

SPECIES PROFILE: COMMON LOON

It's the dead of night in a snug little camp on the edge of a northern lake lined with conifers. While northern lights dance, suddenly a call arises out of the lake penetrating your consciousness. Ghostly in quality, the sheer musical beauty of the notes fills you with a sleepy sense of wonder. Such are the memories of many who have shared a moment in time with loons. Yet, even as we exult in the presence of this bird, it is necessary to reflect that loons are vulnerable.

Continent-wide studies of banded Common Loons (*Gavia immer*) have revealed that while the birds are thought to live 20-30 years, they don't usually breed until they are seven years old. Juveniles leave in the fall for coastal areas and first return to inland nesting sites as three year-old black and white adults. But loons are poor pioneers of new areas and are slow to actually claim their own territories. Dispersal distances are usually less than 10 miles from the lake where they were hatched, and fewer than 25% survive to breeding age. So, if nesting attempts are consistently unsuccessful, or if the breeding birds are lost, entire drainages can become "loon-less."

Intensive management and educational programs are needed to insure the long-term presence of loons on their inland lake territories. Shoreline development has been and continues to be the primary reason for loss of nest sites and nursery areas. At the same time, there has been an exponential increase in the level of water recreation ranging from canoeists to users of powered personal watercraft. One study in northwest Montana found that 60% of loon nest departures were related to human activity and 51% of that was due to the presence of boats. When floating buoy-type signs were placed 70-150 yards from nests, the number of two-chick broods increased significantly. Compliance with the floating signs has been high because education at boat ramps and in campgrounds by loon rangers helps the recreating public understand why conservation is necessary.

One of the most insidious threats to loon populations around the world is mercury poisoning.



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Tons of mercury are released when industrial, municipal, and medical wastes are burned and during generation of electricity by burning coal. Once in a lake, bacteria convert mercury to methylmercury, which is directly absorbed into microscopic aquatic organisms and passed up to the top of the food chain. This has obvious implications for both loons and humans that eat fish since long-lived organisms accumulate mercury throughout their lifetimes. Working cooperatively

with bird groups and governmental agencies, the BioDiversity Research Institute (www.BRILoon.org) has found that the reproductive success of loons in Nova Scotia appears to be limited by high blood mercury levels, and that up to 30% of Maine's loon population may fail to reproduce for that reason. In New Hampshire, 52% of the loon eggs examined had mercury concentrations potentially high enough to affect reproductive success, and adult loon blood mercury levels there and in Maine are high enough to cause the outright deaths of individual birds.

Mercury poisoning takes time, developing over years. Lead poisoning can kill a loon within weeks and is responsible for the largest number of loon deaths. Numerous studies have confirmed Common Loon mortalities from ingestion of lead sinkers and jigs as they swallow gravel to aid digestion. They also catch fish that are trailing monofilament and lead sinkers. The ingestion of just one small lead sinker is enough to kill an adult loon. Mortality rates due to lead poisoning accounted for 30% of loon deaths in various U.S. and Canadian locations, 52% in Alaska, 54% in Maine and up to 80% in New Hampshire. Education of anglers about the effects of lead in loons and other wetland-dependent species is critical. Non-toxic options are available. Legislation limiting or banning the sale of small lead sinkers and jigs may be needed.

Loons face multiple additional threats. Oil spills on coastal wintering areas, boat collisions, and the rising popularity of personal watercraft are all causes for concern. Fortunately, there is a network of dedicated volunteers and professionals working to ensure that the haunting voice of the loon still rises out of the night to fill us with a sense of wonder.

—Lynn Kelly, *Montana Loon Society*

For more information, contact the North American Loon Fund at LoonFund@hotmail.com.

BirdConservation

The magazine about Partners in Flight and bird conservation throughout the Americas

American Bird Conservancy
P.O. Box 249
The Plains, VA 20198

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