CHAPTER 9
Short-tailed Albatross
(Diomedea [Phoebastria] albatrus)

Douglas Causey and Stephen Loring

The short-tailed albatross is the largest and rarest of three North Pacific species; its wingspan is more than 2 m, and it weighs between 5 and 7.5 kg. The adults are typically white, with a distinctive buff- or yellow-colored head and neck. Juveniles are uniformly dark; immatures gradually lighten into the adult plumage. Its bill is a distinctive pink with a silver-blue nail and is significantly larger than that of any other North Pacific albatross. The feet and legs are pink; the eyes are dark. Archaeological and historical evidence indicates that short-tailed albatrosses were once very abundant and ranged throughout the northern Pacific Ocean and Bering Sea. Now reduced to about 400 birds, short-tailed albatrosses are rarely seen outside of the breeding area south of Japan and near major oceanic passes along the Aleutian and Kurile islands.

Description and Natural History

Albatrosses (Procellariiformes: Diomedeidae) are among the largest flying birds and are designed for long-distance soaring over water. Albatrosses can cover thousands of kilometers, alternating between low-level gliding and soaring as much as 20 m above the sea’s surface.

The length of the wings precludes easy takeoff, and a sitting bird needs a short run—both on land and sea—to gain enough speed for lift and forward propulsion. A calm day can leave an albatross stranded. Landing is similarly problematic, and water is a less demanding medium than is land, where crashes and injuries often result. The albatross’s legs are short, but albatrosses are able to stand and walk on land with difficulty. On water, they are very buoyant and swim well; rarely are they seen to dive into the water.

Albatrosses primarily flock on land in breeding colonies, often in dense aggregations; at sea, they are largely solitary, although feeding flocks have been described for the North Pacific species (Kenyon 1950; Rice and Kenyon 1962; Tickell 1975, 2000). Large, mixed aggregations occur where food is abundant—in oceanic passes, island-induced upwelling, oceanographic fronts, etc.—and may represent likely areas for human hunting.

North Pacific albatrosses disperse immediately after breeding, mostly into northern waters of the North Pacific or Bering Sea (Fernandez et al. 2001; Shuntov 1997). The breeding season ends as the spring plankton blooms begin in northern seas, particularly in the Gulf of Alaska, Aleutian Islands, and Bering Sea shelf region (Fujisawa 1967; Harrison 1979; McDermont and Morgan 1993).

Albatrosses probably originated in the southern hemisphere (Carboneras 1992). The North Pacific Albatrosses—short-tailed albatross, Laysan albatross (Diomedea [Phoebastria] immutabilis), and black-footed albatross (D. [P.] nigripes)—are geographically isolated from southern albatross species but share parallel life histories. All species of albatross, southern and northern, breed during the austral summer, winter in the northern hemisphere. Breeding
islands of all three northern species are distributed across the temperate North Pacific, near upwelling regions. For short-tailed albatrosses, the only confirmed breeding sites are on Torishima Island and Senkaku Retto in the southern Japan Sea (Hasegawa 1978, 1979, 1980, 1982, 1984; Hasegawa and DeGange 1982; Monose et al. 2003).

Little is known about the foods of the short-tailed albatross. Squid, fish, and infrequently, crustacean zooplankton are most important for this species (Cherel and Klages 1997). Laysan albatrosses have similar diets; black-footed albatrosses seem to prefer fish over squid (Hyrenbach et al. 2002).

**Past and Current Distribution**

Prior to the early 20th century, the short-tailed albatross population was estimated at more than one million, and this species was commonly seen in Beringian waters (Bent 1922; Dall 1872, 1873; Pallas 1769; Stejneger 1885; Swinhoe 1873; Veniaminov 1884). In the 19th century, they were common along the Aleutians and from the Gulf of Alaska southward down the coast of North America as far southern California (Hasegawa 1982; McLain 1898; Miller 1940; Stalleup 1990). In the Gulf of Alaska, short-tailed albatrosses were considered to be most numerous at the Dixon Entrance to Cook Inlet near the Barren Islands (Nelson 1887). They were also common over shallow waters of Bristol Bay, especially near Cape Newenham (Dall 1874; Turner 1886) and were reported to have been abundant in the vicinity of the Pribilofs when whalers were active there, but became scarce when whaling was abandoned (Elliott 1884).

Short-tailed albatrosses were once common in the Formosa Strait (Swinhoe 1863; Turner 1886) and the East China Sea (Matsuoka et al. 2002). In summer, large numbers moved north from Japanese waters toward Kamchatka. They may have passed among the Kurile Islands to enter the Sea of Okhotsk (Arthukhin 1997; Shuntov 1997) and entered the Bering Sea using the Attu Pass. They were noted in high numbers on the Commander Islands (Stejneger 1885) and flying as far north as Saint Lawrence Island and the Diomede Islands. According to Otto Geist (Murie 1959:37), in earlier times near St. Lawrence Island, these birds “... were often caught on the pack ice near the island. This was often easy because the birds were very fat and could hardly make their way in the air.” At the time of Geist’s excavations (1926–1935), he did not see the bird. However, bones were found in excavations, and Natives stated that it had been present in considerable numbers at one time (Collins 1937).

The short-tailed albatross was recorded as “more or less numerous” by the earliest expeditions to the Aleutian Islands (Carboneras 1992; Hasegawa 1984; Murie 1959; Stalleup 1990). Turner (1886) found them plentiful in the Aleutians. In May 1877, among the islands east of Unalaska, they were conspicuous by their white plumage and great size. During calm days, when they were most numerous, 10 to 15 could be seen at one time (Nelson 1887). Clark (1910) noted that in June 1906, short-tailed albatrosses were uncommon around Unalaska, but became increasingly abundant as one headed west. A few were seen between Attu and Medny Island (Commander Islands) and near Kamchatka. By October, this species was described as “very common about the southern end of the Kurils, on both the inside and outside of the chain” (Murie 1959:37). Summarizing the data available to him, Murie (1959) concluded that, at one time, the short-tailed albatross was plentiful in the Aleutians and Bering Sea region in general, but that the population had suffered a drastic reduction in numbers, probably at about 1900 or a little later.

Beginning in the late 1800s, the birds were hunted for their feathers. Austin (1949) indicated that Japanese fishermen and plume hunters were responsible for the destruction of this species on its nesting grounds. But to some researchers, it seems that the decline began long before this (Hattori 1889; Tickell 2000). Hunting was officially banned in 1906, but continued...
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Illegal use of fish, and infrequently, young birds (E. D. H. E. and K. D. Klages 1997). Laysan albatrosses feed on fish over squid (Hy-
tailed albatrosses, rather than those of the black-footed or Laysan albatrosses (Friedmann 1934, 1935, 1937; Yesner 1976). This indicates that the short-tailed albatross was the common bird of the region and that the other two species were scarce or absent, at least close to the shore. Currently, Laysan and black-footed albatrosses predominate in the region, probably at much higher numbers than when short-tailed albatrosses were much more numerous than they are today.

Early Aleuts probably opportunistically hunted short-tailed albatross in connection with other subsistence activities in the bays and passes near village sites. In certain rich upwelling areas, this species was likely associated with high densities of plankton eating fish and presented easy targets as they soared close to the surface of the sea. Large accumulations of bones—as found on Shemya—are more difficult to explain because short-tailed albatrosses are typically thought to be solitary except on the breeding grounds. However, contemporary accounts may be biased by their small population size during the past century. Albatross numbers are increasing, and flocks with as many as 14 birds have been noted in interisland passes in the central and eastern Aleutians (Camp 1993). Some eyewitness accounts describe large aggregations of albatrosses seen flocking and feeding on floating or beached dead whales. The large accumulations of short-tailed albatross bones might represent the success of early Aleut hunters at collecting albatross in conjunction with whale procurement and use. In these

Figure 9-1: Short-tailed albatross skulls and beaks. From top-to-bottom: skull, USNM 18225 collected by R.L. Jouy, Korea, ca. 1888; skull, excavated from the Karab Cave site (AG-27), Agattu 1996; upper beak/maxilla, excavated from the ATU-022 site, Shemya 1995; upper beak/maxilla, excavated from the ATU-022 site, Shemya 1995; note damage to the underside of the maxilla believed to have been caused by a bone gorge used to capture the bird.
s (Friedmann 1934, 1941) and was the common bird of the Aleutian Islands and close to the shore. Currents probably at much higher numbers than they are today.

Some further evidence of the nature of the Aleut procurement of albatrosses at Shemya is apparent from select faunal elements recovered from the excavation units at ATU-022 on the north side of the island. In one instance the upper beak of a short-tailed albatross was found that bore a series of paired perforations of the maxilla which we interpret as having been caused by a bone gorge—or a "curlicue"—attached to a baited line that was trolled behind a bidarka (Figure 9-1). However the most significant trauma to albatross bones recovered at Shemya is the presence of a small circular perforation punched into the proximal-end of albatross humeri (Figure 9-2). In over a dozen examples from ATU-022 there is a neatly made punched hole in the ventral surface of the humerus that appears to have been caused by a circular bone

Figure 9-2: Short-tailed albatross humeri. All specimens are from the controlled excavations at ATU-022, Shemya 1995, except for the complete specimen on the right that was collected by Aleš Hrdlička from the Hill site on Agattu in 1937. Note the series of paired lines on the shaft of the Agattu specimen that is otherwise not worked.
Figure 9-3: Decorated short-tailed albatross bone awls. From left-to-right: 1 unmodified ulna; 3 ulna awls; 1 unmodified radius; 5 radius awls.
1. Collected by R.L. Jouy (ca. 1888; USNM 18225)
2. Oscar T. Lewis collection, ATU-023
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