## CONSERVATION THROUGH THE LIVES OF ADIRONDACK LOONS:

An Overview of BRI's Adirondack Center for Loon Conservation

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The Biodiversity Research Institute's (BRI) Adirondack Center for Loon Conservation conducts conservation research and outreach focusing on the Common Loon (*Gavia immer*) in New York State's six million acre Adirondack Park. Hundreds of Adirondack lakes and ponds provide critical breeding habitat for Common Loons during the summer months, as well as an excellent opportunity to study these unique birds and learn more about their populations.

In 1998, as part of a larger regional study, the Biodiversity Research Institute (BRI) initiated research in the Adirondacks on the impact of airborne pollutants, particularly mercury emissions and acid deposition, on aquatic ecosystems, using the Common Loon as an indicator species. This work evolved into the development of BRI's Adirondack Center for Loon Conservation, which is dedicated to enhancing the overall health of the environment through applied research and education efforts utilizing the Common Loon as a sentinel of aquatic ecosystems.

The Biodiversity Research Institute is dedicated to supporting global ecological health through collaborative research, assessment of ecosystem health, improving environmental awareness, and informing science-based decision making. With more than 150 projects worldwide, BRI works to assess emerging ecological threats, raise awareness, and inform policymakers, leading to enhanced environmental protections. BRI's Adirondack Center for Loon Conservation merges the worlds of field research and outreach to expand public awareness and understanding of Common Loon natural history and conservation, and to inspire science-based conservation strategies to better protect environmental health in and beyond New York's Adirondack Park.

The primary goals of BRI's Adirondack Center for Loon Conservation are to:

- Use the Common Loon as an indicator species in our scientific research to identify and address conservation threats impacting the Adirondack breeding loon population and aquatic ecosystems.
- 2. Provide objective information to the public and scientific communities to increase awareness and understanding of loon natural history and regional conservation issues so as to minimize anthropogenic threats affecting wildlife populations and the environment.
- 3. Inspire the public and students to become directly involved in wildlife conservation through opportunities to participate with BRI's Adirondack Center for Loon Conservation's research and outreach programs.
- **4.** Provide sound scientific information to the public, scientists, and legislators to enable them to make informed decisions regarding the management of wildlife species, regulation of airborne pollutants, and the long-term protection of freshwater ecosystems in the Adirondack Park.

Through scientific research and outreach programming, the Adirondack Loon Center addresses conservation threats to both individual loons, such as fishing line entanglement and nest disturbance, and to the Adirondack population as a whole, such as environmental contamination by airborne pollutants. The Loon Center's research is designed to learn more about the natural history of and threats affecting the Adirondack breeding loon population. Current studies include investigating the impacts of mercury pollution and acid deposition to the Adirondack loon population; assessing the health of Adirondack loons; identifying their migratory patterns and wintering areas; determining the status and trends in New York's breeding loon population; and determining factors affecting nesting and hatching success.

The Adirondack Loon Center collaborates with numerous partners in its research studies, including the NYS Department of Environmental Conservation, the Wildlife Conservation Society, SUNY ESF's Adirondack Ecological Center, and the Adirondack Watershed Institute. Financial support for BRI's Adirondack Center for Loon Conservation is generously provided by the New York State Energy Research and Development Authority, as well as numerous foundations and private donors. This financial and in-kind support has contributed to significant insight into Adirondack loon ecology, movements, and distribution.

In addition to the Center's work in New York State, the Adirondack loon research is coordinated with similar studies across North America to better understand loon populations throughout their entire range. This continental scope provides a scientific basis to help guide conservation efforts by increasing awareness of human-related and natural threats to wildlife and the environment. These studies provide policy-makers with critical scientific information for making informed decisions about essential regional, national, and global environmental protections—including monitoring and regulating emissions of anthropogenic pollutants based on the health and reproductive success of the Common Loon, an iconic symbol of freshwater ecosystems in North America. The results of the Loon Center's investigations also contribute to sustainable management of the species in New York State and across the continent.

BRI's Adirondack Loon Center integrates its innovative scientific research with inspiring educational programs to address critical conservation issues affecting the Common Loon population and its freshwater habitats in the Park itself. The captivating nature of Common Loons is employed in the Loon Center's educational and outreach programming to advance both public and scientific knowledge of Common Loon conservation. The goal of the Loon Center's outreach programming is to minimize human impacts on loon populations, other wildlife, and their habitats. The Center's scientific findings are translated into a variety of outreach materials, including technical and lay-audience reports, brochures, and scientific publications; interactive public and scientific presentations; an annual newsletter, *The Adirondack Tremolo*; innovative school curricula (e.g., *Science on the Fly!*) which actively engage students in environmental conservation; an informative website and Facebook page (www.briloon.org/adkloon and www.facebook.com/adkloon); educational signs at boat launches; and community events (e.g., the Adirondack Loon Celebration).

With the goal of enabling humans to live compatibly with wildlife in a healthy environment, Adirondack residents and visitors are enlisted to help apply the knowledge that has been learned through the Loon Center's scientific studies. The Loon Center conducts a variety of projects and events, such as our fishing line recycling program, to allow interested citizens to directly participate in the conservation of loons and their aquatic habitats in the Adirondack Park. The Center also provides a variety of field, internship, and volunteer opportunities for college students and community members to obtain first-hand experience and training in wildlife research, conservation, and outreach. For younger students (elementary, middle, and high school), interactive school curricula are available through the Adirondack Loon Center's website as an engaging resource for learning about Adirondack loons and the connections between humans and the environment. A long-term goal of BRI's Adirondack Center for Loon Conservation is to become a self-sustaining conservation entity in the Adirondack Park. Future plans include the establishment of a physical office space in the Tri-Lakes area of the Park to accommodate a growing staff. The vision for a physical Adirondack Loon Center is multifold. Along with accommodating a larger staff, the Center will serve as an exciting regional tourist attraction with a modest environmental education facility including interactive displays about loon natural history, behavior, and loon conservation concerns. A meeting room will be available to offer workshops and training programs about loon natural history, conservation of loon populations, and wildlife research. Plans also include a loon-oriented retail shop to enable visitors to obtain unique artisanal items in the theme of our distinctive Adirondack icon.

An increase in BRI's Adirondack Center for Loon Conservation staff and a new physical location will greatly facilitate the Center's ability to enhance its collaboration with other Adirondack and regional scientists, organizations and educational institutions, such as the Wildlife Conservation Society, The Wild Center, SUNY ESF's Adirondack Ecological Center, Paul Smith's College, Syracuse University, and the NYS Department of Environmental Conservation. The Center's training and outreach capacity will similarly improve, increasing the opportunity for regional students of all ages to become directly involved in environmental conservation. Finally, the physical Loon Center will showcase Adirondack loons as "ambassadors" in the Center's displays and other outreach materials to enable students world-wide to learn about environmental conservation and wildlife through the lives of this beautiful and charismatic symbol of New York's Adirondack Park.

To learn more about BRI's Adirondack Center for Loon Conservation, visit www.briloon.org/adkloon, www.facebook. com/adkloon, or contact adkloon@briloon.org or PO Box 195, Ray Brook, NY 12977.