

Puffins

Puffins, because of their large colorful beaks and comical looks, are probably the most easily recognized and most popular Alaska seabirds. Puffins have probably been depicted on more tee-shirts, drinking cups, cards, and souvenir plates, been the subject of more drawings and paintings, and been made into more stuffed toys than any other Alaska bird except eagles and ravens.

Two species live in Alaskan waters: the

horned puffin (*Fratercula corniculata*) and the **tufted puffin** (*Fratercula cirrhata*). They belong to the family alcidae, which includes auks, auklets, murres, murrelets, and guillemots. Alcids spend most of their lives on the open sea and only visit land to breed in the summer. In Alaska, puffins breed on coastal islands and headlands from Forrester Island in southeastern Alaska to Cape Lisburne on the Chukchi Sea Coast. Horned puffins are more prevalent farther north than tufted puffins.

General Description: The most striking puffin feature is the large colorful bill. Early sailors dubbed them the "sea parrot" from their stout bodies, short wings, and their orange or red webbed feet which are placed far back on their body. Both males and females have the same markings.

Horned puffins are the species most often depicted on souvenirs. In summer they have a black back and neck with white on the sides of the head and on their breast. The white breast is so distinctive that in one Eskimo language puffins are called katukh-puk, meaning "big white breast." The Horned Puffin has a small, fleshy, dark "horn" above each eye in the summer. The beak is bright yellow with a red tip. Adults are about 14 inches (36 cm) long and weigh about 1 1/4 pounds (600 gm).

Tufted puffins are named for tufts of feathers that curl back from each side of the head. They have dark, black bodies and white faces. They have orange feet and their bills are red and yellow.

Puffin bills are larger and more colorful in the summer nesting season than in winter. Both species shed the bill's outer layers in late summer, which leaves a smaller, drab-colored bill. Also, their bodies are not as distinctly marked with white but tend to be dusky gray.



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Life History: Puffins, like many other sea birds, nest underground. They generally arrive at breeding colonies in May but arrive later in northern areas due to the lateness of spring. The toes of their webbed feet have sharp claws that are used to scratch out burrows 3 to 4 feet deep into the steep hillsides of their nesting areas. At rockier sites where soil is scarce or nonexistent, puffins nest in rocky slopes or cliff faces. In May, puffins arrive at the nesting grounds. Both species lay only a single, whitish-colored egg. The egg is incubated for 42-47 days while the parents take turns incubating. The off-duty bird goes out to sea to feed. The chick is hatched in July or early August, and for the next 45-55 days until it is fledged, it remains in the burrow while its parents take turns feeding it and standing watch. After five days or so the chick can keep itself warm, and both adults leave to gather food for the chick. As fall approaches, there are gradually fewer birds at the colony. Adults leave for the winter as chicks fledge and grow on the open ocean. Most birds spend the winter far offshore in the north Pacific Ocean and do not venture near land. Young puffins remain on the open sea during the summer of their first year. When they are 2 years old they visit the colony during the summer. At 3, puffins are mature enough to breed, but it is only at 4 that they are certain to breed. Some banded birds have been found still breeding at 10 years old. Few records of the age of Pacific puffins exist, but an Atlantic puffin is known to have lived 39 years.

Feeding and Behavior: Puffins are built for swimming underwater rather than for flying. They swim underwater using their wings to propel them and their webbed feet only for maneuvering. Getting airborne is always a touch-and-go matter. They fly close to the water for a ways, sometimes beating the water with their wings and bouncing off waves before they gain sufficient altitude. From land they dive off cliffs to gain enough speed for flight. In the air, as in the water, they use their feet to help change direction.

Puffins feed in flocks, with fish and zooplankton the mainstay of their diet. While fishing, they flap half-folded wings for propulsion using their feet as underwater paddles. When catching fish for their young, they manage to line them up crosswise in their bills, heads dangling out one side, tails another,

somehow not losing the one already caught when they add another to the line.

In summer, puffins feed predominantly on lipid-rich forage fish, including herring, capelin, and sand lance. They can catch and hold several or more of these fish in their bills. They will also consume large zooplankton (krill), especially in the winter.

Conservation and Management: Historically, puffins were used for food and clothing by Alaskan Natives. One method of catching puffins was by using a net on the end of a long pole. The hunter waited for a puffin to fly in towards its nesting burrow, then suddenly placed the net in the puffin's flight-path. The puffin, unable to quickly change its direction of flight, could not avoid the net. Aleut Natives made parkas of puffin skins, which are very tough, worn feather side in.

Puffins are abundant in Alaska today, but their numbers have declined along the coast of the Lower 48 due to a combination of factors including change in abundance and distribution of forage fish, development and disturbance around nesting colonies, increased predation, and to some degree oil pollution and fishery

conflicts. Entanglement in drift gillnets is also a concern. Puffins are susceptible to oil pollution because of their aquatic habits and the flightless period in winter for some individuals that undergo a complete molt. Birds that undergo a partial molt may not be flightless. Puffins may desert their nests if disturbed by humans during nesting. Most seabird nesting colonies in Alaska are protected by federal and state laws. Permits are required to land on most seabird nesting islands.

Text: Tom Paul, William A. Lehnhausen, and Susan E. Quinlan

Illustration: Robinson

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