



## Sea Duck Information Series

# Black Scoter (*Melanitta americana*)

French: *Macreuse à bec jaune*

### Description

Black scoters are 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 populations in North America. The eastern population breeds in northern Quebec, Labrador, and in boreal forest and taiga areas west to Great Slave Lake. The western population breeds on tundra areas of the north-central Alaska Peninsula, Bristol Bay lowlands, Yukon-Kuskokwim Delta, and Kotzebue Sound.

Spring migration begins in April, and birds arrive on breeding grounds in mid-May to early June. In the Atlantic flyway, most birds stage at Chaleur Bay, New Brunswick and migrate through James Bay. In the Pacific, nearly all birds migrate into Bristol Bay en route to breeding areas. Little is known about where nonbreeding or immature birds go during the breeding season; in Alaska, many nonbreeders occur in Kvichak Bay.

Black scoter males, nonbreeders, and unsuccessful hens molt their wing feathers and become flightless for 3–4 weeks during July and August, with successful hens molting in late August and September. Known molting areas in eastern North America include James and Hudson bays and coastal Labrador. In western North America, important molting sites include bays in Bristol Bay and along the Alaska Peninsula. Timing of fall migration is more variable, beginning in early September and lasting into November.



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Along the Atlantic coast, black scoters winter from Nova Scotia south into Florida with highest concentrations along the New Jersey and Massachusetts coasts. A few winter in the Great Lakes. Along the Pacific coast, black scoters winter from the Aleutian Islands to the mid-California coast, with most birds wintering in the Aleutians and along the Alaska Peninsula.

### 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 and central 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, initiation occurs from from late May to late June depending on location. 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 four weeks after the eggs hatch, then begin their own molt. Several broods may congregate and form large groups on lakes. Females raise only one brood per 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 seasonally, herring roe. 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

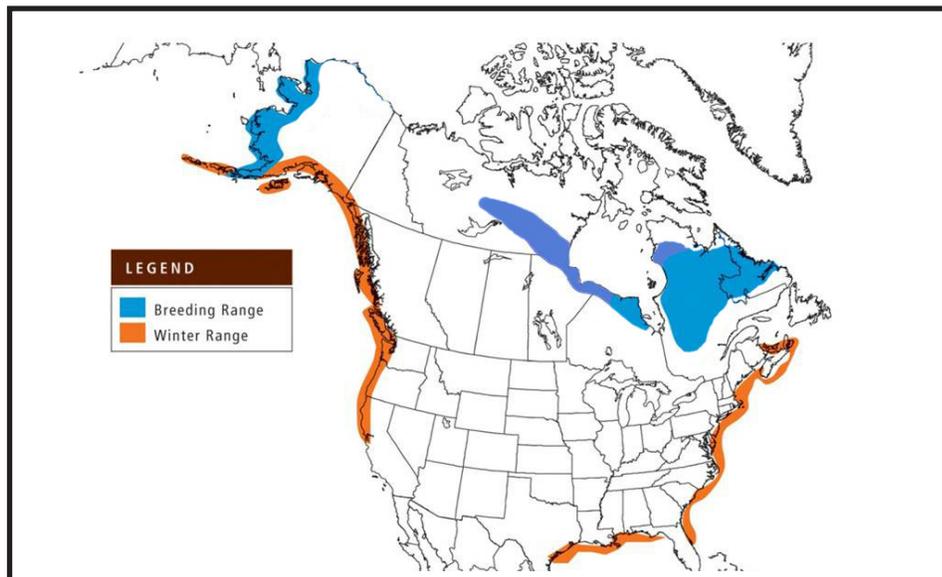
About 400,000 black scoters winter on the Atlantic coast of North America, and about 220,000 on the Pacific coast, although these estimates are fairly crude. Most Atlantic black scoters stage on the Restigouche River on the New Brunswick - Quebec border during spring migration. It is not known whether some of the black scoters wintering in the Pacific originate from Russian breeding grounds, and it is not known how many black scoters winter in the Great Lakes or the Gulf of Mexico.

Population estimates for Pacific (i.e., Alaska) black scoters are about 140,000 breeding birds. 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, although a survey conducted 2004-2012 suggests the population is currently stable or increasing. More precise surveys are needed to determine the status of black scoters, particularly in eastern 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 habitat disturbance from resource-extraction industries in the Bering Sea of Alaska and in north-central Canada, and hydrologic projects in northern Quebec. Black scoters are also susceptible to oil spills.

Black scoters are hunted in Canada and the United States; the sport harvest averages approximately 15,000 annually for both countries. Most (> 80 percent) of the sport harvest occurs in the Atlantic Flyway. Subsistence harvest may be significant



*Distribution of Black Scoter in North America*

for this species in some areas, with a reported annual harvest in western Alaska of about 12,000 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 clear what effect sport and subsistence hunting have had on this species or what level of harvest is sustainable. Harvest restrictions have been imposed on the harvest in the Atlantic Flyway. Efforts are underway in Alaska to improve subsistence harvest surveys.

Researchers on both the Atlantic and Pacific coasts have used satellite telemetry to document migration routes and connectivity patterns between wintering and breeding areas, and determine habitats used. Information from these studies is helping in the design and interpretation of monitoring surveys and will allow for more informed management decisions.

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

### References and Resources

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

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