



Photo Credit: Larry Master

Missing from the Night Skies

If you've spent any time near Adirondack waters over the past decade, you may have noticed the ominous absence of bats in the evening. In 2006, white-nose syndrome (WNS), a devastating disease caused by the fungus *Pseudogymnoascus destructans* and responsible for killing more than 6 million bats in 32 states and 5 provinces, was first detected in New York State. Through careful study, scientists are learning that some bats can survive the disease and are showing evidence of reproduction. Working as a Social Scientist for WCS, Dr. Heidi Kretser doesn't get to study bats up close and personal, but her latest mission is to encourage recovery of bat populations and to limit spread of this deadly disease. She is doing this as a member of the WNS National Communications Working Group and by guiding effective communication efforts that successfully encourage landowners and the general public to take actions that benefit bats. Our goal is to encourage the general public to implement conservation actions that benefit bats.

However, since bats pose a disease risk as carriers of rabies, they have some social stigmas in popular culture. Messages related to those risks and stigmas conflict with messages to protect bats. For example, public health agencies tend to focus on the risk of rabies, while wildlife agencies and conservation organizations promote the benefits of bats and how to protect them. Heidi is examining how the public reacts to inconsistent messages about bats from wildlife and public health agencies, and then recommending communication strategies that fit within these diverse agencies. WCS recently released a report about messages that can both promote bat conservation and protect public health.

This report draws on interviews with agencies and organizations across North America that provide "bat messaging" and recommends ways to align the messages from wildlife and health organizations, including collaboration and consistent language. WCS is gearing up to look more carefully at the sources of information the public use, how they interpret those messages about bats, and measuring whether these messages actually lead to action that will ultimately bring bats back to our Adirondack skies.

Meanwhile, back at home in the Adirondacks, please do what you can to manage bats on your property—this might include installing a bat box, leaving old trees on your property, or just leaving bats roosting in buildings alone until their young can fly. Remember, bats, like all wildlife, carry disease so please report any contacts between bats and pets or humans.

To read the report, visit wcsadirondacks.org, and to learn more about the WCS is doing about bats, visit wscanada.org/Wildlife/Bats

Eastern Small-Footed Bat

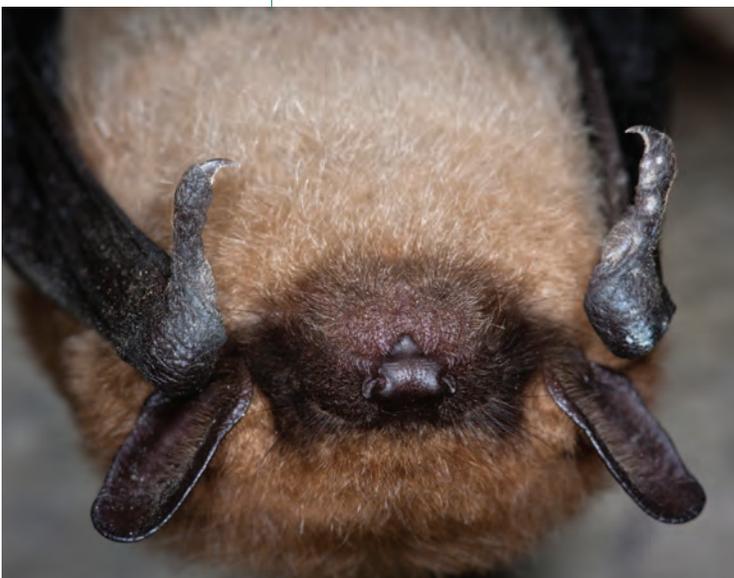


Photo Credit: Larry Master



Photo credit: Dr. Michale Glennon

The Slow Loss of our Northern Icons

In our work, most studies last 1-3 years; we discover a problem, a way to examine it, and we report our findings. Rarely do we connect with the naturalists of old and observe simply for the sake of observation.

In the bogs and cold forests of the Adirondacks, Dr. Michale Glennon gets to do just that. In 2007, WCS was awarded a New York State Wildlife Grant to gather information on the distribution and abundance of a group of fairly specialized birds that most people are unaware of and fewer get a chance to see. Over five years, our field staff explored these large iconic bogs but also visited new places in far-flung areas to survey and document the occurrence of 12 species of boreal birds who live in the conifer-dominated, open bog and peaty forest areas of the Park. You may know them as the places where tamaracks and spindly black spruce live, where the ground underneath you is slightly spongy and

sphagnum covered, where you feel like you've been transplanted somehow from a place far to the north.

Those initial surveys marked the beginning of what is now more than a decade of bird surveys in these special habitats and have revealed a story which is, unfortunately, not a happy one. **The birds are disappearing.** We have tracked occurrence patterns and trends for black-backed woodpecker, gray jay, Lincoln's sparrow, olive-sided flycatcher, yellow-bellied flycatcher, rusty blackbird, boreal chickadee, and palm warbler. As reported in a 2014 paper in *Northeastern Naturalist*, WCS documented declines in about half of these species in the time from 2007–2011. More recently WCS collaborated with the DEC and reexamined those trends with some newer data. Unfortunately, declines are now evident in all species except the palm warbler.



Dr. Michale Glennon and field staff have monitored boreal bird populations since 2007.



Photo Credit: Julie Larsen Maher, ©WCS

Help Count Loons

Volunteers are needed to help WCS survey the loon population in New York State's Adirondack Park. This year's 17th annual **Loon Census** takes place **Saturday, July 15th** from **8:00–9:00 AM**. You can participate by observing loons by boat or on foot for one hour on census day. The data you send back to us will be used to assess New York's loon population.

Please contact us to sign up for a lake by calling us at (518) 891-8874, ext. 106, or sending an email to wcsaccp@gmail.com. Please be prepared to tell us your name, contact information, and the pond or lake that you are interested in, including the township and county. More details for this year's census can be found online at wcsadironclacks.org. The census is a partnership between WCS and the Adirondack Center for Loon Conservation.

IF A HOUSE "FALLS" IN A FOREST, DO THE WILDLIFE "HEAR" IT?



WCS has been studying the impact that houses have on wildlife, and through our research we have learned that even if a house is surrounded by native vegetation (such as forest), it changes the wildlife community in ways that are measurable.



- The impacts on wildlife from development can extend away from the house, up to 600 feet. This is due to factors like noise, nighttime lighting, use of pesticides, pets running free, and physical changes to the forest. As a result, a new house has a "wildlife shadow" of 15 – 30 acres.



- When residential development occurs, wildlife often still live nearby, but the species tend to be different. Development creates conditions that attract generalist species (common species able to use a wide range of resources for food and shelter) like raccoons and blue jays, while more rare, specialized species such as martens and warblers do not thrive near houses. Scientists refer to this as biotic homogenization or a loss of biotic integrity.

Just how bad is it?

For some birds like rusty blackbird and olive-sided flycatcher, these declines are steep and mirror patterns at larger scales. For others, declines are more moderate and though increasingly scarce in the park, they show mixed patterns elsewhere. Because the Adirondacks Park lies at the transition zone between the temperate and boreal biomes, we are largely at the southern range

extent for most of these species within eastern North America. And because these habitats are southern holdouts of a colder, higher-latitude system, we are probably documenting retractions at the range margin. Poleward range shifts resulting from climate change have been documented on all continents and in most of the world's major oceans for all well-studied plant and animal groups; we are probably witnessing another example. Combating and reversing the havoc wreaked by climate change will require a concerted global effort and could not be more urgent, but there are things we can do to help these birds at home too.

WCS research shows that these species are sensitive to more local effects of our land use decisions. Proximity of houses and roads impact the likelihood of their use and persistence in individual wetlands; human disturbance from recreational activities may even affect habitat quality in some places. Careful planning that protects boreal wetlands and buffers them from intensive land uses will help these species maintain their unique place in the Adirondack avifauna. Your support enables us to continue understanding these alarming trends and their causes. To learn more, please download our brochure on how to *Make Room For Wildlife* at home at wcsnorthamerica.org/Adirondacks.



Michale Glennon



Larry Master



Larry Master

Photo far left: A "charismatic mega-bog"; an island of boreal biodiversity nestled in a temperate northern landscape. Above (top to bottom): rusty blackbird; gray jay; palm warbler.

Ecologist Raymond Curran to Receive Award



This year Adirondack ecologist and WCS Advisory Board member, Ray Curran will receive the 2017 Elizabeth Thorndike Adirondack Achievement Award from the Adirondack Research Consortium at the 24th Annual Conference on the Adirondacks in Lake Placid. Ray has a long career as a professional ecologist in the region having worked for the Adirondack Park Agency for over 30 years and now working in the private sector. He provides his expertise on the Northern Forest Atlas Foundation board and as a Science Crew co-leader for Cycle Adirondacks. Ray has contributed to a number of technical reports and papers with WCS and has served as a long-time member of WCS Adirondack Advisory Board. The Elizabeth Thorndike Adirondack Achievement Award is given annually to an individual who has demonstrated significant contributions to the long term sustainability of the Adirondack Park through scholarship, research, and policy initiatives. Past awardees include Barbara Bedford, Cornell University; Jerry Jenkins, Wildlife Conservation Society; Barbara McMartin, Adirondack author; and, Eileen Allen, SUNY Plattsburgh. Ray certainly deserves this honor—congratulations!

Register to Ride or Volunteer for Cycle Adirondacks!

Cycle Adirondacks will be back for the third year in a row. The event is held August 19-25, 2017, and is offering a different format than the past two years. This year, we aim to spend more time connecting with our local host communities: Schroon Lake, Keene Valley, and Saranac Lake. WCS will once again provide a science program, with scientists and naturalists available at rest stops throughout the day and giving presentations in camp each night. The Cycle Adirondacks Riders' Field Guide will also be available to highlight the history of the area, natural features, and points of interest along the route. Riders will spend two nights in each town, and choose between biking and exploring the community on layover days. Fewer than 40 spots remain for our Aug. 19-25 ride, and there are still opportunities to volunteer for the week. Visit cycleadirondacks.com to learn more and to register to ride or volunteer. If you live along the route, please come visit us at camp or at the nightly entertainment areas.

Partners launch Nature's Network to guide conservation from Maine to Virginia

The North Atlantic Landscape Conservation Cooperative (LCC), including WCS and federal, NGO, and academic members from 13 states, has launched a science-based "road map" to help inform decisions and actions for conserving lands and waters throughout the Northeast. **Nature's Network** identifies a network of places that help define the highest conservation priorities in the region to sustain natural resources and their benefits for future generations. More than a map, it offers a suite of decision-support tools created in collaboration with nearly 30 organizations using innovative modeling approaches developed by the University of Massachusetts Amherst and The Nature Conservancy (TNC). Learn more about Nature's Network at naturesnetwork.org/. For more information about the North Atlantic LCC, visit northatlanticlcc.org



SAVING WILDLIFE AND WILD PLACES WORLDWIDE

The Wildlife Conservation Society saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature. WCS envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on earth.



Photo Credit: Larry Master

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