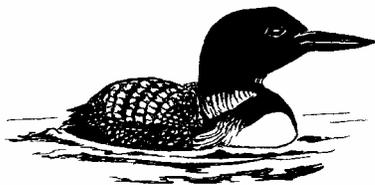


The loon has held a special place in the imagination of humankind since earliest civilization. The striking symmetry of its plumage, its soulful cry, and its ability to seemingly vanish under water have inspired legends of magic, mysticism, and creation. Even today, few can hear the cry of the loon drift across a dusky lake without sensing an ancient spirit and believing that magic can, indeed, exist among the mists of northern lakes.

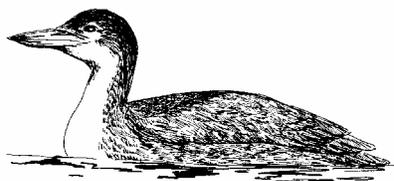
### **GENERAL DESCRIPTION**

There are five species of loons in the world, but only the common loon (*Gavia immer*) breeds in Maine. Common loons are large birds, almost three feet from head to tail, and have a wingspan of almost four feet. They are also heavy, weighing on average about nine pounds. Our loons tend to be a few pounds heavier, and a male in peak breeding condition in Maine can weigh up to 14 pounds. Males are slightly larger than females.



The common loon has a striking breeding plumage, with a pure white breast and underparts. Its distinctive black wings and back are

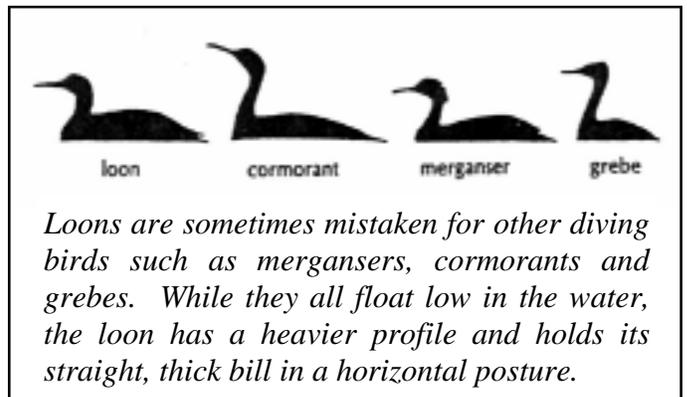
striped and spotted with white, and its neck and head are greenish-black with an open necklace of white stripes. The eye is a dramatic ruby red, which aids in underwater vision. In the fall, this summer finery is replaced with dull gray, white, and brown winter plumage. Juveniles keep this dull plumage at least through their second winter.



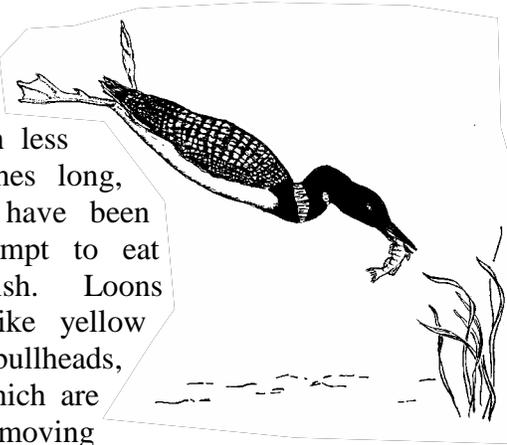
Unlike most other birds, loons have solid rather than hollow bones. While this extra weight makes flying more difficult, it makes diving for food easier. In flight, the loon's relatively small wings and tail give the bird a pointed and hump-backed appearance. The high ratio of body weight to wing size makes it difficult for loons to take flight and they must strenuously flap their wings while running across as much as a quarter mile of open water. Once airborne, loons are powerful fliers and reach speeds of ninety miles per hour.

Loons are exceptional divers, and spend much of their time diving to catch fish. Most feeding dives are relatively shallow and last about a minute. Loons may be able to dive to 200 feet but this is probably not that common. Before a long dive, loons reduce their buoyancy by compressing feathers and exhaling to direct the flow of oxygen-rich blood only to vital organs.

Loons have long, flexible necks and powerful feet that allow them to maneuver underwater with ease. They find their prey by sight, so water quality is very important. You may see a "headless" loon peering underwater looking for fish. Loons eat fish almost exclusively, but they will also forage on crustaceans and insects if they are stressed or if fish



aren't available. They usually eat fish less than eight inches long, although they have been known to attempt to eat much larger fish. Loons prefer fish like yellow perch, suckers, bullheads, and sunfish, which are relatively slow moving and are easier to catch. However, they will eat whatever they can catch and generally will tend to eat whatever's most common in a lake. Adult loons will eat about two pounds of fish a day, and a family of four will consume a little over 900 pounds of fish during the five to six month breeding season.

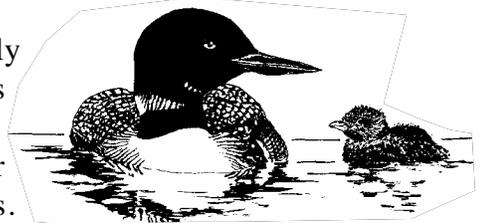


both sexes maintain vocal contact with an eerie wail or a quiet, low hoot. The tremolo, or laughing call, is perhaps the loon's best-known vocalization and indicates excitement or alarm.

Contrary to popular folklore, loons do not mate for life. Pair bonds last on average about seven years. In most cases pair bonds fail when a new loon moves onto a territory and challenges the resident loon. Usually, but not always, these are male birds. Loons will battle to the death for their territories, but more often the weaker loon gives up the fight and flies off.

Because a loon's legs are located at the very back of their body, they move awkwardly on land. They build their nests within a few feet of the water's edge so they can slip quickly and easily on and off without being noticed. Nests are made by both males and females who pull grass and other vegetation into a sizeable pile. While islands may be safest from terrestrial predators, nests are also built in marshy areas and along lakeshores.

Females usually lay two (sometimes one or three) large, mottled brown or olive-green eggs.



Typical dates for egg-laying in Maine are between mid-May and mid-June. Both parents incubate the eggs for about 29 days. The chicks are able to swim almost immediately after hatching and the loon family then leaves the nest for a nearby nursery area. The downy chicks often ride on the backs of the parents to rest, keep warm, and avoid large fish, snapping turtles, and other predators. After only a week, the chicks can dive short distances underwater and catch some of their own prey, although they rely on their parents to continue to feed them minnows and small fish. The young birds stay with the parents until they are fully able to fish and fly at about ten or twelve weeks.

Just before the fall freeze-up, large groups of loons gather together on lakes before migrating to the ocean. The breeding birds generally return to the same lake each spring and often to the same territories, usually on or near the lake where they were raised. Young birds will wander for about seven years along the coast, and in summer sometimes on freshwater lakes, before securing a territory and raising their own young. If loons are lucky, they'll live to be between 25 and 30 years old.

## **LIFE HISTORY**

Loons have an uncanny knack of arriving on Maine's lakes each spring very close to the day of ice-out. The males arrive first, and their migration closely follows the ice as it melts north and inland. This assures they'll be first to get on a lake and start defending a territory. Territories range in size from 20 to 200 acres of water, and average about 100 acres.

Females arrive on the breeding grounds about two weeks after the males. Courting rituals begin almost immediately and include running across the water, wing-flapping, simultaneous diving, bill-dipping, and an array of haunting calls. The male loon claims his territory with a unique yodel, while



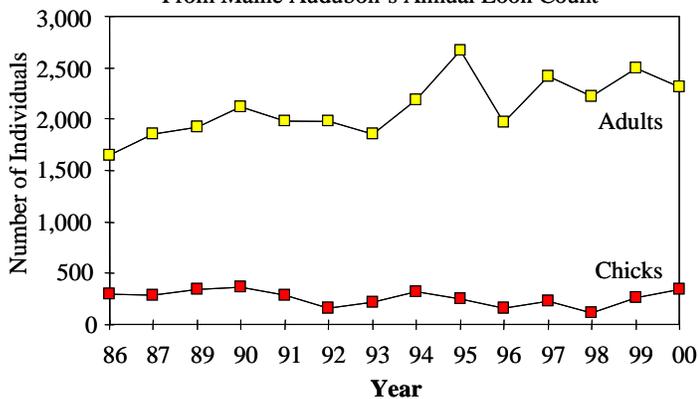
**Range of the Common Loon in North America**

## LOONS IN MAINE

Like many animals, loons must compete with humans for habitat. Loons no longer nest in Pennsylvania, Connecticut, or Rhode Island. Loons have recently returned to nest in Massachusetts for the first time in many years. New Hampshire has over 200 pairs of nesting loons, more than double the number from the early '70s. Vermont, which nearly lost its loon population in the '80s now has about 40 breeding pairs. In Maine, loons are found statewide and their population seems fairly stable at about 4,300 adults. Yearly estimates of the loon population in the southern half of the state are summarized below.

### Loon Population Estimate

Southern Half of Maine, below the 45<sup>th</sup> parallel  
From Maine Audubon's Annual Loon Count



## LOONS AND PEOPLE

Breeding loons need large territories with nesting sites on islands or lakeshores that are protected not only from natural elements such as weather, storm waves, and predation, but also from boat wakes, scheduled water level changes, and other human disturbance.

We can take measures to minimize human impacts on loons. On lakes where dams control water levels, nests can be either flooded or stranded above the water's edge, too high for the loons to reach. In this case, artificial floating platforms may enable the loons to nest successfully. Where breeding loons are disturbed frequently, buoys can be placed around the nest to keep human traffic at a safe distance.

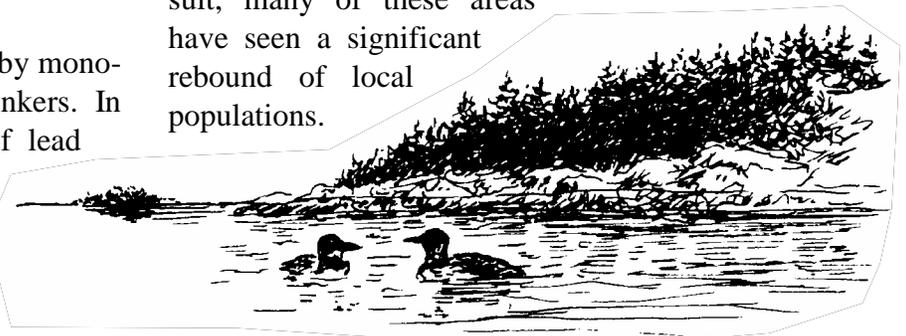
Increasingly, loons are found entangled by monofilament fishing line and poisoned by lead sinkers. In fact, lead poisoning from the ingestion of lead sinkers and lead-headed jigs is the leading cause of death for adult loons in Maine and throughout New England. In part be-

cause of concern over the loon population, the sale of small lead sinkers (a half ounce or less) will be banned in Maine after January of 2002. Non-toxic alternatives made of steel, ceramic, and bismuth are increasingly available at many retail outlets. Anglers and others can also help loons by retrieving loose fishing line.

Maine lakes have the highest levels of mercury in the U.S. Major sources of mercury into our waters include industrial plants, municipal incinerators,

and coal-burning power plants located in the midwest. Mercury accumulates in fish, and because loons eat fish almost exclusively, they accumulate even higher levels of mercury. Many loons throughout Maine harbor high levels of mercury, and early research indicates that this is having an impact on reproductive success. Loons with high levels of mercury spend less time incubating their eggs and feeding their chicks, and subsequently have lower reproductive success. Measures to decrease mercury in the waste stream, both within Maine and across the U.S., are important for reducing the impacts on loons and other wildlife.

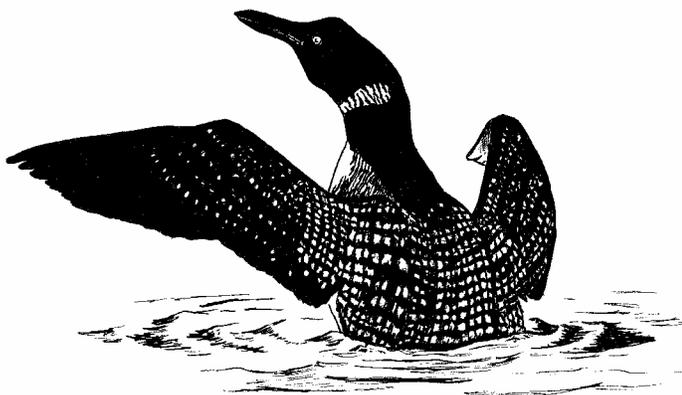
With dedication and hard work, some remaining loon habitat is being protected. Many organizations and volunteers across the northern U.S. and Canada monitor loon populations, produce and distribute educational materials, and work with government agencies and public utilities to insure adequate protection of loon nesting habitat. In states where these conservation efforts have been underway for more than a decade, the public, lake-dwellers, boaters, and hydropower companies are learning to alter their practices to accommodate the loons' needs. As a result, many of these areas have seen a significant rebound of local populations.



## THE MAINE LOON PROJECT

The Maine Loon Project started in 1977 to assess the status and future of Maine's loon population. Activities of the Maine Loon Project include education and outreach on loon and lake issues, as well as advocacy and legislative lobbying regarding issues like mercury emissions, lead-free fishing tackle, and shoreland zoning. Every summer, over 500 volunteers participate in the annual Loon Count, which for the last two decades has produced a reliable assessment of Maine's loon population. Loon Project staff assist with habitat enhancement and protection efforts, offer comment and advice on development planning and legislation, conduct original research, and participate in public workshops. In addition to slide show presentations for adult audiences, the Loon Project also offers a "Loon Kit" for teachers who would like integrate loons into their classroom curriculum. The Maine Loon Project publishes a bi-annual newsletter, *The Loon News*. If you would like a copy of the latest issue, or would like more information, please contact:

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Falmouth, ME 04105  
(207) 781-2330  
conserve@maineaudubon.org  
www.maineaudubon.org



## WHAT YOU CAN DO

There are many ways you can help loons!

- **Enjoy these majestic birds from a distance;** stay clear of loons and their nesting areas when boating, fishing, and picnicking.
- **Post “Look Out For Loons” signs** (available from Maine Audubon) at boat landings and other access points.
- **Use lead-free fishing tackle,** and encourage fellow anglers to do the same. Urge local retailers to carry lead-free alternatives.
- **Collect loose monofilament line.** Loons die every summer after they are hopelessly entangled in lost fishing line.
- **Sponsor a loon slide show** for a local group and distribute educational materials to lakeshore residents in your community.
- **Participate in the annual loon count** and monitor nesting activity on a lake.
- **Protect water quality** by limiting fertilizer use and creating buffer zones along lakefront property. Contact the Maine Department of Environmental Protection at 287-7688 for more information.
- **Join your local lake association and the Maine Congress of Lake Associations.** Be active in association activities and workshops.
- **Make a donation to the Maine Loon Project.** The Maine Loon Project operates almost entirely on generous donations from people like you who are concerned with the future of loons in Maine. Your contributions to the Loon Project and your membership with Maine Audubon will help assure continued success in loon conservation efforts.

**“That night it was still, and in the moonlight the loons began as I had heard them before, first the wild, excited calling of a group of birds, dashing across the water, then the answers from other groups until the entire expanse of lake was full of their music. We sat around until long after dark and listened.”**

**-Sigurd F. Olson**

Maine Audubon is a state-wide, independent, non-profit, membership organization dedicated to the protection, conservation and enhancement of Maine's ecosystems through the promotion of individual understanding and action.

*Written & illustrated by Bob Hooper, edited by Bill Hancock, layout/design by Eva Thompson ('93); edited and updated by Susan Hitchcox ('01).*