Canadian Lakes Loon Fact Sheet (2019)

Bird Studies Canada helped develop the Canadian Lakes Loon Survey nearly four decades ago, as “dead” lakes caused by acid rain were being discovered in central and northern Ontario. It quickly grew into a national research program that assesses the long-term health of Common Loons, and the lakes on which they depend.

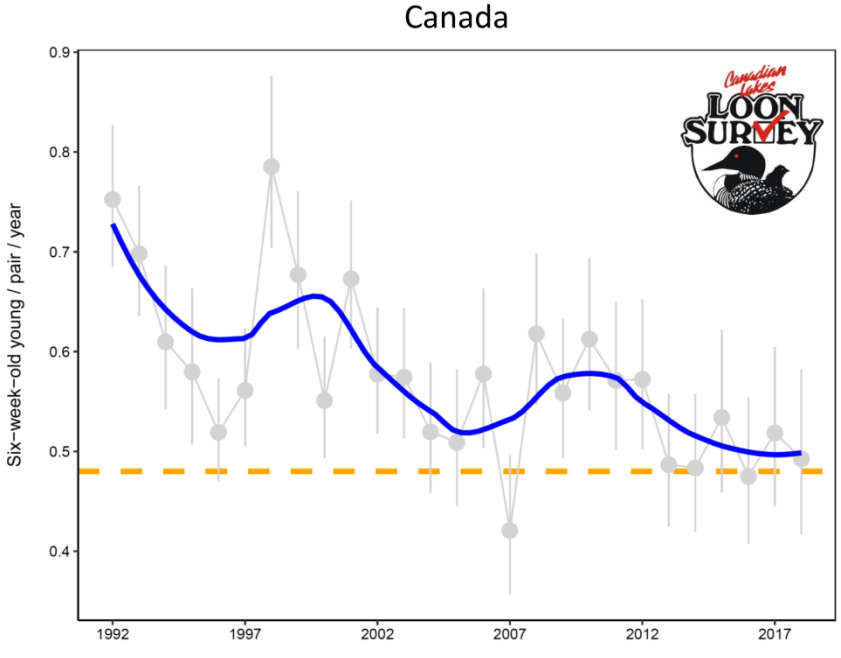
Loons are excellent indicators of broader lake health. Loon reproductive success can tell us what impacts lake acidification and other conditions are having on fish stocks and aquatic life.

Each summer, hundreds of Canadian Lakes Loon Survey participants watch their lake at least once in June for signs of nesting, once in July for chicks, and once more in August to see whether the chicks survive long enough for their first flight. The surveyors submit their observations to Bird Studies Canada.

Data collected through the Canadian Lakes Loon Survey over many years confirm that acid and mercury levels in lakes decrease loon chick survival. As well, loon productivity has been consistently higher in western regions of Canada (British Columbia, Yukon, and the Prairies) than in the east (Ontario, Québec, and Atlantic Canada).

Ongoing threats facing loons across Canada include increased boating activity, water level fluctuations, contaminants, and habitat loss due to shoreline development. A new postdoctoral research project starting this year in Ontario supported by Bird Studies Canada’s Long Point Waterfowl and Wetlands Research Program and in collaboration with Acadia University will help disentangle which of the many threats are contributing most to ongoing declines in the numbers of chicks being produced.

The Canadian Lakes Loon Survey and its participants believe educating lake users and residents is the most effective safeguard for loon populations in Canada. Cottage and Lake associations, marinas, schools, and the general public can order signs and brochures about loons and loon-friendly activities through the program, or download electronic copies of materials at www.birdscanada.org/loons.



Average number of Common Loon fledglings per pair per year reported by CLLS participants across Canada between 1992 and 2018. Dots are annual estimates with the amount of uncertainty in the estimates shown by vertical bars (i.e., 95% confidence intervals). The curved line shows the general trend over time (i.e., a loess line of best fit). The red horizontal line is the minimum number of young required to maintain a stable population. Calculations based on the best statistical model in Tozer et al. (2013), which accounts for differences in longitude and lake area. The average number of fledglings produced across Canada has been getting lower and lower over time. (Tozer, D.C., Falconer, C.M., Badzinski, D.S., 2013. Common Loon reproductive success in Canada: the west is best but not for long. Avian Conservation and Ecology 8(1): www.ace-eco.org/vol8/iss1/art1).