

SMITHSONIAN MISCELLANEOUS COLLECTIONS

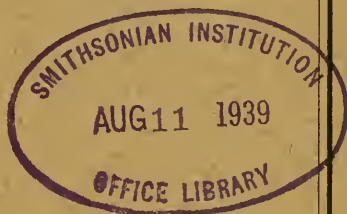
VOLUME 98, NUMBER 22

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COLLECTED ON THE PRESIDENTIAL
CRUISE OF 1938

BY

ALEXANDER WETMORE

Assistant Secretary
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(PUBLICATION 3548)

CITY OF WASHINGTON
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BIRDS FROM CLIPPERTON ISLAND COLLECTED ON THE PRESIDENTIAL CRUISE OF 1938

BY ALEXANDER WETMORE
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Clipperton Island, the most eastern atoll in the Pacific Ocean, like most uninhabited tropical islands of its type, is the home of large numbers of sea birds, but not until the Presidential Cruise of 1938 did the National Museum have the opportunity of obtaining certain desirable specimens of its avifauna.

A party from the U. S. S. *Houston* landed on Clipperton for shore collecting on July 21, when, through the active interest of Lt. Comdr. T. J. Kelly of the vessel, and Michael Reilly, of the President's personal staff, a series of 34 birds was obtained.

On leaving the island it was necessary, because of rough water, to carry the specimens out through the surf in a burlap sack. On ship-board they were wrapped in cheesecloth and then frozen. Held in this condition until the conclusion of the cruise, they were then packed in dry ice, shipped to Washington from Pensacola, and placed in cold storage until made up in the taxidermy shop of the Museum. Thus handled the specimens came through in first-class condition and yielded excellent study skins.

Following are notes on the species obtained:¹

Family SULIDAE

SULA LEUCOGASTER NESIOTES Heller and Snodgrass

CLIPPERTON ISLAND BOOBY

Sula nesiotes HELLER and SNODGRASS, Condor, vol. 3, May 1901, p. 75 (Clipperton Island).

Five adult males, two adult females, an immature male and three young of assorted size in the down constitute an excellent series of this bird, the first from this locality to come to the National Museum. These skins are important in indicating that the Clipperton bird, currently considered identical with *Sula leucogaster brewsteri* of Baja

¹ For a list of the birds of Clipperton Island see Snodgrass, R. E., and Heller, E., Proc. Washington Acad. Sci., vol. 4, Sept. 30, 1902, pp. 501-520.

California, is distinct and to be recognized as a separate geographic race under the name *nesiotes* given it years ago by Heller and Snodgrass.

The identification of these birds from Clipperton Island has led to examination of all the boobies of this group from the west coast of the New World from Baja California to Gorgona Island, Colombia, with results that are of interest. While apparently uniform over large areas of the tropical oceans of other parts of the world there are three (barely possibly four) races of *Sula leucogaster* to be recognized in the limited area on the Pacific coast of the Americas under consideration. These differ from all other subspecies of the species in question in having the head in the male in part, or entirely, distinctly lighter than the neck and upper parts. Following are notes on these races:

Sula leucogaster brewsteri Goss:

Sula brewsteri Goss, Auk, 1888, p. 242 (San Pedro Martír Island, Gulf of California).

Male with the head partly light in color, the paler area confined mainly to the face; female with upper surface, head, and neck brownish (uniform in shade like *S. l. plotus* of widespread distribution farther west in the Pacific but lighter colored).

Range.—Baja California, including the Gulf of California, to the Revillagigedo Islands.

Measurements (in millimeters).—Males (6 specimens), wing 375-397 (384), tail 178-196 (187), culmen from base 90-95.3 (93.2), depth of bill at gonydeal angle 11.0-13.6 (12.4), tarsus 46.5-52.1 (48.5), middle toe with claw 76.9-78.8 (78.0).

Females (7 specimens), wing 389-414 (403), tail 176-198 (189), culmen from base 93.7-104 (98.4), depth of bill at gonydeal angle 12.5-14.7 (13.2), tarsus 48.5-54 (51.5), middle toe with claw 76.9-78.8 (78).

In these measurements there are included data from three specimens in the Carnegie Museum from San Benedicto, Revillagigedo Islands, made available to me by A. J. van Rossem. In comparing the measurements of *brewsteri* and the other races here discussed the length of the tail is included but has not been considered in comparative studies of size as the rectrices in these boobies are often subject to much abrasion, depending probably upon the conditions under which the bird habitually perches, whether on sand or rock.

Sula leucogaster nesiotus Heller and Snodgrass:

Sula nesiotus HELLER and SNODGRASS, Condor, vol. 3, May 1901, p. 75 (Clipperton Island).

Male with the head and neck much lighter than *brewsteri* or *etsiaca*, the head in fully adult birds being almost white; back and breast more grayish, less brownish. Female with upper surface, foreneck, and breast darker, more sooty gray, less brownish than *brewsteri* or *etsiaca*.

Range.—Clipperton Island, considered to range also to the Tres Marias and Isabel Island, western Mexico; a specimen assigned here seen also from Manzanillo, Colima.

Measurements (in millimeters).—(All specimens from Clipperton Island, the type locality): Males (11 specimens), wing 360-385 (376), tail 166-205 (188), culmen from base 90.2-97.3 (93.5), depth of bill at gonydeal angle 11.7-14.1 (12.9), tarsus 44.3-49.2 (46.7), middle toe and claw 72.0-77.9 (76.3).

Females (7 specimens), wing 385-410 (400), tail 163-200 (178), culmen from base 97.6-100.8 (99.2), depth of bill at gonydeal angle 13.7-15.7 (14.6), tarsus 47.1-51 (49.2), middle toe and claw 79.0-86.8 (82.6).

The extent of the light color on the head and neck of the male in this race, and the darker, less brownish cast of the female, set this group of birds off strikingly from *brewsteri* to the north and *etsiaca* to the south, and the light color of the head that appears in males of these boobies on the Pacific coast of the New World and nowhere else finds in *nesiotus* its maximum expression. If *nesiotus* stood alone, it is so distinct from *Sula leucogaster plotus*, the widespread race of the Pacific Ocean marked by very dark coloration, and from *Sula leucogaster leucogaster* of Atlantic areas, in which the head and neck are darker than the back and wings, that it would appear as a distinct species. The connecting links are found in *brewsteri* and *etsiaca*.

Recently van Rossem has described another form² from Isabel Island near the Tres Marias group as similar to *brewsteri* but with smaller and more slender bill, paler upper parts and chest, and the male with the head white. His conclusion is based in part on specimens in the National Museum. While I have not seen van Rossem's type, I have had available 9 males and 8 females from Isabel and the adjacent Tres Marias Islands. These birds are identical in coloration with skins from Clipperton, the type locality of *nesiotus*, so far as I

² *Sula leucogastra albiceps* van Rossem, Trans. San Diego Soc. Nat. Hist., vol. 9, No. 4, November 21, 1938, p. 9 (Isabel Island, western Mexico).

can see. While at first glance they appear smaller than *nesiotes*, with the considerable series I have seen this is not indicated in actual measurement. Following is a summary of the dimensions of the available specimens from Isabel Island and the Tres Marias:

Males (9 specimens), wing 366-389 (375), tail 161-193 (183), culmen from base 85.6-92 (89.4), depth of bill at gonydeal angle 11.1-12.2 (11.5), tarsus 43.5-48.5 (46.3), middle toe with claw 69-76.7 (72.7) mm.

Females (8 specimens), wing 391-418 (403), tail 178-198 (185), culmen from base 92.8-100 (95.3), depth of bill at gonydeal angle 11.9-14 (12.9), tarsus 45.0-53.5 (48.8), middle toe with claw 72.9-83.8 (78.6) mm.

Comparing these figures with those based on the birds from Clipperton we find that the wing lengths are almost identical. In length of culmen the smallest birds come from the supposed "*albiceps*" group, the average difference in length of culmen amounting to about 4 percent, but there is definite overlap in individuals. The bill also is very slightly more slender, though here again there is individual variation. The length of the tarsus in the two is quite similar, though the Isabel-Tres Marias specimens seem to have slightly smaller feet as indicated by the length of the middle toe with claw. On the basis of the material seen it appears to me that the differences presented are slight and do not permit recognition of *albiceps* as distinct from *nesiotes* at present, especially in view of the large size of the birds concerned, a conclusion reached only after somewhat prolonged consideration. Possibly more material may bring out the size distinction clearly, but from what I have seen I should expect instead that it might nearly or entirely disappear. It is only fair, however, to add that Mr. van Rossem has examined the National Museum material with me and does not agree.

Sula leucogaster etesiaca Thayer and Bangs:

Sula etesiaca THAYER and BANGS, Bull. Mus. Comp. Zoöl., vol. 46, June 1905, p. 92 (Gorgona Island, Colombia).

Similar to *brewsteri* but darker; male with light color of head as in *brewsteri* but apparently less extensive in the fully adult bird; female closely similar to *plotus* but slightly darker and more uniform in shade of brown.

Range.—Cocos Island, Costa Rica, through the Pearl Islands, Panama, to Gorgona Island, Colombia.

Measurements (in millimeters).—Males (15 specimens), wing 360-384 (370); tail 183-187 (181), culmen from base 82-93.3 (88.6).

depth of bill at gonydeal angle 10.5-12 (11.3), tarsus 44.8-48 (45.5), middle toe with claw 68.8-78 (73.5).

Females (14 specimens), wing 385-408 (397), tail 182-198 (189), culmen from base 89.6-103.2 (95.8), depth of bill at gonydeal angle 12.3-14.1 (13.3), tarsus 46.8-49.8 (48.2), middle toe with claw 75.8-82.7 (79.3).

As indicated above, in color this form most closely resembles *brewsteri* though the range of the decidedly different *nesiotes* intervenes. Birds from Cocos Island are very slightly paler than those from the Pearl Islands and Gorgona but the difference is too slight to warrant their recognition as distinct. This form has been recorded from the Galapagos Islands but wrongly in my belief. There is one old skin in the National Museum marked "Galapagos Islands," but I consider the locality erroneous.

Sula leucogaster leucogaster (Boddaert) of tropical Atlantic areas, in which male and female are similar, is marked by having the head and neck darker than the back and wings. *Sula leucogaster plotus* of the central and western tropical Pacific Ocean, which also has the sexes alike, is darker, being the darkest of the races of this bird.

Family LARIDAE

STERNA FUSCATA CRISSALIS (Lawrence)

SOCORRO SOOTY TERN

Haliplana fuliginosa var. *crissalis* LAWRENCE, Proc. Boston Soc. Nat. Hist., vol. 14, 1871 (1872), p. 285 (Socorro Island, Revillagigedo Islands).

The four specimens, two males and two females, are all adult birds. They are identified to subspecies according to the treatment of Ridgway.³

Measurements (in millimeters).—Males, wing 280-282, tail 169-170, culmen from base 43.5-47.5, tarsus 21-22.5.

Females, wing 274-275, tail 154-161, culmen from base 40.8-41.1, tarsus 21.3-23.3.

ANOÛS STOLIDUS RIDGWAYI Anthony

SOCORRO NODDY TERN

Anous stolidus ridgwayi ANTHONY, Auk, vol. 15, 1898, p. 36 (Socorro Island, Revillagigedo Islands).

Five males and five females of this interesting bird were obtained, together with two young that are just attaining the plumage of the first fall.

³ U. S. Nat. Mus. Bull. 50, pt. 8, 1919, p. 519.

ANOÛS MINUTUS DIAMESUS (Heller and Snodgrass)

COCOS BLACK NODDY TERN

Micranous diamesus HELLER and SNODGRASS, CONDOR, vol. 3, 1901, p. 76
(Cocos Island).

Two females and one young bird half grown were obtained. I agree with Peters that there is no reason for placing this species in a genus apart from the larger noddy.

GYGIS ALBA CANDIDA (Gmelin)

COCOS FAIRY TERN

Sterna candida GMELIN, Syst. Nat., vol. 1, pt. 2, 1789, p. 607 (Christmas Island, Pacific Ocean).

Two males and one female, all adult, of this beautiful bird were collected. The uniformity of the fairy tern in size over wide areas of the Pacific Ocean is surprising. I can find no pertinent difference between these skins from Clipperton Island and those from farther west, and so follow Ridgway in calling them *candida*, though I have seen no specimens from Christmas Island, the type locality. It seems probable that too many forms of the fairy tern have been recognized, but this can be settled only with more material than is available here at present.

While Hartert⁴ has called the peculiar *Gygis microrhyncha* of the Marquesas Islands a geographic race of *alba*, in my opinion this is not correct. There are at present eight skins of *microrhyncha* in the National Museum, and I have seen additional material. All are uniform in differing from *alba* from many localities in the decidedly slender bill, a character in which specimens from other localities make no approach. Their relationship has been confused because of the uniform appearance of these terns throughout the world, and I consider *microrhyncha* a full species, distinct from the wide ranging *alba*.

⁴ Nov. Zool., vol. 34, 1927, p. 20.