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## STATUS OF THE COMMON TERN (*Sterna hirundo*) IN THE TROPICAL PACIFIC, WITH A NOTE ON RECORDS OF THE BLACK-NAPED TERN (*Sterna sumatrana*) IN HAWAII.

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The Black-naped Tern has had a long history of non-occurrence in Hawaii. W.A. Bryan (1901) first reported the species on the basis of two specimens taken at Mana, Kauai, by Mr. A.F. Judd during the winter of 1892-93. He evidently believed that these birds were adults in winter plumage judging from a footnote given in his paper.

Henshaw (1902) reported that a third specimen was taken 24 December 1901 at Hakalau (Hawaii) by a Mr. Beverage. This specimen was compared with the earlier Black-naped Terns (then known as *Sterna melanauchen*) by Bryan who remarked that he judged Henshaw's bird "to be adult while ours are more immature." Henshaw's specimen was subsequently purchased by the Bernice P. Bishop Museum in Honolulu; in the annual list of accessions for 1904 (Brigham 1905), it is listed as No. 4223 "*Sterna melanauchen*" from Hawaii, a number the specimen bears to this day. Bryan's two specimens apparently were obtained later by the Bishop Museum as these birds now bear the numbers 4424 and 4425.

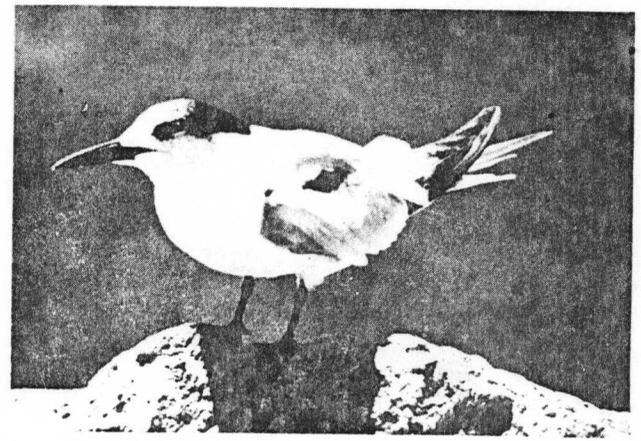
Mention of these records appears several other times in the ornithological literature. In his synopsis of avian distribution in Hawaii, Perkins (1903) noted Bryan's record and remarked that the Black-naped Tern "will probably be found as a straggler on other of the islands." Implication of either Henshaw's report or of both his and Bryan's accounts subsequently appeared in regional works (Blackman 1944, Munro 1944) as well as in a more academically oriented checklist of the Birds of Hawaii (E.H. Bryan and Greenway, 1944). Bryan and Greenway listed the records from Kauai and Hawaii as *Sterna sumatrana sumatrana*, evidently feeling it certain that the birds would belong to the race occurring in the Indian Ocean (Peters 1934).

At least three additional references to the occurrence of the Black-naped Tern in Hawaii apparently are based on these records. E.H. Bryan (1958) again check-listed these records as *Sterna s. sumatrana*; Peterson's (1961) comment in Appendix II of his *Field Guide to Western Birds* apparently also refers to those records; and the mention of two old records for Hawaii in King's (1967) guide to tropical pacific seabirds is based on Bryan (1901) and Henshaw (1902). Berger (1972, 1981) and Pyle (1977) do not mention the species.

About 1962 the three specimens of "Black-naped Terns" apparently were examined by R.A. Falla, who re-identified them as the Common Tern, *Sterna hirundo*. Several years ago, Clapp borrowed these specimens from the Bishop Museum and

he and Laybourne recently re-examined them. All three are clearly immature Common Terns. Thus, the Black-naped was reported as occurring in Hawaii over a span of 65 years (1902-1967) but these records are invalid. Olson and James (1982) recently discovered unquestionable fossil evidence, probably of a single individual, on Molokai and suggested that this species may once have bred in Hawaii but became extinct prehistorically.

The two specimens of "Black-naped Terns" reported by Bryan (1901) are now severely soiled, so much so that most of the entire head of both is nearly black. These specimens are much larger than any *Sterna sumatrana*, and the wing pattern is nothing like that of *S. sumatrana*. Arctic (*Sterna paradisaea*), White-fronted (*S. striata*), Forster's (*S. forsteri*), Aleutian (*S. aleutica*) and Roseate (*S. dougallii*) terns are also excluded on the basis of wing-pattern or size or both. The specimen obtained by Henshaw is in better condition than the other two and more resembles an Arctic Tern in its plumage. The lengths of the tarsus and middle toe without claw of this specimen (19.9 and 16.5 mm., respectively) are more characteristic of Common Terns; the tarsi of Arctic Terns are typically shorter (ca. 13.5-17 mm) than those of Common Terns and are shorter than the middle toe (ca. 15.2-16 mm) whereas the tarsi of Common Terns (ca. 17.5-20 mm.) are typically longer than the middle toe (ca. 16.9-17.3 mm) (Ridgway 1919). Further, the culmen length



Common Tern at Bellows Air Force Station, Oahu, 7 April 1981

Photo by Peter Donaldson

(35 mm) of Henshaw's bird is longer than those of six first-year Common Terns from the same season (30.2 to 34.9 mm) and much longer than six first-year Arctic Terns for the same season (24.5 to 31.7 mm) measured by us.

The subspecific identity of the three Hawaiian specimens is less clear, and we have been unable to make a completely satisfactory identification. The depth of the bill in all three specimens tends to be less than in *Sterna h. hirundo* (and the bill appears thinner than is typical for that race). Consequently, we think it likely that these birds belong to the race *Sterna hirundo longipennis* that breeds in northern and eastern Siberia south to Kamchatka, the northern Kuriles, Amurland, Sakhalin, Ussuriland, and Manchuria. This race migrates through Japan and eastern China and has wandered to both the Commander and Aleutian Islands (Vaurie 1965).

This brings us to the present status of the Common Tern in Hawaii. King (1967) regarded this species as a possibly regular but rare migrant in Hawaii and indicated that there was one record and one sighting for the state. King's statement is apparently based on two reports (Ludwig 1961, Lupton 1961) of a banded bird captured in Hawaii, and also a number of pelagic sightings of unidentified *Sterna* that were possibly this species or the Arctic Tern (see King 1970, Clapp 1975). Berger (1981) reiterates King's statement and cites the banded bird recovered in Hawaii.

The tern reported by Ludwig and Lupton was banded at Grassy Island in Thunder Bay, three-fourths of a mile from Alpena, Michigan on 27 June 1960. Raymond J. Kramer collected the bird at Paiko Lagoon, Oahu on 25 April 1961, after the bird had been seen in that vicinity for 10 days, according to Ludwig (1961). Lupton (1961) mentioned this specimen, but there are some discrepancies between his and Ludwig's accounts. Lupton stated that the tern was seen about a week earlier than 9 April, and an editorial note appended to Lupton's report stated that the immature tern was shot 27 April instead of 25 April. This record was not on file on microfiche at the Bird-Banding Laboratory, at Patuxent, Maryland (Ronald E. Reynolds, pers. comm.). Ludwig (pers. comm.) assured us that the bird was collected on 25 April and subsequently deposited in the Bernice P. Bishop Museum but this specimen was not found during a recent search of the collections (Carla Kishinami, pers. comm.). While we do not doubt the validity of the record, adequate documentation of it apparently has been lost. The area of origin for this bird allows us to safely ascribe it to the race (*Sterna hirundo hirundo*) breeding there (A.O.U. 1957).

Several other sight records of Common Terns in Hawaii were made after the appearance of King's (1967) field guide. Mull (1973) and five others saw a tern that they believed to be this species on 23 February 1973, at a stabilization pond opposite Kanaha Pond, Maui. She described the bird as "in non-breeding plumage with an incomplete black cap extending from the eyes to the back of the head. The light gray mantle and wholly white underparts distinguished it from the Arctic Tern." Although these characteristics may distinguish Arctic Terns from Common Terns in most instances, the USNM collection contains two Arctic Terns, one from Antarctica (USNM 536539-16 February 1973), the other from Florida (USNM 527750-21 May 1977), that are so white on the underparts that they would be indistinguishable from Common Terns in the field; nor is the difference in the coloration of the upperparts

from those of Common Terns great enough so that they might be safely identified as Arctic Terns on the basis of visual observations alone. Consequently, we feel that the tern seen on Maui in 1973 should best be considered an unidentified *Sterna*.

Zeillemaker (1977) reported that he had seen a Common Tern at Kealia Pond, Maui, 29 September 1976, but provided no supporting details. Zeillemaker (pers. comm.) stated that this bird was in adult plumage with a complete black cap, a white underbody, a bicolored bill and when standing on the ground had tarsi that did not appear notably short. The bird was seen flying as close as 100 meters and was compared with plates in field guides at the time of observations. Our conversation with Zeillemaker convinced us that the bird that he had seen was indeed a Common Tern and likely a representative of the nominate race.

Subsequent reports of Common Terns from Hawaii and Oahu from December 1980 through July 1982 may consist of multiple reports of no more than two birds. One was seen repeatedly from 14 December 1980 through 19 March 1981 at Lokoaka Pond, in Hilo, Hawaii. Our examination of detailed observations made of this bird by Peter Paton convinced us that the bird was properly identified. On 7 April 1981, Peter Donaldson took many photographs of what was believed to be a Common Tern at Bellow's Air Force Station on Oahu. Paton examined Donaldson's photographs (numbers 158, 159, and 183, Rare Bird Documentary Photo file, Hawaii Audubon Society [hereafter RBDPF]) and believed that this bird might well have been the one he saw on Hawaii (Pyle and Ralph 1981). We also examined the best of these photographs and concur that the bird was an adult Common Tern in winter plumage.

Two other observers subsequently saw a strange tern at Bellow's Air Force Station on 11 and 18 April 1981, variously reporting it as a Least Tern (*Sterna antillarum*) and a Gray-backed Tern (*Sterna lunata*). It seems highly likely that this was the bird photographed earlier by Donaldson.

On 7 June 1981 Gilbert S. Grant saw and photographed a tern along the beach at Lanikai, about 2 km north of Bellows Air Force Station. From his photograph (RBDPF 184) we identified the bird as a Common Tern, apparently in identical plumage to that photographed by Donaldson. On 12 July an unidentified *Sterna* was seen by Richard Coleman at Lanikai Beach. We believe all of these sightings were of a single individual.

The following winter David Woodside reported that a Common Tern was present 1 January 1982 at Kii Pond, James Campbell National Wildlife Refuge, about 45 km north of Lanikai. This bird was seen there regularly thereafter until 6 May when Coleman saw two there (Pyle in press). Both were present through at least July. A single individual was also seen at Bellows Air Force Station by Phillip Bruner on 24 and 26 April and by Coleman at Lanikai Beach on 24 April (Pyle in press). We cannot properly evaluate these sightings because no description accompanied these records, but in the light of earlier records, have no reason to disbelieve them.

Few of the records of Common Terns from other areas of the tropical Pacific can be satisfactorily assigned to race. A nestling banded at Lost Mountain Lake, Saskatchewan, and thus surely *S. h. hirundo*, was found 26 November 1960 at Aitutaki Island in the Cook Islands (Houston 1962, 1963). Finsch and Harlaub (1867) stated that a specimen of *longipennis* from the Fiji Islands was held by the British

Museum, but they did not examine the specimen. We did not find this specimen listed in the Catalogue of the Birds of the British Museum (Saunders and Salvin 1896), know of no other records of Common Terns from Fiji, and suspect that the 1867 report may have been in error.

Baker (1951) cited Finsch (1875) to the effect that Heinsohn and Kubary had obtained specimens of *S. hirundo longipennis* in Palau (now known as Belau) but neither Baker nor we have seen these specimens. Finsch (1875) said, however, that the two specimens obtained by Kubary were probably of this form but had been lost. The description of the only surviving Beluan specimen, collected by Heinsohn (Hartlaub and Finsch 1872), provides enough information so that we believe it was adequately identified as a Common Tern. The description is not sufficiently detailed so that we can confirm the bird's racial identity as *S. h. longipennis*, but this race is the one we would expect to occur in Belau, and we feel no qualms about accepting the record.

Clapp collected another Common Tern (USNM 494473), 10 November, 1964 on Enybor Islet, Jaluit atoll, Marshall Islands. This bird was reported by Amerson (1969) as *Sterna hirundo nigripennis*, the subspecific name evidently a *lapsus* for *longipennis*. We recently re-examined this specimen, which had no subspecific designation on the label, and believe that it is a representative of the nominate race, *Sterna h. hirundo*. We base our decision on the angle of the bill at the gonys which is sharper in most specimens of *S. h. hirundo* we examined than it is in the usually thinner-billed *longipennis*. Pratt et. al. (1977) reported a specimen of Common Tern collected 23 June 1977 near the airport at Yap in the Caroline Islands. We examined this specimen (number BYU-H 2024 in the collection of Brigham Young University, Hawaii Campus) and discovered that it is not a Common Tern but is instead a Whiskered Tern (*Chlidonias hybrida*) (Clapp and Laybourne, in 1983).

Common Terns reportedly have been seen at a number of other locations in the tropical Pacific, but few of these records are well documented. Anderson (1981) saw individuals of either this species or the Arctic Tern in the Marshall Islands at Ujelang Atoll in October and December 1975 and in February 1976, and at Kwajalein Atoll in January 1976. Woodbury (1962) reported that "John Roberts saw an Arctic Tern at about 1830 hours flying along the oceanside beach on the north end of Enewetok (Fred) islet [Enewetak Atoll], May 8, 1962. Because of its size and color pattern, he had no doubt of its identity (John Bushman)." From this description we can not tell whether this bird was an Arctic Tern or a Common Tern and suggest that this record be disregarded.

The first, and so far only, report from the Mariana Islands was of four birds seen feeding at tidal marsh about four miles north of Apra Harbour Naval Base on Guam, 24 April 1960 (King 1962). King remarked that the four terns were all in "a transition stage between winter or immature and breeding plumage" but provided no additional details that would help to substantiate the identification. Up to four Common Terns were seen at Ponape Island in the Eastern Caroline Islands from 17 November 1978 through 25 February 1979 (Engbring and Owen 1981). The detailed description that accompanies this sight record adequately documents the specific identification but does not allow a racial determination.

*Sterna hirundo longipennis* has also been reported to occur at Marcus Island to the west of the Northwestern

Hawaiian Islands. The only basis for the occurrence of this form there that we have been able to find is a series of listings in the Hand List of Japanese Birds (O.S.J. 1922, 1932, 1958). Marcus Island was not included among the localities from which this race has been recorded in the recent Check-List of Japanese Birds (O.S.J. 1974), and it is possible that the earlier record (or records) has been disallowed.

In summary, there are few adequate records of Common Terns from the tropical Pacific, and there are even fewer instances in which we can satisfactorily determine the racial affinities of those seen. Satisfactory records of the Common Tern are now available from the Belau, Marshall, Eastern Caroline, Cook, and Hawaiian Islands, but there is apparently only one well documented record for each of these except for the Hawaiian Islands. The race *longipennis* which is the one most likely in the western Pacific apparently has straggled as far east as Hawaii, and the race *hirundo* that breeds in North America and the eastern Palearctic west to west central Asia (A.O.U. 1957) has occurred south to the Cook Islands and west to the Marshall Islands.

In conclusion, because so few of the specimens we examined proved to be correctly identified and because so many of the published sight records were not adequately documented, we recommend that future reports of unidentified *Sterna* in Hawaii or elsewhere in the tropical Pacific be subjected to rigorous scrutiny before they become part of the ornithological record. Although some sight records are valuable, they cannot be adequately verified at a later date. Good photographs may often provide adequate documentation of occurrence, but some species are so difficult to distinguish that nothing but a scientific specimen is entirely satisfactory for re-evaluation of an earlier record.

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