by itself, but the Field to Fork program will also allow me to bond with my second child, who is on the way. I look forward to sharing the new hunting tradition with my family."

Already, the Field to Fork program is impacting two different generations, while helping to strengthen family ties.

Hank Forester is the Director of Hunting for the National Deer Association.



MOBILE HOME

Gets a New Meaning

BY STEVE HEERKENS AND ANGELENA M. ROSS

During the past decade, large nest platforms with sticks emanating from them have become a common sight across much of New York State, as osprey populations are on the rebound. After official protection was imposed in 1918 by the Migratory Bird Treaty Act and the banning of DDT in the US in 1972, osprey populations have increased throughout the eastern US and in New York State. Osprey nests can now be seen in almost any wetland in New York that harbors a reasonable fish population, and they are an increasingly common sight on power poles and utility towers throughout larger river floodplains and along many lake shorelines.

Ospreys are especially prevalent along the shorelines of Lake Ontario, Long Island, and the Hudson River Valley. These birds have readily adapted to nesting on power poles and cell towers, and benefitted as the number of cell towers has significantly expanded in many areas of the state to connect people to wireless internet and improve cell phone coverage.

However, not all nests are constructed in remote locations.

In 2020, Department of Environmental Conservation (DEC) staff were made aware of an osprey nest that was built on a 1950s-era roller coaster, the flagship attraction at the Sylvan Beach Amusement Park in the town of Verona, Oneida County. The amusement park owner could not use the roller coaster with the nest on it, and asked DEC for guidance. Both federal and state regulations allow osprey nests to be removed before eggs are laid or after the nesting season is over. In 2020, the

owner was able to dismantle the nest before egg laying had started. However, in 2021 the same birds established a new nest in the same spot on the amusement park ride, and had laid an egg before the nest could be removed.

DEC staff met with the park manager several times to discuss options, ranging from not using the ride for the summer, to the placement of an alternative nest platform. After the COVID-19 lockdowns and the park being closed for the 2020 season, not using the roller coaster for another summer was not an option the park owners could afford. After much discussion and evaluating nest pole placement options, the owner received a pole donated by Syracuse Utilities and installed it approximately 270 feet from the original nest location.

Removal of active nests is not the first choice when managing osprey nests in undesirable locations. DEC recommends that alternative nest platforms be placed adjacent to these locations during the off-season, so they are available as a more attractive alternative to the birds prior to the commencement of nesting. New nest platforms should be higher than the original nest, but placed near the old nest. Moving a nest from a hazardous or poor site has several advantages, including providing a solid, stable nest platform, and reducing the risks of a nest catching fire or birds being electrocuted.

DEC has had success relocating nests containing eggs by removing the old nest and providing an alternative platform at the same location. If disturbance to the adults can be minimized, the nest can be moved with hatchlings



DEC staff carefully relocate the osprey nest from a roller coaster to a new pole beneath the watchful eye of a parent.

present in the nest. In the case of the Sylvan Beach birds, DEC staff and the park owner had little recourse other than attempting to move an active nest site.

On July 7, 2021, DEC staff undertook the operation. The nestling was estimated to be around two weeks old and was secured in a five-gallon pail filled with clean towels for padding. While the adults did not like the intrusion, the birds did select a site with a high degree of human activity and were thus accustomed to people and loud noises. DEC decided that the replacement platform should not be located adjacent to the old nest location because the ospreys would have been constantly disturbed by the rides. Instead, the new location chosen was closer to the water at the park's periphery, in an area the adult ospreys frequented.

A private contractor with a cherry picker was hired to assist DEC staff in accessing the nest, removing the young nestling and nest material, relocating the nest to the new platform, and placing the young bird at the new site. Conditions were excellent for the effort and everything ran like clockwork. Once the nest was moved, staff anxiously awaited the adult birds' return. The adults flew noisily over the newly placed nest multiple times before finally alighting on the platform, with a fresh fish for the chick. The operation was a success, and took only about an hour and a half, from the beginning until the adult birds started tending to their new nestling site.

Steve Heerkens is a Wildlife Biologist at DEC's Herkimer office. **Angelena M. Ross** is a Wildlife Biologist at DEC's Potsdam office.

Help Keep Litter Out of Nests

Osprey nests are made of a variety of materials, but mostly dead sticks smaller than a few inches around. The birds can readily find proper materials along any shoreline where wood is washed ashore. During the nest removal, staff noted a large amount of trash that the birds had collected for the nest construction. There were numerous items in the nest, including plastic bags, fishing line, a broken sandal, and discarded children's clothing. It's a reminder to pick up after ourselves when we visit our local parks and wild places, and highlights yet another way litter can directly impact wildlife. Picking up litter keeps birds from becoming entangled in fishing line, reduces the probability that animals ingest harmful plastics, and can even reduce unwanted wildlife-human interactions.

Angelena Ross



On Patrol

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



Coyote Pup Rescue— Otsego County

On July 15, ECO Burgess responded to the Schenevus Fairgrounds where fairgoers reported a coyote pup by the fireworks tent. Officer Burgess used her catch pole to secure the animal and with the assistance of the Schenevus Fire Department, relocated the pup away from the fairgrounds and back into the wild. Coyotes are shy by nature, but can be active during daylight hours. To view a video of the rescue, go to: www.dec.ny.gov/fs/programs/press/EnConPolice/CoyotePup/.



A Diamond in the Pool— Nassau County

On July 1, ECO Dickson received a report about a resident with an unidentified turtle swimming in their pool. Officer Dickson responded, met with the homeowner, and found a native Northern diamondback terrapin unable to climb the pool stairs or ladder to escape. He grabbed his net and removed the turtle from the pool before safely relocating it to a marsh at a nearby park.



Fawn in Distress—Erie County

On June 12, ECO Mathis responded to reports of two fawns attempting to cross Route 5 in the town of Hamburg after a doe was struck and killed on the busy road. Officer Mathis and a Good Samaritan tried to catch the fawns without success. After several attempts over the next few days, ECO Mathis secured one of the malnourished fawns behind a nearby residence and transported it to a local wildlife rehabilitator.



Unattended Fire—Herkimer County

On August 2, the Alger Island Caretaker contacted Forest Ranger McCartney to report a lean-to on fire. Ranger McCartney, Lieutenant Hoag, and the Old Forge Fire Department responded. Half an hour later, the fire was under control, but the lean-to was a total loss. Fire crews knocked the remaining structure to the ground and surrounded it with caution tape and fencing. The fire began as an unattended fire that spread to the lean-to. Rangers remind all campers to never leave a fire unattended. When finished with a fire, it should be drowned with water to ensure there are no remaining hot spots.

ATV Dumped—Franklin County

On July 7, Forest Rangers DiCintio, O'Connor, and Praczkajlo were on boat patrol on Tupper Lake when they found an ATV submerged near the shoreline. The crashed vehicle still had fishing poles attached to it, as well as a 25-inch walleye hanging from the back rack. Rangers searched for an injured driver with negative results. New York State Police eventually found him with a stolen winch he was planning to use to retrieve the ATV. ECO Newell issued three tickets to the owner and Rangers removed the ATV from the water.



Wilderness Rescue—Greene County

On July 3, Forest Ranger Gullen responded to a report of 61-year-old from Long Island who fell 30 feet down an embankment off the Kaaterskill Rail Trail. They had no memory of the fall, severe rib pain, and a broken wrist. Ranger Gullen was joined by Rangers Allwine, Dawson, and Martin to set up a steep-angle raise using a SKED stretcher and vacuum mattress. Once the subject was successfully raised back to the trail, Rangers loaded the hiker into a Ranger truck and brought the injured hiker to a waiting ambulance.



HOW ONE WOMAN SAVED TURTLE ISLAND

BY ANDRÉA NIEVES

It was a beautiful Tuesday in late June, and Department of Environmental Conservation (DEC) Forest Health staff, Jerry Carlson and Jason Denham, decided to take advantage of the good weather by spending the day boating around the islands south of Paradise Bay in Lake George. However, they weren't out on the water for fun, they were conducting shoreline surveys to look for Hemlock Woolly Adelgid (HWA).

HWA is a small, aphid-like invasive insect that attacks hemlock trees, killing them in as little as four years. It was found on the east side of Lake George in 2020, and Jason and the team have been surveying around the lake to check for new infestations ever since. It was a slow survey day for the team. About two to three hours had passed without finding any signs of HWA on the islands. That is, until they passed a large group of campers on the west side of Turtle Island.

"They asked us what we were looking for," said Jason, DEC's HWA program coordinator. "We were basically yelling across the water to them, and we told them we were surveying for HWA."

Not seeing any signs of HWA from their boat, Jason and Jerry moved along. The team was about to head to the next island when they heard someone yelling to them from the shore. They were two to three campsites down the shoreline of Turtle Island when they saw a woman running down the shore with a stick. She was yelling, "Is this what you're looking for!?"

They doubted it was going to be HWA, but there was evidence of an old HWA infestation on the stick.

That woman was Kate Ford, Outdoor Program Coordinator at the University of Massachusetts in Lowell, and general outdoor enthusiast. She was camping with her husband's friends and family, who have been gathering in Lake George to camp every summer for more than 50 years.

Just a few days before Jason and Jerry went to Lake George looking for HWA, Kate had noticed the characteristic white wooly masses that HWA leaves behind on a piece of firewood collected by a family member.

Kate saw the survey team checking out the island with binoculars, but didn't know what they were looking for until her husband, one of the people who yelled across the water to Jason and Jerry, told her they were looking for a "hemlock bug." She knew right away that he was referring to HWA, and that she had found it days earlier. So, she grabbed the infested piece of potential firewood and ran to flag down the boat.

View of trees on Turtle Island

Kate Ford

Jason and Jerry were surprised that there was HWA on the island, and that they hadn't seen it using their shoreline survey protocols. So, they decided to survey the rest of the island by foot. In no time, they found 12 to 15 additional infested trees not far from Kate's campsite.

"I was disappointed," explained Jason. "We never want to find the bad thing we're looking for. Without Kate, we wouldn't have found the Turtle Island infestation until much later, when it would have been much more severe."

Thanks to Kate, Turtle Island's HWA infestation is being treated this fall. Her intervention also had an impact on the team's survey protocols.

"One of my takeaways is that it's probably better to survey islands by foot. The shoreline surveys work great for the longer shorelines where there is a steeper slope and you can see all the way up from the water," explained Jason.

After meeting with Kate and her enthusiastic group, Jason and Jerry decided to survey nearby Mohican Island by foot. And there, too, they found an infestation that would not have been found by boat.

"STAYING AWARE MATTERS SO MUCH."

"During the course of my career, more important finds of invasive species have come from the general public rather than professionals. Without the public as our eyes and ears on the ground, we'd be a lot less effective," said Jason.

Members of the public, not invasive species experts, have been responsible for the first sightings of several prominent invasive species in New York. Asian Longhorned Beetle, Oak Wilt, and Spotted Lanternfly were all initially found by non-experts.

How does Kate feel about saving the hemlocks on Turtle Island? "I'm a freaking hero!!! Don't quote me on that," she laughed. "Seriously, though, I'm glad I can help. I always want to be a helper."

I asked Kate what advice she would give to fellow outdoors lovers.

"I would say that what's important is appreciating where you are, knowing the plants and animals in the area, and what threats might exist," she said. "That makes you a more knowledgeable person; one who is able to help, rather than adding to the problem. Staying aware matters so much. It's often easy to take for granted that the outdoors is always going to be there."

The DEC Invasive Species Team would like to thank Kate and every New York State resident and visitor who reports invasive species. Every report counts. If you think you have found an invasive species, please report it to www.NYiMapinvasives.org.



HWA ovisacs on a heavily infested twig.

Think you have found HWA?

SIGNS OF AN INFESTATION INCLUDE:

- White woolly masses (ovisacs) about one-quarter the size of a cotton swab on the underside of branches at the base of needles;
- Needle loss and branch dieback; and
- Gray-tinted needles.

Take photos of the infestation and report your sighting to www.nyimainvasives.org. You can also email foresthealth@dec.ny.gov or call the Forest Health Information Line at 1-866-640-0652.

Andréa Nieves is an Invasive Species Outreach and Education Coordinator with DEC's Division of Lands and Forests.

FOLLOWING Fishers IN THE *North Country*

BY STEPHANIE CUNNINGHAM



The snow crunches underneath the feet of a biologist who treks from his vehicle to the trap location. It is not a far hike, perhaps 200 yards, but he has 40 traps that he needs to check by midday. As he approaches, he sees paw prints in the snow near the trap, which is a wire cage approximately three feet long by one foot wide, enclosed in black plastic sheeting and camouflaged against a downed tree with pine boughs.

Once he is close enough, he sees the closed door of the trap, piquing his interest. He bends down to look at the captured animal, and sees the sleek, furred body curled up at the back of the trap. He calls his colleagues and lets them know they should bring the capture kit.

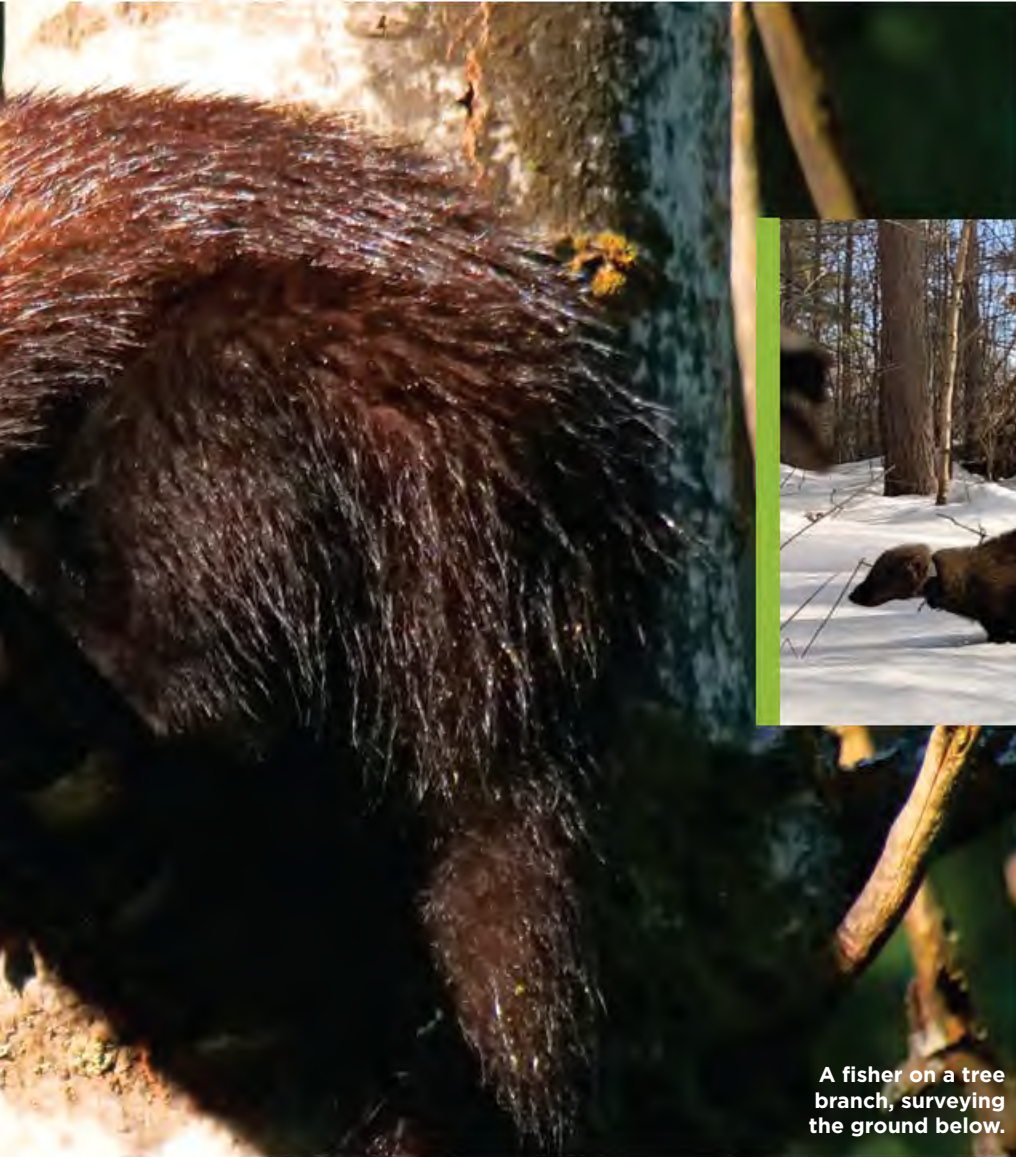
Fisher Research Project

For the past three winters (2019 to 2022), the Department of Environmental Conservation (DEC) Bureau of Wildlife staff have been working with researchers from the State University of New York College of Environmental Science and Forestry (SUNY-ESF) to trap and collar fishers (*Pekania pennanti*) across the Tug Hill Plateau and Adirondack Park. The team is interested in understanding fisher survival rates and characteristics of reproduction, and if these population metrics vary across northern New York.

While fisher populations have been expanding in southern New York, data collected from fur

trappers indicates that there may be a population decline, or at least reduction in density, of fishers in the central Adirondacks. Historically, the Adirondack Park was a stronghold for fisher populations, especially in the 1800s when much of the state had been converted to agriculture, so it was surprising that a pattern of apparent decline has been developing. To investigate further, DEC partnered with SUNY-ESF to estimate survival and reproduction rates of fisher in the central Adirondacks and compare them to rates in the Tug Hill, where populations remain robust.

Trapping of fishers during specific seasons is permitted throughout much of New York. Whereas



Robert Strickland

A fisher is released from a trap and runs off into the snow after being fitted with a collar.



Adam Bleau

A fisher on a tree branch, surveying the ground below.

fur trapping has been one of the contributing factors that historically led to fisher population declines and extirpation in some areas (in addition to removal of fishers deemed to be “pests”), modern-day trapping is strictly regulated to ensure species sustainability. In addition to a trapping license, trappers are required to obtain a seal (a plastic tag with a unique identification number) for each animal they harvest before it is sold or transferred to another person. The tags enable biologists to track harvest numbers.

A goal of DEC is to maintain a population of fishers large enough to support sustainable harvest of the species and research projects,

such as the one being conducted with SUNY-ESF, that provide data for better management of the species. Researchers and biologists often depend on the knowledge and expertise of trappers who have spent decades in the woods catching and studying these animals.

DEC periodically requests additional information or samples from trappers to monitor populations. During trapping seasons from 2016 to 2020, trappers provided teeth of their harvested fishers to monitor the age of the harvested populations. They also supplied biological samples, such as lungs and livers, that can be tested for disease and toxic compounds at a scale that would otherwise be very difficult.

Process and Equipment

To safely fit the fisher with a collar, biologists sedate each animal before removing it from the trap. Prior to immobilization, the size and weight of the animal can give biologists an idea of age (adult or juvenile) and sex, though these details are confirmed after the fisher has been sedated. The biologists use metal combs to gently but firmly hold the fisher against the back of the trap, so that the animal can be injected with immobilization drugs. Once the medications have taken effect, the fisher is removed from the trap.

Biologists take a small bit of fur that can be tested for heavy metals (such as mercury) or other toxic compounds, or for carbon and nitrogen isotopes to better understand its diet. They extract a lower premolar tooth, which can be used to age the animal and does not interfere with its normal hunting and feeding behavior. They also pull a few vials of blood, which are used to identify pregnant females, and can be tested for clotting time, another indicator that the fisher has been exposed to toxic compounds, specifically rodenticides.



Each sample is labeled with the fisher's unique identification code and the animal is fitted with a collar that broadcasts a telemetry signal. Then, the reversal drugs are given to help the fisher wake up. The fisher is placed back in the trap, and once fully recovered from the effects of the drugs, is released in the same location where it was trapped.

Global positioning system (GPS)—the same technology in your cell phone and car—and very high frequency (VHF; also known as 'radio') collars are used widely by researchers studying wildlife movement and behavior. Advances in technology have allowed for decreases in transmitter size, which increases opportunities for monitoring smaller species such as fisher, while collecting a greater volume of data. Many devices now include sensors that can provide researchers with information related to the animal's environment, physiology, and behavior.

One such sensor is known as an accelerometer, which measures the acceleration of the device as it moves through three-dimensional space, similar to how your smartwatch measures your movements and can identify when you've reached 10,000 steps. High-frequency acceleration data can be used to classify specific behaviors, such as foraging or resting. Although, even low-frequency data, such as the five-minute summaries collected by fisher collars, can indicate general activity patterns.

DEC staff and dedicated contracted trappers set dozens of traps annually across each study area, keeping traps open for approximately four months each winter. This herculean effort resulted in the capture and collaring of more than 170 fishers since the start of the project. Adult females received GPS collars (that also contained VHF transmitters), while males and juvenile females were fitted with the VHF-only collars.

Goals and Objectives

A key indicator for understanding population growth is reproduction, and by fitting adult female fishers with GPS collars, SUNY-ESF researchers hope to be able to estimate the average number of kits (juvenile fishers) produced per female, as well as early kit survival, in addition to understanding female movements and habitat use during the denning period. The VHF-only collars do not store location data, but last longer than GPS collars, providing the longer-term records for males and juveniles needed to estimate survival rates.

Studying kit survival, or recruitment, added a new dimension to wildlife tracking in New York. Female fishers use tree cavities to house their kits, and they move to new cavities periodically throughout the first 10 to 12 weeks of the kits' lives. Biologists use the VHF signal in the GPS collars on the adult females to locate fisher dens beginning in

mid- to late-March. During this time of year, a mother fisher spends most of her time in the den, protecting kits from predators and the cold.

Once a den has been located, field crews set up an array of motion-triggered cameras around the base of the den tree. The cameras are generally set between six and eight yards from the tree, to capture the comings and goings of the female. Biologists return every few days to check the cameras for photos of the female moving the kits to a new den, and if she has moved, the biologists will repeat the process of finding the next den. Females with young kits can be monitored this way until June, when the fishers start moving more frequently and are more difficult to track. While researchers will be unable to determine how many kits survive long enough to

A female fisher has been anesthetized and fitted with a GPS collar.



Stephanie Cunningham



Left to right: A male fisher is visiting the den of one of the collared females. A collared female fisher pauses in front of the camera before returning to her den. A collared female fisher climbs down a tree and away from her den. A female fisher moves an approximately 5-week-old kit from one den to another. The den was located using VHF telemetry.

become independent from their mother in the fall, the kits are most vulnerable during the early weeks of life.

The key difference between GPS and VHF collars is that VHF collars do not store any data; a biologist must locate the signal emanating from the collar in the field to record the data. DEC biologists attempt to locate all collared fishers at least once per month until the fisher is confirmed deceased, 'slips' the collar, or the collar battery runs out. The most efficient way to do this, especially across the Adirondacks where road access is limited, is by using a fixed-wing aircraft with antennas attached to the wing struts.

After hearing a radio signal from the air, a researcher listens to the direction of the signal to locate a fisher on the ground.

The biologist can then cycle their receiver through a set of programmed collar frequencies as the tracking plane makes low, tight passes over the study area. Due to the small size of fisher collars and the animal's forested habitat, researchers generally need to be within two miles of the fisher to pick up a signal. Much of the flight is spent listening to static, but periodically a chirp breaks through the white noise and the biologist notes the fisher identification number associated with the frequency and the general location.

The pulse rate of the signal from the collars also provides information to biologists about the status of the animal. An increased pulse rate from

the collar informs the biologist that the collar has not moved in eight or more hours. This indicates that they should look for the fisher on the ground after the flight, as the animal may have died. Finding deceased animals as soon as possible is necessary to improve the chances that a cause of death can be determined, something that could help explain differences between the Tug Hill and central Adirondack fisher populations.

Next Steps

The DEC and SUNY-ESF field study is wrapping up, with monthly relocation of collared fishers continuing through the fall of 2022. SUNY-ESF researchers will then estimate survival rates by using statistical techniques similar to those employed in human medicine clinical trials.

This research is part of the ongoing work to better understand the dynamics of fisher populations in New York. DEC is working with both SUNY-ESF and Cornell University, and researchers are planning to use a variety of unique data sets from live-trapped animals, cameras, genetic samples, and harvests during the next several years to achieve their goals. You can help by reporting sightings of fishers or other furbearers by visiting www.dec.ny.gov/animals/30770.html.

Stephanie Cunningham is a PhD Candidate at SUNY-ESF.



Stephanie Cunningham



CAMERA shy

BY JOEL M. HERRLING | PHOTOS BY AUTHOR

Most deer hunters know the feeling of scrolling through images and seeing nothing but that one tiny branch swaying in the breeze or better yet, those darned squirrels—as if they don’t pester us enough during hunting season. But when a photo of a mature buck shows up, it’s like getting the best Christmas gift ever. The passion for chasing these magnificent creatures is renewed, even more if it happens to be a daytime image.

Trail camera technology has advanced exponentially in the last 40 years; heck, even just the last few years have brought huge developments of these handy tools. Most people think it was in the 1980s that using electronic devices to capture deer movement first began. However, the invention of trail cameras goes back further than that.

George Shiras, a politician and lawyer from Pennsylvania, fashioned the first camera trap in the late 1880s. As a wildlife enthusiast, he yearned to find a way of capturing photos of deer and other wildlife throughout Michigan’s Upper Peninsula. With a series of tripwires equipped with an automatic flashbulb that overlooked a bait site, Shiras was able to capture some unique nighttime photos—some so impressive that in 1906, National Geographic published the images. After viewing them, President Theodore Roosevelt sent a letter declaring his delight. Shiras then went on to publish a book, and his collection of more than 2,000 photos is still in National Geographic’s archives today.

It wasn't until a century later that the next big breakthrough occurred. It was a man from Wisconsin who improved upon the Shiras method. Initially, Dean Reidt used tripwires connected to an electrical device that recorded the time when an animal triggered it. This device was known as the Trail Time, and it made it possible to scout deer, even while you were not in the woods.

When infrared sensors became cheaper, Reidt coupled them with a 35-millimeter film camera to add photos. The principle was quite simple, when the sensor's beam was broken, it would open the camera's shutter and snap a photo. Reidt marketed a version called the Photo Hunter, which included a Samsung film camera. These innovations paved the way for trail cameras to become a heavily used instrument in a hunter's arsenal.

Today, both Shiras and Reidt would be astonished by the capabilities of the machines that most hunters have at their convenience. I can recall my brother and I eagerly waiting for the film to be developed when we first used the camera. Now even that's outdated, as photos can be sent right to a smartphone. From taking a single photo to multiple shots, to the ability to record videos that are stamped with the date, time, and moon phase is incredible. It's not only deer hunters that are utilizing trail cameras; turkey hunters, waterfowl hunters, researchers, and other wildlife enthusiasts have embraced them as well. People are even using them as security cameras around their properties.

However, with all this innovation in technology, are the uses of trail cameras having an undesirable effect on deer, causing them to become camera shy, especially mature white-tailed bucks?

Before cellular cameras became common, most people had to trek to a spot, set up a camera and leave, then return later to retrieve the camera or swap the SD card to view the photos. This excessive traffic is notorious for leaving human scent. Of course, this can be reduced by using rubber boots, and scent sprays to wipe down the cameras. An added undesirable outcome is that deer could start to avoid an area if they see a human walking in the woods on a constant basis. It's almost as if they are scouting us, instead of the other way around.

Non-cellular camera options are still beneficial; besides

being less expensive and not having to pay a monthly plan. Placing them on routes you travel to get to your tree stand can provide easy access. To prevent spooking deer, I recommend checking the camera as you enter or exit your stand to hunt. There are many hunters that will leave the camera in place throughout the season, checking them only at the end of the season. That type of anticipation would make me go crazy. Retrieving the SD cards is like opening a wrapped present. Most people can't wait to see the images. All it takes is that one picture of a big buck, or a new buck, to make all the other pictures of does worth it. They also work flawlessly for scouting turkeys, as well as for researchers and wildlife enthusiasts.

Cellular cameras have solved some of these concerns if you have a good cell signal. You can place cameras in bedding areas, dose them with a scent spray, and leave them. Once a photo is snapped, it is sent to the user's smartphone instantaneously. This is very useful when cameras are placed in bedding areas or thickets that you may not want to enter during the season, allowing mature bucks to feel safe. In today's world of desiring instant gratification, cell cameras are just that. If a deer passes through, you will know.

Despite all the positives of trail cameras, there are some negative impacts as well. Although there have been no studies supplying scientific evidence that I am aware of, mature bucks have been known to avoid these cameras. On several hunts, I have seen bucks going out of their way to elude them. Most younger bucks will stand in front of cameras, but the older trophy bucks don't. Other experienced hunters I've spoken to have also witnessed this phenomenon. I can't help but wonder if deer are sensing the signal as the camera transmits the photo. It is possible that this occurs with traditional cameras; however, it hasn't been documented.

This can lead to another downfall of using trail cameras for hunting. There is the possibility that false information is being provided. You might get annoyed about not getting any pictures, or lose confidence in the setup that you worked hard to prepare in the off-season. These cameras only supply a snapshot of deer movement.

The video capabilities of today's cameras can provide more in-depth intelligence. During the season, does can trigger the camera, and if left in picture mode, that's all one sees, but a few seconds later, the buck comes



trailing after her. Some hunters like to place cameras on scrapes starting in early October, which greatly increases the percentage of buck pictures. Then after the season, they move them to food sources to inventory the bucks that survived the season.

An added concern with both types of cameras is the number of photos of deer staring directly at them. There are a couple of pointers to aid in eliminating this. First, move the camera higher up the tree and face it down. Several companies make products to make this process easier, so that you don't have to bring a set of climbing sticks or ladder every time you want to check or install a camera. Second, make sure to thoroughly conceal the camera using natural vegetation. Being weary of the camera can also depend on the deer's personality. Some take off so rapidly, it's as if they won't stop until reaching the next county. Others



George Shiras

seem to enjoy the spotlight so to speak. Despite the method that Shiras used, most companies today also make no-flash versions of their products.

Recently, a couple of states have banned the use of trail cameras for hunting, so if you travel, be sure to check the laws. Arizona has prohibited them because they decided the cameras violate the Fair Chase Doctrine (used by hunters to describe an ethical approach to hunting). According to Arizona, successful hunting should be based on the development of skills, rather than reliance on technologies. It's also thought that trail cameras are diminishing outdoor experiences because they create more foot traffic near watering holes as hunters check them.

You don't need to be a hunter to enjoy the passion of using trail cameras and capturing wildlife images. Increasingly, outdoor enthusiasts are enjoying them. I



Several companies make poles that you can use to place trail cameras anywhere.



Facing a trail camera at a wood duck box can help monitor nesting behavior.

actually leave them out all year, but will change settings. Facing them at the openings of wood duck houses when eggs are about to hatch can capture some amazing videos of the chicks floating down to the water. Placing a camera a couple of inches from the water can create some amazing images of migrating waterfowl that use a pond.

The images of varied wildlife species that can be captured with a trail camera are amazing. Checking trail cameras can also be an excellent way to get youth more involved, which is a huge benefit in continuing the traditions of the outdoors.

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



Top: Wildlife enthusiasts can use trail cameras to capture creative images.



Bottom: Using trail cameras can lead to discovering species that one wouldn't normally observe, such as this fisher.



Cell cameras are great to place in locations that you don't want to disturb as there is no need to check the SD card.



Using videos on trail cameras provides more insight than just a photo.



Trail cameras are useful tools that are easy to mount.



GOING BACK TO THE WELL

Historic photo courtesy of the Pioneer Oil Museum of New York.

Finding and plugging New York's orphaned wells

BY TJ PIGNATARO | PHOTOS BY AUTHOR

There is a modern-day treasure hunt happening across the hills of upstate New York. What's buried holds keys to beating back climate change. Department of Environmental Conservation (DEC) scientists are using sophisticated state-of-the-art equipment to find orphaned fossil fuel wells, long abandoned from New York's time as the nation's pioneer in oil and gas exploration and development.

For nearly a decade, DEC has been searching for orphaned wells as part of the innovative New York Works Well Plugging Initiative. Now, a robust expansion of DEC's efforts to find and plug deserted wells is underway using cutting-edge drone technology, high-tech sensory equipment, and precision global positioning system (GPS) mapping.

Plugging Wells is Critical

Scientific evidence shows that over a 20-year time period, methane is nearly 86 times more potent than carbon dioxide as a greenhouse gas. Methane emissions get trapped in the top of the atmosphere and play a significant role in warming our planet and exacerbating climate change. This is why New York's nation-leading policies to combat climate change have specifically targeted fugitive methane, and why preventing it from escaping is so important.

"Estimates are that methane represents about 10 percent of the state's annual greenhouse gas emissions," said Catherine Dickert, DEC's Director of Mineral Resources. "Reducing it from escaping into the atmosphere is critical. Plugging orphaned and abandoned wells is an important way to accomplish that goal."

DEC estimates there are tens of thousands of orphaned wells scattered across New York State, mostly in the historically gas and oil rich Southern Tier. The locations of many of the wells are not known. Drilled in the late nineteenth and early to mid-twentieth centuries, before the modern regulatory era, well owners just left them behind, abandoned—often with infrastructure and all.

As the landscape evolved from agricultural to forest, these wells literally became lost in the woods, shrouded under brush or buried by grass and debris. In some cases, orphaned wells hide in plain sight, as sprawling residential and commercial development claimed the countryside.

In 2014, DEC plugged eight orphaned gas wells in Rome (Oneida County), including in a park where repeated vandalism spawned natural gas releases. One of the wells was located just 150 feet from a playground, and another leaked natural gas just 15 feet from a home. The following year, DEC plugged an abandoned gas well discovered along a sidewalk in Cheektowaga (Erie County) that was reported to have spewed fluids and leaked hydrogen sulfide.

“The wells represented significant threats to public health and the environment,” said Ted Loukides, chief of DEC’s Oil and Gas Compliance and Enforcement Section for the Division of Mineral Resources.

Fieldwork

DEC has plugged hundreds of wells since 2013, with thousands of others logged into a database that are being assessed and prioritized for plugging. But before they can be plugged, they need to be found.

Most times, they’re not as obvious as the wells that DEC plugged in Rome and Cheektowaga. Researchers need to use some tricks to find clues to locate aged oil and gas infrastructure.

Many times, regulatory paperwork is unavailable. Historic oil and gas documents like academic and industry publications, and old lease maps provide DEC with valuable hints of locations where orphaned wells may be found. Discussions with property owners and longtime residents can also be helpful.

Using those clues, staff went out to find those wells for the first time in the summer of 2022, using DEC’s own custom-built drone and specialized precision magnetic surveying equipment.

The state-of-the-art drone, purchased in late 2020 through a partnership with the New York State Energy Research and Development Authority, is a hybrid gas and electric octocopter, specially designed for carrying a significant payload for extended periods of time. That payload is the approximately two-pound magnetometer that vastly improves the ability to locate metal objects, including those associated with abandoned wells.

The first leg of the fieldwork involves piloting the drone in areas where suspected orphaned oil and gas wells exist.

“With this technology, we can go out and fly over a field and identify where those wells are, even if they’re buried,” said Nathan Graber, a member of DEC’s Division of Mineral Resources and one of DEC’s three dozen certified drone pilots.

Using a remote controller, Graber slowly raises the octocopter off the ground until it reaches an altitude of roughly 120 feet. From there, the drone is switched over to a pre-programmed, automated flight path. The drone, which carries the magnetometer on a harness about eight feet below the unmanned aircraft, flies back and forth in a grid pattern. The drone looks like a small helicopter and sounds a bit like a weed whacker.

As it flies at about 12 mph, the magnetometer and accompanying mapping equipment record data about the earth’s magnetic field and precise GPS coordinates. The hybrid gas and electric drone is equipped to fly with its magnetometer payload up to five hours per flight, and covers several hundred acres during that time.

DEC’s Nathan Graber, Binghamton University professors Alex Nikulin and Timothy de Smet with students conducting fieldwork in May 2022.



"The only other way of doing this would be by foot," said Gary McPherson, a professional engineer who serves as DEC's Aviation Coordinator. "Having the ability to fly a precision grid, collecting thousands of points of data every second is invaluable."

Graber remembers the old pre-drone days. For five weeks every spring and fall between 2017 and 2019, Graber, Charles Dietrich, and other DEC staff hunted for the abandoned wells—on foot.

"It involved a lot of searching on the ground, which is basically just walking through woods with a keen eye," explained Graber. "That required a lot of staff hours."

As newer technologies like drones emerged, Graber, Dietrich, and others investigated possible uses for them and cultivated relationships with leading researchers at the National Energy Technology Laboratory (NETL) and the State University of New York. In 2019 and early 2020, a DEC partnership and pilot program with Binghamton University professors Timothy de Smet and Alex Nikulin proved that drones and magnetometers could be useful tools in finding orphaned wells hidden across the landscape.

"They were able to fly about one square mile in a day," Dietrich said. "Previously, under ideal conditions, it took us three solid days to walk that area, and we didn't cover everything."

The drone program in DEC's Division of Mineral Resources is the agency's most recent drone success story. DEC is also using drones in emergency disaster response, to survey spills, algal blooms, and shore erosion; to identify invasive species in forests; and even to study and count rattlesnakes, seagulls, and horseshoe crabs.

"Anything to do with the environment, you name it, we are willing to try to use drone technology to accomplish the task," McPherson said. "We are constantly finding uses for drones that we never even thought existed."

Ground Truthing and Data Crunching

When the drone flights are completed in the search for orphaned and abandoned wells, collected data gets uploaded into a program that produces elaborate, multi-colored maps that reveal anomalies in the earth's electromagnetic field. Those anomalies are usually metallic and may be deserted wells or phantom objects picked up by the magnetometer due to their metallic characteristics. That gets verified during the next phase of the fieldwork.

Armed with these new maps, DEC staff head back to the field. Now, instead of searching blindly for the "needle in a haystack,"



Since 2014, DEC has inspected about

4,000 orphaned wells and has plugged **370** wells.

Robin Kuiper/NYSDEC



DEC's hybrid gas and electric octocopter carrying the magnetometer.

fieldwork is more efficient and productive. DEC staff carry a precision GPS device and follow the anomalies on the map, looking to match them to an abandoned well.

"A lot of these wells are just a few feet off the ground and rust colored, so they blend in really well with the foliage," Graber said. "It makes it really difficult to find without critical equipment."

Wells can be hidden near the roots of trees, in or under brush, or even obscured by the ground, field grass, or debris itself. When a well is discovered, staff members make specific notations and geo-mark its location.

Plugging wells is expensive; it can cost more than \$60,000 to plug an oil well and \$600,000 for gas wells. DEC prioritizes orphaned wells according to a pre-set scoring classification originally devised by the Interstate Oil and Gas Compact Commission. Wells that score higher, especially because of a threat to public safety or the environment, are prioritized for plugging.

“The goal is to use good, solid plugs in wells that are problematic,” Loukides said. “We aim to ensure these orphaned wells are not causing problems now, and plugging them will prevent future leaking of fluids and gases.”

Throttling Up on the Environment

As the 2010s dawned, shale gas development boomed and put New York State at a crossroads: either join states like Pennsylvania and Ohio and tap natural gas through deep-well hydraulic fracturing, thereby creating thousands more wells across the landscape, or retreat from fossil fuel development and accelerate environmental protections.

New York State’s bold calculus put plugging wells ahead of drilling them.

“As we stepped away from the prospect of broad-scale, shale gas development, we stepped into finding solutions for the greenhouse gas emission-related issues we did have,” Loukides said. “That meant plugging a lot of these old gas and oil wells.”

The New York Works Well Plugging Initiative began in mid-2013 (see *Plugging the Past* in December 2016 *Conservationist*). An initial \$2 million was allocated for plugging orphaned and abandoned oil and gas wells as part of DEC’s \$40 million suite of infrastructure improvements. Since 2014, DEC has inspected about 4,000 deserted wells and has plugged 370 wells.

The State’s well plugging efforts are about to get a big boost as part of the trillion-dollar federal Infrastructure Act. New York State is eligible for up to nearly \$70 million in federal funding to target and plug high-priority oil and gas wells. In late August, the State was granted \$25 million by the US Department of the Interior for the initial phase of the program that will help plug 167 such wells.

If all goes well, Loukides said New York would like to have contracts in place by December and plugging underway by early 2023.



Charlie Dietrich and Catherine Dickert of DEC’s Division of Mineral Resources reviewing a map.

Achieving New York’s green energy goals, as set forth in the Climate Leadership and Community Protection Act, includes dealing with the ghosts of its fossil fuel past, like abandoned wells. By using innovative, cutting-edge technology and forging strong bonds with leading scientists, New York State is poised to slash climate-altering greenhouse gas emissions.

Magnetometers are just the beginning. DEC and its partners at NETL and Binghamton University continue exploring other emerging technologies using drones, including equipment that can detect and quantify ground-level methane emissions, and light detection and ranging (LIDAR) technology, which uses lasers to create detailed scans of the ground to find evidence of orphaned wells.

“We’re putting science to use,” Dietrich said. And it’s getting results.

TJ Pignataro is the public information officer for DEC’s Region 9 Office in Western New York.

If you know about or find an abandoned well, do not disturb it or the surrounding site. Please contact your regional DEC office and report the well to Division of Mineral Resources staff. Visit www.dec.ny.gov/energy/205.html for more information and a list of contacts.



Orphaned wells on various properties in Cattaraugus County.



EASY VENISON FAJITAS

Venison fajitas are tender pieces of steak that are marinated with seasonings, stir fried in a skillet, and tossed with sauteed peppers and onions. The venison steak is sliced thinly, then marinates with the seasonings while you prep the onions and peppers for stir frying. Serve up this easy venison recipe in a fresh tortilla for a mouthful of delicious flavors!

Prep Time: 10 minutes + Cook Time: 10 minutes

INGREDIENTS

Fajita Seasoning:

- 2 teaspoons seasoned salt
 - 1/4 teaspoon garlic salt
 - 1/2 teaspoon black pepper
 - 1/4 teaspoon cayenne pepper
 - 1/2 tablespoon chili powder
 - 1 teaspoon dried oregano
-
- 1 1/2 pounds venison steaks cut into 2-inch strips
 - 4 tablespoons olive oil
 - 1 medium red bell pepper cut into 2-inch strips
 - 1 medium yellow bell pepper cut into 2-inch strips
 - 1 medium onion cut into 1/2-inch wedges
 - 12 flour tortillas warmed



PREPARING VENISON STEAKS FOR FAJITAS

When cutting your venison steak for fajitas, it helps if it is still slightly frozen. If it's not, that is okay, you can still trim it. It is just easier if it's not completely thawed. We like to remove what is called the silver skin around the edges of the steak. It's an opaque film that covers the meat. If left on the steak it can give the food a gamey taste.

INSTRUCTIONS

Combine seasoned salt, garlic salt, black pepper, cayenne pepper, and oregano to make the fajita seasoning. Sprinkle the seasoning over the sliced venison. Mix well, cover, and refrigerate while preparing the remaining ingredients.

Heat 2 tablespoons of oil in a heavy skillet, add the venison steak strips, and cook until browned. Remove the venison from the skillet and place in a bowl. Add the remaining 2 tablespoons of oil in a skillet. Cook the bell peppers and onion until they start to soften.

Add the venison back into the skillet and toss with the onions and peppers, then remove. Serve with tortillas.

Shelby Law Ruttan is a cookbook author, food blogger, and the author/owner of Grumpy's Honeybunch website: www.grumpyshoneybunch.com. Established in 2007, Shelby shares and preserves family recipes, as well as recipes for cooking light and keto. She has authored the *One-Pot Paleo Cookbook*, *The Pescatarian Keto Cookbook*, and *The Clean Ketogenic Diet for Beginners*. She is an experienced, self-taught home cook who loves to share recipes with others. She also authors the website Honeybunch Hunts.

What Free Fishing Weekends Are All About

BY JAMES L. MARKHAM

This past weekend was a “Free Fishing Weekend,” one of several that New York offers each year, giving folks the opportunity to experience the incredible fishing opportunities throughout the state without having to buy a license. My wife’s family visited us at our home in Western New York on a weekend that coincided with the Free Fishing Weekend in New York. Seeing this opportunity, as well as good weather and light winds in the forecast, I asked if anyone wanted to fish for walleyes on Lake Erie for a few hours on Saturday evening.



David Villa with his first fish, a nice Lake Erie walleye!

My wife’s brother, Johnny, and brother-in-law, David, were all in! Johnny has occasionally fished before, but David was essentially a novice, having only fished once (in our pond) during a prior visit. But he was very excited and could not wait to get out on the lake Saturday evening.

Rarely is Lake Erie flat, but it cooperated for us—and my 16-foot boat—that day, as I tried to guide the two novices to a few fish. Unfortunately, the fish were not very cooperative that evening, but Johnny managed to hook and land a good-sized sheepshead (i.e., freshwater drum). However, David remained fishless through a spectacular sunset. But he kept his spirits up and as the sky started to darken, he finally hooked into a fish and the battle was on! The fish was a good match for the light tackle, but David finally managed to get it to the side of the boat where I netted it—a very fat 20-inch walleye! I removed the hook and had David hold the fish, showing him the fish’s teeth to stay away from, and snapped a few photos before putting his prize into the cooler.

We continued to fish until dark without any more luck. We filleted the fish the next morning as I explained to David how to avoid the bones, and even removed the small round morsels on the cheeks. We ate the walleye for dinner that evening to complete the experience. David talked about catching the fish the entire next day and thanked me again for taking him fishing before they left. David will certainly be back to fish again! The lure of fishing can be compelling, especially after a good catch.

James Markham is a coldwater biologist at DEC’s Lake Erie Fisheries Research Unit. He has worked on lake trout rehabilitation and steelhead management in Lake Erie for over 21 years.



FIRST DEER WITH DAD'S GUN

BY DAVID FIGURA

I still choke up and get emotional whenever I talk about it. It's the story about how I shot my first deer at age 58, with my father's 12-gauge shotgun.

Dad had passed away about two years before, but I'm convinced he was there alongside me at the time. The sad part of it all is that Dad, although a serious hunter, never once took me hunting with him when I was a kid, or even when I became an adult.

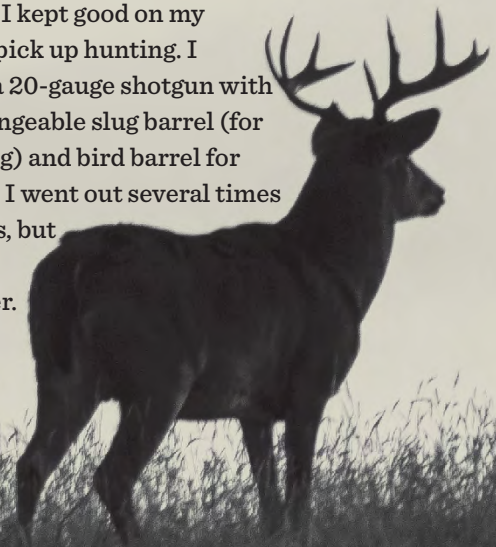
I retired nearly a year ago at age 67, as the outdoors writer for *The Post-Standard* newspaper in Syracuse. Many readers assumed during my 15 years on the outdoors beat that I was an expert hunter who grew up with all sorts of experience in the woods and with firearms.

Truth be told, when I interviewed for the position, I was a news editor with a passion for the outdoors; I enjoyed fishing, camping, birding, and hiking. However, I didn't own a gun and didn't hunt. I said during my interviews that I was eager to learn.

I grew up in Endwell, NY (Broome County) and can remember eating all sorts of wild game during my childhood. I smile when I think about picking buckshot

out of some of the rabbit and pheasant dishes that made their way to my plate at the family dinner table. At times, I assisted Dad as he and my uncles and his friends processed their harvested deer, which were hanging in our garage. Afterwards, the family would enjoy the fruits of Dad's hunting, eating venison stew, chili, spiedies (a meat sandwich that originated in New York's Southern Tier), and countless venison burgers.

Upon getting hired for the outdoors writer job at the newspaper, I kept good on my promise to pick up hunting. I purchased a 20-gauge shotgun with an interchangeable slug barrel (for deer hunting) and bird barrel for other game. I went out several times with friends, but had no luck hunting deer.



At work, I was writing stories and running numerous eye-opening photos in the newspaper about others getting trophy bucks. I particularly loved recounting tales from proud, happy fathers who were alongside their sons and daughters when they got their first deer.

Deep down though, I was envious.

Dad died on October 7, 2010. At that time, I had been an outdoors writer for the newspaper for nearly three years.

Shortly before he passed, I confronted him at my stepbrother's home in West Virginia. I told him I had numerous childhood memories of him hunting, "Why did you never take me?" I asked.

Dad, 84, was a bit embarrassed. After a moment or two of silence, he said he had tried taking my older brother, Paul, but he didn't like it. He said he figured I wouldn't like it either.

He then made a promise. "Come down here next fall and we'll go out together. We'll get you a deer," he said.

Dad died three weeks later from a heart attack.

Following his funeral service in West Virginia, my wife and I were getting ready to drive back to New York. Just before we left, my stepbrother, Larry, came out of his house carrying a gun case. It contained Dad's shotgun, an Ithaca Deerslayer with a scope.

"Your father got a lot of deer with this gun. He would have wanted you to have it," he said.

When I arrived home, I stuffed the gun case underneath a bed in our house and didn't open it for months. It took me a while, but I got over my hard feelings. I concluded it wasn't all my father's fault I'd never gone hunting with him. I was a busy teenager with sports, friends, and a girlfriend. I never once asked him if I could tag along with him in the woods.

Obviously, hunting was his time away from the family and his job. It was time to replenish, to recharge his soul. Now that I'm older, I understand the need for that.

But still.

The following fall, I began carrying Dad's gun into the woods every time I went hunting.



First deer mount

Two years later, I was out deer hunting with two friends, Chris and Randy, in Westernville, NY (Oneida County). Each started about a mile on opposite sides of me in the woods, trying to locate and drive a deer in my direction. I was holding Dad's gun on my lap, sitting on the ground, my back against a fallen tree trunk. Suddenly, a four-point buck came walking from Randy's direction. It crossed about 25 to 30 yards in front of me, paused, and offered a perfect broadside shot.

"There's your deer, Son," I heard Dad whisper in my head. I propped his shotgun on my knees, took aim and fired. It was a perfect shot and the deer dropped where it stood.

I was in shock. Chris and Randy heard the shot and came to check things out. Randy handed me his hunting knife. I field dressed my first deer with my two friends looking over my shoulder and offering instruction. But before doing that, I told them I had to be alone for a couple of minutes. I walked about 40 yards away, stopped behind a tree, and broke down crying.

"I finally got one, Dad. Thanks," I said, my eyes full of tears.

I've shot a few deer since then, including a nice, eight-point buck. The shoulder mount from that deer is hanging on the wall of my office at home.

But none will ever compare with the joy I felt of getting my first deer with Dad's gun.

Don't be that person who looks back with regret. The outdoor memories you make with your children today will last a lifetime.



Dad and me.

David Figura

David Figura, of Skaneateles, NY (Onondaga County), is currently a vice president of the New York State Outdoor Writers Association, and in retirement is enjoying upstate New York hunting and fishing. He's currently working on his second book, *Nobody Likes A Whiny Man*, about guys in their 60s and 70s.



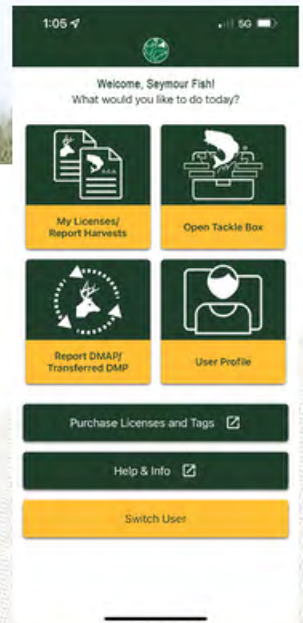
DEC's First Electric Boat

Look for DEC's first all-electric boat on the water! Part of the Division of Water's Finger Lakes Water Quality Hub, the vessel is used to conduct water sampling operations on the smaller Finger Lakes. It features a rehabbed hull (a reuse project) and batteries designed to give it a range of up to 60 miles of operation. Division of Water staff are keeping track of how it operates, so it can be compared to its fossil fuel powered counterparts. Benefits of the electric motor include lower greenhouse gas emissions, and the elimination of small engine air emissions and the potential for a fuel spill on the water. The motor is also much quieter than a comparable fossil fuel powered motor.



HuntFishNY and The Tacklebox

DEC's official app, HuntFishNY has been updated with a new feature called "The Tackle Box." Anglers can instantly access information on fishing regulations, fish stocking, and fishing locations throughout New York. Features include the ability to pan and zoom to a waterbody or search by name, get driving directions to state-owned boating/fishing access sites, and a downloadable offline version. The HuntFishNY app provides mobile access to your sporting licenses, and permits, as well as the ability to report game harvests while afield. The app, which includes The Tackle Box, is free of charge. For more information, visit: www.dec.ny.gov/outdoor/96470.html.



Words of a Feather

Are you a birder or aspiring birder? Interested in learning more about the birds in your backyard or the best places to go and observe them? Consider



subscribing to DEC's *Words of a Feather* newsletter! A monthly e-newsletter, *Words of a Feather* is for birders of all abilities, backgrounds, and skill levels. Each month, subscribers will have access to the latest news from the New York State Birding Trail, including trail location spotlights, educational information, upcoming events, peer photos, and the best tips and tricks. To

subscribe and start building your life list today, go to: https://public.govdelivery.com/accounts/NYSDEC/subscriber/new?topic_id=NYSDEC_186.

2021 Was Safest Ever Hunting Season

The 2021 hunting seasons in New York were the safest ever, with the lowest number of hunting-related shooting incidents since record-keeping began. There were nine hunting-related shooting incidents, including one fatality. Unfortunately, the single fatality that occurred in 2021 involved a deer hunter not wearing fluorescent orange or pink. All first-time hunters, bowhunters, and trappers must successfully complete a hunter, bowhunter, or trapper education safety course. For more information about the 2021 Hunting Season and DEC's Hunter Education Program, go to: www.dec.ny.gov/press/124802.html.

Tracking New Threat to Beech Trees

DEC recently announced that Beech Leaf Disease (BLD), which affects all species of beech trees, was identified in 35 counties in New York State. DEC's Forest Health Diagnostic Lab is experiencing a surge in requests for BLD diagnosis and treatment options, as landowners notice a rapid decline in the health of their beech trees. The main symptom to look for on beech foliage is darkened striping between the veins, which is best seen when looking up through the canopy. DEC encourages the public to report potential BLD infections to help track the disease and stop its spread. To learn more about BLD and to report it, go to: www.dec.ny.gov/lands/120589.html.



Take It, Tag It, Report It

DEC reminds New York hunters of the importance of reporting their harvest. Game harvest reporting is critical to wildlife management, and hunters are required to report their harvest of deer, bear, and turkey within seven days of harvesting the animal. The easiest way to report is via DEC's HuntFishNY mobile app. Through this app, hunters, anglers, and trappers can access an electronic version of their licenses and privileges, and report the harvest of deer, bear, and turkey on their mobile device. For more information on Game Harvest Reporting and the app, visit: www.dec.ny.gov/outdoor/8316.html.





Three Little Fishers

Here is a screen grab from a trail camera video. We only get to see a foot and tail of the third fisher, but it is there. I believe it is somewhat uncommon to see three fishers at one time. They seem to be younger fishers. There was a lot of fisher activity on my cameras that week.

ED TIMPERLAKE | GLENVILLE

They definitely look young. Females typically have three to four kits, and by this time of year they are pretty active and starting to be more independent. Mom is probably around there somewhere. A very cool (and definitely unusual) sighting! Read about how DEC is studying fishers in the article "Following Fishers in the North Country" starting on page 16, and learn more about fishers in the article "The Fisher: Valuable Furbearer; Fierce Predator" in the December 2014 issue of Conservationist.



In Reflection

I photographed this "tom" on a September evening, displaying to his own reflection in a shiny black headstone. His hen and young were nearby. The location was the historic Oakwood Cemetery in Troy.

THOMAS LINDSAY | TROY

Great shot, thanks for sharing! Male birds of many different species will sometimes display to their reflections, often seeing them as an intruder. Or perhaps this tom was showing off for his family or other nearby turkeys, one can't be sure!

Beetles vs Bugs

In the Species Spotlight on Red Milkweed Beetles in the June/July 2022 issue, we inadvertently included a photo of milkweed bugs (see image, far right). Large Milkweed Bugs,



Life History/Diet/Behavior

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

colors—such as the monarch butterfly or the yellow jacket—become associated with tasting bad or capable of causing pain, and birds and other predators learn to avoid them.

The red milkweed beetle is harmless to humans. In fact, if you spot one crawling on a milkweed leaf and touch it, it

are in the family of seed eating bugs, Lygaeidae, and are not closely related

to the red milkweed beetle. They are similar to the beetles in feeding on milkweed but differ in two significant ways. First, they have piercing mouthparts rather than jaws, and feed on the seeds of the milkweed. Second, they only have three rather than four developmental stages. They lack a pupal stage, and the immature nymphs resemble (mostly) the adults. Their wings are black pads that grow larger with each molt (as can be seen in the photo), until they reach the final size and striped coloration of adults. We regret any confusion this may have caused.

Ask the Biologist

As follow-up to the letter in the August/September 2022 issue about treating a red fox with mange, our wildlife biologists wanted to provide some additional information for our readers regarding the treatment of diseases in wildlife, in this case, specifically mange.

Any treatment of mange or other diseases in wildlife should only be done on captive animals by a licensed wildlife rehabilitator under the guidance of a veterinarian. The public should not attempt to feed and/or medicate free-ranging wildlife. Doing so may be illegal and can do more harm than good for the reasons outlined below.

1. This method typically involves putting ivermectin or similar medication in bait for multiple doses. It is impossible to ensure that the sick animal is the one getting the medication and/or the proper dose. This limits the effectiveness of the treatment, and it means that other animals may get dosed with medication that may be toxic to them.

2. Wildlife that is fed may lose their fear of humans and can become dangerous. They are more likely to engage in nuisance behavior such as getting into garbage or taking pets or livestock. This creates problems for both you and your neighbors and can lead to the animal being euthanized.

3. Mange is highly contagious, with mites surviving for several weeks in dens. Reinfection is likely, and bringing other animals to the area with bait can spread mange and other diseases.



A Great Catch

I wanted to share a photo of 14-year-old Alan Craig with a northern pike he recently caught. Alan has shown increasing interest in fishing the last two to three months—his stash of lures and bait has grown exponentially every week, doing yardwork and chores in exchange for fishing gear. He was accompanied by his friend Jacob when he caught this fish in early August, in the Oswego River in Fulton. This just over 37-inch pike was caught just before dusk in about five feet of water, using a weedless frog, topwater bait.

EMILY LUKOWSKI | OSWEGO

Thanks for sharing Alan's story and photo—he definitely looks pleased with his catch, as he should. That is a pretty impressive fish! As is mentioned in the story "What Free Fishing Weekends are All About" (see page 29), a good catch makes fishing even more enjoyable. It should feel even more rewarding for Alan, after the chores and yardwork he has done to grow his fishing gear collection!

CONTACT US!



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Back Trails

Perspectives on
People and Nature

My Unique Fishing Companion

BY DAVID CAPLIN, WITH
PETER CONSTANTAKES

For many people, fishing is a time to enjoy nature peacefully. Whether in a boat or standing along a shoreline with your pole in hand, it's often a chance to relax your body and mind, while still hoping you catch a big one.

However, maybe due to the weather, or the number of people—other anglers, boaters, swimmers, or families enjoying a picnic near the water—sometimes, fishing's serenity eludes us. Although such activities may disturb the relaxing aura of fishing, they usually only have a small, short-term effect on those of us with a rod and reel in hand.

While I prefer peace and quiet when dropping a line, I recognize that you can never be certain of what to expect when you head out to the water. In fact, I was recently fishing from a small boat, alone, concentrating on landing a big one, when suddenly, I was joined by an uninvited companion, a bird.

Now I know that birds are a key part of nature, and I'm never surprised to see them when I'm out in the boat. But this bird was different. He seemed to be acting like a fishing companion that I had invited to join me on this

fishing excursion. He sat (or perched, I guess) in the boat, scanning the water like me, as if he wanted some company on the water, or at least a break from flapping his wings. And, I was fine having him along for the ride.

But I soon learned that this friendly bird was actually interested in fishing. He scanned the waters as I did, and maybe saw some good opportunities to grab a fish. In fact, the word maybe isn't really accurate. As we travelled together, he seemed poised to go after fish as well, and he took off to get a closer look at what was in the water.

As an experienced angler, I've developed some fishing skills over the years, and have had pretty good luck snagging my dinner on a line now and then. I'm not sure of the bird's fishing background, but he seemed intent on grabbing a fish. Unlike most of the birds I'd encountered over the years, he didn't dive down from the sky to catch a fish. Instead, he flew out of the boat, immediately dove into the water, and seemed to be pursuing the fish in the water.

Now, I've seen birds grab a fish a time or two, and it still amazes me each time. But I'd never seen a bird

actually hunt for fish underwater. But that's what this bird was doing. He propelled through the water like a large fish in pursuit of a smaller fish. I paused my own fishing to watch him for a while. He would come back to the boat periodically, and then take off again on his personal quest. I assumed this bird's main goal was finding food, but I laughed, thinking that maybe, like me, he simply enjoyed the sport of fishing.

I won't get into who had more success fishing that day. Fishing is about more than who lands the most fish, or the size of the catch. It's a sport of both the body and mind (i.e., patience), so who caught more fish that day will remain a secret.

Anyone who fishes—young or old—hopes they'll experience a "fish story" they can share with friends and family. Regardless of how many fish I did or didn't catch that day, my "fish story" is actually more of a "bird story" and something I'll never forget.

David Caplin is a nonagenarian (a person between 90 and 99 years old) who enjoys being out on the water.



Andy Morfrew

Hunting Q & A

Q: Why do people hunt?

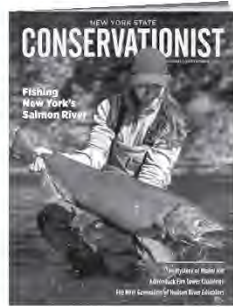
A: Successfully harvesting a deer, turkey, or other game is only a small part of why people hunt. When asked why they hunt, people cite a variety of motives including:

- 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 New York 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: 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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“Every sunset is also a sunrise; it all depends on where you stand.” – Karl Schmidt

Beautiful capture of the view from Giant’s Nubble (below the summit of Giant Mountain) in the Adirondacks.

Photo by @danieljstein

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