

"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's Common Loon



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The loon's distinctive black and white breeding plumage helps camouflage the loon on the water. The ruby red eye is thought to attract mates, and may aid in underwater vision.

Common Loons hold a special place in the hearts and minds of all who see and hear them. Their striking plumage, soulful cries and ability to seemingly vanish under water have inspired legends of magic, mysticism, and creation for many centuries. Even today, few can hear the cry of a loon drift across a dusky lake without feeling a connection to an ancient and wild spirit.

There are five species of loons in the world, but only the Common Loon (*Gavia immer*) breeds in Maine. Common Loons are large birds, measuring about 32" from head to tail, with a wingspan of 46". They are also heavy, weighing on average about nine pounds. Maine loons tend to be heavier than loons from other regions, and males are slightly larger than females. A male in peak breeding condition in Maine in the summer can weigh up to 14 pounds.

Flight Unlike most birds, loons have solid rather than hollow bones, making them heavy for their size. In flight, the loon's relatively small wings and tail give it 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 a quarter mile or more of open water to become airborne. Once in flight, loons are powerful fliers and can reach speeds of ninety miles per hour.

Diving The solid bones that make flight difficult are a boon when it comes to diving. Loons are exceptional divers, and spend much of their time catching 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 to vital organs.

Feeding 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. Loons eat fish almost exclusively, but they also forage on crustaceans and insects if they are stressed or if fish are not readily available. They usually eat fish less than eight inches long, although they may attempt to eat much larger fish. Loons prefer fish that are slower moving and easier to catch. However, they will eat whatever they can catch and generally eat whatever is 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.

Territories and Mating Loons fly north following the ice melt, arriving on Maine's lakes the day of or the day after ice-out. Males arrive first, and start defending their territories from other males. Territories range in size from 20 to 200 acres, averaging about 100 acres. Territories need good nesting habitat as well as quiet areas where chicks are safe from waves, predators and disturbance.

Females arrive on the breeding grounds a week or two later than males. Courting rituals begin almost immediately and include wing-flapping, diving, and calling. Contrary to popular folklore, loons do not mate for life. Pair bonds last on average about seven years; they may fail when a new loon moves onto a territory and challenges the resident. Usually, but not always, these are male birds. Loons will battle to the death to defend their territories, but more often the weaker loon gives up the fight. The mate left behind typically stays on the territory.



Loons are sometimes mistaken for other diving birds such as cormorants, mergansers, and grebes. While they all float low in the water, the loon has a heavier profile and holds its straight, thick bill in a horizontal position.

Threats to Loons and what you can do!

Fishing Line and Lead Fishing Tackle

The leading cause of death for adult loons in Maine is lead poisoning from the ingestion of lead tackle. There is no cure for lead poisoning, and once a loon ingests a lead sinker it dies within a few weeks.

Boating Activity

Wakes from boats too close to shore can wash eggs out of lakeside nests. Loon parents might abandon nests in areas where boats linger nearby, and nests abandoned for even short periods leave eggs vulnerable to predators or heat exposure. Boats also pose a collision risk, and they can keep loons from feeding or separate adult loons from their chicks.

Water Quality and Invasives

Loons need clean, clear water so they can see (and catch) their prey. Shoreline development, agricultural and lawn runoff, warmer temperatures, sewage, atmospheric pollution, and invasive aquatic plants all can affect the quality of loon habitat.

Water Levels Because loons build their nests close to the shoreline, rising water levels can flood nests and wash away eggs. If water levels drop, stranding nests too far above the water, loons lose their ability to slip on and off the nest undetected, increasing the likelihood of predation.

Habitat Loss Loons need quiet places that are hidden from predators and away from wind and waves to build their nests. Buildings, docks, and boat ramps on islands and shorelines near traditional nest sites can cause loons to abandon and reduce available habitat for new nests.

Anglers

- Use lead-free fishing sinkers and jigs. Maine law bans the sale and use of lead sinkers less than an ounce in weight, and unpainted lead-headed jigs less than 2.5" (though painted jigs are equally toxic to loons and should be avoided). Recycle old lead tackle. Visit fishleadfree.org for more information.
- Retrieve loose and broken fishing line and tackle from shorelines and open water.

Boaters

- Observe the 200-foot "no wake zone" to assure that waves don't destroy lakeside nests. Encourage fellow boaters to do the same.
- Keep boat trailers free from aquatic plants when traveling, especially when coming from other states.

Camp Owners

- Visit mainelakessociety.org to sign up for Lake Smart, and inquire about their Loon Smart program, which evaluates both campowner behavior and homesites for loon-friendly practices.
- Maintain buffers of vegetation along shorelines, and reduce the size of your lawn. Limit use of phosphorous-free fertilizer.
- Build an artificial loon-nesting platform if fluctuating water levels or predators are consistently causing loon nests to fail.
- Be aware of where loons nest and where they raise their young. Watch these areas from a distance, and share this information with fellow lake users.

Everyone

- Join the Maine Loon Count to help track adult loons and their chicks over time.
- Host a presentation about loons and loon habitat in your community.
- Post "Look Out For Loons!" signs (with landowner permission) at marinas and boat launches to let lake users know loons are nearby.
- Use binoculars to watch loons. Do not approach nests or loons on the water too closely, especially if the loons are calling or displaying.

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Nesting Because loons are heavy and their legs are located at the very back of their body, they move awkwardly on land. They typically build their nests within a foot of the water's edge so they can slip quickly on and off without being noticed. Males and females work together to make nests of rounded mounds of mud and vegetation. Nests are often built in marshy areas or on islands where there are fewer predators. Females usually lay two mottled brown eggs between mid-May and mid-June. Both parents incubate the eggs for about 29 days. Loons are long-lived, and the oldest known nesting loon is over 30 years old.

Chicks Chicks can swim right 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 predators. After only a week, the chicks can dive short distances and catch some of their own food, although they rely on their parents to feed them minnows and small fish. Mortality for loon chicks is high, with an average of one in four chicks surviving through the summer. Young birds stay with their parents as long as they can, ideally for at least ten to twelve weeks, when they are able to fly and fish for themselves.

Migration As the days shorten in late August, adult loons start to gather in large flocks. Parents will abandon young chicks that have hatched late in the season, leaving them to fend for themselves. Groups of adults feed together in large rafts for a month or more before heading to the ocean for the winter. Juveniles will start to flock together later in the fall, sometimes waiting until just before the fall freeze-up to fly to the ocean. In the spring, breeding loons generally return to the same lake and often to the same territories they've used before, usually on or near the lake where they were raised. Young birds will wander



In the fall, adults lose their summer finery and molt into a dull gray, brown and white winte plumage. Juveniles look very similar to adults in winter, and will keep this drab plumage through their second winter.

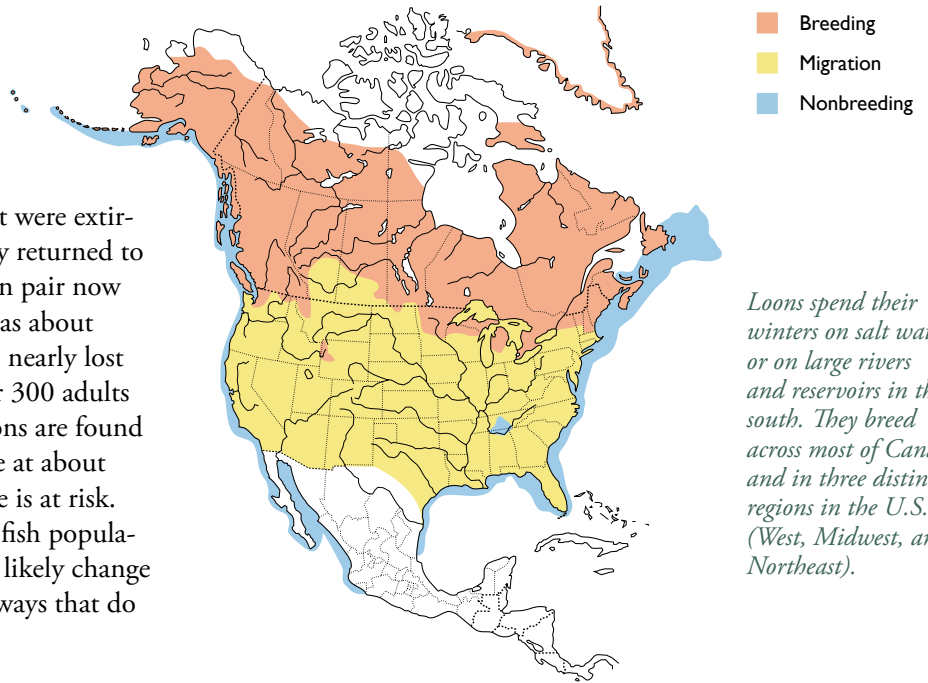
A Loon's Many Voices

One of the most fascinating things about loons is their rich, haunting call. Loons are most vocal from mid-May to mid-June. They have four distinct calls they use to communicate with their families and with other loons.



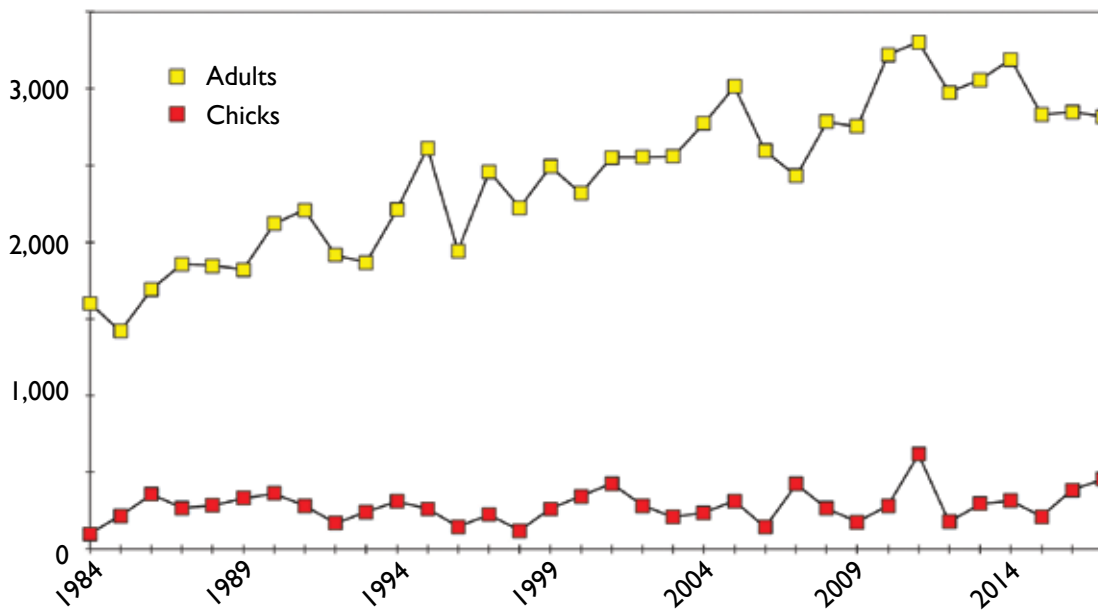
among fresh water lakes and the ocean for about seven years before securing a territory, looking for a mate and raising their own young.

Population Status Loons historically nested in Pennsylvania and Rhode Island but were extirpated in the last century. Loons have recently returned to nest in Massachusetts and there is one known pair now breeding in Connecticut. New Hampshire has about 700 adult Common Loons. Vermont, which nearly lost its loon population in the '80s, now has over 300 adults and New York has over 1,700. In Maine, loons are found statewide and their population is fairly stable at about 4,300 adults. However, their future in Maine is at risk. Loons need clean, cold water with a healthy fish population. Climate change and warmer water will likely change lake dynamics, food sources, and habitat in ways that do not benefit Common Loons in Maine.



Loons spend their winters on salt water or on large rivers and reservoirs in the south. They breed across most of Canada, and in three distinct regions in the U.S. (West, Midwest, and Northeast).

Estimated Loon Population in Southern Half of Maine



An estimate of the loon population in the southern half of Maine is calculated each year from the Maine Loon Count, a statewide survey by more than 1,400 citizen scientists. The estimate for adults has grown steadily since the survey was established in 1984. Chick estimates vary from year-to-year but have not changed markedly since the late 1980s.

The Tremolo Also known as the “crazy laugh”, the tremolo is used to signal alarm from a threat, and sometimes at night to vocally advertise and defend territories. Flying loons sometimes make a modified version of the tremolo.

The Wail Sounding much like a wolf’s howl, the wail is used frequently during social interactions between loons, and may be used to regain contact with a mate during night chorusing and when answering other loon calls.

The Yodel Given only by males, the yodel is a long, rising call with repetitive notes that can last up to six seconds. It is used to defend a territory and might be heard when another male enters a loon’s territory. Yodels are distinct for each loon so can be used to identify individuals.

The Hoot This quiet one-note call is used by family members to locate each other to check on their well-being.



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 managing the annual Maine Loon Count (celebrating its 35th anniversary in 2018), conducting outreach around loon and lake issues, and advocating in the state legislature for regulations and public policies affecting Maine's loons (such as mercury emissions, lead-free fishing tackle, invasive plants, and shoreland zoning).

The Project also manages the *fishleadfree.org* website, and the *Common Loons in the Classroom* curriculum for grades K-5. For more information, to make a donation, or to sign up for programs and outreach activities, visit maineaudubon.org/loons or email conserve@maineaudubon.org.



Maine Audubon works to conserve Maine's wildlife and wildlife habitat by engaging people of all ages in education, conservation, and action.

Maine Audubon is building a community of people who understand that when Maine's wildlife thrives, Maine thrives. Since 1843, we have been connecting people to nature through a science-based approach to conservation, education, and advocacy. The state's largest wildlife conservation organization, Maine Audubon has seven chapters, eight wildlife sanctuaries, 10,000 members, and serves over 50,000 people annually.

