

## Eiders

The **eiders** are sea ducks found across the Arctic and subarctic zones of the northern hemisphere. All four of the world's eider species breed in Alaska, and many of these birds remain in the state's coastal waters during winter. The common, king, and spectacled eiders are among the largest ducks in North America. Steller's eiders are smaller and one of the most unique members of the duck tribe.

**General description:** As sea ducks, eiders have the physical characteristics of diving ducks: feet set far back on the body with a lobe of skin on the hind toe, thicker insulating plumage, and abundant body fat. Typically, male sea ducks have bold plumage patterns of black and white, with females being muted black, gray, and brown. Males of the four eider species are easy to distinguish by their black and white patterns and areas of soft vibrant color, unique to eiders. Unlike other sea duck females, eider hens are dominantly brown to rusty, with black bars and mottling that aids concealment during nesting. Females of the three large eiders are very similar, but they may be distinguished at close range by bill shape and subtle feather markings. Eider down, the fluffy underlayer of feathers, is an excellent insulator. Down is collected from nests on "eider farms" in Iceland and Scandinavia and marketed in sleeping bags and comforters.

**Life history:** The eiders are mostly Arctic tundra nesters that remain in northern waters during winter and move toward nesting grounds as soon as the spring sea ice breaks up. They migrate side by side in long lines only a few feet above the water, hugging coastlines or following open leads in the ice. Certain points of land on their migration routes are traditionally known as "eider passes." One observer reported 125,000 eiders passing the Yukon Delta — 75,000 on one day in May. More than a million eiders have been recorded passing Point Barrow in the late summer on their way to molting areas. The timing of their arrival in spring is critical, and severe problems can occur if the ice has not opened up. In 1968, a reported 100,000 eiders, mostly king eiders, starved because of an unusually late breakup of the sea ice.

Like all sea ducks, eiders do not breed until they are at least two years old. Common eiders often nest in colonies along the coast, on barrier islands, and sand spits. The other three species are solitary breeders that usually nest on islands and peninsulas in tundra lakes and ponds. Pair-bonding occurs during winter, so nesting can begin as soon as the pair reaches the breeding grounds. The female builds a nest of grasses which is then filled with down shed during egg laying. The males leave shortly after incubation begins and travel to distant gathering areas where they undergo a molt.

Icelanders say the hen does not feed during the incubation period, which can last from 25 to 28 days. Losses to predation by gulls, jaegers, and foxes can occur during this time and shortly after hatching. Females with young leave the breeding grounds for either intermediate staging areas or go directly to wintering grounds, where they molt about 50 days later than males. A specialized diving duck, the eider diet is largely aquatic animals gathered from bottom sediments, including mollusks such as clams and mussels, crustaceans such as crabs and shrimp, aquatic insects, and some vegetation.

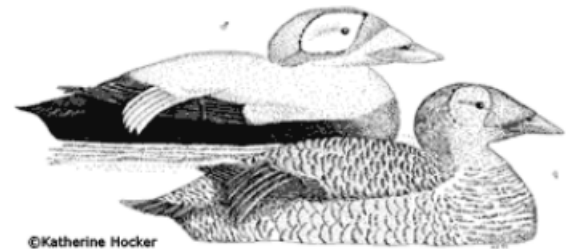
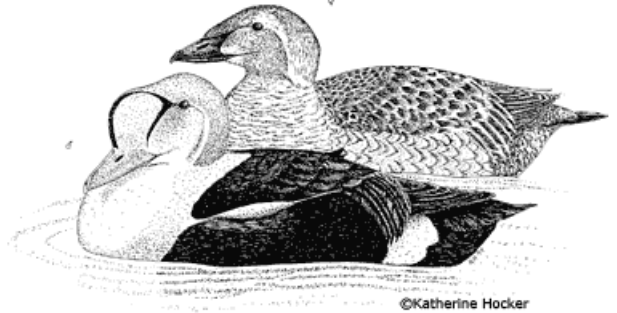
The **common eider** (*Somateria mollissima*) averages 24 inches (61 cm) in length and almost 6 pounds (2.7 kg) in weight, making it the largest duck in the northern hemisphere. Although there are four races of common eiders in North America, the Pacific race is the one found in Alaska.

The common eider (male) is the only eider with a black cap extending to the forehead and around the eye and divided on the crown by a white streak originating from the hind neck. The chin, throat, neck, and cheek extending along the bill are white. The Pacific race has a sharp black line along the jaw forming a V pointing toward the yellow-orange bill. A close look reveals a pastel sea-green shading from the upper cheek to the back of the neck. The chest and back are white, and the belly, sides, and rump are black. White patches flank the rump. The wings are also black with white triangles. Because the common eider holds its head below its body when in flight, it appears to be ungainly in the air.

The common eider is the southernmost breeding eider, with a nesting range extending from Sitka in Southeast Alaska along the entire coast into Arctic Canada. Small colonies are found in the Kodiak harbor and along Homer Spit. Common eiders nest near driftwood or clumps of grass on barrier islands, sandy beaches, and on islands in tundra ponds, often in association with gull colonies. They nest later than most other ducks, usually after sea ice has melted, preventing predator access to the colony. The male leaves shortly after the 28-day incubation period begins. One to seven pale olive green eggs are laid. Common eider broods often combine to form large congregations accompanied by "aunts," or non-breeding females. Most common eiders winter in the Bering Sea and the Aleutian Islands. Pacific common eiders are portrayed on the [2000 Alaska duck stamp](#).

**King eiders** (*Somateria spectabilis*) are regal in appearance and average 23 inches (58.4 cm) in length. They are identified from other male eiders by the red bill and large orange frontal lobe extending from the bill up to the forehead. This lobe is outlined in black which sets off the pale blue-gray top half of the head and sea-green shaded cheeks. While the king eider has a white chest like the common eider, kings have black backs. Female king eiders have much less feathering along the sides of the bill than common eiders, but forehead plumage extends part way down the top of the bill. By late July the male king eider begins to lose his breeding plumage, and the spectacular frontal shield shrinks and becomes dull in color.

King eiders have a circumpolar distribution with about 10,000 breeding in Alaska. The center of breeding abundance in Alaska is along the eastern half of the Beaufort Sea coast, but king eiders are much more abundant in the Canadian Arctic islands. Nearly one-half million king eiders migrate through the Beaufort Sea, arriving on breeding areas as early as April 3 at Point Barrow, but most birds do not arrive until May. Nests are dispersed along the coastal zone, mostly on small islets in freshwater tundra ponds. Two to six dark olive-buff eggs are laid, and incubation lasts 23 to 24 days. By late June and through July, large flocks of males begin a westward migration to unknown molting grounds in the Bering and Chukchi seas. Females and young follow the males to the wintering grounds, which are as far north as the open sea allows. Most spend the winter around Kodiak, along the Alaska Peninsula, and in the Aleutian Chain.



Along with long-tailed ducks, the king eider is unmatched for its diving ability. There is one record of a king eider feeding in 180 feet (54.9 m) of water in the Bering Sea. Marine animals are the mainstay of the king eider's diet, except during the short breeding season when freshwater insects and crustaceans are prey. King eiders are featured on the [1997 Alaska Waterfowl Conservation Stamp](#).

The **spectacled eider** (*Somateria fischeri*) averages 21 inches (53.3 cm) in length and weighs approximately 3.25 pounds (1.5 kg). Until recently, this species was perhaps the least known species of waterfowl in North America, with its distribution largely unknown.

The male spectacled eider's distinguishing marks are a black chest, unlike other eiders, and a large pale green head with black outlined white spectacle-like patches around the eyes. The white throat, neck, back, and folded wing contrast with the black rump, tail, and underparts. Females and young spectacled eiders have light brown patches around the eye. Other unique characteristics of these birds are the pale blue iris of the eye and facial plumage that extends halfway down the bill to the nostrils.

Although the breeding distribution extends from northcentral Siberia to the Yukon Territory along the Beaufort Sea coast of Alaska and south to northern Bristol Bay, spectacled eiders in Alaska historically have been most abundant on the Yukon-Kuskokwim Delta and North Slope. Spring arrival occurs in the first week of May on southern breeding areas but not until mid-June in the north. After two weeks when habitat conditions improve, nesting begins and one to eight olive green eggs are laid. The spectacled eider male remains with his mate longer than other male eiders, for one to two weeks after incubation begins, then leaves usually prior to July 1. Most males cross the Bering Sea to molt in far eastern Russia or in Ledyard Bay along the coast of northwest Alaska, remaining there from July to October. Incubation lasts 24 days, during which time predation by gulls and foxes can inflict heavy egg losses. Females with broods leave nesting areas in late summer to gather at molting sites in Ledyard Bay and Norton Sound. Until recently, there were only a few records of wintering spectacled eiders. In 1995, satellite radios implanted in birds and aerial surveys pinpointed a mass wintering area for the species in open ice leads between St. Lawrence and St. Matthew Islands. Surveys now confirm that over 360,000 spectacled eiders, the entire world population, gather in a unique zone of rich subsea mollusks from October through March.

Most spectacled eiders breed along the coast of Arctic Russia, and about 8,000-10,000 birds breed on Alaska's North Slope. However, since the early 1970s, the number of spectacled eiders in western Alaska has declined by more than 90 percent to about 8,000 birds. This severe reduction raised concern about this bird's future, and in 1993, the spectacled eider was designated a threatened species under the federal Endangered Species Act. Specific reasons for the decline are not certain, but recent studies have shown high rates of exposure to lead in Y-K Delta birds. While feeding in ponds, nesting adults and ducklings are picking up spent lead shot from hunting and are suffering health effects. Both the lead problem and the need to understand the biology of this species have stimulated an intensive research program to help their recovery. The spectacled eider was chosen as the subject for the 1987 Alaska Waterfowl Conservation Stamp.

The **Steller's eider** (*Polysticta stelleri*), the smallest of the eiders, is approximately 18 inches (45.7 cm) long and usually weighs about 2 pounds (0.9 kg). The Steller's eider is unusually colorful and has a unique plumage pattern for a sea duck. The male's white head has a black spot behind each ear and sea-green shading at the back of the head. The eye is surrounded by black and the bill is blue. The white head is offset by iridescent blue-black under the chin and in a broad collar pattern extending down the back. Large white shoulder patches and white-lined deep blue scapular plumes provide bold contrast on back and sides. The light breast, sides, and belly of males is shaded front-to-back from a tan to deep rust. Males and females share an unusual colored wing patch, not found in other diving and sea ducks, but very similar to the mallard and other dabbling ducks. The back half of the wing is iridescent blue lined above and below by white. These wing patches, blue-gray feet, and white wing linings distinguish female Steller's from the other eider species.

Most Steller's eiders nest in northeastern Siberia, with less than 5 percent of the population breeding in North America. It is the least abundant eider in Alaska with a discontinuous breeding range along the coast from the Alaska Peninsula northward, including Seward Peninsula, St. Lawrence and Nunivak islands, and the Beaufort Sea coast. During the breeding season, the species was most abundant in Alaska on the Yukon-Kuskokwim Delta where they may have been common in some areas. However, sightings are now rare and very few nests have been found in the region since the mid-1970s. The North Slope may harbor up to 5,000 breeding pairs.

Little is known of the breeding biology of Steller's eiders. It is reported to be the latest spring migrant of the four species of eiders, arriving during the middle to end of May. Nests are located on peninsulas and shores of tundra ponds and lined with grass and black-brown down. Six to 10 olive-buff eggs are laid. Males leave breeding areas by early July to begin molt, and large flocks gather at Izembek Lagoon and other Alaska Peninsula estuaries. About 100,000-140,000 Steller's eiders, most of the world population, molts and winters along the Alaska Peninsula and the Aleutian Islands. The near disappearance of this species from the Yukon-Kuskokwim Delta stimulated the listing of Alaska- breeding Steller's eiders as a threatened species under the Endangered Species Act in 1997. A recovery plan and intensive research program have been initiated. The Steller's eider appeared on the 1986 Alaska Waterfowl Conservation Stamp.

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