ELK RIVER CHAIN OF LAKES LOON NETWORK

INTERMEDIATE LAKE

UPDATE 2012

LOON HABITAT PROTECTION

2010- Bill Truscott constructed and installed two artificial nesting islands with help from Central lake students. Four "Loon Nesting Area" buoys were permitted by the MDNR and installed.

2011- Bill Truscott constructed a third island and installed it on the west shore of the lake northwest of Recreation Point. Four "Loon Nesting Area" buoys were permitted by the MDNR and installed.

LOON MONITORING

Three nesting pairs of loons have been monitored on Intermediate Lake. They are described by their territories: South, North and Far North. See map.

Phenology

Adult loons were first seen on the lake- 3/27/10 and 4/13/11

Adults last seen on the lake- 10/02/10 and 11/07/11

Chicks last seen on the lake- 12/04/10 and 12/09/11

Reproduction

North Pair

2010- The North pair (primary) nests on the northern most sedge island, but some years they use the artificial island. The North pair raised 2 chicks. This pair fishes along both shores and south of the MDNR boat launch on the east shore of the lake.

2011- The North pair raised 2 chicks.

South Pair

2010- The South (secondary) pair nests at the south end of the lake. They relocated to the artificial nesting island after using a muskrat lodge in the Intermediate River. The South Pair raised 1 chick. This pair fishes along the southwest shore of the lake.

2011- The South pair hatched 2 chicks, but lost 1 chick.

Far North Pair

2010- This was the first year for a pair in this location due west of the MDNR boat launch near Recreation Point. The Far North pair raised 2 chicks. This pair fishes along the north shore of Recreation Point.

2011- The Far North pair hatched 2 chicks and lost both of them.

Threats observed:

Predators- eagles, snapping turtles, rogue loon (challenged all three adult male loons on their territories in 2011)

Humans- boat traffic, boats pulling skiers and tubes, jet skiers

Incidents: A healthy loon chick, approximately 3 weeks old, was found dead on the beach at 915 S. M-88 Hwy, Bellaire, MI on June 14, 2011. This chick belonged to the Far North pair. The cause of death appeared to have been from a fatal attack by an adult, rogue loon. A necropsy was not performed, because the MDNR freezer in Traverse Coty malfunctioned.

LOON RESEARCH

Fifteen loons on Intermediate Lake (11 adults and 4 juveniles) have been color banded from 1991 to 2011. Feather and blood samples were taken from all of these birds and tested for mercury.

Based on the banding activities conducted during 2010 and 2011, none of the loons banded in 1991 and 1992 were present on the lake.

Color Banding:

Twelve loons were color banded in 2010 (9) and 2011 (3).

2010	6 adults	3 juveniles
2011	3 adults	0 juveniles

Far North- The female banded in 2010 returned to same territory in 2011. She recruited a new male in 2011. This pair could not be recaptured, because no chicks were present.

North- A new pair took over this territory in 2011.

South- This pair could not be recaptured, because no chicks were present.

Archival Tagging:

Four adult loons were archival tagged in 2010 (2 males) and 2011 (2 females).

2010 Archival Tags: The Far North male was not recaptured in 2011, because he did not return to the lake. The North male was recaptured, but data was not available at the time of this report.

Feather and Blood Analysis:

Mean blood mercury levels in Great Lakes loons are 1.78 ppm in adult males and 1.41 ppm in adult females. One of the Intermediate Lake males was higher than the Great Lakes mean and the other two males were close to it. The females' blood mercury levels were all lower than the Great Lakes mean.

Mean feather mercury levels in Great lakes loons are 13.0 ppm in adult males and 9.6 ppm in adult females. Two of the three adult males on Intermediate Lake had levels above the Great Lakes mean. The females' feather mercury levels were all lower than the Great Lakes mean.

This data may indicate that the Intermediate Lake adult males are older than the adult females.

Territory	Date Banded	Age	Sex	Blood mercury (ppm)	Feather mercury (ppm)
Far North	9Jul10	Adult	Male	1.90	14.0
Far North	9Jul10	Adult	Female	1.01	6.85
Far North	9Jul10	Juvenile	Unknown	0.18	2.28
Far North	9Jul10	Juvenile	Unknown	0.09	No data
North	9Jul10	Adult	Male	1.73	11.9
North	9Jul10	Adult	Female	1.11	7.08
North	6Aug10	Juvenile	Unknown	0.16	No data
South	9Jul10	Adult	Male	1.77	19.8
South	9Jul10	Adult	Female	0.89	8.35

BUDGET

Costs for color banding are approximately $500-800 per territory or $1500-2400 for Intermediate Lake.

This estimate includes:

Travel time- 12 hours round trip from Escanaba
Water time- 6 hours per night
Preparation time- 2 hours per night
Supplies- $50 per bird, lab fees- $100 per bird
Boat- gas and rental
Accommodations- meals and lodging

Banding requires a team of at least 3 people, the biologist and two volunteers. Depending on weather conditions, the banding may take 3-5 nights each summer.

Donations

The Intermediate Lake Association generously donated $1500 in 2010 and $1500 in 2011 which helped to pay for these costs. Accommodations, as well as boat expenses were donated by volunteers.

Michigan Audubon donated $2000 for the four archival tags, which cost $500 each. Four archival tags were deployed on Intermediate Lake loons.

Intermediate Lake Loon Territory