

## TUBINARES OFF THE NORTH-WEST COAST.

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DURING a five weeks cruise on the steamship "Victoria" between Seattle, Wash. and Nome, Alaska, this summer (1926), several observations on birds of the Petrel group were made which seem worth placing on record, though no specimens were secured.

**Fulmarus glacialis glupischa** and **F. rodgersi**. FULMAR.—The largest number on July 11 in Shelikof Strait, about 800, the dark phase to light phase about as 99 to 1. Still plentiful but in much smaller numbers further west off the Alaska Peninsula the following day when 1 pale phase and 1, the only, intermediate bird noticed,—dark with a white head. When observed elsewhere in the Pacific the dark phase outnumbered the pale phase about 9 to 1.

Near Unimak Pass pale and dark birds were in about equal number. Elsewhere in Behring Sea the Fulmar was present but nowhere numerous, almost all pale phase;—a dark bird well over towards Bristol Bay, and 2 or 3 to about 56° 20' N., north of Unimak Pass. As regards *rodgersi*, the pale birds were variously all gray to almost entirely white above, scarcely any one like another.

Bent<sup>1</sup> has suggested that *rodgersi* is merely individual variation of *glupischa*, and that dark phase Fulmars in both oceans are distinct having a somewhat different range. My observations bear out both these views, though of course range at sea is of much less significance than breeding range. Crossing the Atlantic in late September 1922, in 5 days from 51° 08' N. 18° 32' W. to 43° 49' N. 51° 04' W., (noon positions) pale phase Fulmars were present each day, but it was not until late on the last day that 2 or 3 dark phase birds appeared.

Ordinarily (except in a gale) the flight of the Fulmar looks rather heavy and clumsy, and it flaps its wings a good deal. I was therefore surprised on August 4 at sea (noon position 54° 36' N. 153° 43' W.) to find that some 10 of them following in the ship's wake were sailing almost continuously. There was a moderate breeze blowing from just forward of the starboard beam and we were making about 12 knots. I watched sailing birds for 4 and 4½ minutes, until they flapped for the first time. In the 4½ minutes, the last mentioned crossed back of the ship's stern 15 times. It is my memory that therein only its flight differed from that of the truly sailing species, that its cousin the Cape Pigeon of the south seas for instance would have sailed a straighter course.

**Puffinus bulleri**. NEW ZEALAND SHEARWATER.—With a fresh breeze blowing more or less behind us, two of these birds followed in the steamer's wake for a short time on the morning of August 7. We were off

<sup>1</sup> 1922. Bull. U. S. Nat. Mus. cxxi.

the coast of British Columbia bound southeast, and our noon position 50° 21' N. 130° 15' W.; the point where they were noted, the most northerly record for the species, therefore more or less to the north and west of this.

They did not come very close, but the pattern of their plumage could be seen readily enough, gray above, outer primaries and band across secondaries blackish, underparts and under wing entirely pure white, white and dark on side of head contrasted in a sharp line suggesting the Greater Shearwater, and their flight also seemed more like the flight of that bird than any other that comes to mind. The primary portion of the wing, as well as the tail seemed relatively long, and their size smaller than I would have supposed from measurements. Size in distant birds at sea is very deceptive with nothing for direct comparison, but presumably this Shearwater is rather small bodied.

**Aestrelata fisheri.** FISHER'S PETREL.—Seen in the Pacific, on one day only, August 5, when midway between the islands and the west coast, noon position 53° 36' N., 145° 37' W. They were frequent all day, singly and in small groups, a conservative estimate for the total number, 30.

They frequently rose well above the water, and when flapping their wings at such an elevation might easily have been mistaken in the distance for some small Gull; gliding about close to the surface they suggested the smaller Whale Bird (*Prion*) of the South Seas, and occasionally one was seen twisting erratically as though 'goaded on by a gadfly,' flashing its silver-white and black under-wing pattern. The lower surface of the wing showed mostly white but with a conspicuous and contrasting black edging the exact position of which it was not easy to place in the flying bird.

As these birds frequently came within fair binocular range, and as Fisher's Petrel has recently (it seems correctly) been referred to plumage variation of Peale's Petrel,<sup>1</sup> I am tempted to give a more detailed description than would ordinarily be worth while from 'field-glass' data. Large headed birds with long primary portion to the wing, short tail, bill distinctly of the *Aestrelata* type, black. Forehead, throat and under tail coverts white. Belly dark gray, usually appearing blackish, sometimes not quite so dark. Upper parts lighter gray of about the tone of the Fork-tailed Petrel; outer primaries and stripe continuing across secondaries black or blackish, secondaries immediately behind this stripe whitish. Eye spot blackish; side of head apparently a somewhat darker gray than upper parts. There was variation in the dark color on the side of the head; in some individuals it was continuous with the gray of the upper parts; in one, distinctly limited behind by a narrow cross mark of white; and in 1 or 2 more distant birds apparently limited above also, for they appeared to have a broad dark band from eye to auricular region.

Other species observed on the cruise were Black-footed Albatross; Slender-billed Shearwater (concentrated in very large numbers in Unimak

<sup>1</sup> Bent, 1922, Bull. U. S. Nat. Mus., cxxi, p. 117.

Pass; of the Sooty Shearwater I have no satisfactory identification, but am of the impression that it replaced the generally common Slender-bill farthest off shore at a point midway between the islands and the coast, and to some extent at least on the east side of the Gulf of Alaska; Fork-tailed Petrel; Leach's Petrel, only off the British Columbia coast, common August 6 and a few August 7 (noon positions  $52^{\circ} 19' N.$   $137^{\circ} 42' W.$  and  $50^{\circ} 21' N.$   $130^{\circ} 15' W.$ ), presumably *O. l. beali* (Emerson).

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