

THE SCARCITY OF THE BLACK-FOOTED ALBATROSS IN PARTS OF ITS KNOWN RANGE

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In 1945 and early 1946 the writers traveled over various parts of the North Pacific Ocean from Mexico north to within 800 miles of Kodiak Island, west to Japan and the China Sea, and south to the Marshall and Caroline islands, covering over 35,000 miles. We were together the greater part of the time, but returned to the United States independently.

The voyages were primarily within the area defined by Bent (1922:5) and Peters (1931:43) as the range of the Black-footed Albatross (*Diomedea nigripes*). Bent describes this range as "North Pacific Ocean, mainly north of the Tropic of Cancer. East to the coast of North America, from the Alaska Peninsula southward to Lower California (San Quentin Bay). South nearly or quite to the Equator. West to the Formosa Channel, Japan (Yezzo), and Kurile Islands. North to the Aleutian Islands and southern Bering Sea (Bristol Bay, Alaska) in summer." Breeds on "Laysan, Gaspar Rico, Midway, Marshall, Volcano and Bonin Islands . . . Formerly on Marcus Island." The accompanying map (fig. 62) indicates the various trips taken within this range and the localities where albatrosses were noted.

In April, 1945, we sailed from Panamá up the coast of Mexico en route to San Diego. No albatrosses were observed until mid-morning on April 11, when two were sighted following the ship, some 15 miles off the coast of Lower California at 26° 30' north latitude. By mid-afternoon only one bird was present. None was seen the following day between 30° north latitude and San Diego. These observations agree in general with the findings of Grinnell (1928:64) and Miller (1936:11; 1940:229) with respect to the range and limited numbers of the Black-footed Albatross along this coastline during the spring months.

Our travels along the coast of southern California were made at night, and the Black-footed Albatross was not seen again until we were 150 miles offshore on April 21, 1945. Albatrosses were sighted daily thereafter, until within 200 miles of the Hawaiian Islands. Ordinarily only one or two were present at sunrise, their numbers increasing to as many as twelve by nightfall. None was in evidence off Molokai and Oahu as Pearl Harbor was approached on the morning of April 28. It is of interest to note that earlier in the following spring (March, 1946) this species was present in consistently greater numbers over essentially the same route.

In the last week in May, a voyage was made in a large convoy from Pearl Harbor to Guam via Eniwetok in the Marshalls. Throughout this voyage no albatrosses were seen. It is difficult to explain the absence of the Black-footed Albatross in the area southwest of Hawaii, since Cogswell (1946:48), while travelling the same route a month earlier, found this species south to about 18° north latitude in the vicinity of Johnston Island. Perhaps this bird, which is ordinarily a ship follower, found the convoy unattractive. Subsequent voyages were made singly or in the company of but few ships.

Using the Marianas as a base, we made voyages to the various island groups of the western Pacific from June, 1945, until February, 1946. Several days were spent in the vicinity of Iwo Jima, Volcano Islands, in August. The Ryukyus were visited in June and again in August. In September and October two trips were made between Okinawa, Ryukyus, and Yokohama, Japan, and one (September 17) to within 250 miles of For-

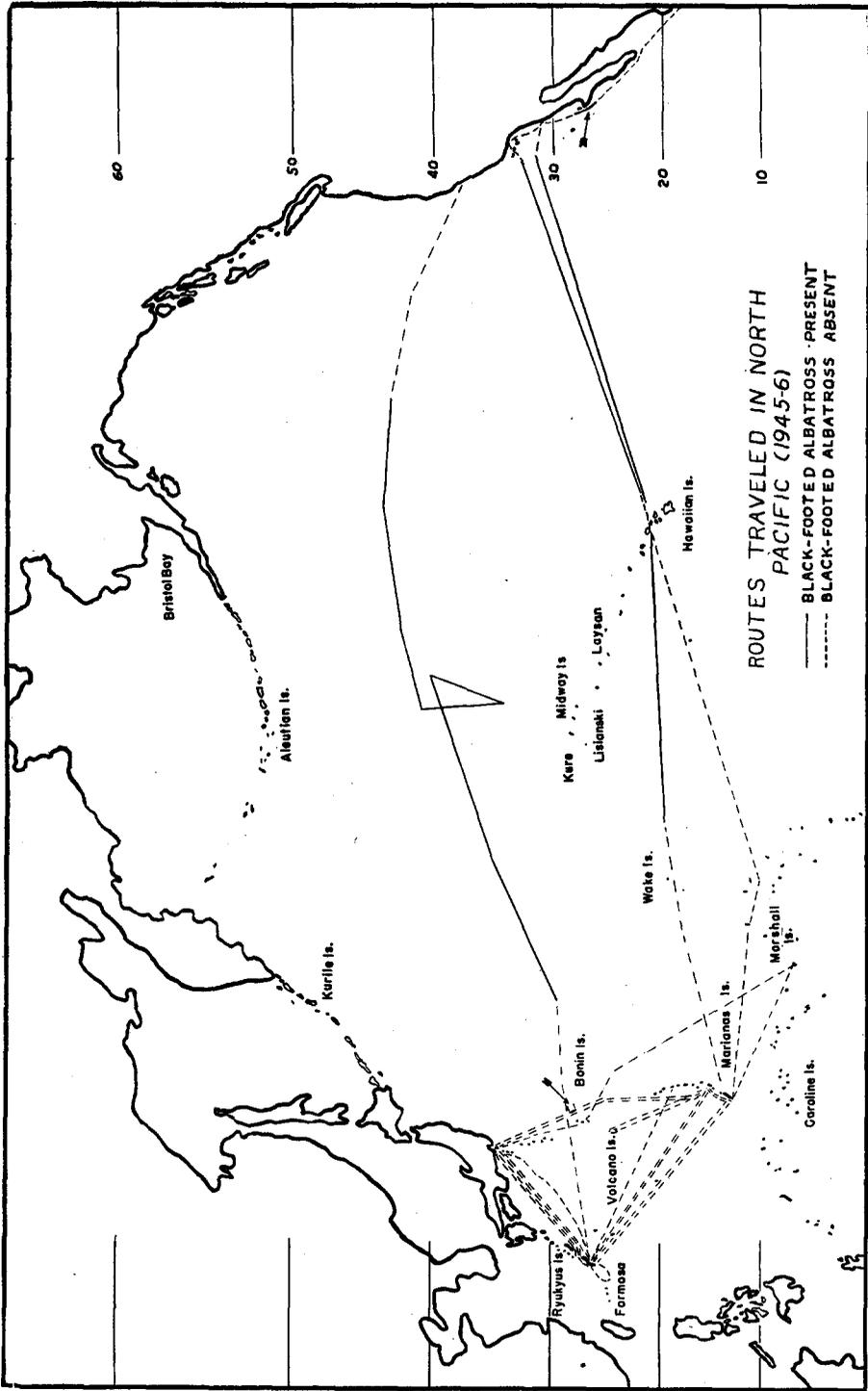


Fig. 62. Map of north Pacific Ocean showing areas where Black-footed Albatrosses were observed.

mosa. Throughout these travels Black-footed Albatrosses were not seen, although according to Miller (1940:229), this species is most widely dispersed over the North Pacific Ocean during the summer. Okada (1938:78) includes the Ryukyus in describing the range of this albatross; however, during the summer and fall months and again in February, its presence was not noted in these waters. Further, La Touche (1934:430) mentions observing it in the China Seas in winter and spring, in an area which lies immediately to the westward of the Ryukyus. Swinhoe (1863:431) reported the Black-footed Albatross as common throughout the year in the Formosa Channel.

In the last week of October, 1945, Starrett started a voyage from Okinawa to California. Although the area immediately north of the Bonin Islands was traversed, Black-footed Albatrosses were not sighted until October 31, when a single individual was observed 300 miles north of Marcus Island. Albatrosses were present in small numbers on subsequent days, increasing to 40 on November 4, some 480 miles north of Kure. On November 5, 720 miles northeast of this island, 60 were accompanying the ship. The following day, 20 were sighted on one occasion 700 miles north of Midway. Foggy weather interfered with observations on November 7, and the following day, with conditions but little better, 5 were seen about 800 miles south of Kodiak Island. On November 9, the last day observations were made, 15 were seen 1,100 miles west of Eureka, California.

Concurrently Dixon made a voyage from Okinawa to Japan and southward past the Bonin Islands. Black-footed Albatrosses were not seen in this vicinity, although on the afore-mentioned journey they were found several hundred miles to the eastward. On a visit to the Bonin Islands and Japan in late December this species was not seen, but on January 9, two were observed in the wake of the ship 100 miles northeast of the Bonins at 28° 20' north latitude.

On a great circle course from Guam to Oahu, the Black-footed Albatross was not detected until the evening of March 8, 1946, at 19° 52' north latitude, 371 miles east of Wake Island. These birds were seldom out of sight thereafter until Pearl Harbor was reached. Their numbers increased slowly. By March 11, 15 were with the ships and the following evening, 295 miles south of Lisianski, 26 were counted. At sunset on March 13, 271 miles south of Laysan, 46 were present. This total decreased sharply in the next 24 hours; it did not exceed 5 in the remainder of this journey.

Few Black-footed Albatrosses were sighted until the fourth day out of Pearl Harbor. However, on this date (March 26, 1946), 55 were counted at sunset, 720 miles northeast of Hawaii. The ensuing day this count decreased averaging 18 each evening thereafter until near San Diego.

We have endeavored to indicate the relative abundance of the Black-footed Albatross in the central Pacific in contrast to its scarcity in the western portion of its range. Information is needed concerning the present status of this species on the islands south of Japan where it has been known to nest. Fisher and Baldwin (1946:5) determined that this species on Midway was not seriously reduced as a result of war activities. They also cited banding records to show that this albatross ranges from Midway to the American and Japanese coasts. We repeatedly found it absent from the waters in the vicinity of the Volcano and Bonin islands. Our observations at sea, together with the banding returns, lead us to suggest that the present breeding range probably is restricted to the islands of the central North Pacific. Therefore, it appears to us that the Black-footed Albatross is in greater danger as a species than is generally realized. Perhaps other workers can supply further observations from these western islands and thereby more clearly define the present status of this species.

LITERATURE CITED

- Bent, A. C.
1922. Life histories of North American petrels and pelicans and their allies. U. S. Nat. Mus. Bull. 121:xii + 1-343.
- Cogswell, H. L.
1946. Bird study aboard a transport to the western Pacific. *Elepaio*, 6(7):46-48.
- Fisher, H. I., and Baldwin, P. H.
1946. War and the birds of Midway Atoll. *Condor*, 48:3-15.
- Grinnell, J.
1928. A distributional summation of the ornithology of Lower California. Univ. Calif. Publ. Zool., 32:1-300.
- La Touche, J. D. D.
1934. A handbook of the birds of eastern China (London, Taylor and Francis), 2:xxiii + 1-566.
- Miller, L.
1936. Some maritime birds observed off San Diego, California. *Condor*, 38:9-16.
1940. Observations on the Black-footed Albatross. *Condor*, 42:229-238.
- Okada, Y.
1938. A catalogue of vertebrates of Japan (Tokyo, Mazuren Company, Ltd.), iv + 412.
- Peters, J. L.
1931. Check-list of birds of the world (Cambridge, Harvard Univ. Press), 1:xviii + 1-345.
- Swinhoe, R.
1863. The ornithology of Formosa, or Taiwan (concluded). *Ibis*, 5:377-435.
- Ames, Iowa, and La Mesa, California, June 28, 1946.*