



Sea Duck Information Series

Surf Scoter (*Melanitta perspicillata*)

French: *Macreuse à front blanc*

Description

Surf scoters are stout sea ducks. Adult males weigh about 1050 grams (2.3 lbs) and females 900 grams (2 lbs).

Adult males are distinguished by their bright, bulbous, multi-colored bills, lustrous velvety black plumage, and conspicuous white patches on the forehead and the back of the head/neck.

In immature males, bill coloration is less dramatic than in adults and the white head patches tend to be either entirely absent or much smaller in size.



Immature male, left, and adult male, right

The bill is large, appears swollen at the base, and is multi-colored with white, red, yellow and black. The bill appears mainly orange at a distance.

Females have a dark brown bodies, with slightly paler breast and belly, and two indistinct white patches on the cheeks below the eye. Their bill is greenish- or bluish-black.

Wings of surf scoters are entirely dark above and below, and in flight produce a whistling sound. Surf scoters are generally silent, although males may make a gurgling-like or guttural croaking call in conjunction with certain courtship displays.

Range

Surf scoters breed exclusively in North America. They breed in low densities throughout boreal forest habitat in Alaska and the Northwest Territories. In Ontario, breeding is documented only for the Hudson Bay lowlands. Farther east, surf scoters breed from the James and Hudson Bays to the coast of Labrador, south as far as the Gulf of St. Lawrence.

They may also nest in other areas that have not been adequately surveyed. Breeding females are



Adult male Surf Scoter

somewhat difficult to detect by aerial survey because the breed in low densities, exhibit secretive behavior, and are difficult to distinguish from female white-winged scoters.

During summer, large numbers of immature and nonbreeding birds aggregate in coastal waters of southeast Alaska and British Columbia. In the east, large numbers are found coastally in sections of Hudson Bay, the St. Lawrence estuary and Gulf, and in the Maritime provinces. Most surf scoters undergo wing molt coastally, with major concentrations in the previously mentioned areas plus the Labrador coast, and Bering and Beaufort Seas.

Wintering populations in the Pacific range from the eastern Aleutians, along the coast of southcentral and southeast Alaska, south to central Baja California. Highest densities occur in southeast Alaska, the Strait of Georgia, BC, Puget Sound, and San Francisco Bay.

Atlantic populations winter from Newfoundland south to Virginia, and uncommonly farther south. Highest concentrations are along the New York and New Jersey coast and in Chesapeake Bay. A few winter in the Great Lakes.

Habitat and Habits

Pairs form on wintering and staging areas, and may reunite in

successive years. Spring migration starts in March. On the west coast, surf scoters often concentrate at herring spawning areas, where they feast on herring eggs. Pairs arrive on breeding areas between mid-May and early June.

The surf scoter is one of the least studied ducks in North America. Nests are well concealed and the few that have been found are typically near shallow, moderately size lakes.

Females lays 7-9 eggs and incubate them for about 29 days. After hatch, several females with broods may join together and form a large flock known as a creche. Females sometimes abandon the brood before they can fly, which takes about 55 days from the time they hatch.

Males leave females once females have begun incubating. They often undertake extensive molt migrations to coastal areas that are hundreds of miles from breeding areas. Molting flocks may number in the hundreds to thousands, although the location and characteristics of molting areas has not been well documented.

Birds depart coastal molting areas from late August through November. Surf scoters spend most of their annual cycle on wintering areas, where they are found in shallow (<10m) coastal waters. Some may be

farther offshore, particularly on the Atlantic coast.

Wintering birds feed mostly on mussels and clams, before switching to herring eggs or other seasonally abundant prey during spring migration. On freshwater breeding areas, they feed on a variety of freshwater invertebrates, particularly upon insects and their larvae. Ducklings feed mostly on benthic invertebrates, including bugs, amphipods, beetles, flies, roundworms, mayflies, caddisflies, spiders, and leeches.

Surf scoters are believed to be long-lived but on average have low reproductive output. They do not breed until 2-3 years old.

Population Size and Status

Estimates of abundance for this species are poor. Their breeding range is incompletely surveyed, and in the North American Waterfowl Breeding Survey, they are lumped with white-winged scoters because females are so hard to tell apart. Also, that survey is not optimally timed to monitor surf scoters, which generally breed later than other duck species. Consequently, annual estimates fluctuate widely depending on annual timing of migration and how many birds occur on surveyed areas.

A rough estimate of abundance is 600,000 to 1 million birds for all North America, the majority of which breed in the western part of the continent.

Trends for all scoter species combined (mostly surf and white-winged) indicate a decline of about 50% since the 1950's in western North America. The decline is most evident in the northern boreal forest regions of western Canada and Alaska. Causes of the apparent decline are unknown. No long term data set exists for eastern North America.

Management and Conservation

Estimates of population size and trend are inadequate for management;



Distribution of Surf Scoter in North America

more precise and geographically comprehensive estimates are needed. Data on survival, and better information about their reproductive biology and ecology, are needed to understand population dynamics.

Harvest estimates indicate 25,000-30,000 surf scoters taken annually by sport hunters in the U.S. and Canada, with 80-90% of that harvest occurring in the Atlantic Flyway. The number of immatures per adult in the Atlantic Flyway harvest has decreased significantly since 1961, suggesting either an increase in adult female mortality or a decrease in productivity. In response, restrictions have been imposed on the U.S. harvest in the Atlantic Flyway. Subsistence harvest for this species is apparently insignificant.

Studies using satellite telemetry are currently underway on both coasts of North America to determine where surf scoters from a particular wintering area breed, and vice versa, as well as where and when they migrate. This information will be essential in order to formulate management plans.

Many potential changes on wintering areas could have an effect on surf scoters or their primary foods. These include energy exploration and development, shellfish aquaculture, heavy metal contaminants from industrial activities, and oil spills.

Environmental changes in boreal forest breeding areas, such as climate change, are not well understood but may affect the quality of scoter breeding habitat.

References and Resources

Savard, J.-P. L., D. Bordage, and A. Reed. 1998. Surf scoter (*Melanitta perspicillata*). In *The Birds of North America*, No. 363 (A. F. Poole and F. B. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.

Seaduckjv.org – the website 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 the Sea Duck Joint Venture (SDJV), visit seaduckjv.org or contact:

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Pacific Flyway Council



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