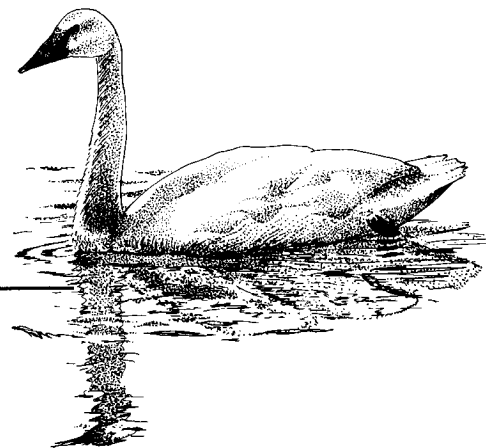


## TRUMPETER SWAN

(*Olor buccinator*)



North America is home to three species of swans: the native trumpeter and tundra (formerly known as whistling swan), and the non-native mute. The trumpeter swan is the largest waterfowl in North America and the largest swan in the world.

The trumpeter swan's historic breeding range extended in a wide band from the Bering Sea east through almost all of Canada and south to Missouri, Illinois, and Indiana.

Today, the central Alaska population winters from southeastern Alaska along coastal British Columbia south to the mouth of the Columbia River on the southern border of Washington State. Other trumpeters are found in mixed migratory/non-migratory groups across the Great Basin region of Alberta, Washington, Oregon, Nevada, Montana, Wyoming, South Dakota, and Minnesota. State fish and wildlife agencies are currently undertaking recovery efforts to reestablish populations in Michigan, Minnesota, and Wisconsin.

The trumpeter swan is a majestic bird, with snowy white feathers; jet-black bill, feet, and legs; and 8-foot wingspan. At close range, a thin orange-red line can be seen on the lower part of the bill. The trumpeter is often confused with the smaller, more northerly tundra swan,

especially where their ranges overlap. The major differences between the two are their size, call, and migration. The trumpeter swan is roughly twice the size of the tundra swan; has a deep, sonorous call; and is either non-migratory or migrates relatively short distances. The tundra swan weighs approximately 15 pounds, has a high whistling call, and migrates long distances between summer and winter ranges.

Trumpeter swan habitat includes riverine wetlands (wetland areas associated with rivers); lakes, ponds, and marshes; open wooded regions; and prairies. In winter, they can be found on tidal estuaries.

Trumpeter swans establish life-long mates at approximately 3 years of age and nest the following year. Sometime between late March and early May, they build their nests, choosing locations close to the water, either on shore, small islands, or muskrat and beaver lodges. The male (called a *cob*) gathers nest material, uprooting marsh plants such as cattails, sedges, bulrushes, and horse-

tail, and brings them to the female (called a *pen*) for placement. The nest mound, which takes about 2 weeks to build, reaches a diameter of 6 to 12

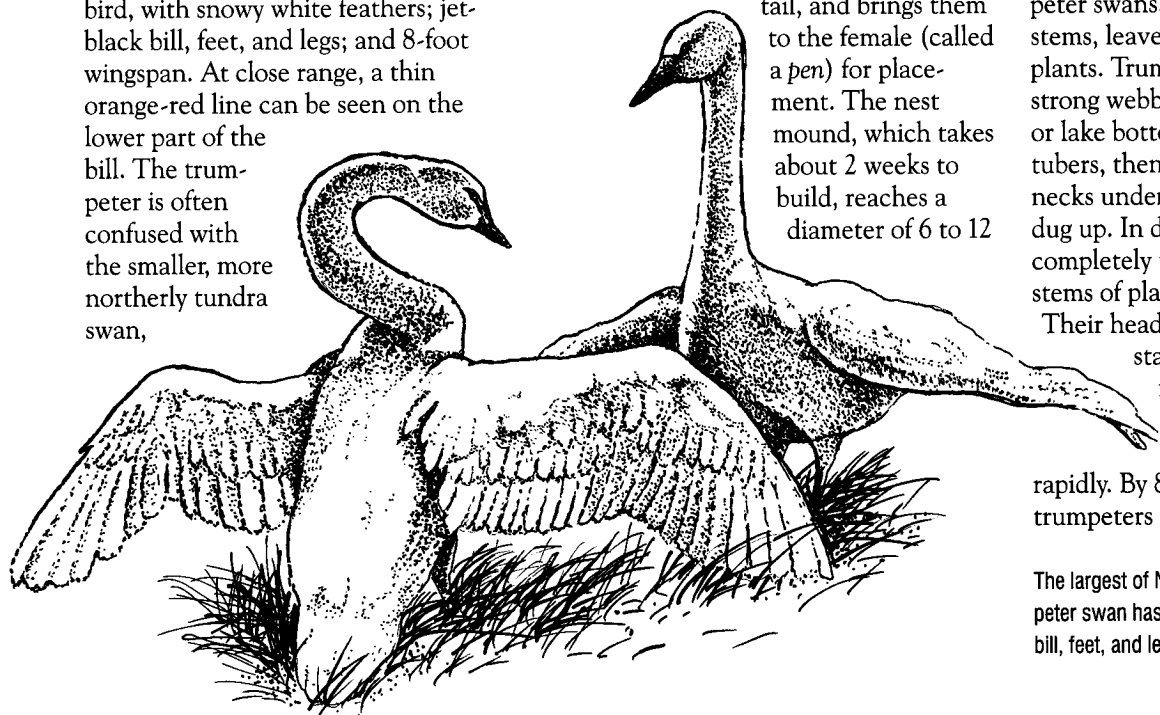
feet and an average height of 18 inches. The same nest site may be used for several years. Once the nest is complete, the pen lays one egg every other day until she has a full clutch, usually from 3 to 9 eggs. The pen spends an average of 35 days incubating the eggs while the cob stays nearby to defend the nest against intruders or predators. When they hatch, the downy young (called *cygnets*) are grayish with pink bills and weigh about 1/2 pound each. Although able to swim immediately, they usually stay in the nest for at least another 24 hours.

Newly hatched cygnets feed mainly on aquatic insects and crustaceans. At about 5 weeks of age, their diet changes to include more vegetation. By the age of 2 to 3 months, the cygnets' diet is basically the same as that of the adults. The tubers of duck potato and sago pondweed are important foods for trumpeter swans. They also feed on the stems, leaves, and seeds of other aquatic plants. Trumpeter swans use their strong webbed feet to dig into the pond or lake bottom for roots, shoots, and tubers, then plunge their heads and necks underwater to eat what they've dug up. In deeper water, they tip up completely to snap off the leaves and stems of plants growing underwater.

Their heads and necks are often stained a rusty color from feeding in ferrous (containing iron) waters.

Trumpeter swans grow rapidly. By 8 to 10 weeks of age, young trumpeters have reached half their

The largest of North American waterfowl, the trumpeter swan has snowy white feathers; a jet-black bill, feet, and legs; and an 8-foot wingspan.



adult size and are fully feathered. They retain their gray juvenile plumage until the second winter.

Average age at first flight is 14 to 17 weeks in Alaska and 13 to 15 weeks in other areas of their range (some of the cygnets may not survive to flight stage).

Trumpeter swans fly with their long necks and legs fully extended, rather than tucked. They swim with their necks erect, in contrast to mute swans, which swim with their necks in an "S" curve.

The trumpeter swan is vulnerable to illegal shooting, collisions with power lines, and predators such as snapping turtles, great horned owls, raccoons, and minks which steal the eggs and attack the young.

Studies have also shown that trumpeter swans may develop lead poisoning by ingesting lead shot and fishing sinkers during feeding. A relatively recent ban on lead shot for waterfowl hunting has helped significantly decrease this threat in that no new pellets are being deposited in the environment, but old pellets may remain in the sediment of lakes and wetlands for several decades.

Under the Migratory Bird Treaty Act, carefully managed hunting of some migratory birds is allowed under regulations developed each year by the U.S. Fish and Wildlife Service. The

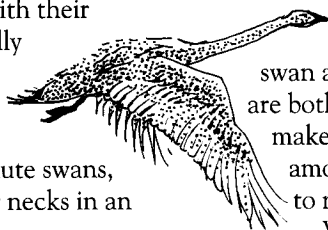
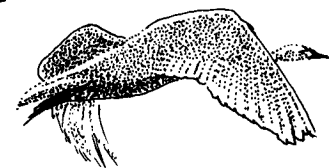
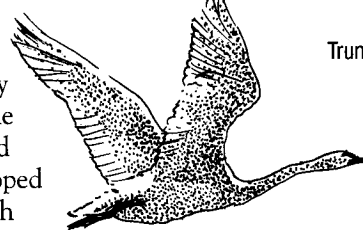
trumpeter swan's close resemblance to the tundra swan and the snow goose, which are both legal game in some areas, makes it vulnerable to a certain amount of hunting pressure due to mistaken identity.

Widespread destruction and degradation of wetland areas also decreases the suitable habitat areas for the trumpeter swan.

In the early 1900s, the trumpeter was hunted nearly to extinction for its skin, feathers, meat, and eggs. Passage of the Migratory Bird Treaty Act of 1918 gave protection to trumpeter swans and other birds and helped curb illegal killing.

In 1932, fewer than 70 trumpeters were known to exist worldwide, at a location near Yellowstone National Park. This led to the establishment of Red Rock Lakes National Wildlife Refuge in 1935. Red Rock Lakes is located in Montana's Centennial Valley

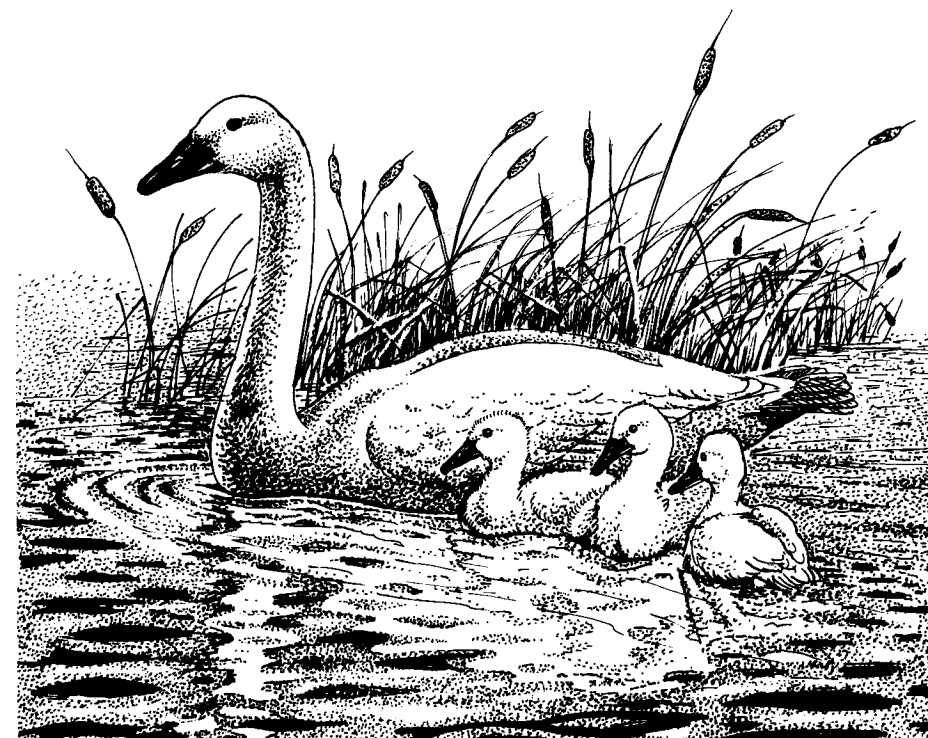
Trumpeters fly with their long necks and legs fully extended, rather than tucked.



and is part of the Greater Yellowstone ecosystem. Nearly half of the known trumpeter swans in 1932 were found in this area. The area's system of hot springs provides year-round open waters where trumpeters, as well as other wildlife, find food and cover even in the coldest weather.

Over the years, the Red Rock Lakes refuge flock served as an important source of breeding birds for reintroduction efforts in other parts of the country, primarily on other national wildlife refuges in the Midwest.

In the early 1950s, a fairly large, previously unknown population of trumpeter swans was discovered in Alaska. Today, estimates show about 16,000 trumpeter swans reside in North America, including some 13,000 in Alaska, which winter on the Pacific Coast; more than 1,600 in Canada; about 500 in the Midwest; and more than 500 in the tri-state area of Idaho, Wyoming, and Montana (including the Red Rock Lakes refuge flock).



Both the male, called a *cob*, and female, called a *pen*, build the nest and help raise the young. Called *cygnets*, young trumpeters are grayish with pink bills and weigh about 1/2 pound each. By 8 to 10 weeks, they have reached half their adult size and are fully feathered.

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