

Winter Waterfowl | Wilderness Safety | Bicycle Commuting

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Banding
Together

NEW YORK STATE Conservationist

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Andrew M. Cuomo, Governor of New York State

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Dear Reader,

Earlier this summer, we said goodbye to my friend Commissioner Joseph Martens, a true champion for New York's environment. Executive

Deputy Commissioner Marc Gerstman stepped up to lead the Department in the interim, bringing to the helm his years of experience and passion for the Department's mission. Together, Joe and Marc made contributions to New York's environment that will be felt for generations to come. We are all grateful for their service.

It is a great honor to be nominated by Governor Cuomo to serve New York as the next Commissioner of the DEC. For the past four years, I served as Deputy Secretary for the Environment for the Governor where I gained a deep appreciation and respect for the passion and dedication of the DEC's staff. The Department has an extraordinary team, and I look forward to working with them to continue advocating the Governor's priority of environmental protection and sustainable economic progress.

With the Governor's leadership and the hard work of our staff, we have made many significant accomplishments in the last five years, from increases to the Environmental Protection Fund, to new resources to improve outdoor recreation access on DEC lands as part of our NY Open for Hunting and Fishing initiative, and taking bold steps to address climate change. We have accomplished much for our environment and the people of New York. I'm eager to build upon these successes in the months to come, and continue tackling major issues like invasive species and climate change.

I'm also eager to provide this regular column to you in our historic *Conservationist* magazine. I have long been an avid reader of this great resource, and sharing it has always been a family tradition. From growing up fishing on Long Island Sound, to now spending time with my family in the Thousand Islands region, the *Conservationist* magazine has always provided my family with great tips and information on enjoying New York's great outdoors.

Please enjoy the features in this month's edition on New York's spectacular waterfowl, and the important work DEC and our partners are doing to protect our shared environment. There's much to celebrate, and I hope you all take time over the busy holiday season to get outside and enjoy New York's winter outdoors!

Regards,

Basil Seggos, Acting Commissioner



**Department of
Environmental
Conservation**



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Front cover: Drake pintail (showing legband) by Tyler Breen Back cover: Bat surveyors outside Hailes Cave, by Emily DeBolt

BANDING TOGETHER—

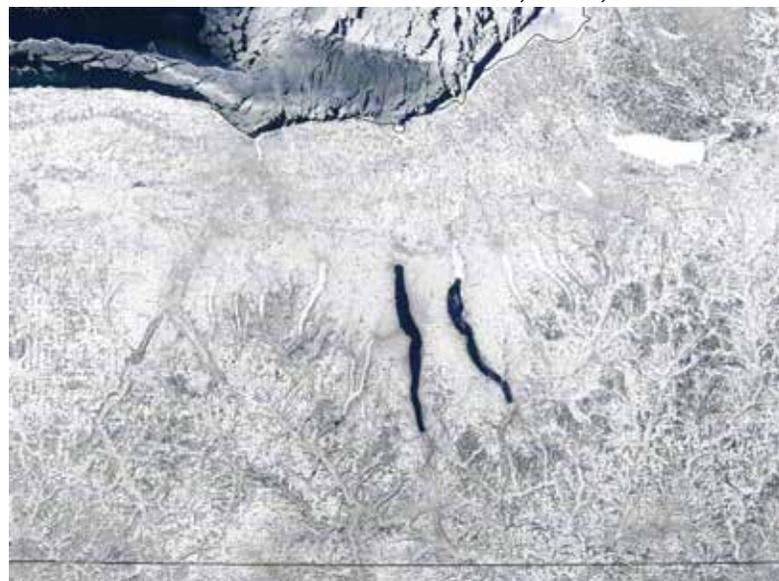


One-of-a-kind winter experience in the Finger Lakes Region

By Dr. Michael Schummer
photos by Tyler Breen

Courtesy of University of Wisconsin

Waterfowl enthusiasts from throughout central New York have the opportunity to view a truly unique event each winter at Cayuga, Seneca and Owasco Lakes. As autumn progresses towards winter, cool arctic air creeps into New York and migrant waterfowl come out of the Canadian boreal forest and tundra in search of food and open water. Not long after, winter sets in deeper: snow accumulates on farm fields, and ice forms on shallow wetlands, forcing most ducks, geese and swans from upstate New York to the Atlantic Coast. However, in central New York, the larger, deeper Finger Lakes tend to freeze very late in the winter, and sometimes not at all. On these windswept waters you will find vast rafts of canvasbacks, redheads, scaup (a.k.a. bluebills), enormous flocks of Canada geese, as well as smaller flocks of common goldeneyes, buffleheads and mergansers. And along the edges of the lake in the shallower waters, hardy mallards and American black ducks loaf and feed.



In this winter satellite photo, the open waters of Seneca and Cayuga Lakes stand out against the frozen landscape.



A biologist places a numbered leg band on a male mallard.

Here, along the icy shoreline, is where our story begins.

“We’re going to have a great day,” NYSDEC Wildlife Technician Frank Morlock expresses with a smile. Frank waves our two vans full of students from the ornithology and wildlife techniques courses at SUNY Oswego into the parking lot at Dean’s Cove Boat Launch on Cayuga Lake. The parking lot is nearly half full already. It’s cold. Young children are bundled in thick coats, hats and gloves, stumbling in their clunky boots towards the shoreline, dragging their parents by the hand. Two more vans

pull in. The ornithology class and Guy Baldassarre Birding Club from SUNY College of Environmental Science and Forestry (SUNY ESF) are also here. Students and faculty from Wells College, directly across the lake on its eastern shore, follow soon after. Old and young, students and teachers, biologists, hunters, birders and volunteers; the crowd is diverse. I also see many volunteers with the Friends of Montezuma, a group that supports habitat restoration and management, wildlife conservation and enhancement projects at the U.S. Fish and Wildlife Service’s (USFWS) Montezuma National Wildlife Refuge and adjacent New York State Northern Montezuma Wildlife Management Area (NMWMA).

So what is the attraction? Chuck Gibson, president of the Friends of Montezuma Wetlands Complex, greets us with a firm handshake and smiles as he leads us to two trucks parked near the boat ramp. The trucks, one marked NYSDEC and the other USFWS, are loaded with wooden poultry crates. Kids gather around the tailgates to see the birds inside: black ducks and mallards captured that morning for the annual public duck-banding event. I ask Jim Eckler, wildlife biologist and manager of NMWMA, “How many birds did we capture this morning?” Jim replies, “Oh, nearly 100; the cold lately really has them coming to the bait at our traps.” This is a good thing for waterfowl conservation and for this public event.



Releasing a duck was a highlight for many. Here a volunteer releases a banded female mallard, while another holds a banded male.

On average about 350,000 waterfowl are banded each year in North America, and around 85,000 of these are recovered and reported later. Band returns tell us the migration routes of these charismatic birds and give wildlife biologists vital information about their habits and life cycles, information upon which biologists rely for management decisions.

People realized the utility of banding birds long ago. In Europe, people have banded birds for centuries; here in North America, the first large-scale banding program was established in 1922. The numbered leg bands are made of aluminum and vary in size depending on the species for which they are intended.

Many bird banding programs take place in summer or early fall, immediately preceding the waterfowl hunting season. However, the focus species today, the black duck, is difficult to capture in those seasons. Most black ducks breed at low densities in the vast boreal forest of eastern Canada: Ontario, Quebec, Newfoundland and New Brunswick. Thus, NYSDEC and USFWS staff band black ducks in the winter, when cold stress makes them gather in larger groups and easier to capture.

Once a common breeding duck in NY, the black duck population has declined dramatically since the 1950s. A cooperative effort funded by USFWS known as the Black Duck Joint Venture aims to monitor black duck populations, conduct research, and provide information required to manage black ducks and restore their numbers throughout their range.

University students, bird watchers, waterfowl hunters, and school-age kids get the opportunity to learn a bit more about the waterfowl they are passionate about.

Several possible causes for black duck population declines have been suggested: habitat change, competition with mallards, hybridization with mallards, and over-harvest. Declines in black duck populations led managers to implement harvest restrictions in the 1980s which continue today. While overall black duck populations have stabilized, the number of mallards wintering in the Finger Lakes region has continued to increase.

It is hard to imagine New York without mallards, but they are a relatively recent addition, having moved into the state from west to east over the past century. They likely compete with black ducks for breeding grounds in summer and food supplies in winter. Today, there are about four mallards for every black duck wintering on Cayuga Lake. Mallards and black ducks are very close relatives and readily breed with each other, resulting in mallard/black duck hybrids. Because mallard genes are dominant, over time these hybrids look more and more like mallards.

Linda Ziembra, a wildlife biologist at Montezuma National Wildlife Refuge, shows a group of camouflage-clad onlookers the feathers on one of the ducks. “You see, this duck has the dark

Michael Schummer



The banding event allows people to personally interact with wildlife, like this female mallard.

coloration of a black duck on its body, the olive-colored bill of a black duck, but the wing has two white bars, one above and one below the speculum (the colorful part of the wing). This is a hybrid between a mallard and black duck. Pure black ducks only have the one white bar on the trailing edge of the wing.”

Linda slowly rolls the bird on its back, feet up. Sitting on a crate in her insulated duck banding coveralls, she receives an aluminum band from Chuck Gibson. She crimps the uniquely numbered band around the outside of the duck’s leg, like a ring around a finger. Ziembra identifies the bird as an adult male, and reads the number back to DEC Wildlife Technician Kent Kowalski. Kowalski records the information on the banding sheet which will be uploaded by computer to the federal Bird Banding Lab (BBL) in Laurel, Maryland. This uniquely numbered band will go into a database with the millions of other records compiled to conserve and manage bird populations. And if this bird is trapped at another banding station or shot by a duck hunter, its band number will be reported to the BBL as a recapture or recovery. Every banded bird is an important data point useful in waterfowl conservation.

A line of onlookers wait their turn to hold and release a bird. Linda hands the duck to a young girl with wide, expectant eyes. Guided by her mother and father, she walks the duck over to the

boat launch, holding it mid-body with wings secure, and with a slight toss, releases the bird back onto Cayuga Lake. With binoculars, her dad watches the bird fade into the distance. I expect he is wondering where that duck's wanderings will take it, and if we will catch it again on Cayuga Lake next winter.

The line continues. University students, bird watchers, waterfowl hunters, and school-age kids get the opportunity to learn a bit more about the waterfowl they are passionate about, and how to determine the species, age and sex of these magnificent birds. They learn that black duck populations have declined and some possible explanations for the decline. They each get to hold a bird and personally interact with wildlife that to date, most have only seen from afar. They get to band together—literally, and figuratively.

As the last duck is released, the crowd is slow to leave; they talk amongst themselves, continue to ask questions of the biologists, take pictures, scan the water with their binoculars for rafts of ducks. A mature bald eagle swings past, riding the cold winter breeze. Everyone notices and looks up in silence.

Frank was right. It was a great day.

Dr. Michael Schummer is a Visiting Assistant Professor in the Department of Biological Sciences at SUNY Oswego.

Jeff Nadler



Black Duck



After one last look, a black duck is released onto Cayuga Lake.



Duck Study

Biologists have long been concerned about black duck populations in New York, which have declined significantly in the past 60 years. Because of this concern, DEC will initiate a detailed study of black duck and mallard wintering ecology in the Finger Lakes region this winter. Graduate students from SUNY ESF in Syracuse will monitor female black ducks and mallards with Global Positioning System (GPS) trackers to determine how these birds use the Finger Lakes region during winter and how these two species interact. The GPS trackers also allow students to follow the ducks back to their breeding grounds in the spring, simply by receiving data on their cell phones. Results of the study will help guide conservation and management decisions to help sustain black ducks that winter in New York. This project would not have been possible without years of dedicated efforts by staff from DEC, USFWS, and myriad volunteers. The study will be supported by excise taxes on firearms and ammunition, known as Federal Aid in Wildlife Restoration, as well as funding from the Black Duck Joint Venture and Ducks Unlimited.

A photograph of a snow shelter in a winter forest. The shelter is a dome-shaped structure made of snow, with several wooden poles protruding from the top. The surrounding trees are bare and covered in snow, creating a dense, white environment. The shelter has a dark opening at the bottom, suggesting an entrance.

WINTER SURVIVAL SHELTERS

By Dave Hall with Jon Ulrich
Photos provided by author

Winter is my favorite time of the year. As an outdoorsman, I find that the quiet of the woods, the absence of insects, and the challenge that colder temperatures bring make this my season of choice. I've been practicing primitive survival skills for the last quarter century, and much of that time has been spent in the Northeastern United States during the most unforgiving months of the year.

Born out of my desire to build expertise in the pursuit of winter preparedness, years ago my friends, colleagues and I began putting our skills to the test. In doing so, it became clear that there was a dearth of reliable knowledge on cold-weather camping.

Most of the information I found in print was either lacking in depth or was a rehashing of untested lore. Soon, a passion was brought to bear: the yearning to discover and master the tenets of winter survival. And because the nature of my studies was experiential, there was only one way to learn—by doing.

My journey began in the mid-'90s with the simple act of building a snow shelter. This prototype, it turns out, was too small—it dripped, was structurally inadequate, and otherwise begged for all manner of improvements—but the experience served to fuel my ambitions. I wanted to improve my skills to the point that someday, with aplomb, I would be able to spend a night outdoors with minimal gear in any cold-weather situation.

I continued to assess the information available and improve on my areas of weakness, in turn creating new solutions when I wasn't satisfied with the results. Snow shelters are an iconic

symbol of winter survival, and for good reason—anyone who is ill-prepared for an unexpected winter's night out is setting the stage for a dangerous and potentially disastrous outcome.

Hypothermia is a real danger for people enjoying outdoor adventures in winter, and because of its insidious nature, shelter is of paramount importance. Mother Nature is an indifferent force; she doesn't care that you've forgotten to bring along proper attire or matches to ensure warmth. But she is noble in her generosity, providing the patient and learned outdoorsman all the resources necessary to ensure survival.

A properly built snow shelter is an excellent investment of time and energy; it offers the itinerant survivalist an option for which there is no substitute. A shelter of sound design will not only insulate, but offer accommodations superior to the finest winter tent. With outdoor temperatures well below the freezing mark, a well-constructed shelter will maintain a comfortable interior climate that can reach as high as forty degrees Fahrenheit. This, coupled with a quiet, windless space, makes for the most agreeable of lodgings.

My shelter of choice when working with powdery snow is what I call the snow tepee. This is an improvement on the traditional quinzee (a classic North Country shelter) in that it utilizes downed beams to provide a strong, internal framework. (The quinzee, by contrast, comprises nothing more than an excavated pile of snow.)

Begin by erecting a tripod of poles, roughly three to four inches in diameter. These will serve as the groundwork against which you will buttress more poles to create a tepee-style frame. Keep in mind that the interior of your shelter will ultimately be smaller than the frame. Size your shelter so that it is large enough to provide for your needs, but no bigger. Remember, small is beautiful.



Next, shovel snow into the interior of this space, filling it to capacity and covering the beams to a depth of one foot. As you do so, be sure to coat the apex of the beams (where they interlock) with snow as well.

Once this is complete, the snow tepee needs to sit for a period of one hour. This will enable the once-powdery snow to sinter into a solid mass which can then be excavated. In the interim, take the time to collect materials—downed beams, leaf litter, grasses, and branches—that can be used for bedding. If time is limited, simply keeping yourself off of the shelter’s snow covered-floor will be enough to meet your immediate needs.

Time and resources will dictate your course of action. For example, fields with available grasses offer excellent bedding, while hardwood forests offer beams and branches but have comparatively little when it comes to insulating vegetation.

Once you deem your shelter suitable for excavation, begin by choosing a wide space between two beams for your entrance. (I do this ahead of time by marking my desired location with a stick.) Remember that your excavation spot will need to be large enough to accommodate shoveling. Once the interior is complete, this entryway can be made smaller if necessary.

While excavating, aim for a dome-shaped interior. This smooth, rounded nucleus offers a multitude of benefits—in addition to minimizing environmental impact by using only snow and downed beams, it will ensure that any melting that occurs will run down the walls and onto the floor (as opposed to dripping on your person). As you hollow out the core of your shelter, you’ll run into the edges of your structural beams. You needn’t worry—this won’t impact the shelter’s structural integrity.



Grasses make excellent bedding material in a pinch.

To close your door, simply use blocks of snow cut during the excavation process. When it’s time to turn in, place these inside the mouth of your entrance and wall off your opening, remembering to leave a small space for ventilation.



Excavating the inside of a winter shelter.

The snow tepee is but one of many attractive shelter options. Because weather conditions, precipitation, time, and resources will determine what you do, flexibility and creativity are indispensable qualities when working with snow. One vital question to ask when thinking about winter survival is, “What kind of shelter can I make given the type of snow and available resources?” Keeping this in mind will help ensure the most desirable outcome.

While learning primitive survival skills for winter can enhance your self-confidence and foster a more meaningful connection with your environment, it can also be a life saver when things don’t go as planned. Knowing how to build a snow shelter is just one key skill. Outdoor adventurers would also benefit from learning other skills, including fire making, water purification, wild crafting, and edible botany.

In the end, the greater your depth of knowledge and experience, the better prepared you’ll be for safely enjoying New York’s wilderness during winter.

Dave Hall and **Jon Ulrich** are the authors of *Winter in the Wilderness: A Field Guide to Primitive Survival Skills*, available from Comstock Publishing Associates, an imprint of Cornell University Press. To obtain the book, visit www.cornellpress.cornell.edu. To learn more about the authors, check out their websites davehallprimitive.com and fingerlakesnaturalist.wordpress.com.



Winter Wilderness Safety Tips

If you are thinking of trying something new this winter, I suggest following these guidelines to make sure your adventure is fun and safe:

Get to know an accomplished winter outdoor enthusiast. Learning first-hand from a seasoned professional is an invaluable experience.

Dress in wool and synthetic layers. Doing so enables you to avoid sweating by shedding these layers when necessary. The last thing you want to be in a cold-weather situation is wet. Breathable and waterproof outer layers will help shed snow, wick moisture, and otherwise ensure protection from the elements. Be sure to have a warm hat and a means of protecting your face (balaclava or neck warmer) as well.

Wear boots that are designed to perform well for the chosen activity. These boots should have removable liners which can be dried and warmed by a fire if necessary.

Choose mittens that will withstand the task of branch collecting. I prefer a glove sheathed by a waxed, insulated leather mitten.

Carry at least three manmade methods of making fire and become proficient in their use. Under certain conditions, fire may be your only refuge from the threats of hypothermia or frostbite.

Stay close to home at first, gradually distancing yourself from civilization once your confidence and skills improve. I recommend building a snow tepee in your backyard so that in the event things don’t go as planned, you can retreat to the comfort and safety of your home and try again another day.

Keep an eye on the weather and bring along gear that will complement your needs. For example, when I’m in the High Peaks of the Adirondacks during the winter season, I often pack a sleeping bag, sleeping pad, and bivy sack to provide warmth for other hikers. I also bring a small stove and extra food. This may seem excessive, but it can make all the difference in the world if a person in my party needs help or we come across someone in need.

I also recommend carrying a “heat sheet” (survival blanket).



INSIDE A BAT CAVE—

Winter survey at Hailes Cave

By Emily DeBolt
Photos provided by author

Adorned with helmets, headlamps, backpacks and layers of clothing we didn't mind getting dirty, we clambered down the icy slope one step at a time, being careful not to lose our footing. We were there in the February chill to do what any intrepid biologist would do in mid-winter: count bats, of course; what else?

I'm going to hazard a guess you didn't know NYS Parks has bat counters on staff. Neither did I, until I became one. While

working for the Saratoga-Capital District Region last winter, I was fortunate to join Parks Regional Biologist Casey Holzworth and NYS Department of Environmental Conservation (DEC) biologists to survey bats hibernating in Hailes Cave in Thacher Park, near Albany. Both the cave and the path to its entrance are closed to the public—so this was maybe my only chance to see the bats there, unless I waited for them to awake in spring.

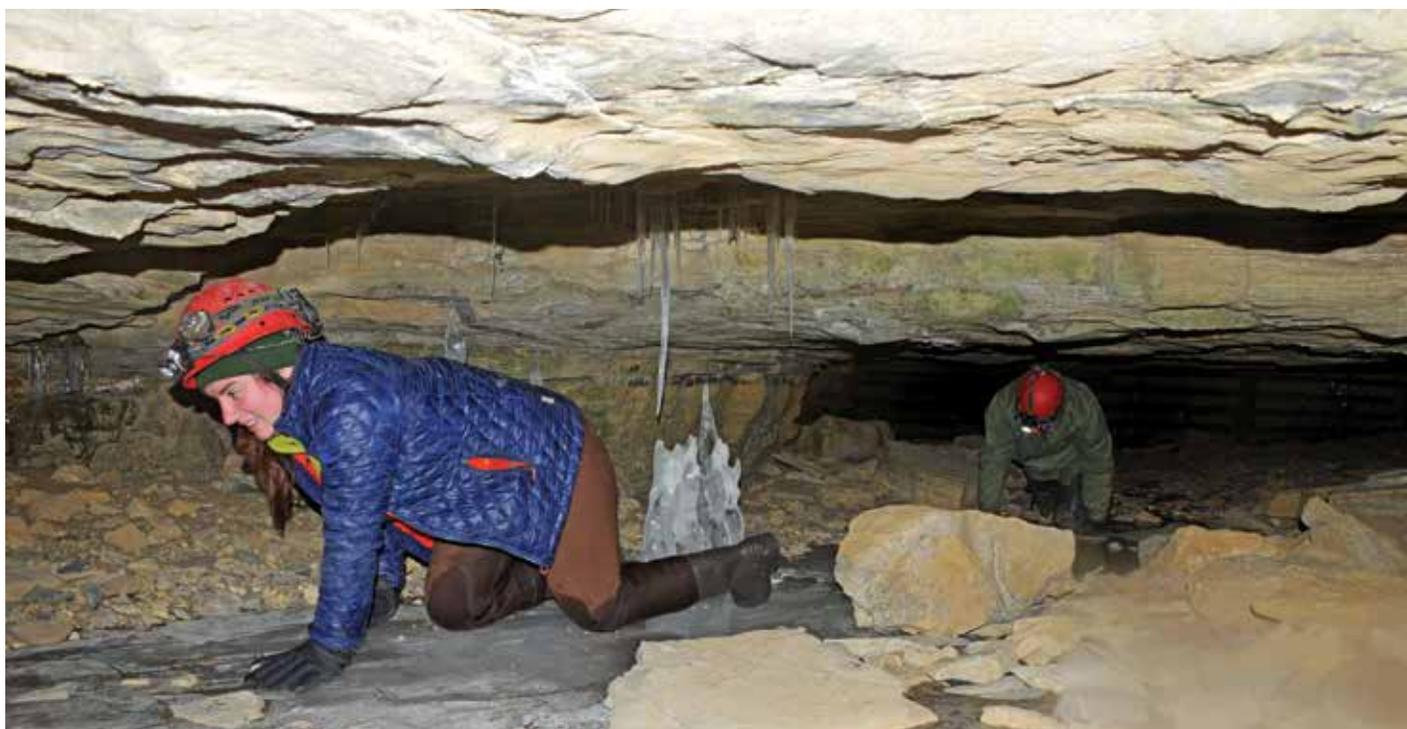
Hailes Cave is located at John Boyd Thacher State Park, which is about 15 miles southwest of Albany. Situated along the Helnderberg Escarpment, one of the richest fossil-bearing formations in the world, the park safeguards six miles of limestone cliff-face, rock-strewn slopes, woodland and open fields; providing a marvelous panorama of the Hudson-Mohawk Valleys and the Adirondack and Green Mountains. The escarpment was formed more than 100 million years ago, when layers of limestone, sandstone and shale were uplifted and eroded by wind, water and other elements. As softer rock wore away, limestone broke off along vertical cracks, leaving a jagged, perpendicular wall.

The longest of approximately 40 caves found in the Park, Hailes Cave has long been recognized as the most significant bat hibernation site in the NY Capital Region, and one of the most significant in the state. It houses all six species of bats that hibernate in NY, including three that are very rare and are protected by either state or federal law. The cave is the site where the devastating bat disease known as white-nose syndrome was first discovered in 2007. Following this discovery, bat numbers there plummeted from approximately 16,000 individuals to 1,000 over the next two to three years. Since then, that number has climbed to 3,700, however, that appears to be mainly the result of bats from other hibernation sites consolidating into this popular cave. The increase is only in one species, the formerly common little brown bat. Three other severely affected bat species continue to decline as best as biologists can determine. Keeping tabs on the populations is why a bat survey is conducted each year.

A few days before the survey, Casey and I visited the cave site to do some reconnaissance and check the route. It was a good thing we did. There was snow: lots of it. There is a narrow crack in the escarpment called Helm's Crevice (also lovingly known as 'Fat Man's Misery') that you climb down, or should I say squeeze through, to get to the cave, and the top of the opening had been filling in with feet and feet of snow. Needless to say, we had to do a lot of digging. (Okay, I'll admit it—Casey did the lion's share of the digging, but I did help.)

When we made it through Fat Man's Misery, we had to hike down along a narrow trail skirting the edge of the cliff face before reaching the bottom of the escarpment and the cave entrance. I was expecting to see a big, looming opening, but this was not the case. Due to the geology of the bedrock of the escarpment, the caves at Thacher are short and stout—this means no walking. Instead, the only way into this cave is by crawling on your hands and knees. But we didn't explore the cave that day; we just checked that we could get down to it, and peeked at the water levels just inside to make sure it would be accessible. Yup, that's right: a low cave where you have to crawl through water. These bats sure know how to pick 'em.

Now you might be wondering, as I did at first, about the water. I mean, its winter—isn't everything frozen? Well, right at the cave entrance the water was frozen. But once you got into the cave, it was actually much warmer. The heat from the ground keeps the cave well above freezing, and that means water—even in the dead of winter.



Researchers must crawl on their hands and knees to reach the part of the cave where the bats hibernate.



In 2013, biologists installed a gate to protect hibernating bats from inquisitive people. The gate is made from 20-foot-long steel pieces, each weighing 200 lbs, hand carried, and welded into place (see bottom photo).

After assessing the water levels and cave entrance, Casey and I retraced our steps back up. A longstanding regional biologist for Parks, Casey had done this trip a number of times. I, however, was having second thoughts about voluntarily making this venture back down again the following week. Maybe I could wait for a warm summer day... But I knew those bats wouldn't be there in the summer; they only congregate in caves for the winter and I sure wanted to see them.

So, the following week, Casey and I went back to Thacher and met up with NYS DEC staff including Carl Herzog, the state biologist in charge of bat conservation and management. Back down through 'Fat Man's Misery' we went: skirting along the edge of the cliff, and down to the cave entrance.

The cave entrance was even lower than I remembered. You had to do a belly

crawl for the first bit before the ceiling gradually rose enough to allow you to get on your hands and knees. The five of us in this venture crawled in single file. As we broke through the thin layer of ice

atop the water, it looked like a vast bed of broken glass. Luckily, with all the winter clothing we were wearing, we didn't feel the shards of ice. Beautiful icicle stalactites hung just inside the entrance on the sides of the cave where the temperature regularly vacillates above and below the freezing point.

About 75 feet in, we came upon a locked bat gate. The barrier is made of more than 4,000 pounds of steel, all carried in by hand and then built and installed in place. Casey was part of the team of NYS Parks staff, volunteers from the Northeastern Cave Conservancy, and staff from DEC who installed the gate in 2013 to help protect the bats from cavers and other interested explorers. The bats can still get out of the cave—but it keeps people from getting in. Staff and volunteers carried 20-foot-long pieces of steel weighing 200 lbs. each down through the crevice, along the cliff face, and into the cave. Having traversed this path with just a backpack—and finding it not very easy—I could not imagine how they did it. It is truly an amazing feat and really shows the commitment these folks have to protecting the bats and managing the park in a way for people and bats to co-exist.





Biologist Casey Holzworth checks cracks and crevices for bats. Some bats, like the ones pictured on the right, were easy to spot.

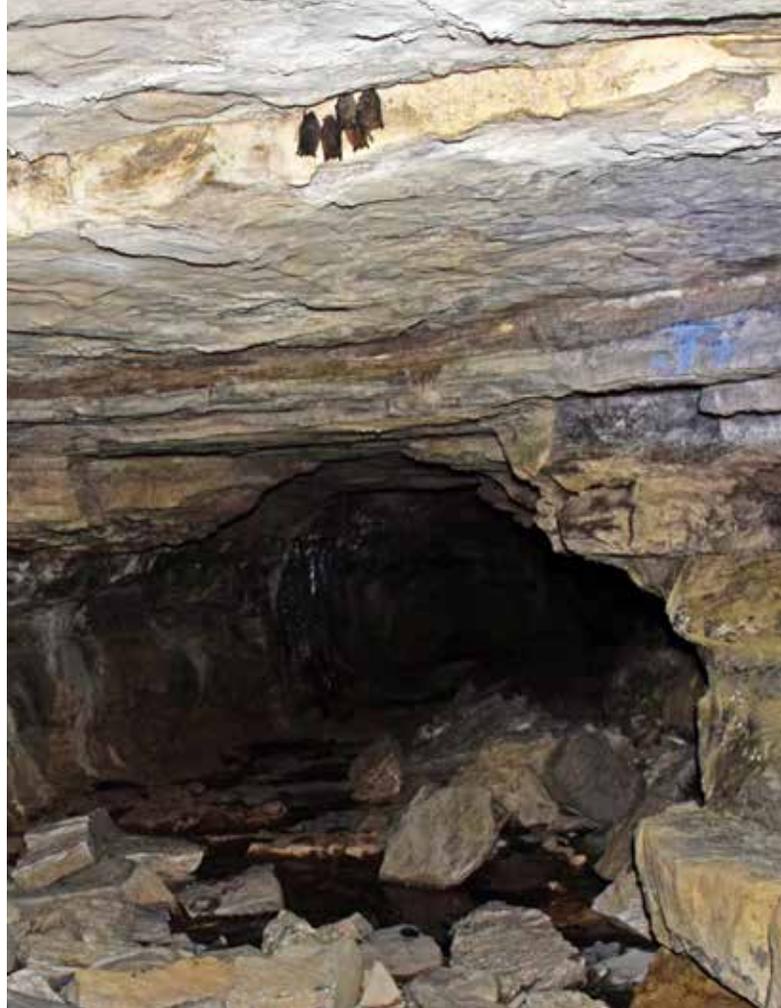
Once past the gate, the ceiling rose up again a bit so that I could walk hunched over in some places. It felt spacious. Here is where we really started looking for bats. It was obvious the folks I was with had done this before. They immediately spread out, looking in the tiniest of cracks and crevices for these hibernating mammals. We saw small groups here and there throughout the cave; the DEC biologists kept count. The further into the cave we went, the deeper the water got. The biologists had on waders. I did not. Like I said, they'd done this before. So I stayed put for a bit while they finished surveying the back part of the cave, where the water was deeper than I thought wise to venture.

During the survey, everyone was very careful not to disturb the bats. There was no unnecessary talking and no loud noises. Just crawling and counting.

Being part of this bat survey was an amazing experience. I got to tour a cave that few people get to see. And I felt I was part of something special—keeping track of the state's bat populations.

I cannot imagine a world without bats. I, for one, am not all that fond of mosquitoes.

Previously with the NYS Office of Parks, Recreation and Historic Preservation, **Emily DeBolt** currently works at her family's plant nursery in Fort Ann, NY.



Do Not Disturb

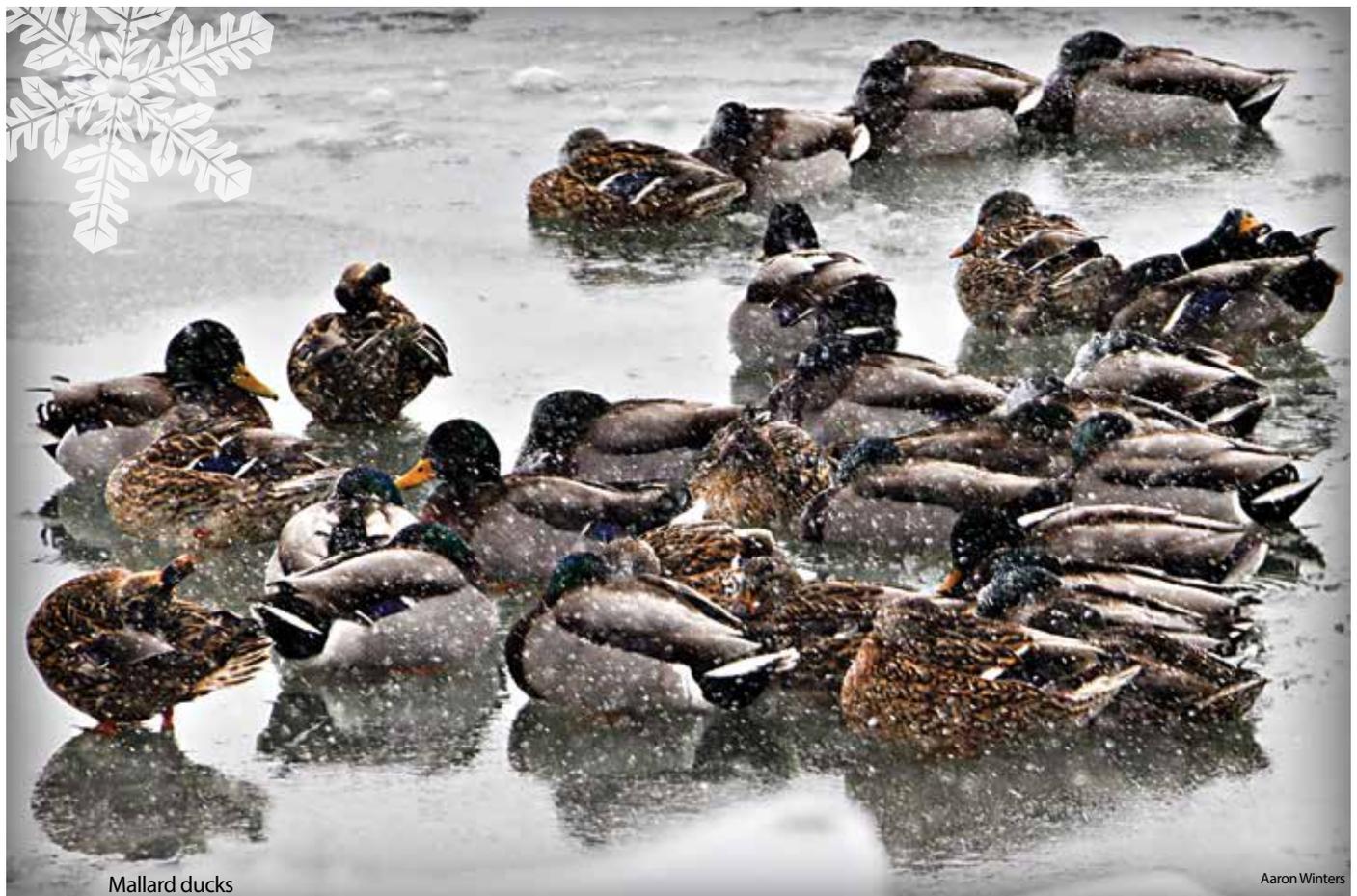
DEC urges outdoor adventurers to suspend all winter exploration of cave and mine sites known to contain bats so as not to disturb them. Human disturbances are harmful to the state's bat populations since the arrival of the disease known as white-nose syndrome, which has killed more than 90 percent of bats at most hibernation sites in New York.

Research shows that white-nose syndrome makes bats highly susceptible to disturbances and even a single, seemingly quiet visit can kill bats that would otherwise survive the winter. Experts believe that when bats are disturbed during hibernation periods, it forces them to raise their body temperatures, which causes their fat reserves to be depleted. This affects their energy levels and places the bats in a compromised state, which can often lead to death. To prevent this, people need to stay out of bat caves completely.

For more information about white-nose syndrome, check out DEC's website at:

www.dec.ny.gov/animals/45088.html

Wintering Waterfowl



Mallard ducks

Aaron Winters

Text by Jeremy Taylor

Cardinals, blue jays, chickadees—these songbirds are probably what pops into most peoples’ minds when they think of winter birds in New York. However, there is another group of birds that call New York home during the winter: waterfowl.

While some waterfowl migrate south for the winter, many others seek out areas of open water, at times forming large gatherings in these ice-free zones. Some are year-round residents of the state, while others breed further to the north, heading south for a “milder” New York winter.

The largest concentrations of waterfowl are found in Lakes Erie and Ontario, portions of the Finger Lakes, and in the NYC/Long Island area, but you can find wintering waterfowl wherever there is water that does not freeze. This can range from rivers to larger lakes, as well as the nearshore waters around Long Island. In a particularly severe winter with limited open water, there tends to be higher concentrations of birds in the sites that do remain open.

Winter birders can view a wide variety of waterfowl species. According to the

2014 survey by the New York State Ornithological Association, Canada goose, brant, gadwall, American black duck, mallard, canvasback, redhead, ring-necked duck, greater scaup, white-winged surf scoter, long-tailed duck, bufflehead, common goldeneye, three species of merganser (hooded, common, red-breasted), and ruddy ducks were some of the most commonly observed species.

An avid birder since childhood, **Jeremy Taylor** is editor of *Conservationist for Kids*.

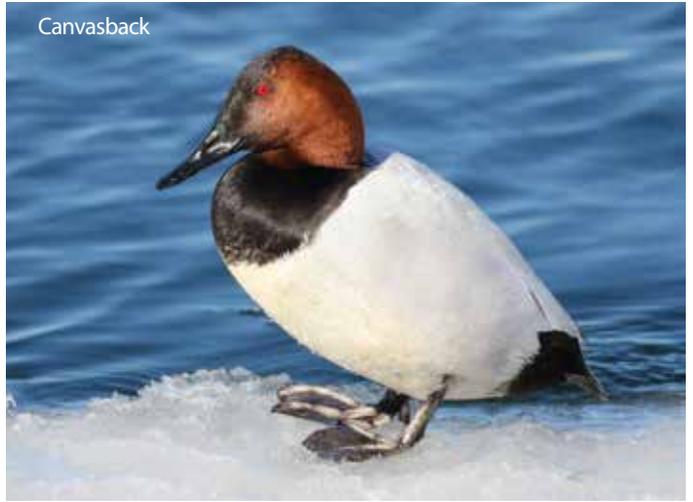
Scott Kruitbosch

Long-tailed duck



Laurie Dirks

Canvasback



Aaron Winters

Common goldeneye



Jeff Nadler

Ring-necked duck



Laurie Dirks

Red-throated loon



Although technically not waterfowl, loons can also be found in open waters in winter.







Winter Waterfowl Viewing

No matter where you live in New York State, there's a nearby location where you can reliably view wintering waterfowl. Here's just a sampling of locations and the types of species you might expect to see.

Great Lakes Seaway Trail: Beginning on the Ohio/Pennsylvania border and ending in Rooseveltown, St. Lawrence Co., the Great Lakes Seaway Trail has many locations along the route where numerous species of wintering waterfowl can be observed. Popular locations include the Dunkirk Harbor area of eastern Lake Erie, the Niagara River region, along Lake Ontario (Braddock Bay, Sodus Bay, and Henderson Bay), and along the St. Lawrence River. These areas are also known for large gatherings of wintering gulls. For more information, visit www.seawaytrail.com.

The Finger Lakes: While portions of the Finger Lakes in central New York do freeze over, there are parts of the larger lakes (Canandaigua, Cayuga, Keuka and Seneca) that typically remain ice-free, attracting hundreds of thousands of birds. Visitors might spot: snow geese, tundra swans, canvasbacks, ring-necked ducks, redhead ducks, hooded mergansers, American wigeon and common goldeneye.

Lake Champlain: The Lake Champlain region is a popular stopover for many species of waterfowl during their spring and fall migrations, and the portions that remain ice-free attract a wide variety of wintering waterfowl. Several notable locations include Ausable Marsh Wildlife Management

Area, Crown Point Boat Launch Area, Cumberland Head, Essex Ferry Terminal, Lake Champlain Bridge, the mouth of the Saranac River, Port Henry Boat Launch, Port Kent Ferry Terminal, Westport Boat Launch, Whallon Bay and Wilcox Docks. Commonly observed species include common merganser, bufflehead, common goldeneye, hooded merganser, mallard, black duck and greater and lesser scaup. Learn more at www.lakechamplainregion.com.

NYC/Long Island: One of the best places to see wintering waterfowl in New York is Jamaica Bay Wildlife Refuge, part of the Gateway National Recreation Area. Located within New York City, the refuge covers more than 9,000 acres, and is a great place for spotting birds such as snow geese, lesser and greater scaup, ruddy duck, ring-necked duck, green-winged teal, northern pintail, American wigeon and gadwall.

The shores of Long Island are some of the few places in New York where you can regularly see wintering sea ducks, including common eider, harlequin duck (rare), surf scoter, white-winged scoter, black scoter, oldsquaw, bufflehead and common goldeneye. Other commonly observed species include brant, mute and tundra swans, American black duck, mallard and red-breasted merganser. Some of the best locations on Long Island for observing wintering waterfowl are Montauk Point, Oyster Bay National Wildlife Refuge, Cold Spring Harbor State Park, Fire Island National Seashore, a number of North Fork locations, and Great Peconic Bay.

Male wood ducks



Winter Survey

Since 1955, member groups of the New York State Ornithological Association (NYSOA) have conducted a winter waterfowl survey throughout New York (with the exception of the years 1968-72). Most years, the survey tallies more than a quarter million birds. DEC relies on this survey as one of the sources of data for long-term population monitoring. Additionally, the U.S. Fish and Wildlife Service conducts annual mid-winter waterfowl surveys to better understand the population trends of species that nest in the Arctic. Data from these surveys is used to help determine waterfowl hunting season dates and bag limits.

If you are interested in participating in a winter waterfowl survey, check out NYSOA's website, <http://nybirds.org>.



WINTER COMMUTING...

BY BICYCLE?

By Rudyard Edick

Photos by Robin-Lucie Kuiper

What if I told you there was a caffeine alternative that would also give you that boost in the morning while improving your health and simultaneously enhancing your brain function and your chances of living longer in fit condition? Well, there is...and it's bicycle commuting!

"It's my coffee substitute!" said two of the people I interviewed at the Department of Environmental Conservation's Albany office who bicycle commute on a near daily basis. Six of them commute year-round—braving the cold, darkness and hazards such as snow, ice and corrosive salt. Why do they do it? How do they do it? And what do you need to know to get started?

"You need to be comfortably cold," says Maxwell Wolchenhauer (Max) who commutes roughly four miles each way. "The key is not to sweat." As winter wilderness survival instructors teach: "Sweat kills." If you allow yourself to overheat, and perspire heavily, your clothing tends to lose its ability to insulate and strips your body of warmth. According to Max, if you start out comfortably cold, your body will generate enough heat from exertion that you will be somewhat cozy while also not perspiring significantly. This is the "zone" you want to stay in—and if you start to exceed it, remove layers. Of course, the opposite is also true: if you start to slow down and generate less body heat, add layers.

The key to comfortable winter cycling is dressing in layers.

The operative word here is layers—something all of the winter commuters emphasized. Randy Orr, for example, will wear up to four layers of synthetic clothing under a fleece topped with a wind-breaking shell. But the general rule-of-thumb is to dress with three layers in mind. It’s the same rule hikers follow: a wicking layer next to your skin; an insulating middle layer; and an outer layer that repels wind, rain and snow.

Evaporation is an excellent way to remove heat, and sweating in the cold can quickly chill the body. A wicking layer moves any moisture away from the body, transferring it to the next layer. Since wool and synthetics retain their insulating properties when moist, both materials make excellent middle layers. You should never use cotton as your insulating layer. While warm when dry, it is exceedingly chilling when wet. Hence, jeans are out. For the outer layer, use a wind resistant, water repellent, breathable fabric.

In extreme cold, the middle layer should consist of multiple sub-layers. This allows you to regulate the amount of insulation you have at a given moment and thus prevent overheating from exertion and excess moisture. Be prepared to stop and remove (or add) insulating layers as necessary, because while wool and synthetic materials do provide insulation when wet, they still function best when dry.

It’s important to pay special attention to your hands, feet and head in colder weather. This is particularly true on a bicycle because of the wind chill experienced while cycling. Randy Orr uses regular fingerless gloves with simple cloth work gloves over the top. Fellow commuter Jennifer Dean prefers a pair of “bar mitts” (neoprene covers that attach to the handlebar and effectively block moisture and wind) when commuting the four miles each way year-round. Kevin Civerola has made his nine-mile commute in 5°F weather wearing three layers on his hands.

Warm footwear is just as essential. Jennifer uses neoprene booties that slip over her regular “clipless” cycling shoes (shoes



Jennifer Dean

Biking in the winter requires the right kind of gear and a tolerance for cold.

that snap onto the pedals, allowing the cyclist to pull up, as well as push down), while Max simply wears wool socks under his standard mesh mountain bike shoes. Max says, “My feet are always cold in the winter, but it’s part of my tactic of preventing overheating and perspiration.” Another commuter, George Heitzman, also wears wool socks, but adds a waterproof cover for additional warmth and water resistance.

It goes without saying that helmets are a must when commuting by bicycle. But bike helmets aren’t particularly warm, so a number of cyclists wear balaclavas under their helmets. Balaclavas are tube-like, warm, snug-fitting hats that cover most of the face, head and neck. While only a three-season commuter, in cold weather I use my speed-skating helmet (which has a solid profile) with a hat specifically designed to be worn under a helmet. You can purchase one at most bike shops.



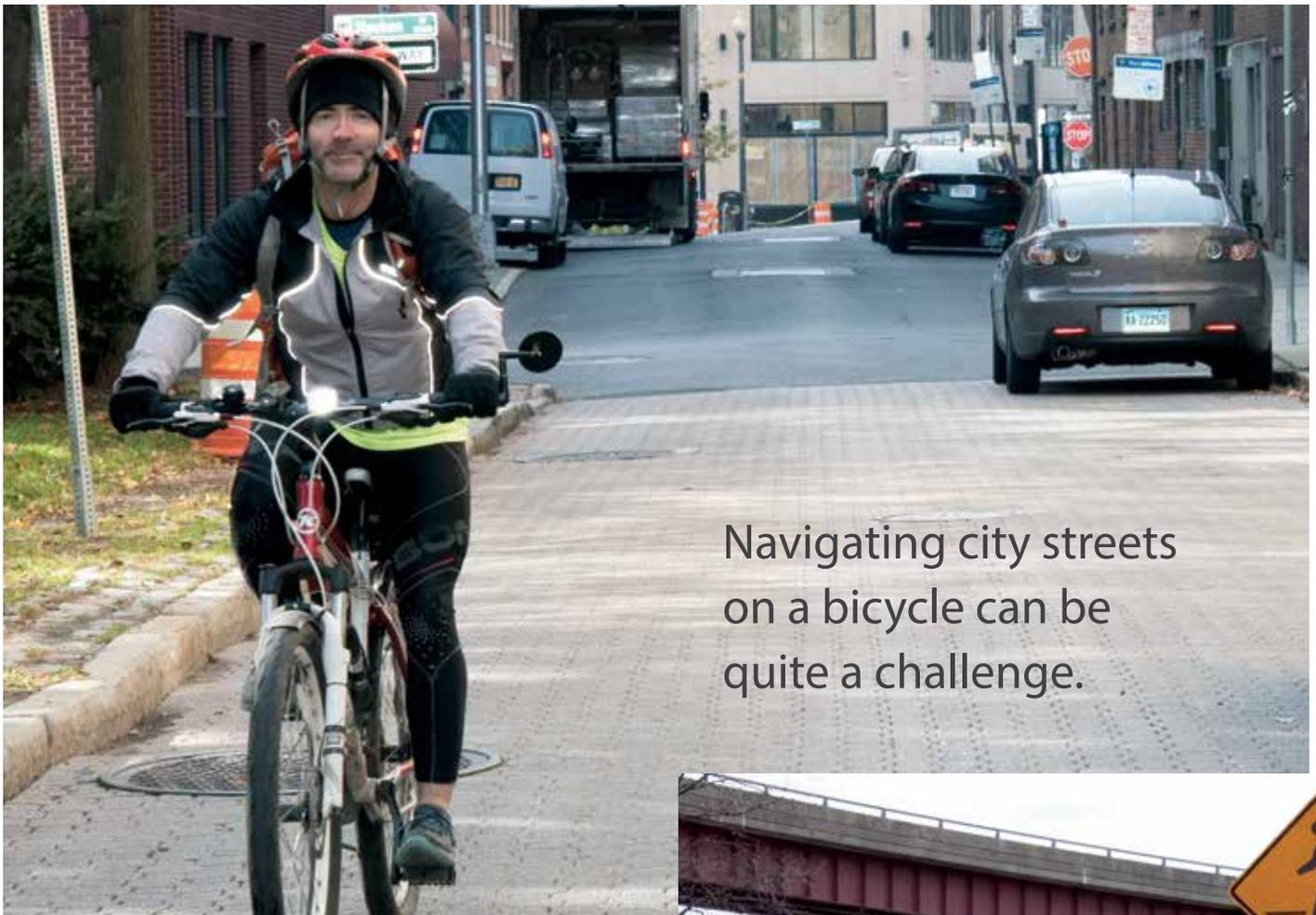
A splash guard can prevent road spray from soaking the cyclist.



A mirror will help keep you safe in traffic.



Working taillights are a must.



Navigating city streets on a bicycle can be quite a challenge.

Sharing the road with cars during the winter can be potentially dangerous, and all of the cyclists I interviewed emphasized the need for lights: the more the better. Jennifer has lights that blink rapidly on the front and back of her bike, and runs them all the time—night and day—to increase her visibility. George has two forward facing lights (one set to blink, the other set on steady view) clipped to his handlebars, plus a headlamp attached to his helmet. Like Jennifer, he also uses a rear-facing blinking light.

One commuter who cycles five miles thru heavy city traffic, covered his bike with electroluminescent wire. The result is a “glow in the dark” bicycle that grabs a driver’s attention. It also has the added benefit of being visible from all directions, not just from the front and back. Another way to be seen from the side by drivers is to use bike headlights with a side blinking window. This can help keep you safe while crossing intersections. It also helps to wear highly visible clothing such as lime green or bright orange jackets. Wearing a “blinky” vest (clothing with blinking lights embedded on it) is another possible safety option.



All of the commuters emphasized the need to follow traffic rules and regulations. Use hand signals when turning, obey stop signs and traffic lights, and don't lose your temper if someone makes a mistake. In addition, cyclists should watch for pedestrians (particularly at intersections or emerging from between parked cars), avoid lingering in the blind spots of cars, and be careful when passing parked cars as their doors may suddenly open. Also be conscious that cars passing you may make sudden right turns into your path, and look ahead for road hazards such as potholes or road debris. An advantage of the more rugged mountain bikes, with wider tires, is that they better navigate such hazards. Rearview mirrors for your handlebars or helmet are another safety feature you may want to consider using.



Brightly colored clothing helps motorists see you in low light.

I'll admit that even as a biker, winter commuting sounds daunting to me. But after interviewing these hardy souls, I'm thinking of possibly trying it. These folks commute this way (logging more than 1,000 miles each year) for a number of reasons: it's fun; it's healthy; it protects the environment by reducing air emissions and greenhouse gas generation; it saves money on gas; and it reduces wear and tear on their car. Everyone agreed that it was more satisfying than driving a car, and did much more for them than what many people value most first thing in the morning: a cup of coffee.

Bicycling commuter **Rudyard Edick** works in DEC's Albany office.



Bikes for Winter

When it comes down to choosing a bike for winter commuting, it's really a matter of personal choice and preferences. Some winter commuters use a touring bike, while others prefer a mountain bike. The most common choice, however, is a hybrid. A hybrid is similar to a mountain bike but blends in characteristics from touring and road bikes such as narrow, smooth tires, lighter wheels, and mounts for racks and bags. Most hybrid cycles also have upright seating and straight handlebars, features that may allow for more visibility and better steering control. Long-distance commuters often gravitate towards touring bikes as they are more energy efficient. Short-distance commuters are more likely to use a mountain bike because their ruggedness and tires provide more traction on snow and road debris.

Some commuters like to outfit their bikes with "studded" tires, which provide better grip on snow and ice. Studded tires fit best on mountain bikes and can be either purchased or made at home (using sheet metal screws). Touring and some hybrid bikes have fenders which are particularly welcomed on commutes in cold rains.



ADIRONDACK LANDOWNERS

—the Public’s Silent Partner

By Dr. Ross S. Whaley

Photos provided by author, unless otherwise noted

Known for its stunning vistas and vast wilderness, the Adirondack Park is a unique blend of public and private land. Nowhere else in the nation is there such a mix of communities, “forever wild” forests, private estates, research facilities and public campgrounds in one park. It is a rare blend of public recreation, ecosystem protection, commercial forestry, and private getaways that range from modest family cabins to vast sporting clubs. In addition, the park contains 100+ towns and villages and more than 100,000 year-round residents.

While the Adirondack Park and its amenities are familiar to many, few know about the important role it plays in research. The park’s public and private lands, its size, ecosystems, remote location and proximity to outstanding academics combine to make it a unique natural laboratory for ecological research. Here are just a few examples of partnerships between the State of New York, the research community, and private landowners.



Researchers studying fish populations

Fisheries Research at the Adirondack League Club

The Adirondack League Club (ALC) is one of the oldest and largest private preserves in the eastern United States. It covers over 50,000 acres and includes 30 lakes and ponds, 12 miles of the South Branch of the Moose River, and 3 miles of West Canada Creek. Since 1950, the Club has had an agreement with Cornell University to allow them to conduct fisheries research on the property. What began as a part-time consultancy with one faculty member has evolved into having full-time research personnel stationed at the ALC.

Over the years, the research conducted here has led to a number of important fisheries practices, including: protocols to control species that compete or prey on brook trout, lake trout and other native fish species; the prohibition of the use of live bait for fishing, to reduce unintentional introductions of invasive species; and development of a hybrid strain of brook trout that has become the stocking favorite for public waters throughout the Adirondack Park. In addition, research also resulted in recommendations on logging practices to protect coldwater tributaries from warming and siltation.

Between the 1960s and 80s, acid rain became recognized as the cause of fish population declines throughout the southwestern Adirondacks. Prior to federal legislation aimed at improving air quality, Cornell researchers explored and refined techniques for using lime to neutralize the acidity of lakes, and this became the treatment of choice throughout the north country.

Studying the Elusive American Marten

Dr. Paul Jensen, a senior wildlife biologist at DEC's Warrensburg Office, is New York State's expert on the American marten, a member of the weasel family. During the 1800s, the marten declined due to trapping and loss of habitat, particularly loss of mature conifer forests. However, Dr. Jensen's research has shown that the marten inhabits a range of forest types found



in the Adirondack Park. An article about Dr. Jensen's work ran in the December 2007 issue of *Conservationist* and outlines insight into marten populations, habitat, range and food preferences. DEC refers to his research when determining areas for habitat protection and defining trapping regulations.

Much of Dr. Jensen's work has been conducted on private lands, including those of the Adirondack Ecological Center, Adirondack League Club, Ausable Club, Domtar Inc., Elk Lake Preserve, Finch Pruyn & Co., Inc., Follensby Pond, International Paper, Jerseyfield Preserve, Miller Park Association, The Nature Conservancy, and Wilmurt Club. Dr. Jensen stresses the importance of having received permission from these private landowners to conduct research on their lands, and notes that accessing private land can be easier than navigating remote portions of the Forest Preserve. In addition, because many private landowners do not allow trapping, there's a greater probability of finding populations of American marten for study and radio tracking.

Private Place with a Public Purpose

Established in 2008 by private individuals, the Shingle Shanty Preserve and Research Station (SSPRS) property was acquired for the sole purpose of building a research station devoted to long-term monitoring and study of Adirondack ecosystems. Comprised of 23 square miles of various forest types and a rich array of wetlands, this unique property has attracted researchers from Cornell University, The Smithsonian Institution's National Museum of Natural History, SUNY College of Environmental Science and Forestry, The New York State Museum, the Wildlife Conservation Society, and Paul Smiths College, among others.

Research at SSPRS has focused primarily on the site's rare animals, birds and plants. The ecosystems here respond rapidly to climate change and atmospheric deposition, potentially threatening the existing biodiversity. SSPRS and its collaborators have worked to document the resident species by studying the distribution and genetics of boreal birds and mammals and describing the vege-



tation structure of the wetland complex. Bird species such as rusty blackbird, spruce grouse, and olive-sided flycatchers have declined greatly over the last decades in N.Y., and their success is highly dependent on the great extents of lowland boreal wetland habitat like that at SSPRS.

SSPRS has also offered short courses in field botany, bryology (moss biology) and mycology (fungus biology) of the Adirondacks to students and professionals alike. Natural history tours of SSPRS for the general public have been sponsored by the Wild Center and the Adirondack Council as well. The research combined with education programs at Shingle Shanty have broadened the scientific knowledge and public awareness of these important, remote ecosystems.

The Adirondack Ecological Center

In 1932, Archer and Anna Huntington donated their 15,000-acre Adirondack estate to Syracuse University (in trust for the now College of Environmental Science and Forestry) to be used “for investigation, experiment and research in relation to the habits, life histories, methods of propagation and management of fish, birds, game, food and fur-bearing animals and as a forest of wildlife.” Forty years later, this land on the Huntington Wildlife Forest gave birth to the Adirondack Ecological Center, a facility that attracts researchers from around the world who facilitate and conduct the science that underpins management of the Adirondack Park.

One on-going program—the Adirondack Long-term Ecological Monitoring Program—monitors over 100 physical, chemical, and biological attributes to provide the perspective necessary to detect changes and identify trends in Adirondack ecosystems. More than 70 ongoing research programs investigate the restoration of wildlife, development of new forestry practices, impact of acidic deposition on soils and lakes, social organization of deer, movement of soil ions, silvicultural regimes, Adirondack Park biodiversity, and much more. The Huntington Wildlife Forest is also home to the Adirondack Interpretive Center, a public education facility, and

the Northern Forest Institute for Conservation Education and Leadership Training, which focuses on education, leadership and stewardship of both natural and designed environments.

Private Lands in a Public Park

Since the Adirondack Park’s creation in 1892, questions remain as to whether it was intended to be a mixture of public and private land, or whether it was assumed the state would eventually acquire all the land within the “blue line.” Many claim there is too much public land, while others encourage further additions to it. Regardless of conflicting opinions, this combination of public and private land has resulted in economic growth and other benefits, including protection of rare and endangered ecosystems, carbon sequestration and watershed protection.

Much of the research in the park occurs on property owned by members of the Adirondack Landowners Association (ALA), which celebrated its 25th anniversary early in 2015. The ALA was founded to encourage continued stewardship and sound management of the land; to promote public awareness of the valuable role played by private landowners in the park; to advocate laws, regulations and governmental policies that promote and facilitate good stewardship by private landowners; and to recognize and preserve their rights in the land.

Dr. Ross S. Whaley is currently the Senior Advisor to the Adirondack Landowners Association. He has served as Chairman of the Adirondack Park Agency, President of the SUNY College of Environmental Science and Forestry and co-edited *The Great Experiment in Conservation: Voices from the Adirondack Park*.

Author’s note: Information on practices resulting from Cornell research at the Adirondack League Club came from A Tradition of Excellence: The Adirondack Fishery Research Partnership of the Adirondack League Club and Cornell University, published by the Adirondack League Club commemorating the 50th anniversary of collaboration with Cornell.

On Patrol

Carl Heilman II

Real stories from Conservation Officers and Forest Rangers in the field



Glass Eel Poacher— New York City

A New York food fish dealer paid a \$10,000 fine after pleading guilty to commercialization of protected wildlife and unlawful possession of undersized fish. Based on a tip from federal agents, DEC ECOs seized a shipment of live “glass eels,” valued at \$60,000, and returned them to New York State waters. They would have sold for more than double that amount in Asia. These eels, known as “elvers” or glass eels due to their translucent appearance and small size at the juvenile stage in their life cycle, are reared to adult size for the food fish market. DEC staff involved in this investigation included the late Lt. John Fitzpatrick, Lt. Jesse Paluch, Lt. Liza Bobseine, Lt. John Murphy, Inv. Nick Desotelle, Inv. Sara Komonchak and Inv. Jeff Conway.

Illegal Border Crossing— Westchester County

ECO Tom Koepf was conducting deer checks at a local meat processor in the Town of Somers when he encountered a hunter dropping off three deer with Pennsylvania tags. Officer Koepf

explained that it is illegal to bring whole deer carcasses into New York State from Pennsylvania because PA is considered positive for chronic wasting disease (CWD). Officers Koepf and James Davey issued a summons for illegal importation of white-tailed deer across state lines, and they seized all three deer. The deer will be tested for CWD and then be completely destroyed, antlers and all. CWD is a fatal disease in deer, elk and moose, and it poses a serious threat to the entire deer population. DEC urges hunters to be aware of CWD regulations when hunting deer outside the state.



Fallen Hiker Hospitalized— Greene County

A 73-year-old male and three companions from Connecticut began a day hike in North Mountain Wild Forest

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

from North/ South Lake Campground. At approximately 1:05 p.m., the subject approached the edge of a ledge and fell approximately 15 feet. His companions called 911, and Forest Rangers Rob Dawson, Christine Nelson, Joseph Bink, Chris DiCintio, Jeff Breigle and local EMS personnel responded. The subject stated he had hit his head and lost consciousness. He had a laceration on the back of his head and complained of pain in his lower back. Rangers evaluated him and put him into a litter. With an assist from low-angle rope systems, they carried him up to the trail, and then out to North Lake Beach trailhead, arriving at 4:50 p.m. A waiting Med Flight helicopter flew the subject to Albany Medical Center for further treatment.

Case of Mistaken Identity— Lewis County

ECOs Tim Worden and Greg Maneeley handled a case involving an individual who had turned himself in for illegally taking a bull moose. The subject stated he thought the moose was a huge white-tailed deer buck when he shot it. After realizing his error, the man called DEC to confess. During his interview, it was determined that he had already used his deer tags and should not have been hunting deer anyway. The subject appeared in court and paid a fine of \$1,200. He also pled guilty to hunting deer without a valid license and, as part of a conditional discharge, donated \$125 to the Lewis County Association of Sportsman's Clubs decoy fund, in addition to paying the \$75 surcharge. The man's hunting privileges are subject to revocation for a period of up to five years.

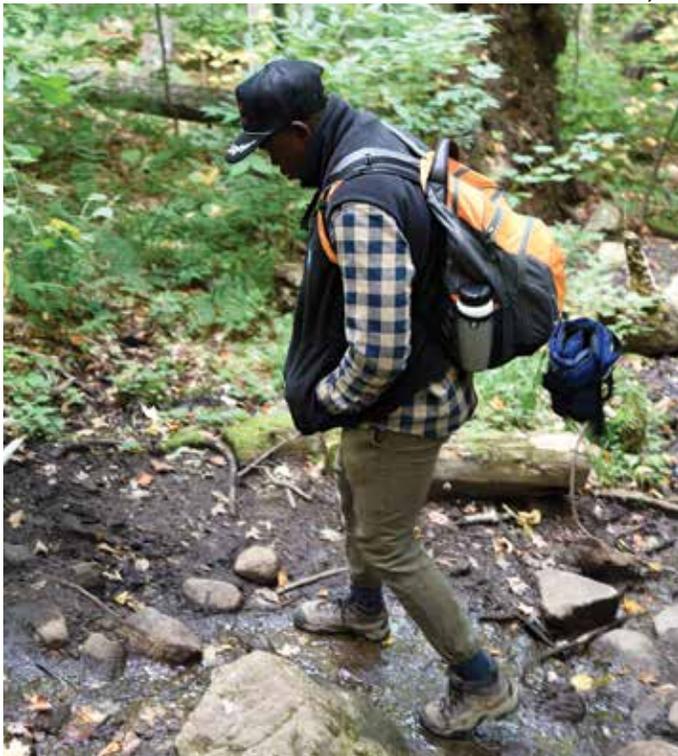
Jillian Hirsch



Celebrating Sturgeon

Local artist Jillian Hirsch and more than 100 community members in Troy, NY came together in September to create a crosswalk mural celebrating Hudson River sturgeon. The street art is intended to visually depict the scale and population timeline of sturgeon in the Hudson over the last 400 years. The largest sturgeon is 14 feet long, and the smallest is about 2 feet long. Hirsch hopes the art will raise awareness about the status and struggle of the Hudson's sturgeon populations. The paintings can be seen at Fifth Avenue and 101st Street.

Jim Clayton



North Country National Scenic Trail

DEC recently announced the approval of the Adirondack Park Trail Plan for the North Country National Scenic Trail (NST). The plan will establish a new long distance hiking route across the Adirondack Park and incorporates the NST into the state's Adirondack trail system. Stretching from the Hamlet of For-

estport in Oneida County to the Hamlet of Crown Point on the shore of Lake Champlain, the 158-mile Adirondack route will provide opportunities for families looking for day hikes and for experienced backpackers who prefer a long distance challenge.



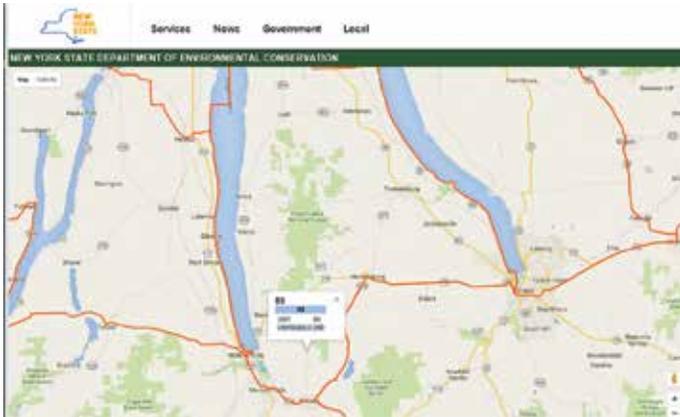
David Govtaski

Report Moose Sightings

DEC and its partners are conducting a multi-year study on the status of New York State's moose population, and you can help. If you see a moose, please report it by calling DEC's Ray Brook Wildlife Office at 518-897-1291 or by completing and submitting an online form at www.dec.ny.gov/animals/6964.html (link found near the bottom of page). To read about the moose study, check out "Tracking in the Mountains" in the October 2015 *Conservationist*.

Improved Access for Central NY

As part of Governor Andrew M. Cuomo's Capital for a Day in central New York, DEC and State Parks announced \$1.6 million to support improved access to several popular state-owned recreational sites across central New York. This follows extensive outreach to sportsmen and women, outdoor enthusiasts and other stakeholders to identify ways to enhance public access and improve recreational opportunities across the region. The result produced investments in projects targeted to meet the expressed needs of the community: \$750,000 to complete additional extensions on Onondaga County's Loop-the-Lake Trail; \$300,000 in projects to enhance public access to state lands and lakes for people of all abilities.



Hunters: WMU Map

New York hunters can now go online to view the Wildlife Management Unit (WMU) boundaries where they'd like to hunt. DEC recently added a Google Earth map showing Wildlife Management Unit (WMU) boundaries to our website (www.dec.ny.gov/pubs/103457.html; last in the list of **Hunting Maps**). Users who are familiar with New York's geography can zoom in to see the exact WMU in which they intend to hunt.

Foam Trailers

Governor Andrew M. Cuomo announced that New York will deploy 19 trailers equipped with a firefighting foam substance to local fire departments and county hazardous materials teams throughout the state for use in combating fires and spills involving crude oil or other ignitable liquids. It is anticipated that by early 2016, the Division of Homeland Security and Emergency Services will strategically place these trailers near population centers located along major rail lines and waterways. Each trailer includes a supply of foam concentrate along with the equipment necessary to produce and apply foam to an ignitable liquid fire or spill, requiring only an ample water supply for foam production.



New Visitor Center at Five Rivers

In October, DEC celebrated the groundbreaking for a new \$7 million visitor center at Five Rivers Environmental Education Center in Albany County. The facility will serve as an active learning site for natural resource and environmental topics, as well as a model of green building techniques. Work is expected to be completed in December 2016, and the building will be LEED certifiable. It will feature wood harvested from trees on site, a solar photovoltaic system, operable window and roof vents, low-flow toilets, LED lighting and motion detection capabilities, rain water collection and a grey water system—that is, water from sinks will be collected and used to flush toilets



Fighting Climate Change

In early October, Governor Cuomo and former Vice President Gore announced new actions to combat climate change and reduce greenhouse gas emissions across New York State. The Governor signed the "Under 2 MOU" (Memorandum of Understanding) reaffirming NY's pledge to reduce greenhouse gas emissions 40% by 2030 and 80% by 2050. He also directed state agencies to work with California and other jurisdictions to develop a broad North American carbon market. Cuomo also committed to bring solar to 150,000 homes and businesses and install clean, renewable energy at every SUNY campus by 2020. These nation-leading environmental and clean energy initiatives will help New York homes, businesses and universities invest in clean energy, drive economic growth across the state, and protect the environment.



Great Catch

I thought I'd share this photo of my grandson, Kincaid Pollock, age 13, with his 26 in. lake trout that he caught at Raquette Lake Winter Camp Abilities. Kincaid loved attending the camp, which is available for children and teens who are blind or visually impaired.

Elizabeth Pollock
Fulton, NY

Great job, Kincaid! That's an impressive catch. Lake trout are native to New York. They live in deep, cold, well-oxygenated lakes, and are mostly found in the Adirondacks, the Finger Lakes and the Great Lakes.

Early Snow

I thought you might be interested in a photo that was taken during our first snow this year: in mid-October.

Alex McCombie, Palermo, NY

The snow may have taken all of us by surprise, but this coyote seems quite comfortable. The blanket of white makes it easier for it to spot prey.



An Uncommon Pair

I took this photo of an albino tree swallow along the Niagara River in Gratwick Park in North Tonawanda. This bird was stirring up interest among local birders. Then less than two months later, I spotted another true albino—a mink—in the same small park. What are the odds?

Christopher Kundl, Niagara County



*Of all the types of albinism, complete albinos (indicated by having red eyes) are the rarest. With regards to birds, one source states that 1 in 1,800 individuals shows signs of albinism. A 1965 review of albinism in the journal *Bird Banding* found that only 1 of 7 albino birds were complete albinos. If these figures hold true, the odds of a true albino bird would be about 1 in 12 - 13 thousand.*

Full or true albinos are caused by a genetic mutation that does not allow the animal to produce melanin. That's why the plumage / fur, skin and even the eyes lack pigment. Albino birds rarely live to adulthood: the lack of pigment in the eye negatively affects vision, and the feathers lack the durability that melanin provides, making them more brittle. In addition, all albino animals are easier targets for predators because their white coloring makes them stand out. In the case of the mink, which is

a predator, the white coloring would make it hard to sneak up on prey, except on land in winter when there is snow cover.

Ray Perry

Director, DEC Five Rivers Environmental Education Center

Bear of Another Color

My trail cam caught this cinnamon-colored black bear near Cameron, NY.

Dave Dieter, Cameron, NY



What a lucky shot! Brown-phase black bears, more frequently called “cinnamon” bears, are quite common in the western U.S., but not so much here. You were fortunate to get this.

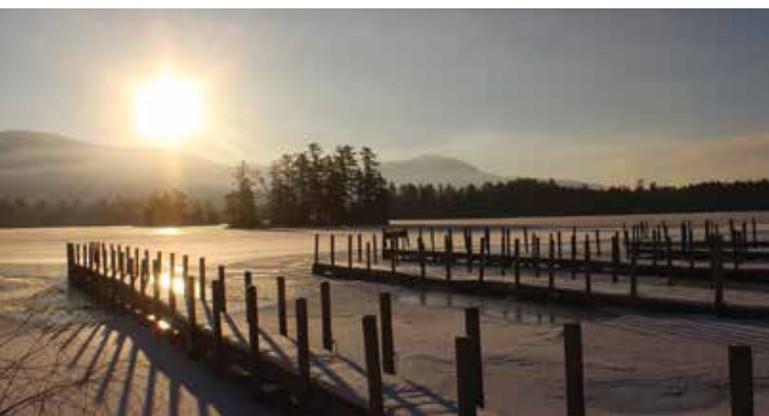
—Art Kirsch, DEC Wildlife Biologist

Winter's Beauty

Taking nature and scenery photos is my favorite pastime. I took this sunrise photo from the docks on Lake George.

Linda Ehntholt, Granville, NY

Great photo! Winter in New York is beautiful, and a great time to get outside and enjoy all kinds of cold-weather activities.



Ask the Biologist

Q: I spotted this deer family while I was hiking in Durand Eastman Park in Monroe County. How common are triplet fawns?

—Mary Wray



A: These look like some nice, healthy deer. Research conducted by DEC wildlife biologists in 2007 – 2009 found that approximately 4% of pregnant adult females had triplet fawns in utero. The proportion of pregnant females to successfully give birth to triplets, however, would be slightly lower. And the proportion to successfully rear triplets to 6 months of age (when fawns are considered successfully recruited in the population) would be lower still. So this deer family is doing well.

—James Kelly, Senior Research Assistant, DEC/SUNY ESF

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BackTrails

Perspectives on People and Nature

John Bulmer

Last Day by Thomas Adessa

The old tree stand creaked and groaned in cadence with my knees as I climbed up for an afternoon sit; we have aged together. I hoped the impending snowstorm would put the deer into an early feeding mode.

“Would I finally fill a tag today?” I thought. The entire season had been fruitless; it was either too warm or too windy, and then there were the two misses. But I remained optimistic, looking forward to venison sausage and making chili during the winter.

As I settled in, I scanned the familiar woodlot for any activity. My thoughts drifted back to the years of hunts from that stand. I wondered what stories the metal and fabric would tell, if only they could talk. My thoughts whirled: “How many deer pass by in the night? How big is that buck rubbing on that beech tree? Is this where the coyotes howl after sunset?”

Memories of past wildlife encounters came to mind as I waited. I smiled, thinking about the chickadee that landed on my shooting rail; he was just curious about the big lump high up in a tree. Or, when I drew on a buck on an opening day of archery season, a coyote slinked past upwind and spooked him. And that time a Cooper’s hawk flew back and forth, scolding me; his piercing cry alerted the entire woodlot to my presence. A fluffy red fox once curled up and slept in the morning sunlight, not twenty yards away; his red fur had glistened with golden highlights.

“Wait! What was that? A deer?” No; the crunch in the dry leaves was just another squirrel stocking up on beechnuts from under the leaf litter. His presence reminded me of a family of five raccoons that feasted on the nuts earlier in the season. One of the raccoons sat on his haunches; his fat belly and pose reminded me of a Buddha statue.

My watch showed 30 minutes of legal shooting time left. It was the magical time when the deer trickle through that finger of woods to feed in a nearby corn field. “Would tonight be one of those times?” I thought. The last few minutes passed much too quickly and it was time to call it a season. The cold had made me stiff and I stood up to stretch. A sharp “whoosh” cut the stillness; antlers flashed as a buck snorted and trotted away. His tail rocked back and forth, as if giving me a white “goodbye” salute. He had been standing 50 yards away in a thicket, waiting for darkness. I smiled, shaking my head and unloading my gun. I thought, “That’s not the first time I have seen that on the last day.”

Thomas Adessa is a central New York native and an avid lover of the outdoors.

Edward Jakubowski



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