

## Final Report for Nova Scotia Habitat Conservation Fund **Artificial nesting platforms for Common Loon**

The Common loon is a highly visible water bird inhabiting many of the lakes within southwestern Nova Scotia. It is an icon of the Canadian wilderness and people are captivated by its beauty and haunting call. Concerns have been raised about the health of loons after research conducted by the Canadian Wildlife Service found that Kejimikujik loons have the highest blood mercury concentrations of any loon population in North America. These levels have been associated with impaired reproduction and altered breeding behaviour. Besides the bio-accumulation of mercury, loons are sensitive to lake water acidification, water level fluctuation and human disturbance.

With funding from HCF, MEC, Canada Summer Jobs, and private donors, the Mersey Tobeatic Research Institute (MTRI) has been working with dedicated loon watch volunteers to give our local population of Common loons a leg up. We have constructed and installed 10 artificial nesting platforms in the Mersey and Medway watersheds (Table 1, Figure 1). Ten lakes were selected based on their natural suitability and the availability of volunteer platform stewards. Materials were purchased from local sources for the construction of the platforms (Figure 2). With the generous assistance from dedicated volunteers, these 10 platforms were built using design specifications from the Michigan Loon Preservation Association. A logo sticker recognizing the project funders was attached to the platforms (Figure 3).

The lakes were selected based on their size, water-level fluctuations, boat traffic and cottage development, lack of suitable natural nesting sites such as islands, volunteer capacity, lake chemistry and history of research and leg-banding by the Canadian Wildlife Service. Loon watch volunteers were selected based on the suitability of their lakes and their willingness to participate (Figures 4, 5). A loon platform stewardship guide was written, printed, and distributed to selected volunteers (see attached) to provide information on how to launch, remove and monitor the platforms. A total of 107 volunteer hours were donated to the project during the 2016 field season to help construct and launch the platforms.

MTRI staff and volunteers monitored the platforms throughout the summer of 2016 and assisted volunteers in their removal in the fall (Figure 6). All are now in winter storage to ensure their longevity. In early November CBC's Land & Sea released a television documentary focusing on MTRI's Loon Platform Project (Figure 2). Some of the volunteers who assisted in the project were featured constructing and launching platforms. During the winter and spring of 2017 MTRI staff, volunteers and students from the local NSCC Natural Resources and Environmental Technology Program will continue to construct another 10 loon platforms and design an avian guard to be installed on as many platforms as possible.

<http://watch.cbc.ca/land-and-sea-network/season-2016/episode-2/38e815a-00b11d6df>

Figure 1. Map of Southwest Nova Scotia showing artificial loon platform locations

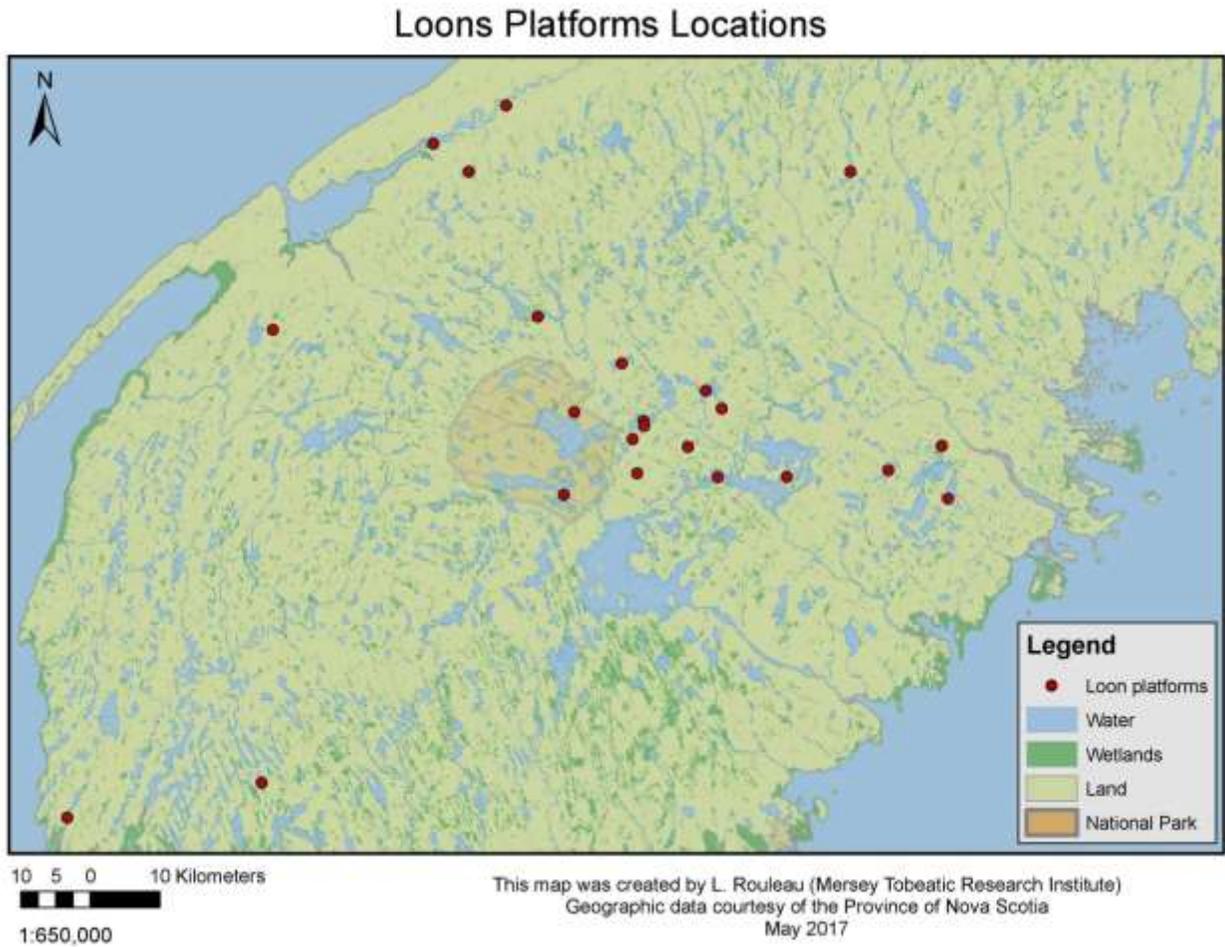


Figure 2. Image from Land & Sea episode that aired in fall 2016 showing volunteer building artificial loon nesting platform.



Figure 3. Platform Sticker showing logos of funders including NSDNR's Habitat Conservation Fund.



Figure 4. Volunteer at Menchan Lake before installing a loon nesting platform in summer 2016.



Figure 5. Platform after installation on Menchan Lake with nesting substrate added.



Figure 6. Volunteers removing platform on Donnellan Lake in fall 2016.



Table 1. Summary of lakes where loon nesting platforms were launched.

Lake name	Date launched	Volunteer Steward	Banded Loons
Tupper Lake South	12-May-16	Yes	Yes
First Christopher Lake	22-June-16	Yes	Yes
Donnellan Lake	23-Jun-16	Yes	Yes
Menchan Lake	28-Jun-16	Yes	No
Fancy Lake	7-July-16	Yes	No
Mudflat Lake	12-July-16	Yes	Yes
Peskowesk Lake	25-July-16	Yes	Yes
Jake's Landing	29-July-16	Yes	Yes
Mary Lake	23-Aug-16	Yes	Yes
Harmony Lake	24-Aug-16	Yes	No