NEW RECORDS OF THE KERGUELEN PETREL (PTERODROMA BREVIROSTRIS) IN THE SOUTH ATLANTIC AND PACIFIC OCEANS

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ABSTRACT

The range of the Kerguelen Petrel *(Pterodroma brevirostris)* is outlined and extensions into the South Atlantic and Pacific Oceans, based on observations from the ships *Eltanin* and *Eastwind,* are documented, suggesting a nearly circumpolar movement. "At sea" characters of flight pattern, plumage appearance and foot colour are noted.

The Kerguelen Petrel *(Pterodroma brevirostris)* breeds on the cool temperate and subantarctic islands of Gough, Marion, the Crozets, and Kerguelen in the Indian and South Atlantic Oceans (Swales 1965; Crawford 1952; Mougin 1962; and Kidder 1875), (Fig. 1). Elliott (1957) gave every indication that the species also nests in the Tristan da Cunha group, but confirmation is still needed. In addition to occurring near the breeding grounds, it ranges widely over the South Atlantic and Indian Oceans in the summer months, where it has been recorded from the coasts of Brazil (24°S, Pinto 1964) and Argentina (Paessler 1915; Olrog 1958); the cold waters of the Weddell Sea Gyre (Clarke 1907; Bierman & Voous 1950); the southern Indian Ocean from South Africa south and east around the Antarctic Continent almost as far as the Balleny Islands (Oordt & Kruijt 1954); well to the east of Kerguelen and Heard Islands from about 44°S, 95°E and 53° - 56°S, 85° - 92°E (Falla 1937); and near St Paul (Paulian 1953). Winter at-sea records are meagre. Rand (1963) reported Kerguelen Petrels between South Africa and the Crozets in June and July while carcasses have been washed up on beaches of western Australia and New Zealand after gales (Serventy & Whittell 1951; Condon 1954; Davenport & Sibson 1955; Falla, Sibson & Turbott, 1966).

Recent observations of the species in the South Pacific and South Atlantic Oceans by Harper aboard the antarctic research vessel, *Eltanin,* and by Watson and Angle on the US Coast Guard icebreaker, *Eastwind,* extend the known range considerably and suggest a nearly circumpolar movement (Fig. 1, Table 1). Harper saw it near the Antarctic Convergence between 100° and 145° West in October 1965 (Cruise 20), and in April and May the following year (Cruise 23), but failed to find it in the same area in the intervening November and December (Cruise 21). The species was more common east of

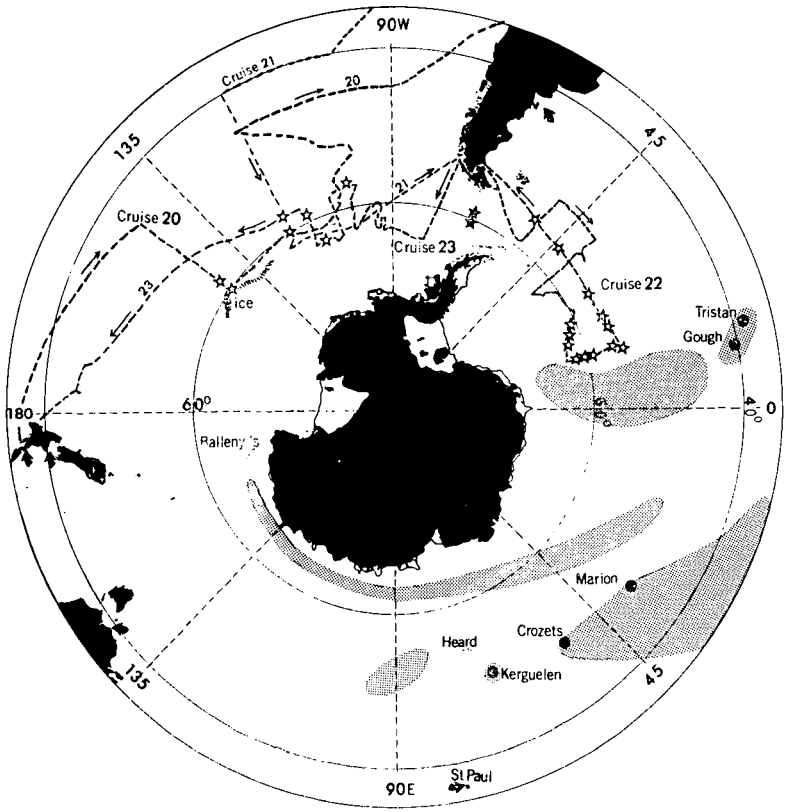

FIGURE 1 — Distribution of Kerguelen Petrel. Black circles indicate breeding sites; stippling, previously reported observations; black arrows, presumed vagrant records; open stars, *Eltanin* observations; and closed stars, East Wind observations.

the South Sandwich Islands (Cruise 22) in February and March 1966, where it was presumably feeding on krill *(Euphausia superba)* that threatened to clog the ship's cooling seawater intake. Watson and Angle saw it twice in February near the Convergence in the Drake Passage. Breeding birds generally remain in the vicinity of the breeding islands from September to March, suggesting that either these new records pertain to non-breeding subadult birds, or that the bird may breed on islands near Cape Horn. Harper did not see any petrels in wing moult, although the plumage of birds in the South Atlantic appeared faded in late February. Van dee Lee collected a specimen in body moult and saw other moulting birds in the same area in late January 1964 (Bierman & Voous, 1950).

TABLE 1. OBSERVATIONS OF KERGUELEN PETRELS IN SOUTH PACIFIC AND ATLANTIC OCEANS

DATE	POSITION S. Lat.	W. Long.	SEA TEMPERATURE	NUMBERS
Eltanin Cruise 20: Pacific Ocean				
1 Oct 1965	58° 31'	144° 55'	0°C	1
4 Oct 1965	59° 37'	144° 23'	-1.0	1
9 Oct 1965	60° 16'	126° 35'	1.0	Several
Eltanin Cruise 23:				
20 Apr 1966	58° 48'	100° 42'	5.8	1
30 Apr 1966	64° 02'	115° 38'	2.5	1
1 May 1966	63° 36'	115° 58'	3.1	Occasional
4 May 1966	58° 55'	115° 02'	5.3	Several
7 May 1966	57° 33'	118° 58'	5.1	1
Eltanin Cruise 22: Atlantic Ocean				
19 Feb 1966	61° 01'	26° 12'	1.0	2
20 Feb 1966	61° 44'	22° 27'	1.2	Frequent
21 Feb 1966	62° 29'	19° 03'	0.7	Frequent
22 Feb 1966	62° 33'	17° 34'	0.7	11
24 Feb 1966	61° 00'	14° 47'	0.5	Several
25 Feb 1966	60° 11'	14° 39'	1.0	2
26 Feb 1966	59° 16'	14° 52'	1.4	1
28 Feb 1966	55° 14'	15° 59'	2.7	1+
1 Mar 1966	55° 09'	15° 13'	2.2	4
2 Mar 1966	55° 24'	18° 58'	2.3	Several
3 Mar 1966	55° 23'	21° 53'	1.8	Occasional
4 Mar 1966	55° 29'	22° 35'	1.8	Occasional
7 Mar 1966	56° 19'	29° 53'	1.1	5
11 Mar 1966	55° 46'	45° 13'	4.0	4+
13 Mar 1966	55° 17'	53° 36'	6.4	3+
East Wind Cruise				
23 Feb 1966	60° 20'	64° 46'		2
23 Feb 1966	59° 13'	64° 48'		1

The unusual flight pattern of the Kerguelen Petrel is a good at-sea character as has been pointed out by Bierman & Voous (1950). They state that " . . . the birds were mostly observed flying alone, very high in the air; the slender profile and the very rapid wing beats recalled swifts *(Apus apus)* in flight." In a steady wind we observed Kerguelen Petrels soaring some thirty or more feet above the sea in long high glides or merely floating on the wind. Occasional individuals, attracted to the ship, would drift in close to the lee side

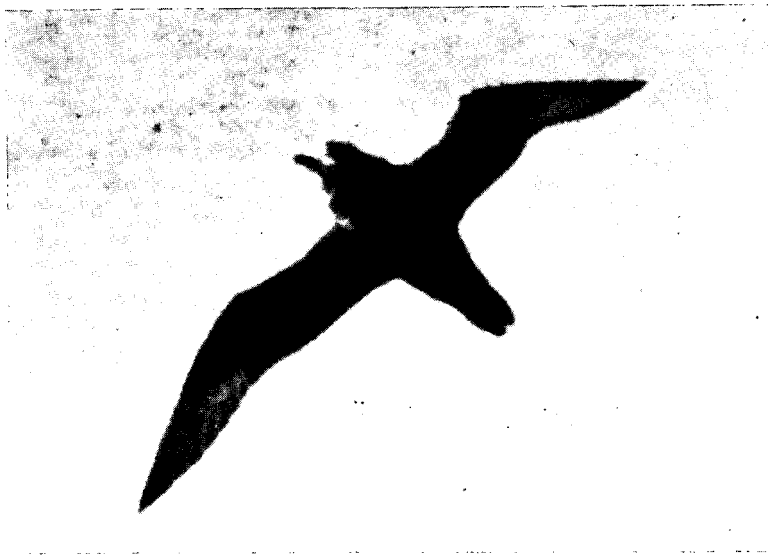

FIGURE 2 — Kerguelen Petrel in flight in South Atlantic Ocean shows reflective properties of glossy grey plumage.

of the bridge and remained long enough to permit Harper to take a photograph (Fig. 2) before floating off on the wind currents, still high above the surface of the sea. In the Southern Ocean's infrequent calms, the species resorted to a weaving, bat-like, flight just above the sea surface.

At close range, the glossy plumage displays reflective properties which impart the appearance of grey or white patches on the forehead, belly or wings. Harper's photograph demonstrates this phenomenon. In strong sunlight, the underwing coverts likewise can appear silvery or white. The head seems conspicuously larger than in other small gadfly petrels, and the feet are entirely black, or appear to be so when the webs are not spread.

A rare all-dark phase of the related Soft-plumaged Petrel, *P. mollis,* breeds on Marion and Gough Islands (Rand 1954; Elliott 1957; Swales 1965) and might conceivably occur in the areas of our observations. Such birds might seem difficult, or impossible, to distinguish from *brevirostris* at a distance. The flight pattern and the head size of *brevirostris* are, however, quite characteristic, apart from the silvery gloss on the underwing of *brevirostris* and its lack in *mollis.*

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