



# Adirondack Research Consortium

*Better Information for Better Decisions*

## 23<sup>rd</sup> Annual Conference on the Adirondacks 23<sup>rd</sup> Annual Conference on the Adirondacks – Paper Presentations

**Session 3, 5/25/16, Forest Bird Habitat and Loon Studies, (Lussi B)**

### **Improving Habitat For Forest Birds: Developing Guidelines For Foresters.**

**Treyger, Suzanne, M.<sup>1\*</sup>**

New York's forests provide important breeding, migratory stop-over, and wintering habitat for hundreds of species of birds. Of particular importance, our forests provide breeding habitat for over 100 species of birds. Unfortunately, many species of forest birds are experiencing population declines, due to a number of factors, including habitat fragmentation and habitat loss. Quality forest habitat for birds and other wildlife means healthy, resilient, regenerating, and diverse forested landscapes. With 63% forest cover in New York State, the way we manage forestland can significantly influence bird populations. The application of sustainable forest management can greatly improve forest habitat, and many times silvicultural prescriptions, under the guidance of a trained forester, create favorable conditions for birds while achieving timber management and other multiple use objectives. Audubon New York created *Forest Management for New York Birds: A Forester's Guide* as a resource for foresters and other land managers to integrate important habitat components into forest management planning. This publication is part of Foresters for the Birds New York, a program adapted from Audubon Vermont's Foresters for the Birds. This new resource provides guidance on how to manage forested landscapes to provide a balance of forest age classes to meet the habitat needs of a suite of forest birds, as well as stand-level features that increase structural complexity and enhance habitat.

<sup>1</sup>Audubon New York

Cornell Lab of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850

## **Restore the Call: Translocation of NY Loons to Build Massachusetts' Loon Population**

**Kneeland, Michelle<sup>1</sup>, Lee Attix<sup>1</sup>, Vincent Spagnuolo<sup>1</sup>, Alex Dalton<sup>1</sup>, Nina Schoch<sup>2\*</sup>, and David C. Evers<sup>1</sup>**

In 2015, seven Common Loon (*Gavia immer*) chicks were successfully captured from New York's Adirondack Park and released in southeastern Massachusetts as part of Biodiversity Research Institute's national "Restore the Call" project to restore loon populations to their former range. Chicks were translocated at approximately 6-10 weeks of age. Six chicks were reared in aquatic enclosures for 9 - 23 days before being released onto Pocksha Pond (part of the Assawompset Pond Complex). One older chick was released directly onto Pocksha Pond after being transported from New York. Following release, all seven loon chicks continued to thrive and remained on the Assawompset Pond Complex until November, and a few chicks remained on Pocksha Pond well into December before fledging off the lake. Most chicks adapted well to captivity, and gained significant weight prior to being released. It will take three years for these individuals to return to the release area as adults, and may take several more years to form successful breeding pairs. Thus, it will be at least 2020 before the long-term success of this project can be fully evaluated. Based on the success of the translocation effort in 2015, it is recommended that this project be repeated in 2016 and 2017, with the goal of successfully translocating at least 25 - 30 chicks over the three-year period. This will allow a sufficient number of successfully translocated loons to ensure that enough chicks survive to adulthood and eventually return to southeastern Massachusetts to establish breeding territories.

<sup>1</sup>Biodiversity Research Institute, 276 Canco Rd., Portland, ME 04103

<sup>2</sup>Biodiversity Research Institute's Adirondack Center for Loon Conservation, P.O.Box195, Ray Brook, NY 12977

## **Unveiling the Secret Lives of Nesting Adirondack Loons**

**Keating, Rory C.<sup>1\*</sup> and Nina Schoch<sup>1</sup>.**

Biodiversity Research Institute's Adirondack Center for Loon Conservation placed trail cameras at 37 Adirondack Common Loon (*Gavia immer*) nest sites during the summers of 2013–2015 to assess the primary factors (e.g., predation, human disturbance...) affecting loon nesting success and record loon nesting behavior. Cameras were placed at nest sites by field staff who monitored the study lakes throughout the breeding season, and were set to take three rapid-fire photos each time the cameras sensed motion. A total of 65,187 photos were recorded that documented 12 successful nesting attempts, 24 failed attempts, and 1 nest platform that was not used. Photos also showed a variety of loon behaviors and interactions with other wildlife.

The causes of failed nests varied, and were not always discernible from the photos. Photographs documented that seven nests hatched chicks; five nests failed due to being washed out by a rise in water level; and three failed from predation. While the ultimate cause of failure cannot always be determined, the photos captured repeated human disturbance as a likely factor that affected success at loon nests on lakes with high human recreational use. Current results have informed NY DEC's management of loon nest sites on developed and highly-used lakes to implement strategies to minimize human disturbance. We plan to

continue this study in future years, and to conduct further analysis of the data to yield more insight into loon nesting behavior and to help guide management methods to minimize factors threatening loon nesting success.

<sup>1</sup> Biodiversity Research Institute's Adirondack Center for Loon Conservation, P.O. Box 195, Ray Brook, NY 12977.

**Session 1, 5/26, 10:45-12:00: Public Lands and the Relationship with Communities (Lussi A)**

**Measurement of the Value of Public Land Designations in the Adirondack Park**

Martin D. Heintzelman<sup>1</sup>, Chuan Tang<sup>1,2</sup>

New York State continues to acquire additional land within the Adirondack Park. The state recently bought much of the former Finch, Pruyn lands and will soon complete the purchase of the Boreas Ponds Tract. Once the state buys this tract, it's up to the Adirondack Park Agency to determine how it will be managed by classifying it using one of the categories spelled out in the Adirondack Park State Land Master Plan. Broadly, Forest Preserve land can be designated as wilderness, which prohibits motorized recreation, or wild forest, which allows the use of motorized vehicles including snowmobiles, ATVs, and floatplanes. There is a heated political debate about which land designation would be most beneficial to the park's communities and economy. We conducted Hedonic Analysis with cell-level fixed effect on over 77,000 property transactions that occurred within the Adirondack region from 2004 to 2013. In general, the preliminary hedonic results suggest that close proximity to protected land provides a positive impact on property values. However, being too close to wilderness, within 0.5 miles, provides no significant impact on property values. We do not find significant impact on property values adjacent to wild forest lands. This study is the most complete study to date on the complicated relationships between land-use regulation and property values in the Adirondack Park. It is expected to serve as a reliable scientific reference to inform policy and land classification decisions going forward in the Adirondack region.

<sup>1</sup> School of Business, Clarkson University

<sup>2</sup> Institute for a Sustainable Environment, Clarkson University

**Community Based Connections**

Colin Beier<sup>1</sup>

New York State's most important, long-term land acquisition objectives for the Adirondack Park – once considered by many to be unrealistically optimistic – have largely been achieved. However, the development of outdoor recreational opportunities within the Park requires

additional attention. A creative, new approach was needed to address this situation: one that integrates long-term planning (APA) and recreation management on Forest Preserve and conservation easement lands (DEC) on a broader landscape level so as to benefit both the economy of Adirondack communities as well as wild land protections required by longstanding law and public demand.

The Great South Woods (GSW) Complex Planning project is intended to be the first of a succession of five such exercises conducted on a much larger scale than that of individual State land management units. Its objectives are to identify opportunities and feasible means to: optimize the potential of the Great South Woods to provide a wide spectrum of outdoor recreational activities available on Forest Preserve, conservation easement, municipal and private lands across the region; establish a new community-based land-and-water trail and lodging system that would strengthen community linkages to each other and to nearby Forest Preserve and conservation easement lands; better develop front-country areas of State lands for improved access and greater enjoyment of diverse – including motorized – recreational activities; and improve protection of back-country areas of State lands in their primitive, wild condition while improving their trail systems for heightened enjoyment of self-powered recreation.

SUNY ESF has led the design and implementation of the participatory GIS-based process used in the GSW effort, organizing the engagement of local knowledge in Adirondack communities across the 2 million acre GSW complex, and building on a previous decade of research and technical support for DEC's efforts in the Adirondack Park. Working with DEC, APA and Hamilton County, as well as over two hundred participants in our process, ESF has produced a Draft GSW Strategy that outlines over 50 potential opportunities designed to create recreation destinations based out of Adirondack communities, and which is currently being reviewed by DEC. This presentation provides an overview of GSW effort from ESF's perspective, gives a sneak-peak at the GSW Draft Strategy under review, and seeks to answer questions and gather feedback about our effort.

1. SUNY College of Environmental Science and Forestry, Syracuse, NY

**Session 2, 5/26, 10:45-12:00: Peatland, Aquatic Macrophyte Species, and Invasive Species Research (Lussi B)**

**Adirondack Boreal Peatland Community Tree Demographics: Implications for Biodiversity Conservation Management.**

Langdon, Stephen F.<sup>1,2\*</sup>, Martin Dovciak<sup>2</sup>, and Donald J. Leopold<sup>2</sup>

Abstract Biodiversity of boreal peatlands at their range limits is threatened by human-caused environmental changes such as climate change and nitrogen deposition which can accelerate succession by woody species. Large boreal peatland complexes in the Adirondacks contribute disproportionately to our region's biodiversity – particularly with regards to avifauna- by providing habitat to flora and fauna at their range extremes. Yet, there are few studies that

characterize the vegetation of these ecosystems for our region, which has had some of the highest historic nitrogen deposition levels in North America. To fill this gap we sampled vegetation along gradients within one of the largest peatland complexes in the Adirondacks, the Glacial Lake St. Agnes peatland complex at Shingle Shanty Preserve and Research Station in northern Hamilton County, NY. We used ordination techniques to classify ecological communities and described tree demography (e.g., age class and size class) within these communities. Open bog communities with characteristic peatland species were threatened with transition to forested black spruce-dominated bog communities, while these forested bog communities in turn showed poor recruitment of black spruce and a trajectory toward a greater proportion of broad-leaved trees. Fen communities showed successful recruitment of northern white-cedar and balsam fir. Conservation of boreal peatlands near their southern range limit requires monitoring and management of woody vegetation to control tree invasions from surrounding deciduous forests, as well as landscape-scale planning to maintain the overall peatland community mosaic.

1. Shingle Shanty Preserve and Research Station
2. Department of Environmental and Forest Biology, State University of New York College of Environmental Science and Forestry.

### **Landscape Level Analysis of Drivers of Aquatic Macrophyte Species Richness in the Adirondack Park of New York State**

Sean A. Regalado<sup>1</sup>, Daniel L. Kelting<sup>1</sup>, & Corey L. Laxson<sup>1</sup>

Identifying the relative fit of drivers of aquatic macrophyte species richness is necessary for the effective conservation of biodiversity in lakes and provides fundamental understanding of aquatic macrophyte communities. Using multiple regression, we investigate the relative influence of water quality, lake morphology, geographic and landscape drivers, and humans on the richness of macrophytes in lakes in the Adirondack Park of New York State, and produce a surprisingly well behaved model fit. We find, ordered by slope coefficient, bed area (.45), X (or longitude) (.30), road density within 100m of a lake (.24), surface water area upslope (.18), elevation (-.17), and lake isolation (.14, larger values of represent less isolation) explain 64% of the variation in species richness in lakes in the Adirondacks. We reject the passive sampling hypothesis for the species-area relationship regarding bed area, revealing a biologically relevant species-area relationship. We found no significant influence of lake area, watershed road densities, urban isolation, Y, lake and bed effective fetch, bed isolation, and water quality on richness. If the goal of aquatic macrophyte conservation is promoting diversity, lake area, the categorization of “pristine waters”, and climate refugia should not be used as parameters in the conservation process. Our results also reveal insight into meta-community dynamics in aquatic macrophyte communities. At the regional scale, isolation is a significant driver of richness giving evidence to the relative importance of patch dynamics; while at the bed scale, isolation is insignificant, giving evidence to the importance of mass effects at the lake scale.

1. Paul Smith’s College

## **Adirondack Park Aquatic Invasive Species Spread Prevention Pilot Program.**

Holmlund, Eric\*<sup>1,2</sup>, Dan Kelting<sup>1,3</sup>

The Adirondack Watershed Institute Stewardship Program (AWISP) was selected by New York State to staff and manage the 2015 Adirondack Park Aquatic Invasive Species (AIS) Spread Prevention Pilot Program. This program extended the reach of AWISP by funding new boat launch steward locations and high-pressure hot water decontamination stations strategically placed to maximize regional spread prevention. Sites for decontamination stations were chosen in cooperation with the New York State DEC and Adirondack Park Invasive Plant Program. Decontamination protocols and site designs were modeled after the Lake George Park Commission's decontamination program. In all 11, decontamination locations were staffed and managed by AWISP yielding 8,454 inspections and 675 organisms removed. 182 of the organisms removed were confirmed AIS and 175 vessels underwent the decontamination process. 8% of boats encountered at these locations were transporting an organism of some kind (native or exotic) and 2.2% of boats were transporting confirmed AIS. AWISP and partners used this opportunity to learn important information to consider when implementing a park-wide decontamination program. When comparing the 11 different locations, results indicated that boat launch locations with decontamination stations on site had the most boat inspections and therefore detected more organisms and decontaminated more boats than decontamination stations located along roadways.

1. Adirondack Watershed Institute, Paul Smith's College.
2. School of Commercial, Applied and Liberal Arts, Paul Smith's College.
2. School of Natural Resource Management & Ecology, Paul Smith's College.

### **Session 3, 5/26, 10:45-12:00: 2017 Referendum on the Constitutional Convention – Article 14 Considerations (Lussi C)**

This panel discussion will consider the upcoming Constitutional Convention referendum and what Constitutional Conventions in NYS have done and could do for the Adirondacks in the future. The Rockefeller Institute of Government is organizing a multi-year educational statewide campaign to make people aware of the 2017 NYS Constitutional Convention referendum. The keynote speaker is Chris Bopst from Buffalo. Chris will be speaking about the history of the 1894 convention, going back to Verplanck Colvin and the desire to remove the preserve from legislative whim. He will also speak about the Constitutional Convention process overall and the role of voters, beginning in 2017. Chris is the chief legal and financial officer of Sam-Son Logistics, Inc. in Buffalo; co-author (with Peter Galie) of *The New York State Constitution*, 2d ed. (Oxford University Press, 2012); and a contributor and co-author of *New York's Broken Constitution: The Governance Crisis and the Path to Renewed Greatness*, coming out this fall under SUNY Press. Chris has, additionally, co-authored (with Peter Galie) five articles that have

been published in the Albany Law Review about the New York Constitution or New York constitutional history and has been involved in efforts to educate high school students statewide about the New York State Constitution. After Chris's 20 minute keynote, an Adirondack panel of experts will discuss Article XIV and the challenges and opportunities inherent in a Constitutional Convention, and consider the possibilities inherent in further strengthening Article XIV should the referendum pass.

## Poster Abstracts

### **Evolution of Passive Cloud Water Collector from Manual to Fully Automated**

E. Hebert<sup>1</sup>, P. Casson<sup>2\*</sup>, M. Jones<sup>1</sup>

Cloud water chemistry measurements have been made at the summit of Whiteface Mountain in Wilmington, NY since 1978 (Volker A. Mohnen<sup>3</sup>). The passive sampler was deployed with a hand-powered winch when conditions were determined to be conducive for collection by personnel stationed at the summit.

The Mountain Cloud Chemistry Project (MCCP) was in operation from 1986 to 1989 and was implemented by the Forest Response Program of the National Acid Precipitation Assessment Program (NAPAP) and sponsored by the Environmental Protection Agency. Sample collection was still done manually during this period.

The Mountain Acid Deposition Program (MADPro) was a multi-year study of the deposition of air pollution to high elevation forests in the eastern U.S. MADPro was a part of the Clean Air Status and Trends Network (CASTNET). Cloud water samples were collected at Whiteface Mountain from 1994-2000 under MADPro. The collector design was improved and automated for MADPro.

From 2001 the cloud water collection system has been operated by the Adirondack Lake Survey Corporation (ALSC). Environmental, Engineering & Measurement Services (EEMS) has been responsible for system improvements and upgrades from 2005. This poster outlines and summarizes the system advancements which include pneumatic collector deployment, real-time measurement of sample volume as it is collected and sample collection control to reduce sample bottle use and site visit requirements.

1. Environmental Engineering & Measurement Services, Inc., Gainesville, FL
2. State University of New York at Albany, (SUNY), Albany, NY
3. State University of New York at Albany, (SUNY), Albany, NY *Cloud chemistry research at Whiteface Mountain, 26 July 1988*

## **Recent Advancements in the Adirondack Long Term Monitoring Program**

James E. Dukett<sup>1</sup>; Sue Capone<sup>1</sup>; Phil Snyder<sup>1</sup>; Nathan Houck<sup>1</sup> Sara Burke<sup>1</sup>; Matt Kelting; Korey Devins; Monica Schmidt<sup>1</sup>

The Adirondack Lakes Survey Corporation (ALSC) was established in 1983 to undertake comprehensive biological and chemical surveys of Adirondack waters, to study the water quality and the effects of acid rain, and to disseminate this information and contribute to scientific understanding through studies and outreach through:

- Collaboration in the Adirondack Long Term Monitoring Program (ALTM) with key researchers and government agencies.
- Evaluating the effectiveness of acid deposition controls called for under the Federal Clean Air Act Amendments of 1990.
- Providing critical data to ALTM researchers, which enables policy makers to design and evaluate the effectiveness of acid deposition and mercury control policies.

While monitoring lakes remains a top priority for the ALTM, in recent years, resources have been shifted to new projects to further help evaluate the effects of fossil fuel combustion on the Adirondack ecosystem.

- In 2014 the ALTM added more stream monitoring to address weaknesses in our understanding of episodic acidification.

These changes have reduced costs while improving the understanding of spatial and temporal trends in surface water quality in New York's Adirondack Park. This poster will provide an overview of the current ALTM program.

### 1. Adirondack Lakes Survey Corporation

## **An Exploratory Study of Bird-window Collisions in the Rural Landscape of the Northern Adirondacks, NY**

Jorie Favreau, PhD<sup>1</sup>, Professor of Wildlife Biology, Fisheries and Wildlife Science Program Director

Bird-window collisions (BWC) occur worldwide and are thought to be a major cause of death for many passerine species. While most studies have been done in urban areas, little is known about the effects of windows on birds in a rural matrix. This was investigated via two measures in and



around Paul Smith's College in the Northern Adirondacks, NY. Paul Smith's is located in a rural matrix (<30 occupied dwellings in a 500 m radius, bordered by >1000 acres of forested land). To gain a baseline of BWC, we searched for bird carcasses under windows of 11 buildings on campus consisting of two stories. Each building sampled had an average window area of 10.28 square meters (Standard error=3.12). a variety of buildings in a small town. 11 carcasses were found between the last week of August and the first week of November. The majority were found in early September, with a total of 6 passerine species found on campus. 72% of carcasses were found on the eastern and western faces of buildings, however this was not significantly different than the BWC on the north and south building faces (ANOVA  $p=0.33$ ). Secondly, we studied carcass persistence by placing bird carcasses at 15 houses to determine how well we detected BWC. Carcasses were checked for persistence an hour before sunset and after sunrise. 63% of carcasses persisted for an entire week and 2 birds were taken (13.3%) within 24 hours of placement. Therefore, scavenging of carcasses likely did not significantly affect our detection rate because we checked for birds every 24 hours.

1. Paul Smith's College, School Natural Resources Management and Ecology

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1. Adirondack Watershed Institute, Paul Smith's College.
2. School of Commercial, Applied and Liberal Arts, Paul Smith's College.
3. School of Natural Resource Management & Ecology, Paul Smith's College.

## **BOILERS EMISSIONS UNDER DIFFERENT STACK CONFIGURATIONS AT A SCHOOL IN SARANAC LAKE**

**Masiol, Mauro<sup>1</sup>, Nadezda Zikova<sup>1</sup>, Andrea R. Ferro<sup>2</sup>, Philip K. Hopke<sup>1</sup>**

A 1.7 MMBTU wood pellet boiler was installed in a container outside the Petrova Elementary School, Saranac Lake to provide heat to the building and reduce the dependence on fuel oil. The exhaust stack was initially 25' high, i.e. less than the school building height and the effluent stream could then enter through the building air intakes. Computational fluid dynamics modeling was performed to assess the emission impacts for a taller stack. Results showed if the stack height was raised to 45' (10' above the roof), the plume would loft over the building and avoid the air intakes. However, the USEPA best practices guidelines suggested the stack should be 2.5 times the height of the structure.

From December 2015, a sampling campaign was conducted to evaluate if the increased stack height was sufficient to reduce the air pollutant concentrations at the roof top and, thus, if the stack configuration was sufficient to avoid boiler exhausts be drawn into the school. CO, black carbon and PM were measured on the roof of the school. Weather and wind parameters were also measured. Air pollution data were recorded in periods without boiler emissions and then with both the short and taller stacks in place. A series of chemometric tools were thus applied for: (i) comparing the levels of pollutants during different stack configurations; (ii) investigating the relationships among pollutants and boiler operation modes; (iii) detect possible effects of meteorology on the levels of air pollutants. The results of this evaluation will be presented.

1. Center for Air Resources Engineering and Science, Clarkson University, 8 Clarkson Ave, Potsdam, NY, 13699
2. Department of Civil and Environmental Engineering, Clarkson University, 8 Clarkson Ave, Potsdam, NY, 13699

## **Importance of kitchen gardens in supporting pollinator diversity in St. Lawrence County**

**Aswini Pai<sup>1</sup>, Lydia Horne<sup>1</sup>, Houston Judd<sup>1</sup>**

Kitchen gardens exhibit great agrobiodiversity with respect to crop species and floral resources. We hypothesized that kitchen gardens foster greater pollinator diversity as compared to larger monocultural cropfields. We sampled wild bee communities using pan traps in 22 polycultural kitchen gardens and 6 monocultural forage cropfields in rural upstate New York through one growing season. We recorded 26 genera and 64 species of wild bees. ANOVA indicated that there was significantly greater bee species richness ( $p < 0.05$ ) in kitchen gardens as compared to forage crop fields. Though total wild bee abundance was consistent through the growing season, some genera fluctuated in numbers. Bee abundance could be influenced by both floral diversity and floral resource density. Further, additional parameters such as availability of nesting sites

may also determine wild bee diversity. This study has implications for long term management of wild pollinators and crop diversity in the region.

1. Department of Biology, St. Lawrence University,

### **Effects of Water Level Fluctuations on Adirondack Loon Nesting Success**

**Karniski**, Natasha<sup>1</sup>, Charlotte **Demers**<sup>1</sup>, and Nina **Schoch**<sup>2</sup>

The reproductive success of Common Loons (*Gavia immer*) is affected by such factors as human activity, water level changes, predation, and mercury levels; consequently, conservation initiatives have been implemented to monitor and research loon populations throughout their range. Each summer, Adirondack loon nests are monitored to determine nesting success (egg hatch) or failure. Initial data analyses from the Huntington Wildlife Forest, where lakes have been monitored since 1986, indicate nest failures have been increasingly caused by water level fluctuations compared to mammalian predation. While this small sample size (7 lakes) does not show a significant trend, we will conduct this analysis on a larger scale using more Adirondack lakes. Additionally, there has been an increasing variability of precipitation in the Park ( $P = 0.07$ ), with rainfall occurring as severe precipitation, rather than moderate but steady rain over several days. Years with a higher variability of precipitation during the nesting season were associated with a lower hatching success, supporting the hypothesis that loon nesting success is tied to a consistent lake level. Because extreme precipitation events are often attributed to climate change, and as climate change is likely to continue to affect water levels, it is important to study both the current and potential impacts of water level fluctuations on loon populations. Therefore, continued monitoring, along with implementing strategies to allow loons to nest successfully under circumstances of severe water level fluctuations, will become increasingly necessary to maintain a stable Adirondack loon population.

<sup>1</sup> SUNY ESF's Adirondack Ecological Center, Rt. 28N, Newcomb, NY 12852

<sup>2</sup> Biodiversity Research Institute's Adirondack Center for Loon Conservation, P.O.Box195, Ray Brook, NY 12977

## **A “Nest” for the Adirondack Loon Center and Adirondack Hut-to-Hut Trail System**

**Schoch, Nina<sup>1\*</sup>, Jack Drury<sup>2</sup>, Joe Dadey<sup>2</sup>, Martha Van der Voort<sup>1</sup>, Duane Gould<sup>2</sup>, and Rory Keating<sup>1</sup>**

Biodiversity Research Institute’s Adirondack Center for Loon Conservation is partnering with Leading E.D.G.E.’s Adirondack Community-based Trails & Lodging System, Madden’s Transfer and Storage, and the Village of Saranac Lake, to revitalize the Tousley Storage Building, a historically significant building on the Village’s Main Street, to create a new “nest” for the Adirondack Loon Center and the proposed Adirondack “Hut-to-Hut” Trail System.

Opening in July, 2016, the new center will include a dynamic education/information center, a unique retail store, and office space for these two emerging conservation organizations. It will be a vital hub for: 1) promoting the public's critical role in protection of Adirondack wildlife and the Park’s environmental quality; 2) serving as the Park’s primary resource for loon conservation, science, and outreach; 3) informing Adirondack residents and visitors about the natural and cultural resources of the Park to inspire sustainable recreational use and conservation of Adirondack ecosystems; and 4) disseminating information about a new Adirondack ecotourism opportunity utilizing trails linking Adirondack communities and lodging.

The dynamic new facility will enable: 1) BRI’s Adirondack Center for Loon Conservation to enhance and strengthen its scientific research, education, and outreach efforts throughout the Park, thereby supporting the conservation of Adirondack Common Loons and their aquatic habitats; and 2) Leading E.D.G.E.’s Adirondack Community-based Trails & Lodging System to develop a world-class, human-powered hut-to-hut trail system in the Adirondacks that promotes sustainable communities, conservation, responsible recreation, education, and wellness.

<sup>1</sup> Biodiversity Research Institute’s Adirondack Center for Loon Conservation, P.O.Box195, Ray Brook, NY 12977

<sup>2</sup> Leading E.D.G.E.’s Adirondack Community-based Trails and Lodging System