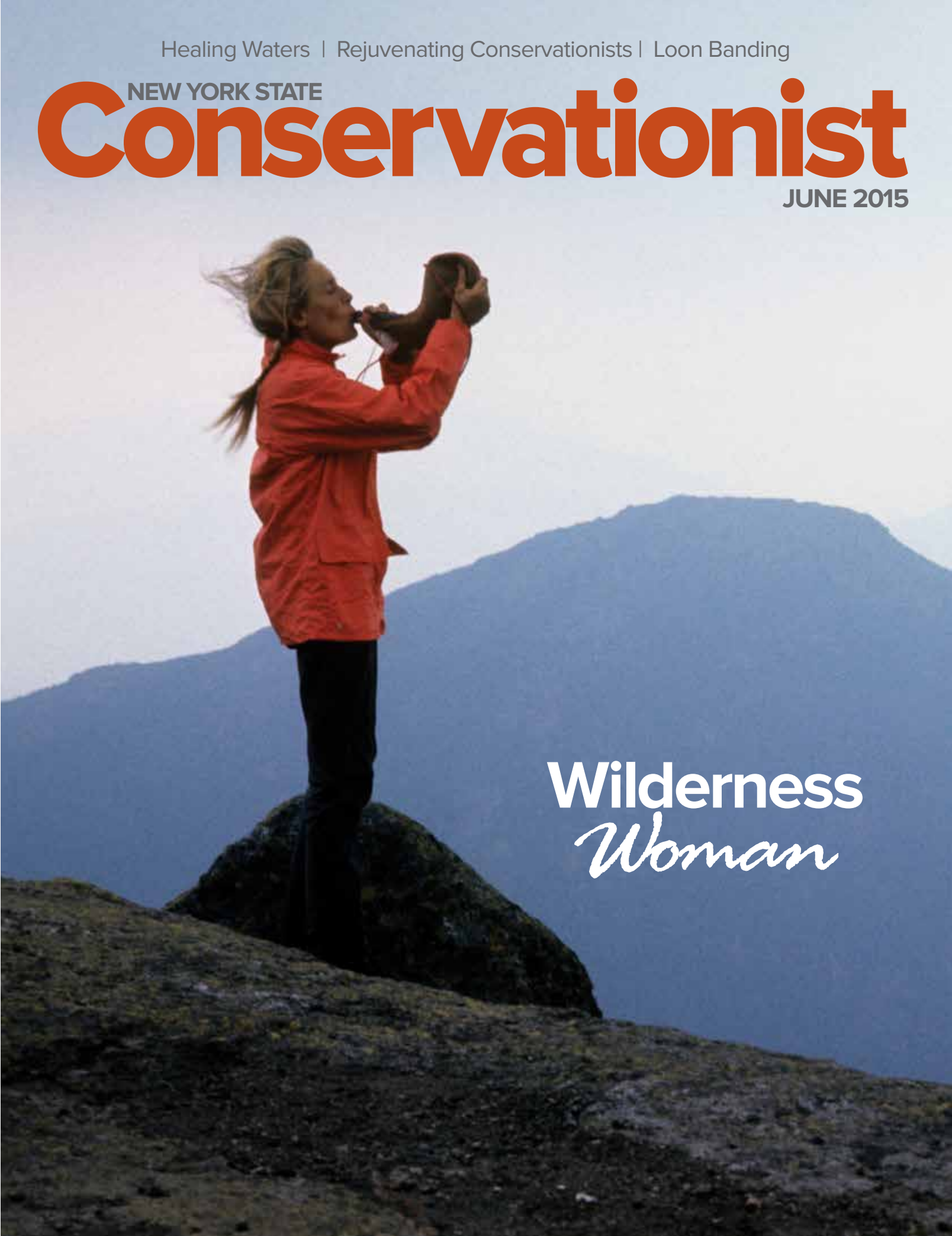
Healing Waters | Rejuvenating Conservationists | Loon Banding

NEW YORK STATE

Conservationist

JUNE 2015



Wilderness *Woman*

Dear Reader,

I recently returned from a meeting with representatives of the Haudenosaunee (Iroquois) nations, held at the beautiful new Gateway Center on the campus of the College of Environmental Science and Forestry at Syracuse. The Haudenosaunee open and close a meeting by thanking the creator for the many natural blessings bestowed on us. Their Thanksgiving address is a beautiful tribute to the natural world, and reminds us of our responsibility to protect those resources.

New York has so much to offer at this time of year: hiking and biking trails, campgrounds, lakes, rivers and streams for canoeing, boating, and fishing. New York's outdoor facilities and natural areas are without equal: Letchworth State Park was recently named the Best State Park in the nation in a 2015 *USA TODAY* Readers' Choice Award.

Under Governor Cuomo's leadership, we're working to make sure these natural resources are preserved for future generations. The recently enacted 2015-16 New York State budget contained lots of good news for the environment. It raised the Environmental Protection Fund to $177 million, an increase of 32 percent since Governor Cuomo took office. The $15 million increase will support projects in 14 categories, including land conservation, stewardship, and invasive species control and prevention. It provided $8 million in NY Works funding to enhance access at recreational fishing sites, state wildlife management areas (WMAs), state forest lands and boat launches. It included an additional $4 million in NY Works funding to upgrade state-operated fish hatcheries, building on last year's investment. DEC hatcheries raise and stock fish to bolster fish populations and restore native species, enhancing anglers' experiences. This year, DEC will stock more than 2.3 million catchable-sized brook, brown and rainbow trout in 312 lakes and ponds and roughly 2,900 miles of streams across the state.

The budget also provided $110 million for NY Parks 2020, which will support revitalization and rehabilitation projects at 60 state parks and historic sites across NY this year. The projects are part of the Governor's NY Parks 2020 plan, a multi-year commitment to leverage a broad range of private and public funding totally some $900 million from 2011 to 2020.

This year's budget expands on the progress we made in 2014 to expand recreational opportunities for sportsmen and sportswomen and to boost tourism. These include projects such as fishing and boating access at Goodyear Lake in Otsego County, an accessible dock at Cayuta Lake in Schuyler County, a formal fishing access site on the Oswegatchie River in St. Lawrence County, and a new waterfowl hunting and wildlife observation blind at Three Rivers WMA in Onondaga County—all in support of Governor Cuomo's New York Open for Fishing and Hunting initiative.

Visit DEC's website at **www.dec.ny.gov** for valuable information as you get set to explore and enjoy New York's great outdoors. While you're there, sign up for email updates from DEC, including information about New York's free fishing days. Plus, take fishing, hunting and wildlife information with you by downloading the official NY Fishing, Hunting and Wildlife app from the Apple App store or Google Play store.

Get outdoors and enjoy all that New York has to offer this summer!

Regards,

Commissioner Joe Martens

NEW YORK STATE
Conservationist

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Andrew M. Cuomo, Governor of New York State

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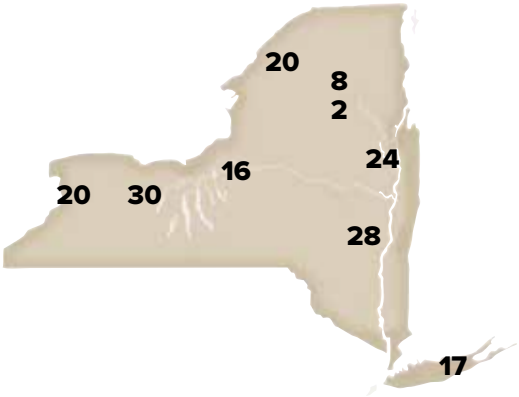

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Front cover: Anne LaBastille on summit of Mt. Marcy, July 1973 **Back cover:** Horseshoe crabs by Robert Pos, USFWS

Anne on Stillwater Reservoir

ADIRONDACK WOODSWOMAN: ANNE LABASTILLE

—As seen through her private collection of images

Editor's note: *When Anne LaBastille passed away in 2011, she left behind an extensive collection of slides—most previously unpublished and unseen—that she had taken during her lifetime. Many of these slides were of the Adirondack Region, a place she loved and called home. Anne's executrix, Leslie Surprenant, an Adirondack native and DEC biologist, graciously allowed* Conservationist *to share some of Anne's Adirondack images with our readers. The photos here are merely the tip of an Adirondack iceberg; we intend to share more with you in a future issue. Anne's remote log cabin was recently donated and moved to the Adirondack Museum in Blue Mountain Lake to be an important part of "The Adirondack Experience" exhibition, slated to open in 2017.*

Anne climbing in the Adirondacks.

Ecologist, conservationist, guide, scholar, author, lecturer, photographer; Anne LaBastille was an accomplished, fascinating trailblazer for women in conservation. Cornell University's second female natural resources student, she earned a Ph.D. in wildlife ecology, and was known internationally, traveling and lecturing around the world. Her pioneering research into the flightless giant grebe of Guatemala earned her the World Wildlife Fund gold medal in 1974.

But Anne's true love was her home: the Adirondacks. It was here that she built her log cabin on a lake in the heart of this rugged wilderness. For nearly 60 years, Anne canoed, hiked, climbed and snowshoed throughout the six-million acre park. With her German shepherds constantly by her side, Anne lived a life few women dared to.

Anne with two of her German shepherds: Chekika (pup) and Condor.

With help from others, Anne built her own log cabins. Here she is building Thoreau II.

Snowshoeing was sometimes a necessary means of getting around in the harsh North Country winters. This photo was taken near Big Moose Lake.

Anne's first conservation job was with the National Audubon Society in Florida. She was their first female tour guide and had to fight to wear pants on the job.

A strong environmental advocate, Anne devoted her life to preserving wildlands and endangered species. She was an Adirondack Park Agency commissioner for 17 years. One of her passions was the fight against acid rain.

Anne was a prolific writer, penning more than a dozen books and numerous popular and scientific articles. Between 1970 and 1997, *Conservationist* featured Anne's writings a number of times. Her well-known *Woodswoman* series of books chronicled her life in the Adirondacks and is credited with helping inspire generations of women to enter the natural sciences and to broaden their own experiences.

Anne had many friends throughout the Park, including well-known Adirondack personality Clarence Petty, pictured here in the bow of the canoe (see "Adirondack Inspiration: Clarence Petty" in February 2009 *Conservationist*).

According to Anne's longtime friend Leslie Surprenant, "Anne's life goal was to ensure that she and other women would have the opportunities of outdoor field work in the sciences. She was either going to accomplish it, or die trying."

If the number of women who currently work in the environmental field is any indication, we'd like to think Anne fulfilled her goal very well indeed.

Classic Adirondack guide boat

Anne's German shepherds accompanied her just about everywhere, such as on this hike at Marcy Dam.

From time to time, Anne would have the opportunity to fly over portions of the Adirondacks and take photographs of the lakes and mountains.

There are hundreds of images of beautiful Adirondack sunsets (like this one) in Anne's extensive photo collection.

Wayne Jones

CRIES IN THE NIGHT

—Banding loons in the Adirondacks

By Eileen Stegemann

Photos by John Stegemann, unless otherwise noted

July 21st: 8:30 p.m. till midnight

The cries from the loon chick were hard to ignore. Loud wails let everyone know its unease at being restrained, and its calls were getting its sibling—who was in my daughter's arms—upset. I helped my daughter stroke the baby loon's head and back of its neck in the manner we were instructed, and amazingly the loon calmed right down.

My husband had it much harder: he was holding a powerful adult loon that would alternate between being calm and frantically trying to get away. The towel over its eyes helped relax it, but an adult loon is a big, strong bird and seeing Bob struggle at times made me glad I wasn't holding it. The bird's 5" long, dagger-like bill looked like it could inflict some major damage if it hit its intended mark—in this case, anyone who was near—and I realized how important it was to make sure the loon was properly restrained.

We were at the boat launch site on Little Clear Lake, assisting in a loon banding project designed to assess the health and size of the Adirondack loon population. Having canoed and camped in the Adirondacks for more than 30 years, I am fascinated with loons and so my family and I jumped at the chance to partake in this project.

We had met Dr. Nina Schoch at Little Clear at 8:30 p.m. Another volunteer—a college student from Paul Smith's—was already there. Like us, she was excited at the opportunity to assist, and hopeful we'd see some loons up close. Capturing loons is hit or miss, but Nina and her team from the Biodiversity Research Institute's Adirondack Center for Loon Conservation have a lot of experience. They had scouted the area and knew there were three pairs of loons on this pond, two of which had chicks, and the third pair was nesting.

Stroking the loon chick's head and back of its neck helped keep it calm while researchers took blood.

A large adult loon protests to being repositioned for taking measurements.

Dr. Nina Schoch counts the feathers to locate the #12 feather on the wing of this adult loon being carefully restrained by a volunteer. The feather will be clipped and then sent to a lab to be tested for mercury.

Nina is New York's leading authority on loons and she's been conducting loon research in the Adirondacks for more than a decade. During that time, she has helped capture and band more than 400 loons (317 of which they banded), and the information gathered has been critical in guiding the development of loon management strategies for New York and beyond.

New York's loon populations fell to extremely low numbers in the 1950s, largely due to DDT poisoning and the effects of acid rain. Within the last few decades, loon numbers have begun to rebound. Today you can find a nesting pair on most medium- to large-sized lakes throughout the Adirondacks.

As we followed Nina down to the shoreline, our gear in hand (headlamps to free our hands; binoculars to watch the researchers out on the water; a camera; and bug spray because it was July in the Adirondacks), she gave us a quick rundown of the evening's activities. Several crew members would go out, capture the loons and then bring them to shore where we could watch and photograph them being processed (weighed, measured and banded). It was a beautiful night, and as if on cue, a loon let out its signature cry from across the water.

The rest of the research crew arrived shortly after and we helped them unload their equipment: two canoes, paddles, floating cushions and large tubs and boxes full of supplies, including numerous towels and a variety of tools (wire cutters, pliers and calipers). One container looked like an EMT's kit and contained a bunch of medical equipment: needles and syringes, test tubes, and various sizes of gauze. I found out it was for taking blood and feather samples to check for mercury levels.

Mercury is a highly toxic metal that arrives via air currents from coal-fired plants in the Midwest. It is deposited in the water and then moves up through the food chain. It accumulates in the loons' systems, seriously affecting their ability to reproduce and raise young. Current data shows that a number of loons have unsafe levels of mercury in their systems—not a good sign.

I asked Nina how researchers were able to get close enough to capture the birds. She explained that they use a spotlight to locate and momentarily blind a bird, so they can move in close enough to net it. The bright white breasts on adult loons make them fairly easy to spot, and the birds seem to be mesmerized or stunned by the light, similar to a deer in headlights. Assistants also lure the birds with calls, and Nina let out a call that sounded remarkably like a loon. She was quick, however, to produce a small recorder containing taped loon calls and said that was more reliable. It amazed me to learn that the pre-recorded calls sometimes entice the birds to literally swim right up to the boat, at which point researchers can scoop them up in a net. The researchers then cover the birds' heads with a cloth so they can't see, which calms them down.

It was around 9 p.m. when several of the crew climbed into canoes, armed with spotlights, large nets and towels. We used our binoculars in the quickly fading light to watch them paddle across the pond and then locate and capture the first loon. It was obvious they had done this before.

It didn't take long for the canoe to return to shore. A crew member carefully handed over the adult loon, and then hopped back into the boat so they could head back out in search of others. I'd never seen a loon up close like that and was struck by its beautiful plumage. Nina asked my husband if he'd like to hold the bird while they took its measurements. The loon was quite large, but she skillfully handed it over, making sure that the head and body were snugly tucked under his arms. Then she and her crew quickly got to work checking out the bird.

Everything is done in the dark, with only headlamps and flashlights illuminating the scene. Someone asked if it would be easier to do this under a full moon. Nina explained that a full moon would hurt our chances: the loons could see the approaching boats. In fact, moon phase is a major factor in choosing these banding dates.

Things really got busy when the other canoe pulled in with the two chicks. While I helped my husband readjust his hold on the squirming adult, my daughter was handed one chick and another volunteer received the other. Nina stopped what she was doing for a moment to check out the new arrivals and commented on how large they were for this time of year. She then helped my daughter and me get the chick settled before turning her attention back to the first bird.

Processing the birds was an interesting procedure. After assessing a bird's overall appearance, they took a blood sample from the leg. A vet from the Bronx Zoo assisted and it amazed me how adept she was—especially given the bird was trying to pull away. One smooth jab and

BRI researchers heading out in the dark to capture some loons.

Researchers take a blood sample from a loon.

Using pliers, Nina carefully secures a federal tag onto this adult loon's leg.

she found her mark. The samples were quickly labeled and stored away. It was an efficient operation—one that was clearly well practiced. The vet also took a swab of the mouth to check for avian flu. I was spellbound as she struggled to grab and hold open the sharp bill as the bird snapped and lunged at her. But she managed to grab and hold on long enough to stick the long-handled cotton swab down its throat and then quickly let go. I asked if she ever got bit and she held up her finger to display a cut she got a few evenings ago when she wasn't as lucky. I was very impressed that she seemed to show no fear at the prospect of being bitten again—I'm not sure I would have been as calm.

Nina then took a wire cutter from her tool box and counted the feathers on each wing to locate the #12 feather (which is the second secondary feather), then clipped it off with the cutters. She explained that she uses the same numbered feather on each wing for consistency in testing for mercury.

While all this was going on, the first canoe returned again with another large adult loon. Since everyone was already busy taking measurements, one person remained in the canoe, holding the bird until one of the crew was free.

Nina took out a caliper and measured the bird's legs (length of bones) and its bill (width and length). All the data was recorded in a chart by an assistant. Nina then prepared and placed two bands on the bird—a metal federal band on one leg, a unique combination of colored plastic bands on the other. She carefully measured the sizes and adjusted the bands to fit each leg. It's a precise operation and she made sure to get it right.

The other adult loon being held by the tech began to show signs of overheating, so we quickly wet some towels and wrapped them around the bird's feet to cool down the blood. After a brief time, the loon recovered and seemed prepared (or resigned) to continue waiting.

Preparing to swab a loon chick's mouth to test for avian flu.

Mercury and Loons

By Nina Schoch

Mercury is one of the most serious environmental contaminants. In December 2011, the U.S. Environmental Protection Agency finalized the Mercury and Air Toxics Standards rule that regulates how much mercury can be released into the environment by coal-fired power plants across the nation. This greatly benefits human health and also benefits the ecological health of the Adirondack Park and its wild inhabitants.

Mercury is of especially high concern in acidic environments, such as in many Adirondack lakes, where elemental mercury is converted to methylmercury, the toxic form, at a higher rate. Since common loons (*Gavia immer*) are at the top of the aquatic food web and live 20-30 years, they can be significantly impacted by accumulation of mercury in their bodies.

Since 1998, the Biodiversity Research Institute (BRI) and its collaborators have been studying common loon populations throughout North America, including monitoring their exposure to mercury. In New York, this work is coordinated by BRI's Adirondack Center for Loon Conservation. DEC has been working with BRI since the second year of the study, providing equipment and funding via a Federal Aid in Wildlife Restoration grant.

Results from banding and collecting blood and feather samples have provided valuable insight into the health and reproductive success of loons, and by extension, the health of Adirondack aquatic systems. To date, research results indicate that elevated mercury levels affect loons in a variety of ways. This includes causing lethargic behavior, as well as failure to defend territories, incubate eggs, and care for chicks, which causes overall lowered reproductive success.

We've also learned that loons can be negatively impacted by a variety of human activities, such as recreational disturbance, shoreline degradation, habitat alteration, water level fluctuation, fishing line entanglement, and lead poisoning from fishing tackle ingestion. BRI's Adirondack Loon Center has developed numerous outreach programs to address many of these issues.

For more information on loons, including how you can help loon populations, and about BRI's Adirondack Center for Loon Conservation, visit **www.briloon.org/adkloon.**

With the loon carefully tucked inside a mesh sack, researchers use a hand-held scale to weigh it.

After being processed, the adult loon is gently released back into the water. This loon promptly swam away.

In the meantime, it was time to weigh the bird. It's a delicate procedure. Nina carefully tucked the bird's head backwards, secured it in the towel and then, with the aid of an assistant, ever so slowly and carefully slipped the bird into a sack which she suspended from a hand-held scale. To my surprise, it weighed a hefty 5,900 grams (approximately 13 lbs)—one of the largest loons they've captured in New York. When it was time to weigh the chicks, they were much more cooperative and getting their weight was easy.

Nina said she thought the adults were both males. Since coloration is identical for both sexes, without doing an internal exam (the birds sex organs are internal), this judgment was based on their size and also the size of their bills (males are generally larger than females).

Before I knew it, it was time to release the bird. On large waters, the researchers take the adults back to where they were caught, but since this was a small pond, they simply released the adult loon in the water at the beach. Holding the bird tightly, Nina waded into the water, being sure to keep the loon's head wrapped in a cloth. She then asked everyone to turn off their headlamps and flashlights (to avoid confusing the bird), then placed the bird in the water and removed the cloth. It quickly paddled away.

Releasing the second adult after it was processed went a little differently. When the researchers removed the cloth, the bird simply sat there. Nina walked toward the bird to encourage it to leave, and it suddenly reacted, paddling away and calling (almost as if to scold us).

Nina explained that releasing the chicks is different—the researchers always return the chicks to the site where they were caught, then remain nearby to ensure the chicks reunite with the adults. This ritual obviously works because in all the years Nina's been doing this, the chicks have always successfully reunited with their parents.

Sometime close to midnight, we decided to wrap it up. The night was immensely successful: two adults and two chicks. On some nights, they don't catch any.

We helped the researchers pack up and carry their gear. Nina said they were going to check out another water—I couldn't believe it. If they caught more loons, they'd likely be out until dawn. But for Nina and her crew, the reward of doing work to ensure the Adirondack Mountains continue to reverberate with the loon's eerie wail far outweighs a little lost sleep.

Conservationist Assistant Editor **Eileen Stegemann** has a passion for the Adirondacks and counts seeing and hearing loons as one of her favorite outdoor experiences.

Note: To read more about loons, see "Spirit of our Northern Waters" in the June 2014 *Conservationist*.

Did You Know?

• Common loons (*Gavia immer*) are powerful swimmers and great divers, which aids them in chasing fish.

• Unlike most birds that have hollow bones to aid them in flight, loons have solid bones which are important for diving after fish.

• Loons' legs are located far back on their bodies, making walking on land very difficult. They typically come ashore only to nest.

• Loons are famous for their eerie, soulful calls. They have four distinct calls: the wail—done between loons to find each other's location; the tremolo—an alarm call or to announce its presence; the yodel—performed by males to claim a territory; and the hoot—soft, short calls to keep in contact with mates or chicks.

USFWS/Steve Maslowski

The Revival and Rejuvenation of Conservationists

By Richard Louv

At a dinner one night in 2006 at Royal Roads University in British Columbia, well-known wildlife biologist Bob Peart spoke to a group of conservationists and scientists from around the province. He described the often unstated despair with which some conservationists live, as they watch the nature they love slip away. He told how a friend, overwhelmed in part by that relentless sense of loss, had taken his own life.

As Bob told this story, he choked back tears. And then wept.

On Sept. 22, a Canadian national newspaper, *The Globe and Mail*, described his journey from despair to hope:

"After spending more than 30 years engaged in environmental battles, working both inside government as a chief of staff and outside for NGOs, Bob Peart was feeling physically and emotionally beat. So he took a break—and he might not have returned to the fray if he hadn't been inspired by a book that reminded him of the joy children experience playing outdoors."

Bob's statement was personally gratifying because the book was *Last Child in the Woods*, but more importantly, he rolled up his sleeves and went to work. With the help of Canadian artist Robert Bateman and others, he launched the Child and Nature Alliance of Canada, and has worked tirelessly for the cause. As *The Globe and Mail* reports, "Now Mr. Peart, 64, is poised to make a comeback as the new executive director of the Sierra Club of British Columbia, starting Oct. 15."

Bob Peart is not alone. His experience illustrates one way to support the conservation of conservationists—and the preservation of conservation itself.

The children and nature movement and its extension, the new nature movement, which is about creating a nature-rich future, has given wildlife biologists, park administrators, environmental educators and others a new or sharpened set of tools. Among them:

1. The children and nature movement offers conservationists a powerful new way to make their case. We see news story after news story about people and organizations that have galvanized public and political support to protect or create urban parks, school gardens, and environmental education budgets—pointing to the real threat of nature-deficit disorder to human psychological and physical health, and to children's ability to learn.

2. The movement is helping build and strengthen the long-term conservation ethic. Past studies show that adults with such an ethic fell in love with the natural world when they were children. What happens if the lives of young children are defined more by the virtual than the real? Among other groups, land trust organizations have realized that, unless future generations learn to love the land, then the legal agreements to preserve land won't be worth the paper on which the contracts are written. The children and nature movement is, in a sense, a form of insurance, a way to ensure that future generations will value the nature that conservationists have worked so hard to preserve.

3. Connecting children to nature will increase the diversity of conservationists. Today's conservation and environmental organizations tend not to look like the face of America; the children and nature movement, though it has work to do on this front, too, is arguably more culturally and racially diverse. It could expand ways to engage inner-city residents and the young at a faster rate. By emphasizing the human right to the health and cognition benefits of time spent in nature—whether in wilderness or cities—the children and nature movement broadens the case for environmental justice.

4. The children and nature movement brings to the same table, people who usually don't want to be in the same room. In a polarized political, social and religious climate, this issue has a special, almost primal power to bring people together. We see local, regional, state, national and international campaigns bringing liberals, conservatives, pediatricians, businesspeople,

James Clayton

James Clayton

environmentalists, policy makers, parents, grandparents and young people together to ensure that future generations will experience the joys of the natural world.

5. Overall, this new nature movement encourages those, such as biophilic designers, who want to extend environmentalism and sustainability to a vision of a nature-rich future—with nature-rich homes, schools, neighborhoods, workplaces, cities. It offers an antidote to despair.

Ron Swaisgood, a San Diego conservationist often credited with helping save the giant panda from extinction, has, like Bob Peart and others, found a parallel calling: a new devotion to an endearing species—the endangered human child in nature. In the journal *BioScience*, Swaisgood and fellow conservationist J.K. Sheppard have written, "If we do not embrace hope, we risk falling into the vicious cycle of 'learned helplessness…." As for the human disconnect from the rest of nature, they ask, "Who better to meet this challenge than conservation professionals? If conservation professionals do not answer this call to action, who will?"

A strong conservation movement is essential to connecting people to nature. Likewise, the preservation of nature depends on the success of the new nature movement to assure the right of all people—especially children—to a healthy environment and the psychological, physical and spiritual benefits that come with it. As we grow this movement, the funding pie—for the conservation of all species, including humans, will grow.

The three great environmental challenges of our time—climate change, the threat of biodiversity collapse, and the disconnect between humans and nature—are intertwined. We cannot do much about one without addressing the others. Environmental groups have made great strides in recent years to connect future generations to nature. And their support is growing for the conservation of conservation through the rejuvenating cause of connecting children to the natural world.

Richard Louv is Chairman Emeritus of The Children and Nature Network and author of *The Nature Principle: Reconnecting with Life in a Digital Age* and *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*.

Note: This article is reprinted from Richard Louv's blogs on the Children & Nature Network *and* Psychology Today.

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

Don't Sit Here—Suffolk County

ECO Travis McNamara received a call about an alligator found in a backyard bordering Upper Yaphank Lake. The homeowner said that a friend sat down on an overturned canoe and saw what looked like a large salamander scurrying away. That "salamander" was actually a 15-inch baby alligator, likely released by a pet owner. The alligator was caught and placed in a container. ECO McNamara searched, but did not find any other alligators. He turned the baby alligator over to the Suffolk County SPCA.

Shopping Center Boa—Onondaga County

ECOs Paul Sherman and Mark Colesante responded to a call from a CSX work crew about a possible python found under a bridge near the Destiny USA Shopping Center. When ECOs arrived, they were shocked to see that the "python" was, in fact, a six-foot-long boa constrictor in poor health. The snake's owner had probably released it in early spring, and the snake apparently had difficulty finding food. It's becoming increasingly common for owners to release large pet snakes when they outgrow their enclosures or become too expensive to feed. These owners think they are doing the humane thing; however, most of these snakes cannot survive New York winters, and can be dangerous to people during warmer seasons.

Feisty Cub—Broome County

ECOs Eric Templeton and Andy McCormick responded to a report of a lone bear cub wandering around the Town of Windsor. None of the callers had seen a mother bear. The officers arrived and searched a nearby ditch where the cub was last sighted, and eventually spotted it moving in tall grass along the ditch. After pursuing the cub, the officers finally cornered it in the ditch, and ECO McCormick netted it. Officer Templeton put on protective gloves to transfer the cub into a pet carrier; the seven-pounder fought furiously, biting and clawing. The cub was transported to a wildlife rehabilitator where it will be cared for until it can be released in the fall.

Cellphone Coordinates Confusion—Hamilton County

Ray Brook Dispatch was contacted at 4:45 p.m. by the Hamilton County Sheriff's Office about a 911 call received by State Police in Albany regarding six lost hikers on Castle Rock. The subjects, camping at Lake Durant Campground, called after losing the trail. No one had a map or compass, so they used a cellphone compass to determine their coordinates and gave them to the dispatcher. The coordinates—given in a degree.degree format—put them near Speculator, miles away from their stated location. Dispatch subsequently texted the subjects and requested their coordinates again, this time in a degree.minute.second format. The new coordinates placed them on Castle Rock as originally reported. Rangers Jason Scott and Bruce Lomnitzer responded and located all subjects at 6:30 p.m. They were in good health but suffering from black fly and mosquito bites. The rangers escorted them back to their vehicles.

Ask the Ranger

Q: If I have a cell phone or a GPS, do I still need to bring a map and compass when I go hiking in the back country?

A: Yes, when hiking in the back country you should always bring a map and compass along, and know how to use them. While handheld GPS units are great, they rely on batteries (that can die) and a signal which can be unreliable in certain wilderness areas. Likewise, getting an accurate location from a cell phone call has extreme limitations, especially in the Adirondacks. The phone needs to be in contact with multiple towers, and towers are few and far between in such wilderness.

James Clayton

LIVING FOSSILS

—Conserving and protecting horseshoe crabs

By Amy Dries

A group of volunteers wanders a stretch of a Long Island beach at 2 a.m. The volunteers wear headlamps and hold flashlights that shine on the dark water. They carry data sheets, a measuring device, a drill and assorted surveying tools. No matter the weather, they hike along the shoreline, sloshing through the crashing waves and wet sand. If they are not careful, the waves pour over the sides of their rain boots, which makes walking difficult.

In the glimmer of the lights, they see two brown shadows in the distance, through the ripples of water. The volunteers pray that their tired minds and strained eyes have not been fooled by a mass of seaweed or some rocks. Fortunately, they are not disappointed. As the group approaches, the shadows take shapes and reveal a pair of spawning horseshoe crabs. The female's body digs deep into the sand with the hope of safely creating a new generation.

Breathing Relics

Horseshoe crabs have wandered our earth for 450 million years. They are 200 million years older than dinosaurs. There are four horseshoe crab species (one of which is native to the United States) that have survived several mass extinction events. Yet they are currently facing their largest challenge yet: humans.

These marine arthropods have experienced few evolutionary changes since their first occurrence in the Devonian period. Surprisingly, they are more closely related to spiders and scorpions than they are to lobsters or crabs. Though formidable looking, horseshoe crabs are actually quite harmless. They could never bite a human due to lack of teeth, and they do not use their tail as a defense mechanism. This sharply pointed appendage is used if they get flipped upside down, and as a rudder during swimming. Their diet consists of small clams, algae, worms and crustaceans, which they gather with seven pairs of leg-like appendages. These "legs," and pincers near their mouths, also help them eat by ushering in food.

Ecological Importance

Horseshoe crabs are important to many ecosystems. Their eggs are an essential food source to many migrating shorebirds. Shorebirds, like the red knot, feed on horseshoe crab eggs and larvae. When horseshoe crab numbers are low, shorebird populations are also negatively affected. In fact, as of December 11th 2014, the red knot was listed as threatened under the Endangered Species Act. (See "To the Moon! (and partway back)" in our April 2015 issue for more about the red knot.)

U.S. Fish and Wildlife Service / Robert Pos

Outfitting horseshoe crabs with tags with tracking numbers helps ensure scientists can collect more data on this important species.

Studying shorebirds is how Dr. Matthew Sclafani, leader of the New York Horseshoe Crab Monitoring Network, first became involved with horseshoe crabs. He started a research project at the Delaware Bay because there was a large decline in migratory seabirds. "We wanted to see if there was a correlation between the seabirds and horseshoe crab populations," said Sclafani.

Unbeknownst to many, horseshoe crabs are an important aspect of our medical and pharmaceutical industry. Their blue blood contains cells called Limulus amebocyte lysate (LAL) that, when used properly, can detect bacteria. LAL is used to test certain drugs, vaccines, and medical equipment for bacterial contamination. If done carefully, harvesting this species for their blood can be a relatively safe process for the crabs. Many organizations, however, are trying to encourage alternative medical practices to lessen the number of horseshoe crab lives taken by pharmaceutical companies.

Survival Concerns

One major concern for the horseshoe crab is habitat loss. "Horseshoe crabs spawn on beaches, most of which have houses developed on them. This means they spawn in people's backyards," said Gary Gauvry, president of the Ecological Research and Development Group (ERDG), a non-profit conservation organization focusing on protecting the four horseshoe crab species.

Fortunately, there are programs that are preventing future destruction of horseshoe crab habitat and spawning sites. In the Delaware Bay, the ERDG has created a "Backyard Stewardship Program" and a "Community Sanctuary Program." The Backyard Stewardship Program has protected 15 miles of horseshoe crab spawning habitat, whereas the Community Sanctuary Program has Delaware Bay property owners commit to protecting horseshoe crabs on their own land. Community participation and understanding is of the utmost importance for their conservation.

Overharvesting is another concern for this species. Horseshoe crabs are used as bait to catch eels and whelks or conchs. The crabs are put into plastic mesh bait bags that are attached to the conch pots by bungee cords. The ERDG has made bait bags that use 50% less horseshoe crabs, but it may not be enough. In Delaware, there is a 30-day harvest that occurs directly after the peak of horseshoe crab spawning and it is only permitted at one location along the Delaware Bay. During this time, 164,000 males are allowed to be taken. "This year it only took 10 days to close down the harvest," said Gauvry. In New York, there is a recreational limit of five horseshoe crabs per day, and they must be for the harvester's own personal use. New York also has a voluntarily reduced commercial quota of 150,000 crabs per day. The quota can only be harvested by licensed commercial anglers and DEC closely monitors the harvest.

Dr. Sclafani believes that there may be a need for more regulation. "The problem is that it takes about eight years to see the effect of a regulation, because it takes about eight years for a horseshoe crab to be sexually mature," he said. "It depends on the area that you are looking at. There are specific regions where management plans need to be put in place."

Conservation Action

Horseshoe crab populations in some areas have steadily declined over the past decades. With this knowledge, many conservation organizations joined together and with their efforts, numbers have stabilized or even increased. However, there are still many places where horseshoe crab populations are on the decline.

Several organizations are trying to improve the world's knowledge of horseshoe crabs. The ERDG's main focus is horseshoe crab conservation. Gauvry first began to care about these animals when he was assigned to look at the potential effects an oil spill would have if it occurred in the Delaware Bay. "In order to learn how to mitigate or deter a critter from oil, you need to understand the critter. In this situation, it was horseshoe crabs," said Gauvry. "Back in the late 1980s, there was little concern for them and no organizations were focusing on their conservation. In 1995, we started ERDG to become the voice for horseshoe crabs," he concluded.

Amy Dries

This recovered horseshoe crab was discovered during one of Missy Weiss's surveys. The tracking number can be used in future migration research.

Missy Weiss, the Environmental Educator and Program Manager at Downs Farm Preserve on Long Island, New York, knew she wanted to become involved with horseshoe crabs after attending a Long Island Natural History conference in 2013. She quickly learned about a program in need: The New York Horseshoe Crab Monitoring Network. This organization recruits volunteers to participate in a citizen science project. They have assigned beaches where people come together to count and tag horseshoe crabs during the spawning season. People go out at all times of the night carrying scientific measuring tools—and a sense of purpose.

Volunteers conduct spawning surveys along select beaches. The group first walks the beach and counts the crabs they encounter, then they go back and measure each crab's width, determine its sex, and record the location where it was found. Then they drill a small hole into its exoskeleton and clip a tag with a specific tracking number in place. When someone rediscovers the individual, they can access a database to find out where it was originally tagged, or where it was last found. The goal is to collect more data on this species, and to find out where horseshoe crabs go in the off-season. Weiss was intrigued by these creatures and became a monitoring site supervisor on the North Fork of Long Island.

"As of 2014, I have coordinated two monitoring seasons and this was the first time that I've worked intensively with this species," said Weiss. The best find was during the 2014 season

Andrew L'HommeDieu

A group of volunteers (including the author, left) carry supplies needed to monitor horseshoe crabs.

when Weiss's group came across a barnacle covered tag on a horseshoe crab. After taking its number and looking at the database, they found it had traveled to Long Island from Rhode Island. They identified the horseshoe crab as being tagged in 2009. This is an important piece of information that will be applied to future horseshoe crab migration research.

Horseshoe crabs don't tend to cross our minds as animals that need our attention. They are not cuddly or cute, but the underlying uses and importance of these ancient creatures should give us enough reasons to care. They are an essential component of natural ecosystems and our medical world. Overharvesting and habitat loss are just two threats that have contributed to decreased numbers of horseshoe crabs. If more people realized the importance of this ancient species, perhaps they will be better able to survive their biggest challenge to date: human interference.

Amy Dries is studying Conservation Biology at SUNY College of Environmental Science and Forestry. She has monitored horseshoe crabs for two spawning seasons at various beaches in Suffolk County.

For More Information

- To learn more about horseshoe crabs, visit DEC's website at **www.dec.ny.gov**.
- To learn more about the Ecological Research and Development Group, visit **www.horseshoecrab.org**.
- If you'd like to get involved with the New York Horseshoe Crab Monitoring Network, visit **www.nyhorseshoecrab.org**. They have sixteen sites spread across Long Island that could always use volunteers.

PROJECT HEALING WATERS

—Fly fishing program helps veterans on a journey of healing

By Daniel Morgan

Photos courtesy of Project Healing Waters

Celebratory "whoops" echoed downstream as the steelhead made its determined, leaping dash towards fast water and freedom. Connected by fly and line, this fish was the culmination of a year's worth of effort—work, study and personal growth—for a 10th Mountain Division soldier participating in the Project Healing Waters Fly Fishing (PHWFF) program at Fort Drum in northern New York.

The multi-day fishing event on the Salmon River is hosted each fall by DEC, and guided by DEC's Salmon River Coordinator Fran Verdoliva. The much-anticipated event brings together injured and disabled veterans, volunteers, and the local community for a restorative weekend of angling. DEC provides lodging for the veterans at its nearby training academy facility, and DEC law enforcement staff use a boat to help transport participants unable to wade on the river. In addition, staff from DEC's Salmon River Hatchery have volunteered as mentors and guides for the veterans.

Local Salmon River anglers Jim Kelso and Ed Stankiewicz, both veterans themselves, travel to Fort Drum every Wednesday, year-round, to prepare the veterans for the annual trip to the Salmon River. In these preparatory classes, anglers are taught the finer points of this unique fishery and are given instruction on tying flies and casting. Once on the water, participants apply their new skills under the helpful eyes of volunteer guides. Many fish are caught over the weekend, but more importantly, participants leave with friendships and memories to last a lifetime.

Much more than a one-day fishing trip, PHW makes a difference in the lives of disabled military service members and veterans on an on-going, year-round basis. The non-profit organization PHWFF is dedicated to the physical and emotional rehabilitation of injured and disabled active-duty military service personnel and veterans through fly fishing, fly tying and associated educational and experiential activities.

Richard Franklin

Prior to going out on the water, veterans learn how to make their own flies.

Project Healing Waters began in 2005 at Walter Reed Army Medical Center in Bethesda, MD. Retired Navy Captain and Vietnam Veteran, Ed Nicholson, found himself being treated for cancer at Walter Reed. He had just completed his second career as an executive with a defense contractor after a distinguished 30-year career in the US Navy—during which time he commanded two ships and two naval bases—and was looking forward to spending his retirement fly fishing and bird hunting. But all that changed during his treatment. While walking the halls at Walter Reed during his recovery, Ed found himself surrounded by young men and women who had recently returned from deployments to Iraq and Afghanistan with life-changing disabilities: missing limbs, traumatic brain injuries, and deep psychological scars.

"It gave me a different perspective on my own healing process," Nicholson said. "I wanted to do something immediately. I thought these recovering soldiers would enjoy getting away from the hospital and into the outdoors." So he decided to take them on fly fishing day trips, and from there, PHWFF began.

Since its inception, PHWFF has expanded nationwide, and has become established in Department of Defense hospitals, Warrior Transition Units, and Veterans Affairs Medical Centers and clinics in all 50 states and Puerto Rico. Affiliate programs exist in Australia and Canada. Now in its 10th year, PHWFF has reshaped the lives of thousands of veterans. In 2013 alone, the organization served more than 5,400 injured or disabled veterans, in large part due to the 130,000 hours donated by thousands of volunteers nationwide.

As PHW's geographic scope has expanded, so, too, has it evolved. From its origins as a simple day trip, PHWFF now offers courses in fly fishing, fly casting, fly-tying and rod building. Clinics are offered for beginners who have never fished before, to those with prior fly fishing and tying experience who are adapting their skills to their new abilities.

The program is available to any disabled veteran who wants to participate. All the fly fishing and tying equipment, classes and trips are provided free of charge. Classes also offer socialization and camaraderie for the participants, two elements that are just as important as the outings.

PHWFF capitalizes on the support of a network of dedicated volunteers and clubs like Trout Unlimited (TU) and the International Federation of Fly Fishers (IFFF), groups whose members include accomplished anglers and guides. The expertise these volunteers bring to the program cannot be overstated. The fellowship and community fostered on the river, in the classroom, and over the fly-tying vise transcend the sport of fly fishing; it is through friendship that so much of the healing occurs.

New York's first PHWFF programs were held in 2008, the result of the passion and hard work of Ray Markiewicz. The Buffalo and Batavia programs were so well received that PHWFF began expanding eastward with the help of Black River Trout Unlimited member, Fred Kuepper. Through their work with local TU and IFFF groups, these two gentlemen laid the foundation for the creation of additional programs statewide.

Once they have taken part in a PHWFF program in a military hospital, many participants look for programs post-discharge or after relocation. Due to the national scope of the organization, veterans who relocate for any reason are often able to connect with a PHWFF program in their new area. If a program doesn't exist, some take on the task themselves, becoming volunteers and leaders—sharing their healing journey with fellow veterans.

One such example is the program at Ft. Drum. After being injured on a deployment to Iraq, Captain Rob Burke was recovering at Walter Reed when he was approached by a fellow soldier about PHWFF. That simple introduction was a new beginning for him. "This was something that gave me a little hope that if I can do this, I can do anything," he says. "[Fishing is] quiet. You get a lot of time to think. It can help you connect to… the way you were." Returning upstate in 2009, Burke imme-

Richard Franklin

A group of veterans learning to cast.

diately founded PHWFF's Fort Drum program. It was another call to service for Burke, a way to share this unique therapy with his fellow soldiers and veterans. Now in its seventh year, the Fort Drum Program meets weekly for instruction on fly tying, fly casting, and rod building. The program also works closely with the Traumatic Brain Injury Clinic on-base, providing a fun, therapeutic outlet for those recovering from life-changing injuries. Many participants discover that fly fishing is good therapy and a lifelong pastime.

Project Healing Waters receives no government funding. It is a volunteer-run organization that relies upon charitable donations to meet the educational, equipment, transportation, and related needs of its participants. Staff and volunteers believe that helping disabled veterans is more than a one-time event; rather it involves mentoring, friendship and companionship on a journey of healing. It is an extended commitment, because soldiers and veterans are often dealing with permanent or long-term injuries.

Although PHW begins at the first casting or fly-tying class, it extends beyond the first outing on the water. Fly fishing provides a chance to experience nature in an environment removed from the problems and frustrations of rehabilitation, recovery, and reintegration. Whether accomplishing new skills or bonding with newfound friends, participants and volunteers alike experience a unique, natural way to heal the body and lift the spirit.

"To have witnessed the transformation of so many lives has been incredibly gratifying," says founder Nicholson. "The next decade holds great promise for our program to continue expanding, to serve the thousands of deserving veterans who have yet to experience our very special kind of rehabilitative therapy: one based on the fly rod, the vise, and the incredible power of strong caring volunteers, fostering a bond of friendship and deep personal relationships. That's what we are all about."

Daniel Morgan is the National Director of Communications for Project Healing Waters Fly Fishing, Inc., and a volunteer in the Syracuse, NY PHWFF program.

You can help

There are many ways you can support PHWFF in your community. By volunteering with your local program, starting a program in your area, or through a donation of cash, goods or services, you can have a direct impact on the lives of injured and disabled veterans here in New York. To learn more, visit **www.projecthealingwaters.org**.

PHWFF Locations in New York:

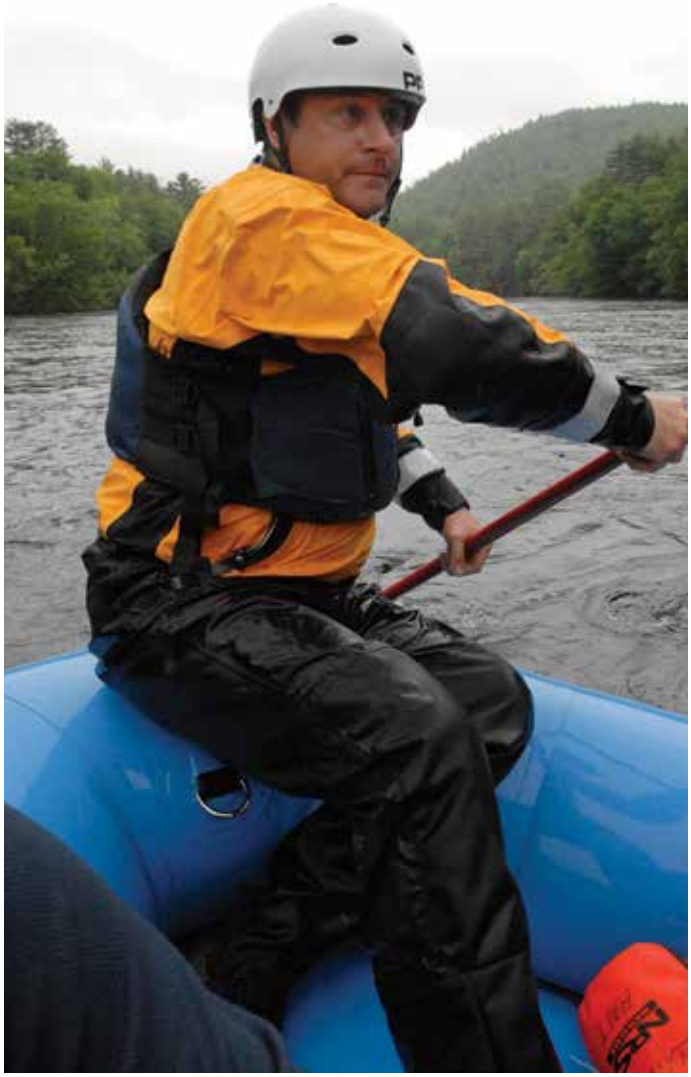
Albany: Albany Stratton Veterans Affairs Medical Center (VAMC)
Batavia: VA Western NY Healthcare System at Batavia
Bronx: Bronx VAMC
Brooklyn: Brooklyn VAMC
Buffalo: Buffalo Veterans Hospital; Amherst/Buffalo Vet Center
Canandaigua: Canandaigua VAMC
Ft. Drum: Ft. Drum WTU
Montrose: VA Hudson Valley HCS
Manhattan: Manhattan Campus of the VA NY Harbor Health Care System
Northport: Northport VAMC
Syracuse: Syracuse VAMC

ROLLING RAPIDS

—The dynamic world of New York's forest rangers

By Michael Rosenthal
Photos by Jim Clayton

According to New York State Forest Ranger Bruce Lomnitzer, "Fear is voluntary, but danger is real." This sort of reasoning sounds crazy, impractical even, when considering how drab a day in the life can be for most people. For a forest ranger, it's more than a code by which to live: it's a way of life that can help save people from serious harm, or worse.



Fierce Protectors

Many people may take forest rangers for granted, thinking of them as an extension of the police or curators of the forest. Formed in 1885, the rangers were initially known as fire wardens, and more than 100 years later, they're no joke. Their responsibilities include policing, protecting state forests, fighting forest fires, and acting as first responders in search-and-rescue situations. This short list hardly delves into the complexities of their daily routine and what their responsibilities include.

On a given day, a ranger may aid in any type of search and rescue, such as whitewater rescue, helicopter rescues, or scouring the trails and forests for lost persons. On top of these most serious of duties, rangers constantly patrol areas of outdoor activity, which means they may need to hike, mountain bike, rock climb, spelunk in caves, snowmobile, ski, snowshoe, use all-terrain motor vehicles, water vehicles, or what have you.

To become a ranger, an interested candidate must have an associate's or higher level degree in natural resources, environmental science or a forestry-related field, pass a civil service exam, and then if selected, endure a grueling, 26-week basic training program. After completion, a ranger will be assigned to a district somewhere in the state, based on their test scores.

Ranger Lomnitzer works in DEC's Region 5, which boasts a large portion of the Adirondack Park and rivers with rapids, including the Hudson. Rangers normally stay in their assigned regions but may be called to other areas in times of need. In the typical week, Lomnitzer makes his rounds through his district's recreation areas to ensure consistent coverage in case of any incidents, while also being on standby for any larger efforts requiring extra help. The life of a ranger is far from consistent, with daring rescues being common, so a ranger must always be prepared. "I might lend a helping hand here and there," says Lomnitzer, "or I may see something more serious, but you never know when lightning will strike."

Ranger Lomnitzer explains that although all rangers receive the same basic training, they naturally become more skilled at tasks common to their regions. Lomnitzer's district, for example, requires proficiency with whitewater, while rangers in the high peaks possess better rope-tying skills and high-angle mountain-climbing ability. Most situations require that a ranger rely on his or her training, experience, and some instinct, but this especially applies to whitewater rescues. "Whitewater rescues are as dynamic as they come," Lomnitzer says.

Split-Second Decisions

Rangers follow what they term "the Four P's": personal, partner, public and patient; meaning the ranger assesses risks first to him/herself, his/her partner, the general public, and then the person in distress. If a ranger deems the situation suitable for a rescue attempt, he/she then must determine the best course of action. In whitewater, a ranger can try getting to the person and helping him/her back to his/her vessel, getting the person to shore, pulling the person onto the ranger's vessel, or throwing a grab bag with rope in it that can help pull in the person. A seasoned ranger also knows how to take advantage of small areas where the water is calm, eddies, and also how to stay in place by "surfing" on certain waves, getting caught between opposing water forces.

The decision comes from a number of factors, such as the ranger's vessel, weather and water conditions, and a judgment call the ranger makes about how well the person will cooperate. "If someone comes up frantic with big eyes, I don't want him or her grabbing onto my boat." A ranger must make split-second decisions, and every second counts. Sometimes a person is in need of immediate rescue, and sometimes imminent danger lurks around the corner. No amount of training or expe-

Rangers receive regular training to keep on top of their game, such as swift water rescue training. Rangers learn how to read the water, handle themselves in rapids, right a boat if it flips over, and much more.

rience makes those decisions easy. After helping the person, a ranger may then try and catch the person's vessel and oars by grabbing them, using a tether, or even by "bulldozing," when a ranger comes at the vessel perpendicularly and forces it to shore.

Practice Makes Perfect

To keep on top of their game, rangers regularly receive training. I was lucky enough to be able to tag along and observe a swift water rescue training session held on the Sacandaga River in early June 2014. For some, it was a refresher; for others, it was their first time. To say the training was intense would be an understatement. I watched as the rangers—properly outfitted in wetsuits, helmets and pfds (personal flotation devices)—climbed into inflatable kayaks and rafts and paddled out into the fast-moving water. It was "learn as you go" as participants were instructed on how to read the water to find the safest route, how to control the boat, and how to right the boat if it flips over.

As part of the training, rangers swam out into the rapids to play the victims for other rangers to rescue, and also to learn how to handle themselves in rapids. For instance, the rangers were instructed to float downstream feet first to help protect their bodies from hitting boulders and other debris in the stream. It was apparent that it took a lot of strength and stamina to maintain some semblance of control in the rolling water of the rapids.

During the training exercise, each ranger got to play victim and rescuer. I watched with admiration as they practiced rescuing each other—sometimes in boats, other times throwing out a line from shore. All the rangers also took turns purposely flipping their boats and falling into the rapids so they could practice righting the boats and pulling themselves back in. Some made it look easy, but you could tell it took a lot of physical energy.

During training exercises, rangers take turns playing the victim or the rescuer. Here, a ranger throws out a line from shore to a would-be-victim.

Putting Skills to the Test

The Upper Hudson is known for its challenging rapids, at once thrilling to some and dangerous to others. Most traffic down the rapids comes from companies that provide certified guides to paying customers, and most guides provide a safe trip down the river. A ranger still has to watch out for private citizens. Anyone with some extra spending money can end up in a vessel in harsh water without the proper experience or with a general disregard for safety. Ranger Lomnitzer jokingly describes his job as getting paid to go on other people's vacations, but as much fun as his job may be, he serves as a great preventive measure for reckless whitewater seekers.

He once saw a man struggling in his kayak on the Hudson and offered to guide him to safety. It soon became obvious that the kayaker was way out of his league, and although they were far from any road, Lomnitzer told him he had to stop immediately. It may have inconvenienced the kayaker, but Lomnitzer prevented him from potentially getting really hurt or into even more trouble. It's not too difficult

As part of the training, rangers learn how to handle themselves and their boats in rapids, which takes a lot of concentration and stamina.

for someone to get forced underwater into a "low-oxygen environment" and drown. By patrolling the waters, rangers can prevent the need for a daring whitewater rescue later.

Sometimes, inherent risks or untimely incidents are unavoidable. At other times, a little improvisation might be required. Lomnitzer once received a call about a man who had been rafting and complained of chest pains while resting on a rock. Rangers and law enforcement officers brought ATVs to treat the man, and decided to bring him the rest of the way down the Hudson in a vessel with Ranger Lomnitzer in command. The group wasn't sure how to set up an IV fluid line for the man until Lomnitzer stuck a paddle upright in the back of his vessel and tied the IV to it. As he neared the take-out at the road in fading light, people shone flashlights to help him get the man to shore and off to medical care. "No two rescues are alike," Lomnitzer remarked.

Ranger Lomnitzer even has some funny stories, such as when he helped push Gov. Paterson's raft off a rock when it got stuck. Duty may not always involve life or death, but it keeps things flowing, so to speak. However, not every rescue ends happily.

One year, Lomnitzer helped in eight situations in which someone died. For example, a 21-year-old female skier died in his arms of a lacerated liver. Plenty of accidents happen, and people get lost, and sometimes a search party's best efforts fall short no matter how hard they try. That part of the job can be difficult, but it is part of the job, and successful rescues make it all worthwhile.

Lending a Hand to Others

At times, rangers may be called upon to augment the efforts of other authorities, such as local and state police. Some rangers even go out west each year to help fight forest fires. The experience they gain fighting western fires prepares them to better respond to future forest fires in New York. For instance, rangers put that experience to work last month fighting fires on 2,700 acres of land in the Catskills.

Ranger Dave Kallen was called upon to rescue stranded people from their homes during Irene and Lee. Afterwards, Kallen stayed on as division supervisor for the Schoharie operation. Once immediate threats to life and property are cleared, rangers bring their experience and specialized equipment to aid with recovery. In these extreme situations, rangers use air boats instead of their usual whitewater crafts, but many of the training elements are the same.

"Whitewater skills are used in other places, like floods," Ranger Kallen explains. "Our training allows us to immediately determine whether the situation is beyond our equipment's capabilities. If so, we'll use air boats." The whitewater training allows rangers to properly assess these situations and avoid becoming a victim themselves.

When you run into a ranger, feel free to ask them a question or two. They'd be more than happy to talk with you, point you in the right direction, or share their knowledge.

Whenever something serious happens to the average outdoorsperson, rangers show their true colors. "Fear is a choice;" one that we passersby may make, but one that rangers ignore in order to protect the greater good.

Michael E. Rosenthal was a summer intern at DEC in 2014.

James Clayton

Access for All

This July marks the 25th anniversary of the Americans with Disabilities Act, a federal law that prohibits discrimination and ensures equal opportunity for persons with disabilities. DEC has an active and focused approach in making its landscape more accessible to visitors: wheelchair accessible sites provide access to camping, fishing, boating and wildlife viewing; communication and education efforts are mindful of the needs of people with a variety of disabilities. DEC continues to expand the principles of inclusion and full community participation envisioned by the ADA, as our visitors inform us of their recreation needs. In recognition of the ADA's 25th anniversary, DEC is working to ensure that people of all abilities can recreate together on state lands and participate in an expanding variety of programs and services, reaffirming the spirit of the ADA: equality and independence. Visit DEC's "Accessible Recreation" webpage for more information.

Look for the Zero

When buying fertilizer for your lawn, check the bag for a set of three numbers showing the percentage of nitrogen, phosphorus and potassium. Buy the bag with a "0" in the middle. Fertilizing your lawn with phosphorus-free fertilizer will protect our water resources. Too much phosphorus in freshwater lakes and ponds can cause algae overgrowth, with serious impacts to the environment and public health. More than 100 waterbodies in the state cannot be used for drinking, fishing or swimming because they contain too much phosphorus. The 2010 Dishwasher Detergent and Nutrient Law made it illegal to use phosphorus fertilizers on lawns, except under specified conditions. Some municipalities also have stricter laws. More details about the state law can be found on DEC's website by searching "Dishwasher Detergent and Nutrient Runoff Law."

James Clayton

DEC Commissioner Joe Martens (second from right) assists in the ribbon-cutting ceremony in Poestenkill.

Community Forest for the People

Earlier in April, as part of New York State's Earth Week celebrations, DEC joined the Rensselaer Plateau Alliance (RPA)—a grassroots organization dedicated to conserving the environmental and economic character of the Rensselaer Plateau—in establishing the new Rensselaer Plateau Community Forest in Poestenkill. Part of the funding for establishment of the forest came from the U.S. Forest Service which rated the project application #1 in the country. The Forest will provide recreational access for Plateau residents and visitors, as well as promote forest stewardship programs. Importantly, "the Community Forest will secure an ecological and economic legacy for our community that will benefit many people for generations to come," said RPA President Jim Bonesteel. For more information about the new Community Forest, search DEC's website.

River Monitoring Volunteers

DEC's Water Assessments by Volunteer Evaluators (WAVE) program is now recruiting citizen scientists to help with water study projects in Lake Ontario and in the Niagara, Genesee, Delaware, Hudson and Mohawk River watersheds. Volunteers can participate in one of two ways: they can join a local WAVE

group led by a trained local coordinator, or; they can sample streams independently. (Participants must attend a WAVE training session, though.) Citizen scientists will visit stream sites once per year, between July and September, to collect micro-invertebrates. If "Least Wanted" organisms are found, the stream segment will be flagged for possible investigation by DEC's Stream Biomonitoring Unit staff. For more information, including training sessions and how to register, visit DEC's website and search "WAVE."

Upgrading NY State Parks

Earlier this year, New York State Office of Parks, Recreation and Historic Preservation unveiled "NY Parks 2020," a plan to transform the state park system into an exciting visitor experience for the twenty-first century. With public and private investments, the new park renovations are currently underway. Current priorities include: enhancing recreational opportunities with new or improved playgrounds, athletic fields and swimming facilities; updating campgrounds and cabins, bathhouses, contact stations, and picnic pavilions; preserving historic buildings by repairing roofs, windows, historic stonework, etc; and much more. Visit **http://parks.ny.gov** for more information.

New Freshwater Fishing Regs

DEC's new freshwater fishing regulations went into effect on April 1, 2015. The new regulations focus on consolidating regulations and eliminating others that are no longer warranted or that are outdated. Some highlights include: increasing the minimum size limit of muskellunge to 40 inches on most waters; establishing or expanding all-year trout seasons at various waterbodies throughout the state; clarifying or defining certain definitions in regulations, such as "catch-and-release fishing," "floating lures," etc.; among other changes. Furthermore, a combination of state and federal funds will be used to manage, protect and restore fish and wildlife habitat, and to improve and develop public access for fish and wildlife-related recreation. The complete list of regulation changes can be viewed under "Recently Adopted (Previous Twelve Months)" on DEC's website.

OPRHP/John Rozell

LETTERS Compiled by Eileen Stegemann and Jenna Kerwin

Be a Good Egg

I recently spotted this ruddy turnstone at Fire Island National Seashore.

Scott Stoner
Albany County

Great capture! It reminds us of Audubon New York's Be a Good Egg New Jersey and New York program, which teaches people to share our beaches with the shore birds that nest and hatch their chicks there. Take the pledge to be a good egg this summer at ***www.goodeggnjny.org****.*

Spiny Creature

I recently photographed this curious looking specimen. Do you know what it is?

Kim Abrams
Genesee County

This is a great picture of a spiny (or urchin) gall produced by cynipid gall wasps. These wasps produce galls resembling spiny red or pink sea urchins. The adults emerge in the fall when females then lay eggs in leaf buds.

—Jerry Carlson, DEC Research Scientist

Playful Kits

I took this picture of these red fox kits in Seneca Falls. One would start digging, while the others watched intently, then one would grab another's tail. They always stayed very close to their den.

Haidee Oropallo
Auburn, Cayuga County

How lucky you were to observe and photograph these young kits. They look like they are enjoying the sun as much as we do. The peak breeding time for red fox in New York is between January and February. Following breeding, females give birth to a litter of kits approximately 52 days later. Litters vary in number from 1 to 12, with 3 - 6 being the most common.

Contact us!

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Tiny Beauty

I have been very fortunate to capture this image of this butterfly. I have always had a passion for the great wilderness and would like to share this photo with you!

Joseph Stevenson
Geneseo, Livingston County

What a lovely photo of a little wood satyr butterfly. These butterflies are found throughout most of the eastern United States, in grassy woods and old fields. The adults feed on sap, aphid honeydew and occasionally flower nectar.
—Kathleen O'Brien, DEC Wildlife Biologist

Young Explorers

I wanted to share this picture of baby Canada geese with you.

Stephen Sinkevich
Albany County

It looks like these goslings are having a grand time exploring the great outdoors!

Ask the Biologist

Q: I've been watching chipmunks go in and out of the numerous holes they've dug in my yard and it got me wondering: how come there isn't any dirt around the holes? What do they do with the dirt when they excavate tunnels?

A: There is no soil around the entrance and exits to chipmunk burrows because these critters carry the soil away in their cheek pouches and then scatter it some distance from the openings. Chipmunks do this to ensure that the openings to their burrows remain hidden from obvious predators such as snakes and raptors. Interestingly, according to reports from Penn State University, chipmunk burrows may extend 20 to 30 feet! That's a lot of dirt to move!
—Gordon Batcheller, DEC Wildlife Biologist

Back Trails

Perspectives on People and Nature

John Bulmer

Highlight of the Day

by Eli Knapp

If dads are honest, I think most would admit that they hope their children will adopt some of their interests or hobbies. I certainly do. But you obviously can't force somebody to love something. Inevitably, that effort goes belly up. So instead of coercion, I opt for the slightly less overt tactic of immersion.

Quite simply, my kids are immersed in my love of birds and birding. Every day of their lives, they've been surrounded by feeders, bird houses, binoculars, posters, lists, carvings and field guides. I even named my daughter "Indigo" after one of my favorite birds, the indigo bunting.

"No more birds, Dad!" Ezra sometimes shouts from the back seat after I slam on the brakes and crane my neck to get a better look at a raptor flying overhead. My wife's subtle smirk at such back seat directives confirms her assent. There's a time for birding and a time to refrain from birding. And driving, I'm learning, is a time for the latter.

But even six-year-old Ezra can't always conceal his delight at recognizing birds he's grown to know. "We're going to go around the table, and everybody is going to tell us what their day's highlight was," I say, attempting to rein in the raucous dinner cacophony, focus the kids' attention on mealtime, and teach them to take turns speaking.

"I'll go first," Ezra says, waving a macaroni noodle around on his fork like a baton. "I saw an indigo bunting while on the bus today! It was by the big bend in the road," he adds, as if more detail will add veracity to his claim. I look at Ezra. His stoic sincerity is palpable. While he loves to get a rise out of me, I can tell that at least this time, he's not ruffling my feathers.

While I don't yet know if Ezra or his sister will grow to love birding, I do know that at the very least, they'll be familiar with it. And if you can't love what you don't know, familiarity seems like a step in the right direction. While I'm learning when to (and when not to) watch birds, they're learning about the beautiful feathered creatures that share our planet.

Why don't I know if my immersion technique will work? I guess it's because of this: like most dads will admit in moments of honesty, we're all just winging it.

Indigo Bunting

Laurie Dirkx

Dr. Eli Knapp is an assistant professor of Intercultural Studies at Houghton College in Western New York.

FREE FISHING WEEKEND

June 27-28
(Smiles included)

Susan L. Shafer

Each year, the last full weekend in June is designated as Free Fishing Weekend in New York State.

During those two days, anyone can fish the state's waters without a license, giving everyone the opportunity to sample the incredible fishing New York has to offer. Panfish, bass, walleye, pike, salmon, trout and musky are just a few of the many freshwater fish species that you can fish for during New York's Free Fishing Days. And since no license is required, it's the perfect time to introduce a friend or relative to the sport.

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