

SHORT COMMUNICATIONS

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SPECIMEN RECORDS OF ALEUTIAN TERNS FROM THE PHILIPPINES¹

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Aleutian Terns (*Sterna aleutica*) nest sporadically in coastal eastern Siberia and western Alaska. Populations are relatively small, with the total U.S. population estimated to be about 10,000 birds (Sowls et al. 1978). The species is migratory, typically arriving on the breeding grounds in mid-May, with most of the population abruptly departing from mid-August to early September. Kessel and Gibson (1976) note that there is no evidence of onshore coastal migration and Aleutian Terns apparently arrive and depart their nesting areas from the high seas.

Nothing is known of the wintering grounds of this species. Although it is speculated that they winter with Arctic Terns (*Sterna paradisaca*) in the Southern Hemisphere (Dixey et al. 1981, Cramp and Simmons 1985), the literature contains only the following sightings of individuals seen during the non-breeding period: Dement'ev and Gladkov (1969) report one incidental winter record "apparently in Sagami Bay, Honshu," although the specimen is undated and Baturlin (1934, in Dement'ev and Gladkov 1969) reported wintering at the nesting island of Sakhalin. While Bent (1921) notes one winter record off Yezo in northern Japan, there are no confirmed mid-winter records anywhere (Cramp and Simmons 1985).

In 1984 Peter Cua of Manila collected series of terns and other seabirds from the Philippines and presented them to the North Carolina State Museum. Among the specimens, five were unidentified terns which, upon consultation with George Watson of USNM were identified as *Sterna aleutica*. I later found a sixth specimen taken by Cua in 1984 that I identified as *aleutica* in the collection of the Western Foundation of Vertebrate Zoology. Other seabirds collected by Cua in the same area 5-8 September, 21 October 1985 and 20 March 1986, did not include any *Sterna aleutica*.

These terns were all collected from near Pamilacan Island, south of the island of Bohol in the Mindanao Sea. Although the specific dates of collection are unknown, a White-winged Tern (*Chlidonias leucopterus*)

collected by Cua on 1 May 1984 (NCSM 10354) at the same location, indicates he was on the island in early May, and the *S. aleutica* were all labeled "May 1984." These six specimens are significant on three counts. They represent the only series of specimens of this species which were obtained at significant distances from nesting areas, thus providing the clues as to ranges of nonbreeding members of the species. The plumage of five of the six specimens differ markedly from those of juveniles and breeding adults suggesting it has a first-summer plumage like similar *Sterna*, and possibly a second-summer plumage. Finally, examination of the plumage provides molt data on a number of the specimens.

Gabrielson and Lincoln (1959) describe young birds collected in early August. I have compared the May (Philippine) series of hatching year birds ($n = 4$) with an early August juvenile specimen in the U.S. National Museum (USNM 575352) that is labeled as being 6-8 weeks old. The specimens differ in the following characteristics. Philippine birds' crown feathering is black rather than soft tan. The white of the forehead extends above and anterior to the eye. The Philippine specimens have a dark partial eye ring anterior to the eye. Lateral and ventral surface are entirely white in the Philippines birds as the pale tan on the side of the neck and chest exhibited by the juvenile has disappeared. A broad white collar separates the dark feathering of the posterior edge of the cap and the gray feathers of the back. Some places on the scapulars have a faded coppery color and on one Philippine bird there are several worn wing coverts, probably the remains of juvenile plumage. This is a contrast to the juvenile plumage with its dark sepia back scapulars, and lesser wing coverts broadly edged with cinnamon buff which is most conspicuous and brightest on the lesser scapulars of August (Alaska) immatures. The dorsal surface of the Philippine specimens is gray with many fresh feathers having white tips giving it an overall mottled appearance. The secondaries of Philippine birds are narrowly tipped with white in fresh plumage. I expect that this would wear away quickly. The rumps of the May series are gray, slightly lighter than the ashy rumps of August birds and contrasting with the white rumps of adults. The tail feathers are entirely gray contrasting with the cinnamon buff of the August birds.

One individual (NCSM 10352) appears to be a subadult and in a different age class than the four birds

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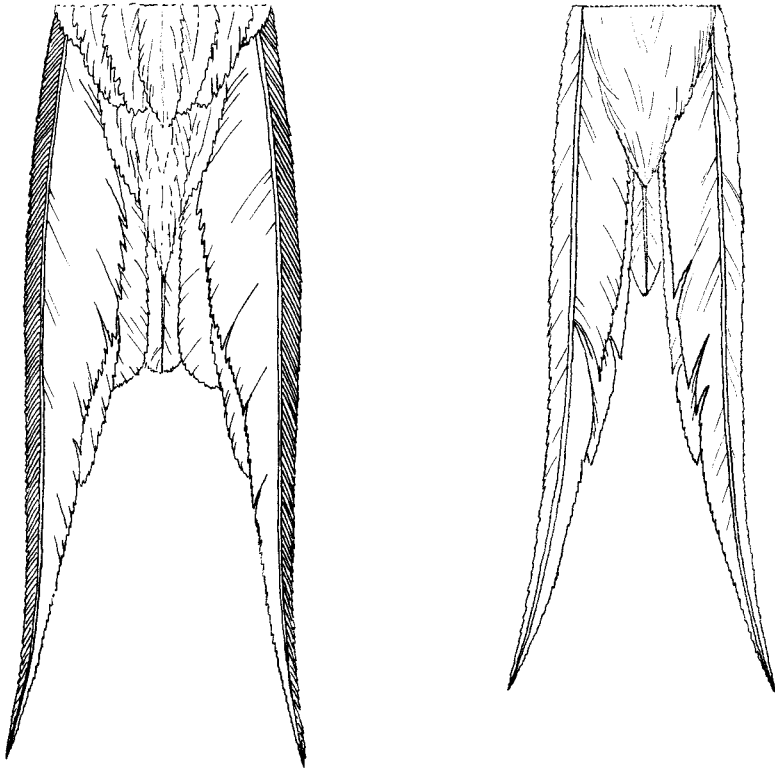


FIGURE 2. Ventral view of tails of *Sterna hirundo* (left; NCSM 11464) and *S. aleutica* (right, NCSM 10348).

and the single May adult. The subadult bird is in the process of molting in dark feathers above the eye and in a few weeks would have a forehead with a less extensive white area than the immatures. It does not appear that the face pattern of the adult would appear until at least the next complete molt of the head feathers. The age at first breeding is unknown for *Sterna aleutica* and evidence from this series indicates it is a minimum of three years.

Young (immature and subadult) Aleutian Terns differ from the adults in a number of ways, the most striking being the absence of a dark breast, a less deeply forked tail, lighter dorsal surface, the presence of a light collar, and a crown and supercilium pattern unlike that of the adult.

Comparisons of the one specimen of an adult Philippine Aleutian Tern (NCSM 10348) to an adult collected on its breeding grounds in Alaska (NCSM 14892) show only minor differences based largely on the fresher plumage of the May specimen. For example, the area of white on the anterior portion of the crown is more extensive extending back to the eye. The white feathers along the forward margin of the cap are being replaced by darker ones. The outer and trailing edges of the scapulars of the Philippine specimen are white (2–5 mm) but are nearly worn away on the Alaskan specimen. The tail feathers and primaries are all new, and none were coming in or still growing. The tail of the Alaskan bird is well worn (63 mm shorter) and the

length of the wing is 17 mm shorter than the spring plumaged Philippine bird.

In that there is no apparent molt of flight feathers while birds are on their breeding grounds (examination of specimens at USNM and AMNH), this small series from the Philippines provides the only information on molt for the species. By May the immature birds had replaced all tail feathers and were in the process of replacing primaries. Three specimens had replaced all but the outermost three primaries, and one had replaced all but the outer two. The remaining specimen (NCSM 10352) had all new flight feathers.

Weights are available for four of the six Aleutian Tern specimens and are presented in Table 1 (\bar{x} = 120.5). Weights of Common Terns are similar; thirteen wintering specimens (September–May) had weights ranging from 92–160 g (\bar{x} = 124). Based on plumage characters and molt sequence it is my opinion that immature and juvenile plumaged Aleutian Terns, and to some degree adults, as well, would be difficult to distinguish from winter plumaged Common Terns, *Sterna hirundo*, a species with which they co-occur, at least in Philippine waters, and based on the extensive winter range of the latter probably elsewhere. Dixey et al. (1981) discuss field identification in detail.

The Pacific race of the Common Tern, *S. h. longipennis*, long considered a distinct species, is, like *aleutica*, black billed. Although weights and most measurements average slightly larger for Common Terns,

most are within the range of measurements of the six *Sterna aleutica* discussed here (see Table 1). The only clear differences are in the tarsus and tail. Aleutian have a shorter tarsus ($n = 6$, $\bar{x} = 17.05$ [15.4–17.8] mm) than Common Terns ($n = 18$, $\bar{x} = 20.65$ [19.0–22.5]) collected from the same locality (May 1984, 8 September 1985). The legs and feet of all ages of Aleutian Terns are black; those of the winter Common Terns ranged from red and orange to reddish brown, orange brown, brown and black. The dark coloration of the outer tail feathers in Pacific Common Terns of all ages contrast with the white in all age classes of Aleutian Terns (this series and in series of skins of both species in other collections). This is illustrated in Figure 2.

Immature plumaged Pacific Common Terns collected in May (AMNH 329308, 746332) have carpal bars. These bars are narrower and probably less distinct on immature or subadult Aleutian Terns. The dark feathering on the forehead of the immature May Common Terns extends further forward toward the bill than it does in Aleutian Terns. The dorsal surface of the May Common Terns is pale grey while the Aleutian terns are dorsally darker, but this character would be hard to distinguish under field conditions. The dark subterminal bar on the underside of the secondaries, a good field mark for identifying adult Aleutian Terns, is poorly defined to absent in the younger birds.

The occurrence of Aleutian Terns at the latitude of the Philippines in early May is interesting considering that adults return to their high latitude breeding grounds in mid to late May, and other species that breed well north of the Philippines were collected at the same time (Common Terns, Pomarine Jaegers [*Stercorarius pomarinus*]). With the exception of one adult plumaged Aleutian Tern, all of the May 1985 Philippine specimens of this species and all of the Pomarine Jaegers ($n = 5$) are subadults. Because subadult Aleutian Terns are unknown from, and not obligated to return to breeding areas, it is likely that they summer well south of the breeding range. Similarly it is likely that they depart southern wintering areas after the majority of adults. At this time it is not known if the Mindanao Sea is a regular wintering area or if the small series obtained in May 1984 was based on the presence of birds resulting from unusual weather conditions, or if they were birds moving north from wintering areas

farther to the south. Thus it is still not clear if *S. aleutica* winters in the tropical western Pacific or in the southern Hemisphere as speculated by others. To date there are no records outside the northern hemisphere. The lack of information on wintering is clearly a result of the relatively small total population of the species, their superficial resemblance to *S. hirundo*, and the limited amount of field work conducted on non-breeding seabirds in the western tropical Pacific.

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