Loon Program: Quebec Common Loon Study

ON THIS PAGE Introduction | Project Summary | Project Updates BACK

Loon Program Home

Projects by State:
- Maine and New Hampshire
- Massachusetts
- Minnesota
- Montana
- New York
- Washington
- Wyoming
- British Columbia, CA
- Quebec, CA

Translocation and Captive Rearing

Outreach

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RECENT BRI PUBLICATIONS

Plasma Biochemistry and Protein Electrophoresis Reference Intervals of the Common Loon (*Gavia immer*) (2020)

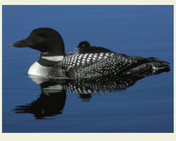
Assessing year-round habitat use by migratory sea ducks in a multi-species context reveals seasonal variation in habitat selection and partitioning (2020)

Annual movement patterns of American common eiders Somateria mollissima dresseri (2020)

Mercury in Common Loons from 31-Mile and Pemichangan Lakes: a 20-year follow-up

Over the past two decades, BRI has conducted extensive non-lethal sampling of Common Loons (*Gavia immer*) throughout North America to assess continental mercury (Hg) trends among lakes and ponds, and using the loon as a keystone aquatic indicator species. In 1997 and 1999, BRI and Canadian collaborators conducted loon Hg investigations on 31-Mile Lake and Pemichangan Lake, a complex of large lakes located in southwestern Quebec.

Thank you for your generous contributions to fund this project; our goal has been attained!



Project Summary

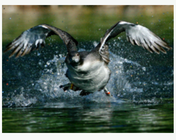
Mercury in Loons

During 1997-1999, BRI biologists captured, banded, and collected blood and feather samples from 19 loons among 31-Mile and Pemichangan Lakes, to screen for their Hg concentrations. Overall, loons from both lakes contained Hg concentrations considered to be of low risk to accumulation by loons. Pemichangan Lake contained slightly higher levels of Hg in loons than those from 31-Mile Lake.

Additional Monitoring

In addition to sampling for Hg, each captured adult loon is weighed (to determine gender), measured, and uniquely marked using combinations of plastic color leg bands, accompanied with a federal metal leg band. The banding of loons provides a reliable field method to re-observe individuals over many years and to track whether or not they are returning to their breeding lakes each summer. Additionally, banded loons are occasionally encountered alive or deceased on their non-breeding areas. A recovered banded loon provides important information on that individual's or possibly, an entire breeding population's wintering range.

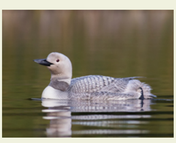
Of the 19 loons previously banded on this project's lakes in Quebec, two loons, each from 31-Mile Lake, have been recovered. A male banded in 1999, was found dead on December 31, 2001 at Ormond Beach, located on the Atlantic coast of Florida. The other loon was accidentally caught and drowned in a fishing net on October 2, 2013 on 31-Mile Lake. This loon was a male banded in 1997 and was recovered 13 years later, which means this loon would have been at least 17 years old when it died.



Project Updates

A 20-Year Follow-Up

BRI and members from the Gatineau Fish & Game Club in Quebec are partnering to conduct loon studies on 31-Mile and Pemichangan Lakes in 2019. The re-sampling of loons breeding on those lakes will provide a valuable reassessment of Hg concentrations from the same lakes 20-22 years later. Data collected during this study would enhance our knowledge in assessing long-term Hg trends among lakes and ponds and the wildlife that inhabit them in eastern North America.



Project Collaborators

- Biodiversity Research Institute
- Gatineau Fish & Game Club

Project Team

- Lucas Savoy
- David Evers
- Stephen Kirkpatrick

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ABOUT BRI

BRI IN THE NEWS

BRI's Research Published in the Journal Evolutionary Applications
July 6, 2021

BRI Featured in Discover Magazine Online
June 22, 2021

New BRI-IPEN Study Shows High Mercury Levels in Indigenous Latin American Women
June 15, 2021

BRI Loon Biologist Awarded NSF Grant
June 11, 2021

BRI Climate Change Program in the News
April 21, 2021

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