Minnesota Loon Monitoring Program - 2006

NONGAME WILDLIFE PROGRAM
MINNESOTA DEPT. OF NATURAL RESOURCES

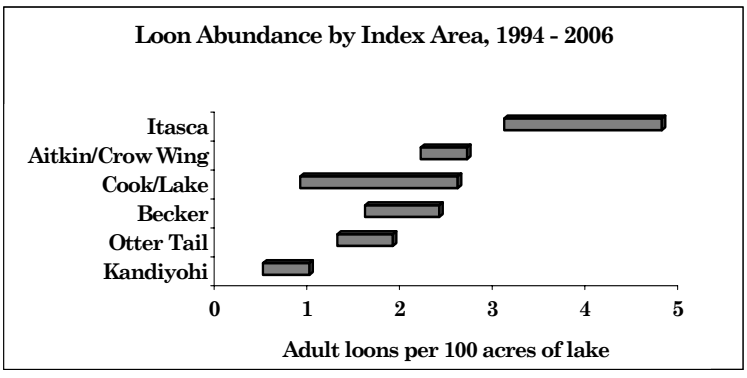
The Minnesota Loon Monitoring Program (MLMP) was implemented in 1994 to detect changes in our loon population and in the health of their lake habitats in Minnesota. With the help of over 1000 volunteers, we have completed loon surveys in six 100-lake "Index Areas" annually since 1994. The Index Areas (Fig. 1) were chosen to represent different factors which may affect loons and their habitat throughout their breeding range within the state, including: human population growth, acid rain sensitivity, densities of humans and roads, and predominantly public or private land ownership.

After thirteen years of data collection, MLMP results indicate that Minnesota's loon population remains stable. An average of 66% of the lakes within the Index Areas have had loons present during this thirteen-year period.

Methods

Our MLMP volunteers are assigned to survey a lake (or multiple lakes) during the morning hours (between 6 a.m. and 12 p.m.) of one day within a 10-day period in July (in 2006, this period was from June 30th to July 10th). Only lakes that are over 10 acres in size and deep enough to sustain loons were surveyed within each Index Area. Depending on the size of the lake, the survey styles vary widely, with some volunteers using boats or canoes, and others surveying from the shore. Similarly, some use binoculars or spotting scopes, and others don't. Nongame Wildlife Program staff standardize these various methods by providing survey guidelines to all volunteers.

In addition to the numbers of loons seen, observers are asked to report on such things as weather and shoreline conditions. Once the survey is completed, data forms are returned to the Nongame Wildlife Program for compilation and analysis.



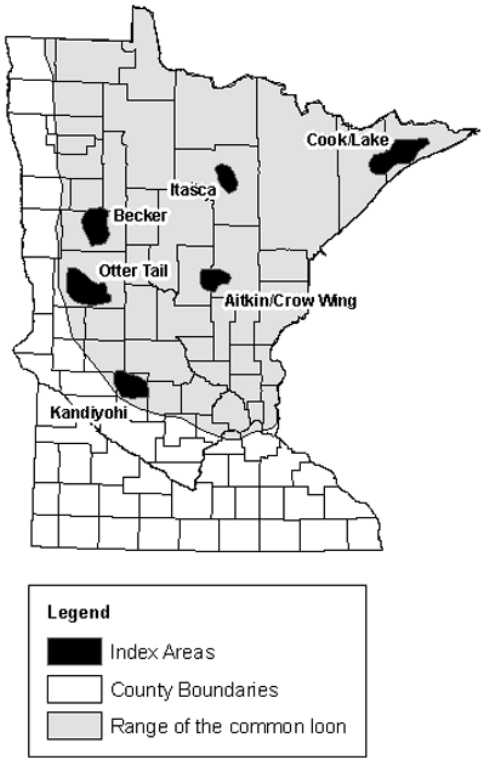


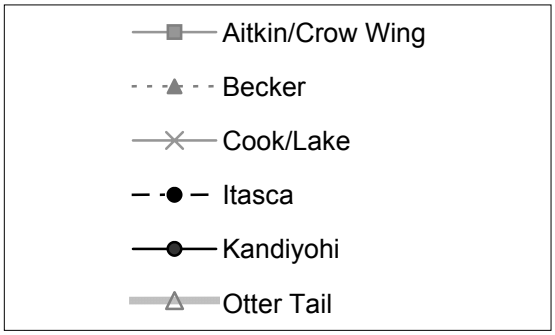
Figure 1. The six MLMP Index Areas.

2006 Results

Numbers of loons reported in the 2006 MLMP are consistent with past years of the survey (Figs. 3-5). Data from the Becker and Itasca Index Areas show a marginal increase in adult loons over the past thirteen years. Reports of juvenile loons during this period have increased slightly in the Aitkin, Cook/Lake, Itasca, and Otter Tail Index Areas. The abundance of loons varies widely across the state, and continues to be lowest in the southwestern (Kandiyohi) Index Area, and highest in the north central (Itasca) Index Area (Fig. 2).

Figure 2. Loon Abundance within each of the six MLMP Index Areas.

Legend for Figures 3-5.



In Summary

The loon populations within our six Index Areas remain stable, and in two cases, appear to be increasing slightly. This is good news for Minnesotans, who recognize and enjoy our state bird as an integral part of our lake ecosystems. The DNR's Nongame Wildlife Program will continue monitoring loons through the MLMP as Minnesota's human population and lake shore development continue to grow.

Acknowledgements....

THANK YOU MLMP VOLUNTEERS!!!
We extend our heartfelt thanks to the hundreds of volunteer observers who continue to make the MLMP a success. Without your persistence and hard work, the DNR would be without a means of tracking the health of our state bird. We and Minnesota's loons appreciate your commitment!

The MLMP is supported with donations to the Nongame Wildlife Checkoff on Minnesota's tax forms. DONATE AT TAX TIME, OR DONATE ONLINE AT:

http://www.dnr.state.mn.us/ecological_services/nongame/checkoff.html

For more information, or if you are interested in participating in the MLMP, please contact:

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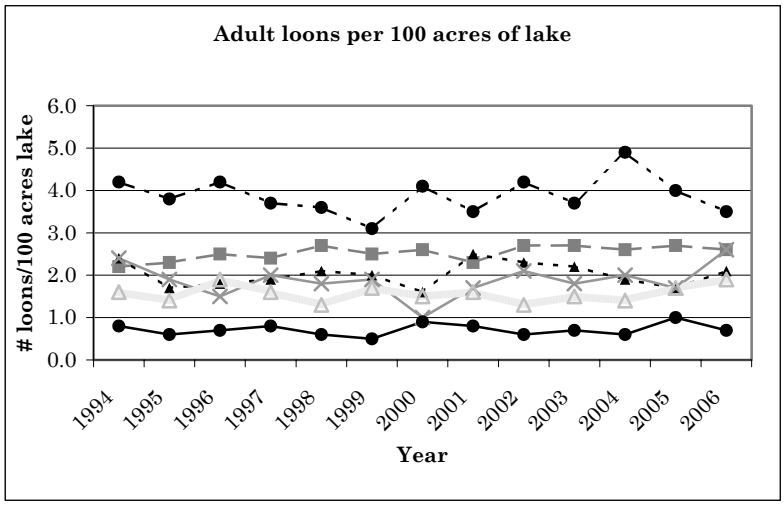

Figure 3. LOON ABUNDANCE: Adult loons seen per 100 acres of lake within each index area. The Becker and Itasca Index Areas show a small but statistically significant increase in loon abundance. The other index areas exhibit no significant change in loon abundance over the thirteen years of the MLMP.

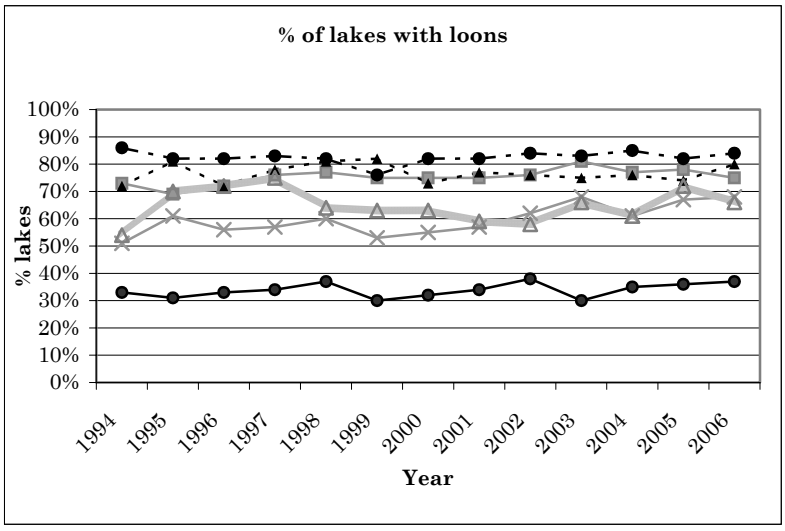

Figure 4. LOON OCCUPANCY: There have been no statistically significant changes in loon occupancy rates within the MLMP Index Areas.

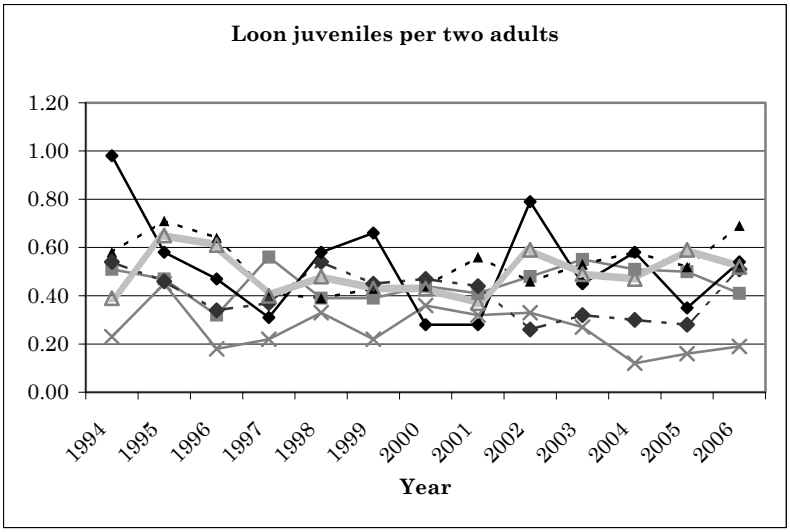

Figure 5. LOON REPRODUCTIVE SUCCESS: There have been no statistically significant changes in loon reproductive success within the MLMP Index Areas. Reports of juvenile loons are highly variable from year to year within each of the Index Areas, although they are relatively consistent across Index Areas.