

Sea Ducks

Black Scoter *Melanitta nigra*

White-winged Scoter *Melanitta fusca*

Contributor: Walt Rhodes

DESCRIPTION

Taxonomy and Basic Description

Black and white-winged scoters are classified in family Anatidae, subfamily Anatinae and tribe Mergini. The tribe Mergini is represented mostly by the sea ducks, although some species in this tribe will inhabit freshwater habitats. Species within this tribe are differentiated from the other tribe of diving ducks, Aythyini (bay ducks), because members do not breed until their second year and complete elaborate courtship displays that bear little resemblance to other ducks (Bellrose 1980).

Black scoters weigh slightly more than 907 grams (2pounds) and are just under 51 cm (20 inches) long. Male black scoters are completely black save for a yellow protuberance at the base of the bill. Juveniles of both sexes and adult females are brownish-black with lighter patches about the cheeks, chin and throat (Bordage and Savard 1995).



White-winged scoters are slightly heavier and larger than black scoters. Male white-winged scoters measure between 53 and 58 cm (20.4 and 22.8 inches) and weigh between 1,260 and 1,780 g (2.8 and 3.9 pounds). Females measure from 48.3 to 54.9 cm (19 to 21.6 in.) and weigh between 950 and 1,500 g (2.1 and 3.3 pounds). White-winged scoters are the easiest to identify of the three species of scoters that inhabit North



America because of the conspicuous white speculum that contrasts against an otherwise all black wing. The other two species have a completely black wing. Male white-winged scoters feature a black bulbous base on the bill and a small white patch that curves below and behind the eye that helps distinguish them from other scoter species. Juvenile and female white-winged scoters can be separated by other scoters by bill and minor plumage differences. White-winged scoters of both sexes also have pinkish feet (Brown and Frederickson 1997).

Status

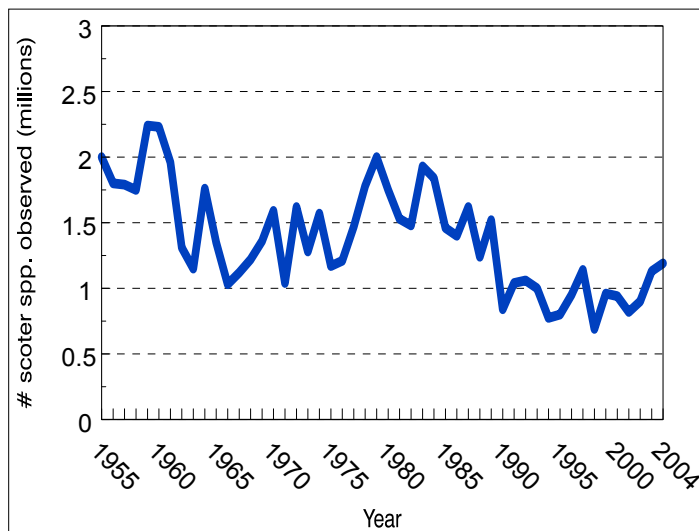
Black and white-winged scoters are not federally listed species but are protected under the Migratory Bird Treaty Act. The North American Waterfowl Management Plan (2004) lists all scoter species as decreasing in numbers in North America.

POPULATION DISTRIBUTION AND SIZE

Population information for all scoters species has been lacking. However, recent research efforts have begun to provide a better understanding of breeding, molting and wintering ecology of these species.

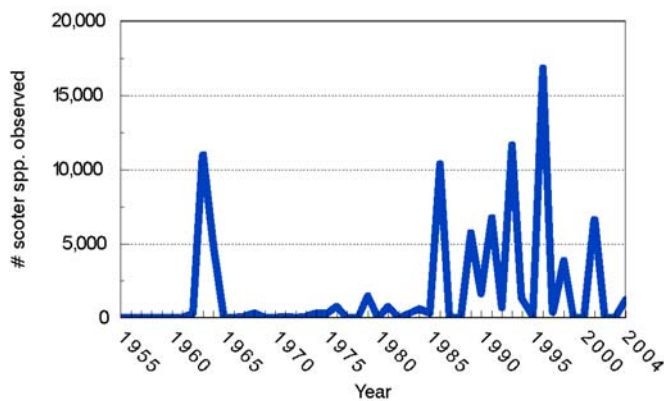
Breeding grounds of the eastern population of black scoters are centered in northern Quebec (Bordage and Savard 1995); breeding populations have also been reported to the west of Hudson and James Bays. White-winged scoters nest from the prairies of North Dakota northwest across Canada and into Alaska. Some of the highest nesting densities of white-wings occur in the Northwest Territories near Great Slave Lake. Some surveys have been conducted on molting and staging areas. Canadian Wildlife Service surveys have found over 70,000 black scoters staging in the spring along the Restigouche River of New Brunswick and over 200,000 scoters (mostly black and surf scoters) in the St. Lawrence Estuary and Gulf. Surveys during molting have found around 50,000 scoters, mostly male surf and white-winged scoters, in the St. Lawrence Estuary (CWS 2004). Thousands of black scoters have been reported molting on James Bay (Ross 1994, Bordage and Savard 1995).

Because it is difficult to differentiate among the three species of scoters from a fixed-winged aircraft, scoter species are lumped together during spring breeding surveys. Within the traditional area of the Waterfowl Breeding Population and Habitat Survey, scoters as a group appear to have declined. Scoters species are also noted in the Eastern Survey Area, a more recent breeding waterfowl survey conducted since 1990. Comparable estimates from 1996 through 2004 demonstrate an increased population, with estimates numbering over 200,000 birds (Serie and Raftovich 2004).



Number of scoters observed during the waterfowl breeding population and habitat survey, 1955-2004.

Number of scoters observed during midwinter waterfowl survey in South Carolina, 1955-2004.



species seen off of South Carolina (usually more than 1,000) while white-winged scoters were rare (less than 25) to non-existent (Serie and Raftovich 2004).

Christmas Bird Count and midwinter waterfowl survey data are also highly variable. Black scoters have been recorded every year since 1961 in Christmas bird counts. Numbers have ranged from 1 to 5,400 and averaged approximately 750 birds. White-winged scoters were observed much less frequently and in lower numbers. The first observation was of three white-winged scoters in 1940. The highest number documented on a Christmas bird count was 532 in 1983. White-winged scoters have been recorded in 17 of the last 25 counts but have typically numbered less than 25 birds. Scoters are not differentiated during the midwinter waterfowl survey but nearly all of the scoters seen are black scoters (W. Rhodes, pers. obs.). Scoter species numbers have been variable since 1955, with most birds seen during the last 20 years (the average is 3,500 birds). Post and Gauthreaux (1989) stated black scoters were an abundant winter visitor while white-winged scoters were uncommon. They note only a few sightings away from the coast for each species.

HABITAT AND NATURAL COMMUNITY REQUIREMENTS

Black and white-winged scoters are found in the littoral zone of the Atlantic Ocean off of the South Carolina coast. There is scant wintering information about either species in South Carolina. Studies conducted elsewhere in their wintering range determined that the birds feed primarily on benthic organisms, including mostly mollusks and some crustaceans. Locations of scoters seen during the midwinter waterfowl survey indicate that birds are usually in water less than 15 m (50 feet) deep and often shallower (W. Rhodes pers. obs.).

CHALLENGES

Like other migratory birds wintering in South Carolina, black and white-winged scoters are subject to threats outside of the state that can affect their numbers locally. Within South Carolina, they are faced with additional problems. Despite a long hunting season and liberal bag

Some short-term data for individual scoter species is available from the Atlantic Coast Sea Duck Survey. This survey, which follows a transect located a quarter of a mile off the coast from Maryland, including portions of Chesapeake Bay, to southern Georgia, has been conducted 10 of the last 14 years since 1991. Black scoters (number observed: 2,689-14,927) showed an increasing trend before leveling off in the late 1990's while white-winged scoters (number observed: 392-4,829) showed no trend. Black scoters were the most common

limit (107 days/4 birds), there appears to be no interest in hunting scoters in South Carolina. Harvest survey estimates have been zero for nearly every season since 1961 for both black and white-winged scoters (Serie and Raftovich 2002, 2004). Lack of hunter harvest is a problem because the majority of studies that estimate population levels and trends are based on data collected from hunter harvest birds.

Because the Port of Charleston is currently the fourth largest port in the U.S., shipping traffic is tremendous. Scoters are at risk from oil spills and exotic benthic species introductions from ballast water discharges related to shipping traffic. Coastal tourism is a major industry in South Carolina and beach renourishment is common along the coast. Often, source sites to mine sand are offshore in habitats (water depths) frequented by scoter species. It is not known what impact this activity has on scoters from a disturbance, roosting or feeding standpoint. Further, harmful algal blooms have been documented along the South Carolina coast. These outbreaks could negatively affect scoter food resources regardless of their timing.

CONSERVATION ACCOMPLISHMENTS

Aerial surveys as part of the Atlantic flyway midwinter waterfowl survey have captured the presence of scoter species wintering in South Carolina; however, data is not recorded by species. Land-based Christmas bird counts have documented the occurrence of black and white-winged scoters in the state.

CONSERVATION RECOMMENDATIONS

- Establish annual surveys to document black and white-winged scoter numbers and distribution.
- Research black and white-winged scoter populations that winter off of the South Carolina Coast.
- Establish baseline data on migration timing, population size and distribution/location of scoters during winter.
- Partner with Sea Duck Joint Venture and other groups to meet research objectives.
- Monitor water quality and benthic organisms in offshore habitats used by scoter species.
- Continue to maintain a rapid response procedure to oil spills, including documentation of effects to scoter species and rehabilitation.
- Ensure adequate regulations are in place to protect offshore habitats utilized by scoter species.

MEASURES OF SUCCESS

Little is known about black and white-winged scoter populations that winter off of the South Carolina coast. Obtaining baseline information, such as migration timing, population size and distribution/location of the birds during winter, would be considered a measure of success for these species.

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