## **ABOUT THE COVER**

## Common Loon

The Common Loon (Gavia immer) is well known from Native American lore, where it is associated with myth and magic and is often referred to as "the spirit of the northern lakes," probably because of its nocturnal, haunting yodel and wail. The name "loon" comes from Scandinavian words for "water bird" or "diving bird" and is most appropriate for this denizen of the lakes and coastal waters that, because of its posteriorly positioned legs, has great trouble walking on land. A large loon, in breeding season it can be identified by its black head and bill and the extensive checkering pattern of its back. In winter plumage, identification can be more difficult because the dull gray above with white throat, neck, and breast pattern is shared with the smaller Pacific and Arctic loons. However, its robust bill and partial white collar, together with its larger size, should make identification possible. Like all the loons, the Common Loon flies with its head in line with the lower part of its body, producing a distinctive humpback profile. They fly at about 75 mph and need 90-600 feet of "running room" to take off from the water. The sexes are similar in plumage, but males are larger than females. The Common Loon is monotypic (no subspecies) and forms a superspecies with the Yellow-billed Loon.

Common Loons are Holarctic in distribution, and in North America breed on the lakes of mixed and boreal forests in a broad swath across Canada from Alaska to Newfoundland, and in the United States in New England, the Great Lakes region, and the far northwest. They winter in coastal waters, mostly near shore, along the Pacific Coast from the Aleutian Islands to Central Mexico and in the east from Newfoundland south to Florida, the Gulf Coast, and northern Mexico. They may remain on large inland lakes until the lakes freeze. In Massachusetts the Common Loon is near the southern edge of its range and is considered a rare and local breeder. They found the Quabbin Reservoir during the 1940s while it was still being flooded and have had adults present on the reservoir ever since. About 10 pairs probably breed each year in Massachusetts. They are considered a common coastal migrant, with protracted migration seasons, mid-March to early June in spring, and from late August to December in the fall. Adults leave the breeding grounds before juvenile birds, and older birds are the first to arrive in the spring. There is some evidence that birds that breed in the same area also winter together. Loons can form flocks of hundreds to thousands on staging areas such as the Great Lakes or Chesapeake Bay. In Massachusetts they are uncommon winter residents, mostly along the coast and islands.

Common Loons are monogamous and don't breed until at least four years of age. They nest on the shores and islands of large, clear lakes and in bogs surrounded by forest. They are highly territorial, with territories that averaged 175 acres in one study. Lakes under 200 acres support only a single breeding pair. Unlike most animals, loons frequently fight in territorial disputes. Both males and females attack and often kill intruders by chasing them down, climbing onto their backs and thrusting their bills into the neck or head of the transgressing bird, or grasping the intruder by the neck and holding its head under water. They also attack from underwater, impaling the intruder with a saber-like bill. In one study over fifty percent of loons autopsied had evidence of old wounds that were probably made by loon bills. They often chase other birds by running across the water with wings spread out. They will attack and kill other waterfowl such as mergansers, and have been recorded attacking beavers, snapping turtles, and otters. Several loons were once reported mobbing a swimming coyote—these are tough birds. Courtship displays are generally simple and include head-turns and splash-dives. They are reported to use a "penguin dance" display, where the bird is vertical with wings held out in a V. High-speed glides with wings held in a V may also be involved in courtship. The yodel, a loud call that can be heard up to ten miles away, is given only by the male and is largely a territorial advertisement. Loons also have a wolf howl-like wail, a tremolo or laughing call that they give in times of distress, a flight call, and a hoot that serves as a contact call.

Common Loons prefer to nest on islands or floating islets in bogs, presumably because these locations are more difficult for mammalian predators to access. Either member of the pair can choose the nest site, and both contribute to building the nest, a platform of submerged vegetation yanked up by the birds. Nests may be reused in subsequent years, and loons will use artificial floating platforms or the tops of logs or muskrat houses upon which to make their vegetation nest. The usual clutch is two olive or brown eggs, splotched with darker shades. The parents share incubation duties during the four weeks until hatching. The chicks are semiprecocial, leaving the nest with their parents within hours of hatching, but are dependent on the parents for food. They climb onto their parents' backs where they are brooded and ferried around. The chicks are fed mostly crustaceans and fish and can feed themselves by the time they can fly, about eleven weeks after hatching. By mid-October the juveniles are ready for their first migration.

Common Loons eat primarily live fish and crustaceans, although leeches and some vegetation are also taken. They are visual foragers and depend on clear water, usually foraging within fifteen feet of the surface, although they occasionally dive to depths of 200 feet. They often peer under the water from the surface and, upon seeing a fish, give chase, propelling themselves with simultaneous thrusts of their powerful feet. Their dives averaged about forty seconds in one study. A loon catches a fish by grasping it in its bill and shifting it with its mandibles so that it is swallowed head first, usually under water. Loons have tooth-like structures on the roof of their mouths and on their tongues that aid in holding and swallowing prey items, and they have muscular gizzards and gizzard stones that help them grind up bones and scales — they don't regurgitate pellets as raptors and shrikes do. The sexes have different sized digestive organs and take, on the average, different size prey, suggesting that they partition food resources.

The Common Loon faces a variety of threats from man, and some populations have been extirpated from the southern part of their range. Development of lake shores, recreational boating, and most recently the onslaught of the jet ski, have seriously damaged breeding habitat. They are still hunted in parts of Canada, have suffered from outbreaks of botulism and aspergillosis, and have been adversely affected by water pollution, particularly by mercury. Acid rain has diminished their food supply, and in winter they are vulnerable to oil spills and storms, especially if they are flightless due to molting. In the New England states their conservation status ranges from Endangered to Species of Special Concern. However, loons have always elicited public concern and have benefited from volunteer protectionists — the "Loon Rangers" — and the American Loon Fund. People tend to like loons and thus try to protect them. Despite the public attention, many basic aspects of Common Loon remain obscure, such as winter ecology or dispersal of young. Conservation efforts, together with vast and remote breeding grounds in much of Canada and elsewhere in the world, make the species' prospect for survival a bright one. *William E. Davis, Jr.* 

## About the Cover Artist

Paul Donahue is a bird painter, environmental activist, and tree climber who divides his time between Downeast Maine, New Brunswick, California, and South America. His work has appeared on *Bird Observer* covers many times. He can be reached via email at aracari@ptc-me.net.

## News from the Manomet Center for Conservation Sciences

Likely Record-Setting Recovery of Shorebird Banded 20 Years Ago. May 20, 2004 - A shorebird that turned up near Jacksonville, Florida, last Friday is creating a buzz in the international ornithological community. The bird, which had been banded 20 years earlier in Lagoa do Peixe in southern Brazil, is very likely the oldest Red Knot on record.

"Absolutely amazing" were the words of Brian Harrington, a senior scientist at Manomet Center for Conservation Sciences, who led the research team that first banded the bird in Brazil more than 20 years ago. According to Harrington, Patrick and Doris Leary discovered the banded bird while conducting shorebird surveys from Florida's Bird Islands to Fort George Inlet. The Learys reported sighting a knot with "a strange gray-colored marker" to Harrington by email, who was able to confirm through photos that this bird was one banded by his team in 1984. At the time of banding the bird was already an adult, so Harrington has been able to conclude that the bird is at least 21 years old.

This bird has "clocked" almost 400,000 migration miles over the course of its lifetime. "It is a champion migrant," Harrington said, noting that even though this species is known for its remarkable flights, this particular bird has an exceptional story. "By its 13th birthday, this Red Knot, weighing only about 4.5 ounces, had migrated a distance equal to the moon and back."

The rest of this report is at <a href="http://www.manomet.org/naturereport/#floridabird">http://www.manomet.org/naturereport/#floridabird</a>>.