Bats | Snowvember | Darters

NEW YORK STATE Conservationist

FEBRUARY 2015

Eagle Rescue

Dear Reader,

On January 1st, one of New York's greatest environmental leaders passed away. When people think of Governor Mario Cuomo, they are likely to recall his brilliant oratory at the 1984 Democratic National Convention, or the possibility of his running for President of the United States. Yet, when one examines his record, Mario Cuomo built an extraordinary environmental legacy during his three terms as Governor of New York State.

Mario Cuomo was not an outdoorsman. While he didn't hike, canoe, or fish, his respect for New York's natural environment was as deep as the earth itself. Just as he inspired New Yorkers on so many principled issues, he extolled the virtues of environmental conservation. He was fond of quoting the Native American proverb: "We have not inherited the earth from our parents; rather it was lent to us by our children." His connection to nature was spiritual, not physical. Even though he governed during a period of fiscal austerity, he always made sure that New York's natural resources were well protected.

His accomplishments are many. To address the proliferation of hazardous waste sites in New York, he proposed and secured passage of the 1986 Environmental Quality Bond Act (EQBA), which provided $1.2 billion to clean up abandoned waste sites. The EQBA also provided $250 million for a statewide land acquisition program that increased the Forest Preserve and expanded the jewels in New York's state park system. The Governor was responsible for establishing the Hudson River Greenway, enacting the New York State Clean Air Compliance Act, and adopting the California automobile emissions program which enabled New York to meet federal Clean Air Act requirements without unduly burdening New York businesses.

In 1990, Governor Cuomo recognized the need for an ongoing funding source for the environment and state and local parks. The Governor proposed the Environmental Protection Fund (EPF), and the State Parks Infrastructure Fund (SPIF), which continue today as primary sources of funds for land acquisition, recycling, water quality programs and stewardship of public lands. With enactment of the EPF, Governor Cuomo set the stage for all subsequent administrations to follow.

Then Deputy Secretary for Energy and the Environment Joe Martens, Governor Mario Cuomo and Gary F. Heurich at the signing of the Environmental Protection Act in 1993.

Like his father, Governor Andrew Cuomo holds a deep reverence for New York's natural resources. He has restored the EPF that his father created, and used those funds to purchase the largest addition to the Forest Preserve in more than a century. He has expanded opportunities for outdoor recreation, made unprecedented investment in green energy and committed New York to substantial reductions in greenhouse gases. While I was deeply saddened by the death of one of New York's greatest governors, I am consoled by the fact that his love for the natural world has been bestowed upon his family.

Regards,
Commissioner Joe Martens

NEW YORK STATE **Conservationist**

Volume 69, Number 4 | February 2015
Andrew M. Cuomo, Governor of New York State

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EDITORIAL OFFICES
The *Conservationist* (ISSN0010-650X), © 2015 by NYSDEC, is an official publication of the New York State Department of Environmental Conservation published bimonthly at 625 Broadway, 4th Floor, Albany, NY 12233-4502. Telephone: (518) 402-8047

Manuscripts, photographs and artwork will be accepted if accompanied by SASE. Please write to the above address with an author's query or to request a Contributor's Guide. The publisher assumes no responsibility for loss or damage of unsolicited materials.

TO SUBSCRIBE:
$18 per year, $24 for two years, $30 for three years. Outside the U.S., add $27 per year with a check drawn on a U.S. bank. All orders must be prepaid.

Please allow 6 to 8 weeks for new subscriptions or changes of address. Periodical postage paid at Albany, NY, and additional mailing offices.

Send check or money order payable to:
Conservationist
NYSDEC, 625 Broadway
Albany, NY 12233-4502

or call: **1-800-678-6399**
Visit the Department's website at **www.dec.ny.gov**

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POSTMASTER: Send address changes to:

Conservationist
NYSDEC, 625 Broadway
Albany, NY 12233-4502

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NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

See page 12

Machelle Pohlman

February 2015 Volume 69, Number 4

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Special Insert:
Conservationist for Kids!

A mink pops out at Webster Pier

WINTERS' WILDLIFE

—The photography of Aaron Winters

I retired from the sheet metal and roofing business in 2010, after 40 years. During my last few years working, I used a digital camera quite a bit for estimating. I really enjoyed using the camera and quickly found myself snapping images of other subjects as well.

Photographing birds rapidly became my passion. I had started shooting clay pigeons about 20 years ago, and found that shooting real birds with a camera incorporated many of the same techniques. The two hobbies give me plenty of time outdoors (year-round), and living in Rochester provides easy

Waterfowl brace against winter's icy chill

Short-eared owl in Hilton, during a snowstorm

access to Lake Ontario, the Finger Lakes, Letchworth State Park and, of course, Montezuma National Wildlife Refuge, among other places.

My only formal training in photography is two, online, digital courses offered by BOCES—both very helpful. Joining local photography meet-up groups has put me in touch with lots of helpful people, too, but most of my training comes from being in the field. I have blown a lot of great shots, but I learn something new every time I do. After a while, the missed shots have grown further apart and I've learned to anticipate better.

My philosophy is simple: If it catches my eye, maybe others will enjoy it too. I strive to capture some of the things we all see but never quite get a good look at: the hawk on the wire or the fox running across the road. The world around us is a pretty amazing place. I am thrilled to be able to share some of my experiences with others who are interested, and who maybe aren't able to get outside.

Red-breasted mergansers on Irondequoit Bay

A snowy owl hides at the end of the Summerville Pier

Starlings and red-winged blackbirds in Henrietta

Virginia rail in Mendon

The winter has been rough for this red-breasted merganser on Irondequoit Bay

A cardinal rests in Mendon

A snowy owl passes through Avon

Based in Rochester, Aaron Winters photographs wildlife, sporting events, special occasions, and more. Visit his website at www.aaronwintersphotography.com to see more of his photography.

Red fox in a winter storm near Sodus

Jim Clayton

HI-TECH BATS

—Using technology to track bats

By Carl Herzog

photos courtesy of author, unless otherwise noted

We arrived at the Rosendale mines, just outside of Kingston, at 11 a.m. It sometimes seems that we spend a lot of really nice days underground in the pursuit of bats, but this day would not be one of them. The weather was damp, gloomy and cold, pretty much the same conditions we would encounter in the shaft. Outfitted with boots and headlamps, and carrying backpacks of equipment, we descended into the mine.

The Rosendale mines were once a major source of limestone that was used in the construction of such notable structures as the Brooklyn Bridge and the Statue of Liberty. Today, the abandoned mine complex houses one of the largest colonies of hibernating bats in the entire Northeast, and it was for this reason that a group of bat researchers, including me, had come there.

Our goal was to catch and tag hibernating little brown bats, which used to be the most common bat in New York until the appearance of the disease known as "white-nose syndrome." White-nose syndrome causes bats to wake up from hibernation more often than is normal, making the bats burn through their energy reserves too quickly. As a result, the bats either starve to death or fly out of the caves and mines in an apparent desperate attempt to find something to eat. However, as the winter weather normally means there are no flying insects, the bats invariably die. Since the discovery of white-nose syndrome in 2007, 90% of New York's little brown bats have succumbed to the disease. (See "Bats on the Brink" in February 2012 *Conservationist*.)

We didn't have to go far into the mine to locate a group of bats. After selecting an individual from the larger group, we gently pried the little brown bat from its roosting spot on the wall. We then trimmed a tiny area of fur so we could glue a miniature temperature-sensitive radio transmitter onto its body. The mini transmitter is about the size of a small beetle and will measure the bat's body temperature throughout the winter. The equipment we carried in and set up in the mine will receive the transmitted radio signals and will record the temperature data for us to collect at a later date. Using this collected information, we should be able to see how often the bats are waking up, thus providing insight into how the bats are currently dealing with the deadly white-nose syndrome. All told, we tagged 14 bats.

I've been studying bats for many years and find them fascinating. They are one of the most diverse orders of mammals, with nine species of bats native to New York. Unusual creatures, they have evolved to take advantage of a food source that almost no other animal can exploit: insects that fly at night. But it is this same habit that makes bats frustratingly hard to study.

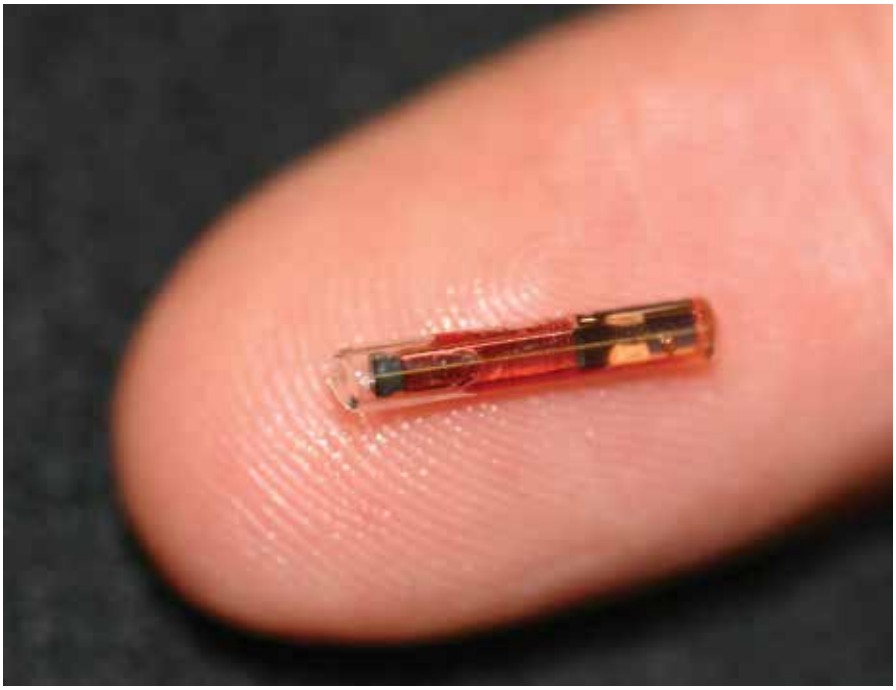
Bats are small, secretive, and tough to catch. They also travel quite a distance over the course of a single night of foraging. In fact, even small bats might cover 15 miles or more while dining on insects. When winter comes and insects are not available, bats travel even longer distances, either to hibernate in caves and mines, or to migrate south in search of warmer weather. This makes studying them very difficult, leading to the fact that there isn't another group of NY vertebrates that we know so little about.

Mini transmitter

Researchers trim a small section of hair on a bat prior to attaching a transmitter.

Bat researchers often head into caves and old mines to study hibernating bats. Jim Clayton

A hibernating big brown bat. Jim Clayton



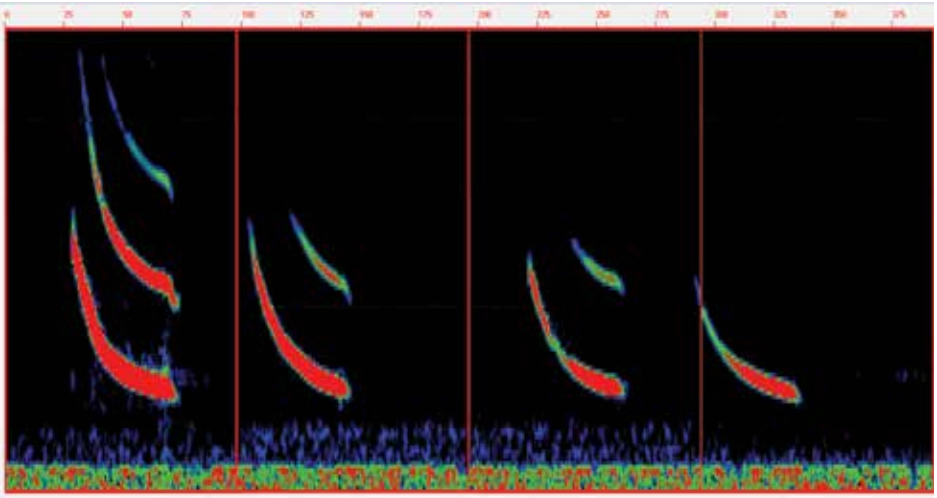
Biologists inject tiny PIT tags, like the one pictured here, under the bat's skin so they can record the bat's movements.

That's where technology like the miniaturization of transmitters comes in. While researchers have been attaching various kinds of radio transmitters to wildlife for more than 50 years, devices small enough to use on a 6 gram (0.2 ounce) bat are a relatively recent development, and their use has already yielded valuable insight into bat behaviors such as migration distance and home range size. In fact, much of what we now know about bat behavior has resulted from the use of this technology.

New York biologists also rely on several other technology-based approaches for studying these elusive creatures. Since 2009, DEC has been conducting acoustic studies to track the state's bat populations, and currently this technology is being used to study the effects of wind power generation on the state's bat populations. (See "Wind Power and Bats," pg 11).

Jim Clayton

Bat researchers search a mine for clusters of bats.



A visual display of bat echolocation calls

During an acoustic study, biologists use special microphones that eavesdrop on the bats' echolocation calls they constantly emit as they fly. Echolocation (also known as sonar) is what enables bats to navigate through pitch black caves and catch flying insects on even the darkest of nights. The bats create brief pulses of sound, generally too high-pitched for humans to hear, and then listen for the echoes that bounce off objects in their vicinity. Researchers record these echolocation sounds and use them to identify species and to determine how many individuals are flying through the night sky. Analyzing the acoustic data requires sophisticated software that sorts out the bat calls from the other recorded sounds, and displays each pulse graphically. Interestingly, as the bat gets closer to the intended meal, they produce pulses that are shorter in duration, but more frequent, and just before the bat grabs the insect, it might be generating as many as 250 pulses per second!

Photos, below, by Merlin Tuttle, Bat Conservation International

Hoary bat | Red bat with pups | Silver-haired bat

Wind Power and Bats

Of New York's nine species of bats, the three species of tree bats (red, hoary, silver-haired) do not hibernate in caves or buildings during the winter, but migrate to warmer climes. For these migratory species, the relatively new upsurge in the use of wind energy poses a threat. While wind energy is one of the most ecologically benign ways of producing electricity, these bat species are apparently attracted to the structures, and the large rotating blades kill a shockingly large number of them. Biologists don't yet know the full impacts of wind power on bat populations, and are currently investigating the issue.

Another method for studying the secret life of bats is the use of PIT (Passive Integrated Transponder) tags. Similar to the small "microchip" many pet owners use, researchers inject bats with the tiny tags and then set up tag readers at bat roosts to record when individuals leave and return. The devices are being used to measure winter survival of hibernating bats and to track the daily coming and going at summer roosts. One innovative researcher was even able to incorporate an electronic scale that weighed the bats as they left their colony to forage, and then again when they returned, often with a full belly!

Not all technological tools used by bat researchers are electronic. Advances in DNA analysis have allowed researchers to identify individuals from a small sample of blood or tissue, and also to measure how closely related two individuals might be to each other. Recently a group at the USGS Fort Collins Science Center has even been able to extract DNA from bat fecal pellets collected from beneath roost trees. This ability promises to be very informative in studying bat colonies by providing insight into population sizes, how many young bats successfully grow to maturity, and whether offspring are likely to join their mothers in the same colony when they become adults.

As we packed up to leave the mines, I reflected on how many advances in bat research I've seen in the past decade. One thing is for certain: the pace of technological development will continue to accelerate, giving us new and improved approaches for studying wildlife. And I know that the bats we tagged today will provide valuable information to aid us in understanding more about these elusive critters.

Wildlife Biologist **Carl Herzog** works in DEC's Albany office and has been studying bats for the past 10 years.

Mary McIntosh

SNOWVEMBER

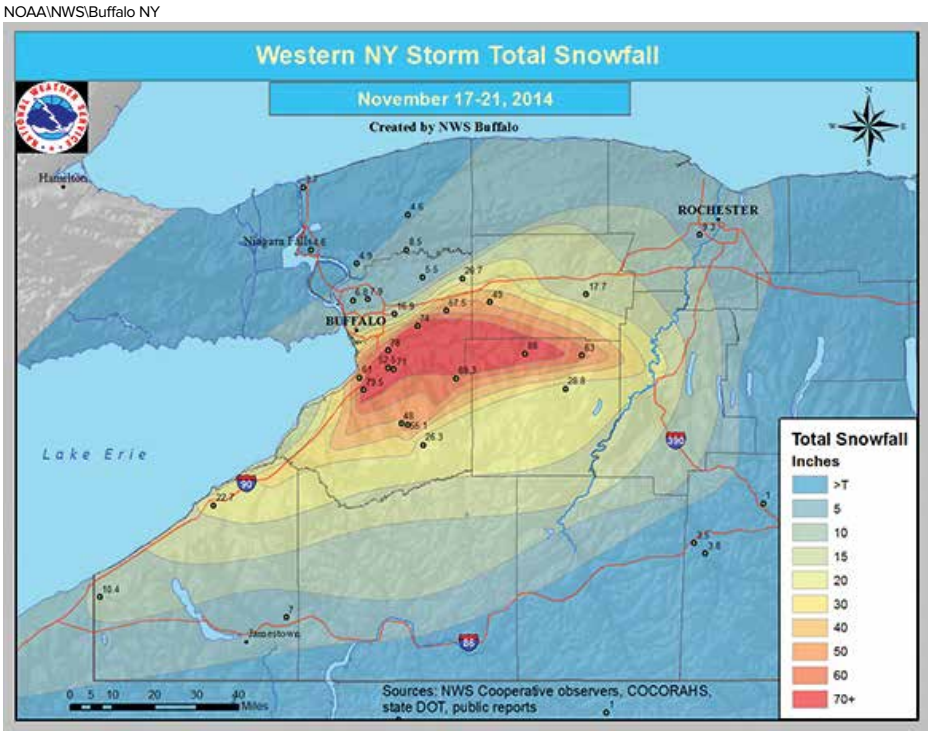
—The storm that rocked western New York

Rory Brake tries to shovel a path at his home in Elma.

By *Conservationist* Staff

From November 17-21, 2014, a lake-effect snowstorm of epic proportions pummeled areas of western New York. More than 7 feet of snow fell in a narrow band extending from Lake Erie through South Buffalo and into its suburbs. People were trapped in their homes as snow piled against doors more quickly than it could be removed. Except for emergency personnel, everyone was ordered to stay off the streets. Roofs collapsed from the weight of the heavy, water-laden snow. DEC Environmental Conservation Officers and Forest Rangers were called upon to assist stranded people, a tremendous challenge as the snow came too fast and was too deep even for snowmobiles to handle. It took people as much as five days to dig out of this record snowfall.

NOAA\NWS\Buffalo NY



Snowfall totals, in inches, for the week of November 17-21, 2014, in western New York.

ECO Jason Powers

ECOs had to use snowmobiles to assist the public during the snowstorm.

In an area experienced with heavy snowfalls, the National Football League's Buffalo Bills were forced to move a "home" football game to Detroit: there wasn't enough time to remove all the accumulated snow in time for the game. Besides, travel was restricted, so fans would have had difficulty getting to Ralph Wilson Stadium in Orchard Park.

But there was a more serious side to the tremendous snowfall. The storm, which came to be known as "Snow-vember," was responsible for at least 14 deaths and many injuries. Approximately 150 cars were stranded on the NYS Thruway for much of Tuesday; flights in and out of Buffalo's airport, buses, and trains were all cancelled that day. Normal ten-minute trips home from work became nightmarish events that took hours to accomplish, and in some cases ended with cars stranded in place, and visible only as lumps in the snow.

Kimberly Adriaansen

Michael Adriaansen attempts to dig out his car in West Seneca, a Buffalo suburb. It took him several days to fully extract his car.

Philip Kamrass, Office of the Governor

Governor Andrew Cuomo and Buffalo Mayor Byron Brown met with snow removal personnel to discuss and assess the storm's aftermath.

Machelle Pohlman

Heavy equipment had to be used to remove several feet of snow from streets.

Michael Adriaansen

Here, one West Seneca shoveler takes a break from shoveling, while another continues to try and free his car from the snow, which is level with the roof of his car.

The maximum recorded snowfall was 88 inches in Cowlesville, Wyoming County. Other communities with significant snowfall totals (even for western New York!) included Orchard Park, South Buffalo, Lancaster, and Hamburg.

Following the storm, Governor Cuomo declared a state of emergency for 10 counties, including Erie, the hardest hit. The Governor's declaration mobilized more than 1,000 transportation personnel and associated equipment, and 150 National Guardsmen came into the Buffalo area to assist with recovery efforts.

The snowstorm was an instant national story; "#snowvember" trended on most social media networks. Buffalo residents

Brittany Rowan

During the storm, many residents were asking: Where is my car?

flooded the photo-sharing network Instagram with pictures of the snow-ridden community. Facebook users shared status updates of "shoveling snow" and "#snowbound" was common in most Twitter feeds.

Inventive and self-reliant western New Yorkers built refrigerator-like "shelves" into walls of snow, cleared snow from roofs to prevent collapse, and shovel-toting groups of volunteers traveled from house to house to help neighbors dig out.

In the days that followed, rain and warmer weather made flooding from snowmelt a concern which did not fully materialize. Perhaps we can never be completely ready for what Mother Nature has in store, but this storm reminded us to be prepared, to take precautions, and to help one another.

Mary McIntosh

Phil Stegemann

Phil Stegemann

(Top) The snow quickly piled up around this barn in Elma. Getting snow removal equipment out was a challenge.
(Middle and bottom) Before and after images at Phil Stegemann's house in Orchard Park show the extreme buildup of snow in a short amount of time. To prevent the roof from collapsing, Phil's son Andrew shoveled off the heavy snow.

Brittany Rowan

Where is the backyard?

On Patrol

Carl Heilman II

Real stories from Conservation Officers and Forest Rangers in the field

Contributed by ECO Lt. Liza Bobseine and Forest Ranger Capt. Stephen Scherry

Ice Climber Rescued—Essex County

One winter afternoon, a caller contacted Ray Brook Dispatch to report a male ice climber had fallen in Chapel Pond Canyon. The subject was described as conscious and responsive but unable to move. Under the direction of Lt. DuBay, Forest Rangers Edmunds, Evans, Giglinto, Harjung, Jeffery, Kostoss, Martin and Mecus responded to the Beer Walls parking area, where they met with Keene Valley EMS. Ranger Evans reported that due to an equipment failure, the 68-year-old ice climber fell approximately 30 feet and then slid another 40 feet, striking his head. He sustained injuries requiring spinal stabilization with a back board. Rangers, EMS and other ice climbers reached the injured climber, stabilized him, and carried him to a waiting ambulance. He was transported to Elizabethtown Hospital for treatment.

Fire Leads to "Discowlvery"—Sullivan County

ECO Matthew Baker responded to a complaint of possible burning without a permit in the Town of Thompson. When he arrived at the reported location, the Monticello Fire Department was on scene and had extinguished a fire in a residence. The property owner wasn't present at the time, so the fire was deemed accidental. While investigators searched the residence to determine the fire's cause, they found a dead barred owl nailed to a wall in the basement. Officer Baker contacted the owner, met with him the following day, and issued a summons for possession of a raptor without a permit.

barred owl

US Fish & Wildlife Service

No Accident—Washington County

An individual contacted Lt. John Ellithorpe with information gleaned watching approximately 50 wild turkeys in the road. The caller saw a black Cadillac Escalade stop before reaching the flock, but then the driver floored the accelerator and drove right into it, scattering the birds. The turkeys settled again, farther along the road, and the driver again sped straight toward them. That time, the driver hit a turkey, and the occupants left the car to retrieve it. Based on the description provided by the caller, Lt. Ellithorpe located and interviewed a suspect at his residence. Although the suspect initially stated he had "accidentally hit the turkey," Lt. Ellithorpe's interviewing technique ultimately resulted in a full confession. The offender was charged with taking a turkey out of season and taking a turkey by means of an automobile.

Don't Let Dogs Chase Deer—St. Lawrence County

ECO Troy Basford responded to a complaint of a dog chasing deer. After confirming whom the dog belonged to, Basford contacted the dog's owner. Officer Basford issued an appearance ticket to the owner for allowing the dog to run free on lands inhabited by deer, which is a violation of the Environmental Conservation Law. Being chased by dogs is particularly stressful to deer. And in winter, when food is scarce, it can contribute to deer starvation by depleting their fat reserves.

Ask the ECO

Q: I pass some trap sets when I'm out hiking.What should I know about them?

A: Most traps are lawfully set by licensed trappers. Traps must be tagged with the trapper's name and address or DEC ID number. No person may disturb a trap or release an animal from another person's lawfully set trap.

RAINBOW DARTER (*Etheostoma caeruleum):* One of the most vividly colored of all the darters, the rainbow darter, like many of its kin, has a life span of about four years.

COLORFUL FISH STORY

—In search of New York's darters

By Gerry Lemmo

Images provided by author, unless otherwise noted

The SUV was packed and ready to go, filled with enough stuff to make the Beverly Hillbillies proud. But this was not the usual vacation, whatsoever. The car was loaded to capacity; along with our luggage, it held hip waders, dip nets, buckets, a seine, a variety of empty aquariums, and a ton of photography gear. It looked more like an expedition for the Scripps Institution of Oceanography!

It was late May, the temperature a mild 75 degrees. My wife Lynne and I had been planning this excursion for some time. Earlier in the year, after doing much research into native North American freshwater fish, I had received a permit from DEC to collect and photographically document a group of small, relatively unknown fish found in NY. Staff in DEC's Olean office had given me a few good leads on where I could find them.

After the 250-mile drive across New York from our Queensbury home to the Southern Tier, Lynne and I settled into a motel room the first night and began to set up our gear. The next morning, DEC Senior Aquatic Biologist Paul McKeown joined us and led us to a favorite river, just north of the Pennsylvania border, to try our luck. This wasn't going to be your average fishing trip!

Lynne Lemmo

The author and DEC biologist Paul McKeown use a seine net to catch darters.

I was after creatures no longer than a cigarette, and "hot" with color. My quarry was a group of small fishes called darters, the breeding males of which equal the splendor of tropical fish. My mission: to photograph them near their natural surroundings, and then release them unharmed back into their habitat.

When we arrived at the site, we donned our fishing gear, grabbed the buckets, and waded into the shallows, where we then unfurled a ten-foot-wide seine I had purchased and modified specifically for catching darters. Realizing that darters spend most of their lives resting on the stones and gravel of stream and river bottoms, where they feed and reproduce, I added extra weights to the lower edge of the netting, to ensure that it would stay down should we encounter any swift currents.

Paul quickly taught me the art of using a seine: you kick up stones and debris from the river bottom, to dislodge the fish hiding among the riffles. It was actually quite fun. But the real treat was my first glimpse of a netted rainbow darter. Channeling my inner Steve Irwin, I said, "Crikey, he's a beauty!" Less than five minutes later we had several of these gorgeous little fellows in our buckets, along with another show-stopper, the banded darter. With hues and markings like Indonesian coral-reef dwellers, these amazing finds made me glow, too, with excitement. Was I really in New York State, or just dreaming that I was in the tropics? I felt like I'd gone to fish heaven!

At another location, we worked our seine among the gravelly bottom of a creek, where we came up with different species, like the pretty variegate and greenside darters. Time and again, we caught rainbow darters as well, and on one effort, we caught a rather drab-looking fish. Though not a show-off, this fish was a threatened species: a longhead darter. I had come prepared for moments like this: in the back of my SUV, I had made a mobile photo studio, and it worked exceptionally well. I placed the darter in a tiny tank, furnished with water and river rocks from this spot, and took his picture. I then immediately released him back into the river. I thought, *How cool is this?*

After sampling a couple of prime darter waters, Paul departed, and Lynne and I drove back to our motel. We had spent the previous afternoon stocking the two ten-gallon aquaria with local stones and river water. Complete with filtration systems, backdrops and overhead aquarium lighting fixtures, this time I wondered if I had "gone off the deep end." Tripods, light stands, flashes, an assortment of batteries, extension cords and other photo accessories had been set up in advance. All that I needed to do was to attach the camera, and add the fish.

I had brought small plastic bags to acclimate the fish to their indoor enclosures, just like those used at the pet shop when new fish arrive. Once we let the darters out of the bags, into the tanks, and gave them some time to adjust, I began my photo shoot. The night was punctuated by lots of camera flashes,

BANDED DARTER (*Etheostoma zonale*): Spawning from April through June, this fish lays its eggs in algae and moss attached to submerged rocks.

DARTER FACTS

- There are more than 100 species of darters in North America.
- Average length is 2 to 4 inches.
- Almost all darters inhabit creeks and rivers east of the Continental Divide, from southeastern Canada south through the Appalachians.
- Males often exhibit bright colors during breeding season.
- Most darters lack swim bladders, causing them to sink to the bottom after darting about in pursuit of prey.

well into the wee hours. With the curtains drawn in our darkened room, and a "Do Not Disturb" sign permanently affixed to our motel room door knob, Lynne and I could only imagine what the motel owners and other patrons may have been thinking!

The next day, we drove back to the same places where we had caught the darters, and gently released them. But at one such spot, I accidentally slid down a muddy riverbank on my behind, as though I was riding a toboggan! With both hands raised high above my head and a death grip on the bucket, I shot right to the water's edge without losing a fish. When I regained my composure and stood up gallantly in the shallows, I saw my wife on a nearby bridge, shaking her head and laughing. It was the ultimate humiliation of catch-and-release!

Nevertheless, as foolish as I felt at "splashdown," I had succeeded in my mission to photograph these beautiful creatures, with minimal impact to their existence. My odyssey was guaranteed to become a colorful fish story that would be cherished for years to come.

Self-taught naturalist **Gerry Lemmo** has been photographing natural history subjects for more than 30 years. He gives frequent lectures to audiences of all age levels about the importance of our earth's biodiversity and its ecosystems. For more of Gerry's work, visit: **www.gerrylemmo.com**.

Lynne Lemmo

The author set up a makeshift "studio" in the cargo area of his SUV to take on-site photos.

GREENSIDE DARTER (*Etheostoma blenniodes):* Breeding females, like the one shown, prefer fast, deep riffles. Breeding males are similar in appearance to breeding male banded darters.

JOHNNY DARTER (*Etheostoma nigrum):* Males of this common darter do not have vibrant breeding colors. This fish is more tolerant of siltation, often living along sandy bottoms.

VARIEGATE DARTER *(Etheostoma variatum):* The variegate darter is found within the Ohio River drainage and Allegheny River systems. In New York it breeds locally in the southwestern part of the state.

THE RELEASE OF R71

—What happens when someone finds a sick bald eagle?

By Sue deBruijn
photos by Eric Brown

On a rainy day in spring 2006, high above Goodyear Lake in a nest made of large sticks and branches, a biologist banded a female bald eaglet with band number R71. Five years later, now full grown and a mature adult, R71 was found lying on the bank of Roses Brook in South Kortright, NY, weak, disoriented, and barely able to raise her head. Ten days later, R71 was flying again.

How did this beautiful bird, representing a species still climbing back from near extinction, go from the brink of death to flying regally once again through New York's skies? A concerned passerby made a phone call that changed the course of events for this symbol of American freedom. His call to a local veterinarian led to NYS wildlife rehabilitator Kelli Brown going to the site where the eagle was seen.

New York State wildlife rehabilitators are a group of approximately 900 dedicated individuals licensed by the state and federal government to care for injured and orphaned wildlife. This group cares for more than 20,000 animals each year. The ultimate goal of a wildlife rehabilitator is to release the animal back to the wild. However, there are numerous steps that must be taken to reach that goal, beginning with rescue. As in the case of Kelli Brown, wildlife rehabilitators are frequently called out in all weather, any time of day or night. They risk their own safety to reach the injured animal, and do so on a volunteer basis.

Kelli slid down a steep, muddy embankment, then crossed the stream which was knee-deep from spring rains and runoff. Heart pounding, she wrapped the 14-lb. bald eagle in a blanket, and proceeded back the way she came. One misstep on the slippery rocks could send R71 into the fast-moving water where, in its weakened condition, it would certainly drown. Kelli proceeded one slow, painstaking step at a time.

Volunteers prepare to release R71 near where it was found.

The NYS Wildlife Rehabilitation Council, Inc. (NYSWRC) provides rehabilitators with the field support and educational services they need to appropriately care for distressed wildlife. It is the oldest statewide wildlife rehabilitation organization in the United States. This not-for-profit has been in existence for 30 years, gaining national recognition for its many accomplishments. NYSWRC works with government agencies to formulate regulations concerning wildlife and continually promote the conservation of wildlife, their habitats and other natural resources. In New York, NYSWRC members work closely with DEC, as well as several other state and federal agencies.

NYSWRC also provides a network of specialists for rehabilitators to call upon for advice and support. Each rehabilitator has his or her own specialty, level of experience, facilities and equipment. They frequently contact a fellow rehabilitator when in need, to combine their resources and experience.

Kelli Brown contacted Kelly Martin, President of NYSWRC, who dropped what she was doing and began to prepare for the eagle's arrival. Working together, the two women stabilized R71, tube-feeding it vital nutrients. After each feeding, the eagle's head flopped lifelessly to the side. Hope was ebbing. When caring for rare species like this eagle, Kelly Martin contacts Cornell University for medical care. She personally transported R71 to Cornell's campus in Ithaca.

When the eagle arrived at Cornell, it was unresponsive. After extensive blood work, veterinarians determined that R71 was suffering from lead toxicity. (See "Wildlife Health Corner" in February 2014 Conservationist*.) For the next 48 hours, veterinarians tube-fed the bird, while providing treatments to combat the lead's toxicity. Eventually, the bird was able to swallow pieces of food on its own.*

The Janet L. Swanson Wildlife Health Center at Cornell is a referral center for rehabilitators, biologists, enforcement agents, SPCA workers, and the public. "Many raptors will suffer from anorexia when in a new captive environment," explained Dr. George Kollias, a veterinarian at Cornell who was the next to care for R71. Treating an animal stressed by the very process intended to help it creates even more challenges. When other strategies fail, veterinarians will administer anti-anxiety medications to the

animal, such as Valium or similar drugs, to calm it and stimulate its appetite.

In the 35 years he has worked with wildlife rehabilitators, Dr. Kollias has learned much from them and gained respect and admiration for the work they do. "Reabilitators provide a tremendous service to the public and to wildlife," he commented.

According to Dr. Kollias, lead toxicity is fairly common in some kinds of wildlife, including loons and waterfowl. It is more common in areas where there is a higher concentration of spent lead shot from hunting and trap shooting, or where lead fishing sinkers are present. In raptors, lead is often acquired indirectly through the tissues of an animal the bird has ingested. Over time, lead accumulates in their tissues until the level becomes perilously high. Because of concerns about lead poisoning, some states (including Vermont, Maine, New Hampshire and New York) have banned the sale of certain size lead sinkers. In addition, use of lead shot for waterfowl hunting was banned in NY in 1988 and nationwide in 1991.

By day three, R71 was very alert and began vocalizing. After only eight days in the hands of the experts at Cornell, she was transferred to Kindred Kingdoms Wildlife Rehabilitation Center near Syracuse to convalesce in a large flight cage. It didn't take long before she was eating on her own and began picking fights with a smaller male with whom she shared the cage. She was getting feisty.

Wildlife rehabilitation can be interesting, stimulating and rewarding, as well as physically demanding and emotionally stressful. It's difficult work, with tasks ranging from cleaning wounds to scrubbing cages. It is also expensive as all costs incurred for food, medicine, caging and education are paid by the rehabilitators themselves.

Ready, set...

...go!

In New York, wildlife rehabilitation is predominantly home-based. In contrast, rehabilitation in California often takes place at rehabilitation centers. Therefore, New York rehabilitators must be creative in raising funds and gathering important resources. This is an essential part of a rehabilitator's workload; grocery stores with outdated food and hospitals with supplies that can't be used on humans are two potential sources of resources for a wildlife rehabilitator. A look into a rehabilitator's kitchen refrigerator can be scary: crickets, worms, mice and other delectable goodies (to wildlife, that is) usually have a shelf all to themselves.

Equally joyful and emotionally draining, wildlife rehabilitation affects the rehabilitator, and his or her family as well. A rehabilitator for 30 years, Kelly Martin recalled one of her family's most memorable experiences. She had rescued an orphaned baby river otter whose eyes were just opening. This meant the otter would likely associate with humans, so releasing it into the wild would be impossible. Knowing that the otter would ultimately be moved to a wildlife center where it would be in contact with people every day, Kelly and her family were able to indulge in the rare opportunity to interact with a wild infant.

Wildlife rehabilitation can also become a family activity out of sheer necessity. Kelli Brown's two teenage sons have been assisting her in the daily chores involved with the animals for as long as they can remember. She couldn't do it without them. Inspired by his mother, Joe Brown passed the DEC licensing examination in 2011 at age 16, the first step in becoming a wildlife rehabilitator himself.

Knowing the significant emotional and financial toll wildlife rehabilitation can place on a caregiver, one question begs for an answer: Why would anyone voluntarily put themselves through that?

Here's a hint:

The day was dark and threatening, as so many early April days can be. As rehabilitators Kelli Brown, Kelly Martin and Wes Laraway drove to Syracuse to retrieve R71 and transport the bird back to South Kortright, they kept an eye on the sky. A severe thunderstorm watch and flood warnings were in effect. Not the best conditions for a wildlife release, but R71 was ready, and they wouldn't make the eagle wait another day for their convenience.

They arrived at a field near where R71 was found and were joined by the Good Samaritan who started this chain of events. Just then, the sun broke through the clouds, giving the sky an ethereal glow. A rehabilitator never knows how a release might go, so it was with nervous anticipation that the three removed the top of the traveling crate that held the bald eagle. R71 immediately hopped onto the side of the crate and looked around. With one beat of her massive wings she took to the skies and flew off into the distance. The group was spellbound in the moment, but then R71 unexpectedly changed course and came back towards them. She soared low over the group of rehabilitators one last time and then disappeared in the distance. It was a beautiful moment for everyone involved. Especially for R71.

Sue deBruijn is a manager at the New York State Historical Association/Fenimore Art Museum and The Farmers' Museum. She resides in Schoharie County.

Cranberry Lake Eagle Rescue

John Loganbuhl

Earlier this fall, the Loganbuhl family discovered a weak and dehydrated female bald eagle on the south shore of Cranberry Lake. DEC Principal Fish & Wildlife Technician Blanche Town crated the eagle and took it to the Liverpool Animal Health Center for care. Veterinarians suspected a concussion or spinal cord injury, resulting from a crash. They treated the bird for flukes in the esophagus, and tested it for a variety of diseases, including West Nile, lead poisoning and zinc toxicity. All results were negative. The eagle was banded with a bright blue band #Z77 and a U.S. Fish and Wildlife Service band. The bird was then taken to Kindred Kingdoms Wildlife Rehabilitation Center, where it made a speedy recovery. In mid-October, the eagle was released at the Cranberry Lake State Campground beach.

Birds Z77 and R71 were able to recover from their injuries thanks, in part, to the work of dedicated individuals like Blanche Town and Kelli Brown. If you're interested in becoming a wildlife rehabilitator, visit the "Rehabilitators" page on the DEC website. And remember, if you come across sick or injured wildlife, please contact your local DEC regional office or a licensed wildlife rehabilitator.

If you find a dead bald eagle, you need to report it to the USFWS Office of Law Enforcement or DEC's Division of Law Enforcement so that an investigation can be conducted. A dead eagle should not be moved until Law Enforcement directs such movement so as not to compromise any investigation. USFWS Office of Law Enforcement can be contacted by calling 1-516-825-3950 and DEC Division of Law Enforcement can be reached at 1-877-457-5680.

Bugwood.org

burning bush

Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

Japanese barberry

James Miller/USDA Forest Service

kudzu

NO VACANCY!

—New York fights back against invasive species

By Karin Verschoor

November 2005, Albany NY

*A lush, green vine sprawls atop a fence around a vacant lot in downtown Albany. A DEC forester spots it and identifies it as kudzu (*Pueraria montana*), the vine that covers everything it encounters, and has been described as "eating the south." In theory, kudzu should not be able to survive Albany winters. However, it has invaded sites on Long Island and in southeastern New York.*

June 2008, Wawayanda, NY

*The unusual fish caught in an Orange County pond is identified as a northern snakehead (*Channa argus*), an Asian fish popular in live fish markets. It is a fierce, fast-growing carnivore that can breathe air long enough to slither over wet ground to another pond or stream.*

June 2012, Watervliet, NY

*The noisy pair of bright green birds carrying sticks to build their nest are monk parakeets (*Myiopsitta monachus*), native to South America, but hardy enough to survive winters in Chicago. For public safety, this pair had to be trapped and their nest removed from beneath the transformer on a power pole. While monk parakeets have not become agricultural pests as was initially feared, they love to build their huge communal nests on power transmission equipment, causing many power outages and fires.*

October 2014, Saratoga, NY

*Monotonous dark pink foliage dominates the shrub layer of several forest stands, replacing the rich variety of warm fall colors characteristic of the area. This is burning bush (*Euonymus alatus*), second only to Japanese barberry (*Berberis thunbergii*) in popularity for use in landscaping, and equally able to invade forests. Like barberry, it has small red berries attractive to birds who spread the seeds widely. Because burning bush and barberry are so abundant in cultivation, there are vast amounts of seed available for spread.*

All these species are invasives: non-native species either intentionally or accidentally introduced, and whose presence can harm the environment, affect human health, or cause economic damage. Invasives alter natural habitats and ecosystems, and can rapidly dominate them. In New York, they affect water resources, kill valuable shade trees, and hinder outdoor recreation. Invasive species are

NYS DEC Karl Parker

monk parakeet nest

monk parakeet

Koi Acres

Japanese koi

also responsible for increased maintenance costs for electric transmission lines, roads and water supplies; costs that affect utility rates and taxes. (See "Intruders" in the April 2009 *Conservationist* for more on damage caused by invasives.)

A number of invasive species are small organisms which were accidentally introduced and have spread and adapted alarmingly well. It is all too easy for these pests to spread to new areas as they hitch rides on boats, in bait buckets, on shoes, in firewood and on vehicles.

While many invasive species are unfamiliar to most of us, others (like the aforementioned burning bush and Japanese barberry) are well-known popular cultivated species. These species have been used extensively in landscaping and have displaced native species in some areas.

Controlling Invasive Species

One of the biggest hurdles for controlling invasive species is stopping their influx. If we can reduce the introductions of problem species (like Japanese barberry, Oriental bittersweet and Russian olive), we will improve our chances of slowing their spread.

A law enacted in 2012 aimed at slowing the spread of invasive species that occurs through commerce, authorized DEC and the Department of Agriculture and Markets to develop regulations that control the importation and sale of highly invasive species. Beginning in March 2015, species identified as "prohibited invasive species" cannot be bought, sold, transported or intentionally planted. (The new regulations, 6 NYCRR Part 575 Prohibited and Regulated Invasive Species, can be viewed on DEC's website.)

Agency staff developed lists of candidate invasive species to be prohibited or regulated based on the recommendations of experts. Each identified species was reviewed and assessed for its "invasiveness potential." If a species was determined to have a "high" or "very high" potential for invasiveness, it was then assessed for socio-economic values before being classified as prohibited or regulated. Because of their high societal and economic value, a few highly invasive species (such as burning bush and Norway maple) were classified as regulated, rather than prohibited, and will require special labeling that indicates their invasive status and recommends non-invasive alternatives.

Several highly invasive species such as common carp, Japanese koi, Muscovy ducks and European rabbit are regulated, rather than prohibited, because there are domesticated forms. It will remain legal to buy, sell, propagate and transport regulated invasive species. However, when regulated species are sold, they must be identified as an invasive risk, either by a label or an accompanying statement.

Japanese Barberry

Japanese barberry is an example of a prohibited species. Easy to grow, tolerant of heavy pruning, available in a wide range of colorful cultivars, and considered deer-resistant (an important quality for many gardeners), it is one of the most widely planted landscape shrubs across the state. But in natural areas, Japanese barberry is among the most damaging of invasive plants. It can invade and dominate forest understory habitats, alter soil characteristics to deter competition, displace native shrubs and other understory plants, and inhibit tree seedling regeneration.

Barberry, like many highly invasive shrubs and vines, is spread primarily by birds which eat the red berries and disperse seed into nearby habitats. The resulting thickets of barberry are a prickly nightmare for any hiker or hunter who tries to fight through the thorny, head-high stems. In addition, barberry stands have been found to harbor high numbers of deer ticks (which can cause Lyme disease).

Because barberry causes so much environmental damage, it is being prohibited, despite its popularity as a landscape

shrub. This means that it is illegal to sell, transport, cultivate or plant Japanese barberry and its cultivars. It does not mean that homeowners must uproot their existing barberry. To allow nurseries to sell any remaining stock of Japanese barberry, a one-year grace period has been issued; the ban on barberry will become effective in March 2016. (Note: Experts are continuing to assess barberry cultivars, and it is likely that sterile cultivars will be permitted for sale in the future, under an exemption.)

Boars and Swans

Mammals and birds can be invasive species, too. Eurasian boars are a problem in some New York counties. Thought to have escaped from enclosed shooting facilities, these wild pigs have caused significant damage. They ruin crops and overturn soil while foraging, and their wallowing turns wetlands into muddy wastelands. It is illegal to shoot a free-ranging Eurasian boar in New York and new regulations will take effect on September 1, 2015 that will make it illegal for anyone to possess Eurasian boar in New York State.

Mute swans are another harmful invasive. Although beautiful and majestic looking, they pose a real threat to shallow water ecosystems and native waterfowl. These birds are highly territorial and aggressive toward other waterfowl, and can be dangerous to people who approach areas where they nest. While feeding, mute swans damage submerged aquatic vegetation, an important habitat and food source for native fish and wildlife species. Because their populations can increase very rapidly, mute swans are a major concern in several states (including New York), particularly where they compete with native fish and wildlife species.

Stop the Spread

Everyone can help stop the spread of invasive plants and animals by following these simple steps:

Never release a pet into the wild. One of the reasons for the proliferation of feral invasive species is that some pet owners release their unwanted pets into the wild, thinking they are doing the humane thing. However, many of these released pets often lack the instincts and skills to survive in the local habitat, and so may starve or fall prey to another animal. Released pets that do survive often create problems for local species by outcompeting them for habitat and food, and spreading deadly diseases to our native species.

Before getting a pet, learn as much you can about the species so you are prepared to care for it for its entire life. Don't buy pets on impulse (like bunnies at Easter time). Also, don't release unwanted aquarium fish into a local water body. It's illegal and is harmful to our state's waters. Introduced fish species may quickly reproduce. In waters where highly invasive snakehead were introduced, prompt eradication was necessary to prevent their spread. Unfortunately, in order to eradicate snakeheads, many other fish in the pond were also killed, and there is no guarantee of a successful eradication for any invasive species

It will soon be illegal to possess Eurasian boar in New York State.

Removing bittersweet vine in Albany's Corning Perserve. Yusuf Burgess

infestation. So, if you no longer want your pet fish, contact the pet store you got them from to see if they might take them back.

Learn to identify invasive plant species in your area. Check out DEC's website for a new illustrated online guide *New York State Prohibited and Regulated Invasive Plants.* Early detection is one of the best methods to stop new invasions.

Don't compost live invasive plants or their seeds with your yard waste. Instead, place seeds and live roots in a bag and put them in the trash, or bag them in black heavy-duty contractor bags and place them in the summer sun for several weeks, so that they can't sprout. Stems and leaves of invasive plants may be composted only after they are dead and dry.

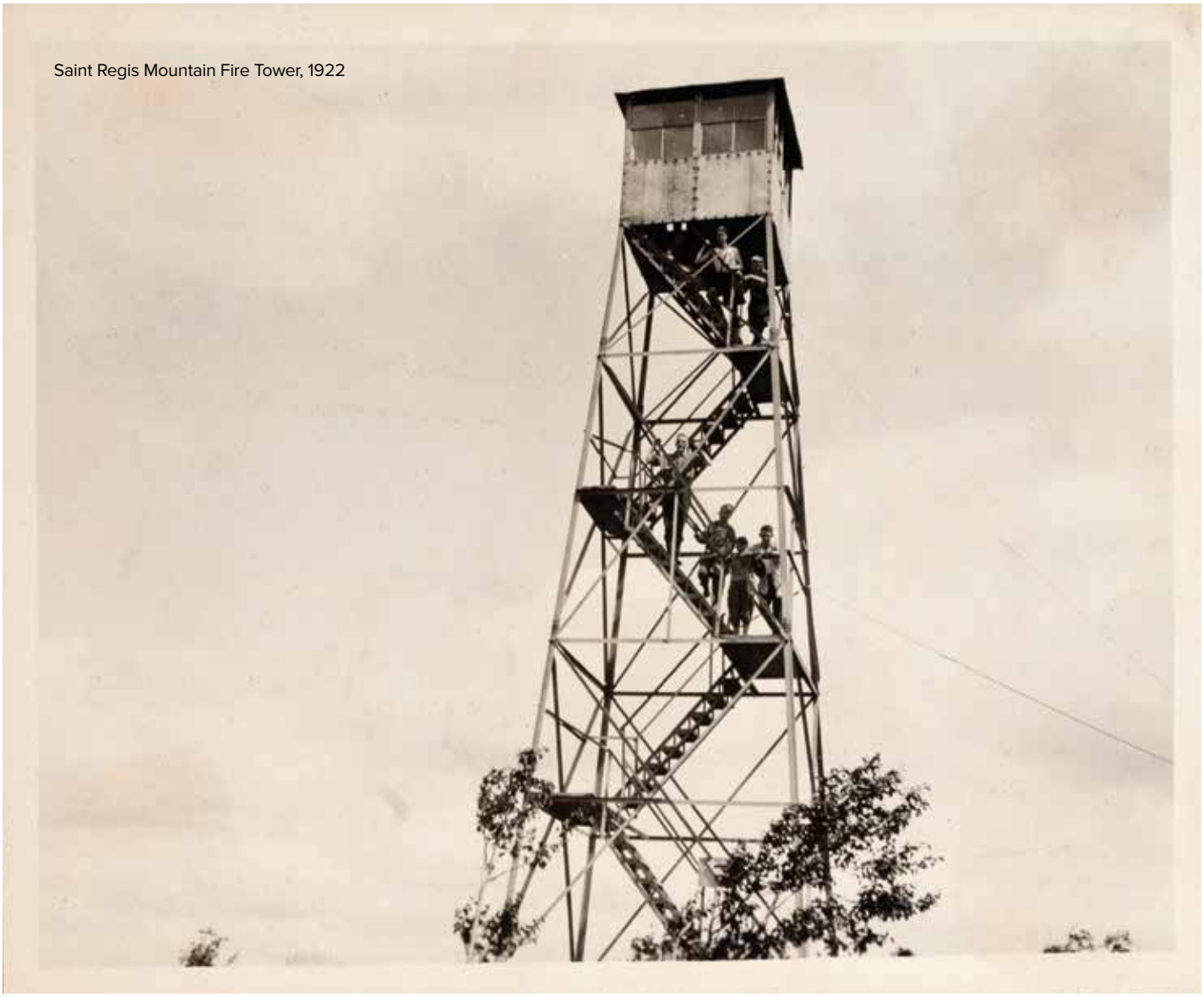
Clean, drain, and dry your boat and equipment before launching at a new site. Some of the worst invasive aquatic plants (like the relative newcomer Hydrilla) are spread by small pieces of live plants. These fragments are easily carried on boats and trailers, especially in crevices which stay damp. Even canoes and kayaks can carry hitchhiking invasive species. Visit DEC's website for guidelines on cleaning boats.

Don't move firewood; buy and burn your firewood locally. By transporting firewood, you could be spreading invasive insects and diseases that can quickly kill large numbers of trees. Purchase and use your firewood locally. Check DEC's website for rules and regulations restricting the movement of firewood.

Use native or non-invasive plants in landscaping and gardens. Using native plants provides great benefits for native wildlife and pollinators, and also helps curb the spread of invasive species. In general, garden cultivars and hybrids are mostly non-invasive. Traditional non-invasive plants such as lilacs, bearded iris, roses and daffodils can persist for decades around old abandoned houses and house foundations, and don't normally spread. Some popular cultivars, though—most notably Japanese barberry (described above)—spread easily. So try using native plants in your garden instead. Check out Cornell Cooperative Extension's garden resource webpages for information on using native plants and avoiding deer damage from browsing.

By prohibiting or regulating many species determined to be highly invasive, New York State has taken a pro-active approach to limit the opportunities for invasive species to become established. It is much easier to prevent these species from spreading if invasions are caught in the early stages. If we all work together, we can protect and preserve our natural habitats and ecosystems for future generations.

Karin Verschoor works in the Division of Lands and Forests in DEC's Albany office.



Saint Regis Mountain Fire Tower, 1922

Restoring History

DEC recently announced that restoration of the Hurricane and Saint Regis Mountain Fire Towers will begin this summer. The 35-foot Hurricane Mountain Fire Tower was discontinued for use as a fire observation station in 1979, and the 35-foot Saint Regis Mountain Fire Tower was shut down in 1990. DEC hopes to reopen both fire towers to the public after their restorations. DEC, along with the Friends of St. Regis Mountain Fire Tower and the Hurricane Mountain Fire Tower Friends Group, will work to restore the fire towers to a condition that will accommodate full public access and include interpretive materials related to the towers' histories.

Great Lakes Fishery Commission's (GLFC)/ J. Casselman, OMNR

New Eel Regulations

DEC recently announced new commercial and recreational fishing regulations for American eel. New changes include increasing the minimum size limit to 9 inches; decreasing the catch limit to 25 eels (with a 50-fish exception for the captain and/or crew of a party or charter boat); and prohibiting the sale of eel taken from Lake Ontario or its tributaries, as well as the St. Lawrence River. The new regulations also require a minimum 1″ x ½″ mesh size, or 4″ x 4″ escape panel of 1″ x ½″ wire mesh, on eel pots. Please check the "commercial fishing" and "saltwater fishing" webpages on DEC's website for more information on these and other fishing regulations.

Invasive Insects Spreading

DEC recently confirmed the presence of the southern pine beetle (SPB) in three locations on Long Island. Dead and dying pine trees were discovered in the Wertheim National Wildlife Refuge, Connetquot River State Park and the Henry's Hollow

David T. Almquist, University of Florida, Bugwood.org

Southern pine beetle

©Cornell University

Emerald ash borer

Pine Barrens State Forest. This is the first detection of SPB, a bark beetle native to the southern United States, in New York State.

Emerald ash borer (EAB) has been confirmed in Westchester and Broome counties. The insect was first detected in NY in Cattaraugus County, in June 2009, and is now confirmed in 24 counties in the state. Quarantine regulations prohibit any movement of firewood and logs containing live EAB. DEC's firewood regulations prohibit movement of untreated firewood more than 50 miles from its source or origin. Report signs of EAB or SPB, or trees showing symptoms of invasive insect attack, to DEC's Forest Health Diagnostic Lab by calling the toll-free hotline at 1-866-640-0652 or emailing foresthealth@dec.ny.gov. Please include photos if possible.

Recycle E-Waste

Under the NYS Electronic Equipment Recycling and Reuse Act, as of January 1, 2015, consumers are prohibited from disposing of any covered electronic equipment (CEE) in a landfill or waste-to-energy facility, or placing CEE to be collected for disposal at such types of facilities (i.e.: curbside pickup). Instead, consumers are required to recycle/reuse CEE. U.S. consumers throw away an estimated 400 million units of electronic equipment per year. Recycling electronic waste protects human health and the environment by diverting thousands of pounds of waste from landfills and incinerators. When we recycle electronic materials, we keep toxins such as lead, mercury and cadmium from contaminating the air, water and soil; likewise, when we reclaim and reuse valuable materials rather than use virgin materials, we conserve natural resources. Visit DEC's website to learn more about the Act, including helpful tips on where to recycle your CEE and what types of equipment are covered.

Table for Two

We saw our feathered and furry friends enjoying lunch on our table feeder during the winter storm. It's cold, but they are being well fed.

Roger Waldron

Barker, Niagara County

That's an unusual pairing! It's interesting that they both appear to be unphased by the other.

Hunting in the Snow

This coyote visits my backyard a few times a month. I thought readers would enjoy seeing this picture I took of him during a recent snowfall. As soon as he saw me, he ran off, scaring many deer and bunnies (that I think he was hunting!).

Amy Breski

Lancaster, Erie County

What a great image. It doesn't appear this coyote is bothered by the snow!

Photogenic Owl

I had a very pleasant interaction with a snowy owl recently. In fact, I saw four snowy owls near Shinnecock Inlet; this one decided to let me take some relatively close-up photos.

Byron Young

Suffolk County

Thanks for sharing such a good capture. The recent irruption of snowy owls is most likely due to a scarcity of snowy owls' main food source (lemmings) in their Arctic home. Thus, the birds fly farther south in search of food. Has anyone else seen these beautiful birds?

Hanging out in the Park

My dad and I were in Central Park, taking pictures, when I came upon this wood duck.

Alexander Vitarelli

New York, New York

Thanks for the great close-up shot. Male (drake) wood ducks are some of the most colorful waterfowl in North America.

Trapped

This morning I went out to see if the birdfeeder needed filling. This poor wee guy obviously got in but couldn't get out. So I grabbed the camera, took a few shots, and then released him in the woods. Hopefully he will stay up there and not try to join his friends in my basement.

Diane Hayes
Honeoye, Ontario County

This mouse is lucky you were around!

Strange Fox

I thought that your readers would be interested in this photo of a rare, black fox that crossed over our property. It appeared that the fox was wearing a red tag around its neck, but we couldn't make out what it was.

We wondered whether you knew anything more about it.

Richard Albright
Greece, Monroe County

Your photograph shows a likely "silver fox." Given the fact that you indicated the animal appeared to have a collar of some kind around its neck, it is very likely this is a captive animal, escaped from its owner. The silver fox is technically a melanistic form of the red fox. That said, there is a great deal of variation from one animal to another. Over the years, foxes have been brought into captivity and bred to form a wide variety of coat types, and these are used to produce commercial furs. The "silver fox" is one such variation of the red fox. As a captive/domestic animal, they are not regulated as "small game" by DEC. Instead, the raising of fox in captivity is considered a form of agriculture.

—Gordon Batcheller, DEC Chief Wildlife Biologist

Ask the Biologist

Q: After reading the article about hellbenders in our last issue, several people contacted us and asked: Are hellbenders and mudpuppies the same critter?

Hank Wallays

mudpuppy

Mike Graziano

hellbender

A: Hellbenders and mudpuppies are actually two different species of salamanders from two separate families. Both are generally found under large rocks and debris in shallow waters, and both can get very large. However, while an adult mudpuppy averages 10-11 inches in length, a mature hellbender averages 12-24 inches. In addition, mudpuppies have noticeable bushy, red external gills throughout their life. Hellbenders don't have external gills (except when very young). Instead, hellbenders have several loose flaps of thick wrinkled skin that run laterally along their sides and are used for respiration.

—Ken Roblee, DEC Wildlife Biologist

Contact us!

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Write to us at: Conservationist Letters
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Albany, NY 12233-4502
facebook.com/NYSDECtheconservationist

Back Trails

Perspectives on People and Nature

John Bulmer

Merry Groundhog Day

by Anita Sanchez

Best wishes for a joyous and festive Groundhog Day! My favorite holiday.

You think I'm kidding? Not at all. Don't underestimate the simple pleasures of a holiday that involves no shopping. No presents. Not a single dish to wash.

But the real reason it's my favorite holiday is this—Groundhog Day celebrates the natural world. Think about it—a holiday that takes its meaning solely from nature. It doesn't commemorate any human event—a war, a peace, or anyone's birthday. It can be celebrated by people of all religions, or of none. It celebrates the awakening of hibernating animals, the ebbing of winter, the natural flow of light and darkness, the ancient rhythms of the planet.

And you thought it was just about groundhogs.

Why February 2nd? Surely an inconspicuous date in the drabbest part of winter. But if you count the days on the calendar, this point in time is the crossroads of winter and spring. The second of February falls midway between the winter solstice and the vernal equinox. Humans have long seen this as a time to celebrate, like weary drivers on a seemingly endless road trip: halfway there! Groundhog Day is the signpost, the marker, the rest stop on the long journey from winter into spring.

It's a holiday with an ancient tradition; it predates Thanksgiving, Columbus Day, and even Christmas by a few millennia. There's a Neolithic site in Ireland where the stones are aligned with the point of sunrise on this date.

We're halfway there! Halfway to spring. This is the point at which the days are getting noticeably longer. Light is increasing; the dragon hasn't eaten the sun. We've beaten the darkness back once again; we're halfway there.

There's an old farmers' saying: "February second, Groundhog Day, half your wood and half your hay, to make it safely through till May." Half of your resources should still be available, if you've got what it takes to make it through winter. This day is a yardstick to measure survival.

Yes, but how did the groundhog get into the mix?

On Groundhog Day there will be news reports across the nation, focusing on a grinning reporter holding up a groggy rodent. Of course woodchucks don't wake from hibernation, at least not up here in the Northeast, until it's a whole lot warmer than February 2nd generally is. The "Punxsatawney Phil"

spectacle has its roots in the traditions of German immigrants who came to Pennsylvania in the eighteenth century. In the Old World, a badger, hedgehog or other hibernating animal might emerge from its hole in early February. The tradition about seeing its shadow to foretell the weather is an ancient one. But there are no hedgehogs in Pennsylvania, so the immigrants settled on a groundhog to play the forecaster role.

This day sets the tone for the rest of winter, and it goes by contraries. If Groundhog Day is sunny, the groundhog sees his shadow, goes back into his hole, and the rest of winter will be long and cold. If February 2nd is cloudy, the groundhog doesn't see his shadow, so spring comes early. It makes sense, in a way: clear, sunny winter days have high atmospheric pressure, which are often bitter cold. Low-pressure cloudy days bring warmer temperatures and melting. Studies show that the groundhog is absolutely accurate, 50% of the time.

Shadow or no shadow, hedgehog or groundhog, winter is waning and we're halfway there. So I'm sending the warmest of season's greetings to you: wishing a pleasant and joyous holiday to you and your family.

Just don't expect a Groundhog Day card.

Retired DEC environmental educator **Anita Sanchez** has found much success publishing books on history and natural history. Her latest, a children's book on poison ivy entitled *Leaflets Three—Let it Be!* will be released this spring. When it's warmer outside.

Ken Hamm

Trees Are For the Birds

Whether they live in your yard, in a brushy field, or deep in the forest, birds depend on trees and shrubs for food and shelter. Seeds, berries and nuts provide a year-round source of food. Trunks provide nesting cavities for chickadees, tree swallows and woodpeckers. And branches support the nests of the tiniest hummingbirds to the largest eagles, herons and ospreys. In bad weather, many bird species seek shelter in trees, which can also provide a safe haven from predators.

Trees also attract food sources for birds: in spring, warblers flit among branches, gleaning tiny insects from leafy vegetation. Woodpeckers, nuthatches and creepers eat beetles and larvae from crevices in and under the bark. Trees also provide hunting platforms: flycatchers "hawk" insects from their perches on tree branches.

DEC's State Tree Nursery at Saratoga specializes in native, New York-sourced plants. Propagated from seeds and cuttings adapted to thrive in New York's climate, these small, lightweight seedlings are easy to plant and provide food, shelter and refuge for feathered friends. Red, bear and bur oak produce acorns which are consumed by a variety of birds, including blue jays, woodpeckers, flickers and towhees. Toringo crabapple and wild apple bloom early, attracting insect-eating birds like bluebirds.

Order your hardy seedlings today!

For details, visit DEC's website at www.dec.ny.gov/animals/7127.html.

Also, be sure to check out our Facebook page at www.facebook.com/NYSDECsaratogatreenursery

Aaron Winters

See page 2

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