



Sea Duck Information Series

Black Scoter (*Melanitta nigra*)

French: *Macreuse noire*

Description

Black scoters are a medium-sized sea ducks approximately 43–49 cm (17–19 in) long. Males are slightly larger than females and weigh 980–1100 grams (2.2–2.4 lb). Males are solid black and have a yellow knob on their relatively small bill, whereas females are dark brown with a pale cheek patch and a dark crown. They retain the same plumage year-round.

In flight, the undersides of their wings flash silvery gray in contrast to their dark bodies. Their wings make a whistling noise in flight. Males are very vocal and make a continuous mellow, plaintive whistling sound. Females make a low growling sound during courtship.

Range

The black scoter has two separate breeding populations in North America: the eastern population breeds primarily in northern Quebec and western Labrador, and the western population breeds on tundra areas of north-central Alaska Peninsula, Alaska's Bristol Bay lowlands, Yukon-Kuskokwim Delta, and to a lesser extent in Kotzebue Sound and the Alaska North Slope. Black scoters migrate along both the Atlantic and Pacific coasts, but little is known about inland migration corridors.

Black scoters winter in two geographically separate areas. Along the Atlantic coast, they winter from Newfoundland southward into Florida and along the Gulf of Mexico west to Texas, but highest concentrations are along the mid-Atlantic coast, particularly the New Jersey and Massachusetts coastlines. A few winter in the Great Lakes. Along the Pacific coast, black scoters winter from the Aleutian Islands to Baja California, with most birds wintering in coastal Alaska and British Columbia.

Spring migration begins in April, and birds arrive on breeding grounds in mid-to late-May. Little is known about where nonbreeding or immature birds go during the summer; the St. Lawrence River seems to be one such area. Timing of fall migration is more variable, beginning in September and lasting into November.



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Black scoters molt their wing feathers and become flightless for 3-4 weeks during July and August. Known molting areas in eastern North America include James and Hudson bays, Labrador, and Newfoundland. In western North America, little is known about molting sites, but molting concentrations have been reported in the bays of the Alaska Peninsula, and in coastal areas of the western Canadian arctic.

Habitat and Habits

The black scoter is one of North America's least-studied sea ducks, and little is known about the factors that determine habitat preferences for breeding, molting, staging, and wintering areas. Generally, black scoters breed near shallow tundra lakes in Alaska, or tundra and taiga (boreal forest) lakes in eastern Canada. They winter in near-shore marine and estuarine areas, and to a lesser extent in the Great Lakes.

As with other sea ducks, black scoters are believed to reach sexual maturity when they are two or three years old. Courting begins in spring, and they arrive paired on the breeding grounds. Black scoters nest later than most ducks. In late June, females select nesting sites along the edges of drainages and lakes. The

nest is a hollow of grass and down concealed in brushy, dense vegetation; distance to water varies from a few meters to hundreds of meters. Males stay with females until eggs are laid, then depart to molting sites in marine and estuarine areas; there they assemble in rafts of thousands to undergo the annual wing molt.

Females incubate 6-8 eggs for 27–31 days. Ducklings are fully covered with down and leave the nest shortly after hatching. Young ducklings can feed by themselves immediately after leaving the nest and eat a variety of insect larvae including caddisfly, dragonfly, mosquito, and midge. They can fly when about six weeks old. Females stay with broods for at least 4 weeks after the eggs hatch, then begin the molt. Several broods may congregate and form large groups on lakes. Females raise only one brood each year.

The diet of black scoters at sea is predominantly mollusks (e.g., mussels and clams), but also crustaceans (e.g., snails, periwinkles), limpets, barnacles, and vegetation. Ducks usually feed in depths <10 m, diving to take prey which they then swallow whole; powerful muscles of the gizzard crush the prey, shell and all. On freshwater breeding areas, black scoters have a varied diet that

includes mostly aquatic insects and some pondweeds.

Population Size and Status

There are currently no surveys that do an adequate job of estimating population size or trend for black scoters. About 250,000 black scoters winter on the Atlantic coast of North America, with a similar number on the Pacific coast, although these estimates are crude at best. About 100,000 black scoters stage on the Restigouche River in New Brunswick during spring migration. It is not known how many of the black scoters wintering in the Pacific originate in Alaska or on Russian breeding grounds, and it is not known how many black scoters winter in the Great Lakes or along the Gulf coast.

Population estimates for breeding black scoters are limited to only a few small areas in Alaska, where an estimated 200,000 birds breed. Indices of scoter population size in Alaska from the Waterfowl Breeding Pair and Habitat Survey have declined at an average rate of 1.6% per year; or almost 50% since the 1950's. There are indications of a decline in the Atlantic Flyway as well. More precise surveys are needed to determine the status of black scoters in North America.

Management and Conservation

Black scoters are subject to a combination of threats and ongoing impacts. These include contaminants in the food chain, subsistence harvest, sport harvest, and habitat disturbance and fragmentation, including large-scale breeding habitat disturbance from resource-extraction industries along the Beaufort Sea of Alaska and Canada, mining projects in Labrador, and hydrologic projects in northern Quebec. Black scoters are also susceptible to oil spills.

Black scoters are hunted in Canada and the United States; this sport harvest averages approximately



Distribution of Black Scoter in North America

11,000 annually for both countries. Most (about 80 percent) of the sport harvest occurs in the Atlantic Flyway. Subsistence harvest may be significant for this species in some areas, with a reported annual harvest in western Alaska of about 6,000 in recent years, proportionally higher for black scoters than for any other duck species.

Regulations governing harvest of sea ducks have been quite liberal in the past and need to be carefully examined; it is not known what effect sport and subsistence hunting have had on this species or what level of harvest is sustainable. Because of the apparent declining population trend, harvest restrictions have been imposed on the U.S. harvest in the Atlantic Flyway. Efforts are underway in Alaska to improve subsistence harvest surveys and to adjust subsistence harvest regulations accordingly.

Researchers on both the Atlantic and Pacific coasts are using satellite telemetry to document migration routes and determine habitats used. Information from these studies will help in the design and interpretation

of monitoring surveys and facilitate management.

References and Resources

- Bordage, D., and J.-P. Savard. 1995. Black Scoter (*Melanitta nigra*). In *The Birds of North America*, No 177 (A.F. Poole and F.B. Gill, eds). Philadelphia, Penn: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.
- Seaduckjv.org - the web site for the Sea Duck Joint Venture.



The Sea Duck Joint Venture is a conservation partnership under the North American Waterfowl Management Plan

To learn more about sea ducks and the Sea Duck Joint Venture (SDJV), visit seaduckjv.org or contact:

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