

## **All About Loons**

### **By Sheila Johnston**

The Common Loon with its dramatic black and white plumage, iridescent head, red eyes, and haunting call is the iconic bird of the north. Male loons are generally larger than females, and they have slightly larger heads and longer, heavier bills. However, it is very difficult to differentiate between them unless they are sitting side by side. Minnesota has more loons than any other state in the continental United States.

When we hear the first call in the spring, our hearts quicken: “They’re back!” As soon as the ice goes out on “their lake,” loons will be there to stake out their territories. The question is, how do they know the ice is out? Some researchers believe that loons keep moving north as waters open. When they near their area, they stay on whatever open water is available and take reconnaissance flights to their lake to see if it is ice free. Once they find open water on their lake, they are ready to defend their territory. Males may return a few days before females.

Males define their territories through yodeling, and each male has a unique call. When they first return, the yodels can be heard coming from all corners of the lake throughout the night, creating a “loon symphony.” The yodel is a danger or warning call given only by males. They will yodel to defend their territory and to give a warning if people come too close to young or a nest site. When a male perceives the threat to be severe, it may raise itself upright out of the water, spread its wings, and crook its neck while yodeling.

In addition to the yodel, loons have three other calls. The wail is the call to mates and family members. It means, “Where are you?” or “Come here!” There are one-note, two-note, or three-note variations. The wail rises and falls in pitch and sounds similar to a wolf howling. Loons will often swim towards each other after hearing a wail. Intense wails signal an urgent need to come together. Loons also wail when anxious or threatened. Studies have shown the pitch of the yodel varies with geographic range, and Minnesota loons have the highest pitch.

The hoot is a short contact call that allows loons to keep in auditory contact while they are fishing, looking for danger, or watching out for other loons. It is a short, single-note call used when family members are nearby.

The tremolo is the laughing call, and male laughing tremolos are lower in pitch than females. This type of tremolo is mostly given during the day. Alarm tremolos are given when a loon is feeling threatened, its chicks are threatened, or it is posing a threat to another bird. This tremolo increases in intensity as a threat approaches. Alarm tremolos are often accompanied by splashing displays, or the loon may lift its body upright and flap its wings. Move away from the area if a loon is giving you the alarm tremolo. Tremolo calls are also given during flight and are known as flight calls.

Baby loons can peep before they are hatched and can produce a high single-note yelp on their first day of life. At one week of age, loon chicks are able to wail, and they use this call for

intense begging and to signal distress. By three to four months, they are able to give wails and tremolos identical to adult calls.

Loons are monogamous, but some researchers believe they are more loyal to their lake than they are to their mates. According to the Cornell Lab, pair bonds typically last about five years. If one of the mates does not return, the other loon will pair with another mate. Courtship consists of swimming in circles and synchronous diving. Sometimes a male or female interloper will challenge one of the mates. Males will challenge males, and females will challenge females, and the rival loon may displace one of the mates during breeding season.

The male selects the nesting site, and the mated pair builds the nest together over a week's time in May or early June. Nests are usually in quiet, protected, and hidden spots of lakeshore. The pair makes a mound out of dead plant material such as sedges that grow along the water's edge. Leaving shorelines natural or restoring shorelines provides loons with the habitat and resources needed for nesting. After the mound is formed, one of the loons crawls on top and shapes the interior of the mound to the contours of its body. The completed nest looks like a clump of dead grasses near the edge of the water. On lakes such as the Gull Chain of Lakes with extensive shoreline development, loons may use artificial nesting platforms that people have set out as alternative habitats. Regardless of whether the nest is natural or artificial, a nesting pair will often use the same site year after year and will refurbish the old nest, rather than build a new one.

Because the nests are located so close to the water, they are at risk of being washed out by the wave action of boats and jet skis. It is crucial for watercraft to keep a distance and to reduce their wakes to a minimum when near nesting sites.

Most loons will begin to nest in May, but late starters or a pair that has re-nested after a nest failure may still be incubating eggs in July. There are one to two eggs in a clutch, and both parents incubate the eggs. Incubation is 26 to 29 days. During incubation it is imperative for people to keep distance from a nest. When loons feel threatened while on the nest, they may put their heads down. This posture indicates that the loon may flush from the nest and leave the eggs to chill, overheat, or be taken by a predator. If stressed or threatened, loons may abandon the nest. If you see a loon on the nest with its head down, immediately back away!

Chicks are able to swim and ride on their parents' backs within hours of hatching. Riding on a parent's back helps the chicks stay warm and keeps them safe from predators such as snapping turtles, northern pike, muskies, and others. After a day or two, the loon family moves to a "nursery" or chick rearing area, and they do not return to the nest. However, young chicks are unable to dive or get out of the way of boats, so boaters must be alert and keep a safe distance from them. If boaters come too close, adults will perform a protective display by lifting their body upright and flapping their wings vigorously, while issuing a defensive tremolo call. This means, "Stay away!!" If you see this display, please leave the area.

Both parents are involved in chick rearing. Parents catch and feed the chicks minnows, crayfish, and aquatic insects. By the time chicks are 8 weeks old, they are able to dive and fish for themselves, but it is common to see these older chicks begging for food and still being fed by mom or dad well into late summer.

Loons are fish eaters, and they like panfish, perch, cisco, sucker, trout, bullhead, and minnows. They also enjoy frogs, leeches, crayfish, mollusks, and insects. Because they fish by eyesight, they prefer deep, clear lakes. Their eyes appear red in daylight because the eyes reflect the red part of the spectrum of sunlight and absorb the other wavelengths of light. While underwater, most red light is filtered out and the eyes appear black, which could help camouflage the loon while fishing. Small fish are eaten under water, while large fish are brought to the surface and eaten whole. They are eaten head first. To aid digestion, loons ingest small stones from the bottom of the lake that help grind hard substances such as bones and crayfish shells. If a fisherman loses a lead sinker, loons may inadvertently ingest it when picking up small stones. It takes only one lead sinker to fatally poison a loon. Never use lead sinkers or other lead tackle. Go to <http://www.loon.org/non-lead-tackle-links.php> to find lead alternatives.

You may see loons dipping their heads underwater to see beneath the surface as they float on the water. This is called peering. Both adult and juvenile loons peer to locate fish and keep track of other loons. In late summer, it is common to see juveniles peering as they observe their parents chasing and catching fish.

The legs of the loon are located in the back of the body. This makes it difficult for them to walk on land, but is beneficial when swimming. Their legs and feet extend off the sides of the body. This placement allows the loon to propel and steer without interference from water turbulence caused by the other foot. Their large webbed feet provide great thrust as they propel the loon forward. Loons are outstanding divers. Unlike most other birds, loons have solid bones. This extra weight helps them dive as deep as 250 feet as they search for food. While feeding on crayfish or minnows, they may dive only a few feet, but their dives can last 30 to 90 seconds when hunting for fish. They can stay under water for up to five minutes. Wings remain at their side while swimming underwater.

Gradually, the chicks lose their sooty black down and grow a coat of light brown down, which you can expect to see in late July. At about 10 weeks of age, loons are growing their basic gray plumage and flight feathers. By fall, the adult feathers have replaced the down, and they are able to fly. Adult loons exhibit their striking black and white feathers during breeding season. This is known as alternate plumage. The undersides of both adult and juvenile loons are white, which helps make loons on the surface of the water difficult for fish to see. The white undersides also help protect the chicks from predators such as muskies and northern pike. As summer comes to a close, adult loons begin to have a faded appearance. The loon's winter or basic plumage is a combination of gray and white, and the fall molt begins around the bill and the face. Molting continues down the head and neck, and the main body of the bird. Flight feathers are molted during January, and loons are unable to fly for up to two months as the new feathers grow.

Loons spend much of their days preening, that is, cleaning and adjusting their feathers. Loons preen with dry bills or with bills that were dipped in water. They also preen with oil that is released from a gland at the base of the tail. The oil is spread over the feathers with the bill, and it creates a waterproof coating that allows the loon to shed water after it resurfaces. In order to coat the neck-and-head feathers, the loon spreads oil on the contour feathers of its back and shoulders. The loon then throws its head back and rubs the oil onto its head and neck.

Loons spend a great deal of time preening the small white feathers on their chest and belly. This is called nibbling. They use their bills to pull individual damaged feathers from deep within the layers of chest and belly feathers. Loons will roll onto their sides or backs as they engage in this behavior.

When bathing, loons will submerge themselves and also will splash vigorously. They may pause intermittently to preen or nibble. After preening and bathing, loons will often shake off or stretch their wings. During a wing stretch, a loon rises high above the water with neck fully extended and its bill held high. It flaps its wings and shakes its head and neck. These actions remove trapped water droplets and realign the feathers. The bill pointed upward is sign of sociability. This differs from the territorial or defensive display that a loon takes when protecting its chicks. When the bill is pointed downward or is tucked against its neck, it is signaling an aggressive attitude.

Mated pairs with young stay together all summer and until migration in the fall. Mated pairs that have had nest failure or whose chicks did not survive will separate by mid-summer. In late summer adult loons will begin "rafting." They will leave the chicks behind, and they will gather in social groups on other parts of the lake. If the chicks are too young to leave alone, one parent will stay behind. They usually gather over deep water between territories or in other neutral sites. Gatherings can range in size from 3 to 30 or more. They often gather in early morning and in late afternoon, but it is common to see rafts of loons in the evening on Gull Lake during late summer.

Loons gather in large migration groups, but they migrate individually. Autumn migration groups may include juveniles, but adults typically migrate a few days to several weeks before the juveniles. On Mille Lacs Lake, migration groups of nearly 5,000 adults and juveniles have been known to gather. Loons' bodies are heavy in relation to their wing size, and they need a "runway" of 100 to 600 feet to take off from a lake.

The adults will migrate to Lake Michigan where loons from Minnesota, Wisconsin, Michigan, and Canada gather to feed on cisco and goby before continuing on to their winter home on the Atlantic coast from North Carolina to south Florida or the Gulf of Mexico. Due to prevailing winds from the north and northwest, loons average about 105 miles per hour in the fall migration. In October or November, the juveniles will typically migrate. Some will remain on the lake until shortly before ice in. The juveniles will migrate directly to the Gulf of Mexico or

Atlantic coast. They will remain there or along the Atlantic Coast for three years. After three years, they will return to their natal lake and remain if there is room for them on the lake. If it is a small lake, they may be driven off by their parents who have staked off that lake as their territory. Loons typically do not breed until they are at least three-to-four years of age.

The majority of loon deaths occur in the first two years of life, but scientists believe loons can live for 30 years or more. With loon-safe boating practices, the use of non-lead fishing tackle, and restored shorelines providing more habitat, loons will be able to have greater reproductive success and longevity on the Gull Chain of Lakes. For more information and ways you can get involved in protecting loons, please check the Loon Information and Loon Program pages on the GCOLA website.

Sources:

[Cornell Lab of Ornithology](#)

[\*Fascinating Loons\*, by Stan Tekiela, Adventure Publications, 2006](#)

[Loon Preservation Committee](#)

[Minnesota DNR](#)