DISTRIBUTION OF THE McCORMICK SKUA (Catharacta maccormicki)

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Part 1 — GENERAL DISTRIBUTION

(a) *Breeding Range*

The McCormick Skua breeds on suitable shores around the whole Antarctic coast and on the offshore islands (Fig. 1).

Murphy (1936, p. 1017-1018) summarises the conflicting reports on the northern distribution of this species in the regions of the Antarctic Peninsula and the Antarctic Archipelago. It is in this region that *C. lonnbergi* and *C. maccormicki* overlap; and there is a problem in the distribution of the two species, as to the precise (or imprecise) boundary or overlap between them.

FIGURE 1

Since Murphy's (1936) summary there have been a few reports on the northern distribution. Bagshawe (1939, p. 280) has described Brown Skuas (*C. lonnbergi*) breeding at Water Boat Point on the Danco Coast, but as he records the chicks as slate coloured the birds seem to have been the McCormick Skua, as Brown Skua chicks are buff coloured (Stonehouse, 1956). Holgerson (1950, p. 615; 1957, p. 62) observed two McCormicks, probably a nesting pair, on Peter Is., Lat. 68° 50′ S., Long. 90° 35′ W., in February 1945, and at Port Lockroy. Burton (pers. comm.) reported that the only certain sighting of a McCormick in the South Orkneys was one seen at Signey Island

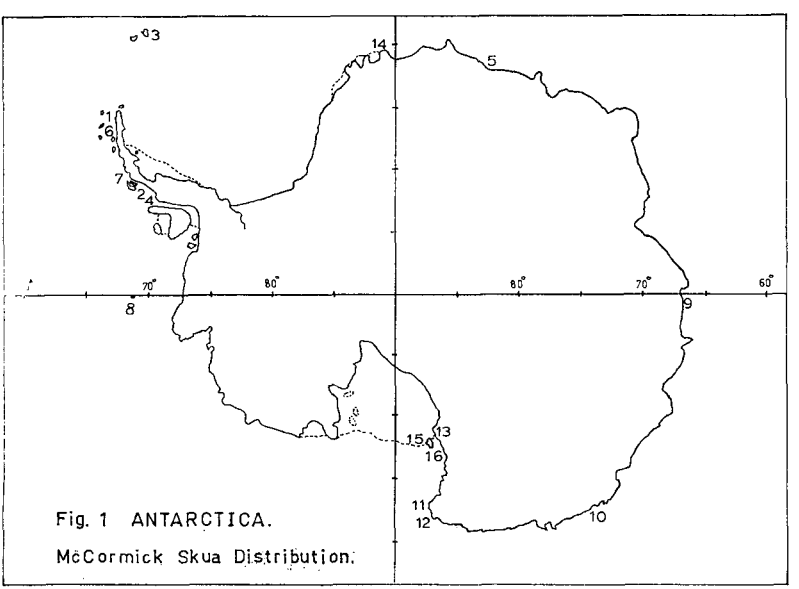


Fig. 1 ANTARCTICA.
McCormick Skua Distribution.

in 1961. He also noted that, during a biological survey of the South Shetlands in the summer of 1965/66, two pairs of breeding McCormicks were found breeding, one each at Robert Island and at Nelson Island.

McCORMICK SKUA BREEDING REPORTS (post Murphy 1936)

Map Reference	Authority	Locality
1	Bagshawe (1939)	Danco Coast, Antarctic Peninsula
2	Bryant (1945)	Stonington Island. Lat. 68°12'S. Long. 67°03'W.
3	Eklund (1959a)	Laurie Island, South Orkneys.
4	Friedmann (1945)	Red Rock Ridge. Lat. 68°17'S. Long 67°12'W.
5	Gosse (pers. comm.)	King Baudouin Base. Lat. 70°26'S. Long. 24°19'E.
6	Guttman & Caviedes (1964)	Lat. 64°49'S., Long. 62°52'W.
7	Holdgate (pers. comm.)	Marguerite Bay. circa. 67°46'S., 68°53'W.
8	Holgerson (1950)	Peter Island
9	Korotkevich (1964)	Mirny.
10	Prevost (pers. comm.)	L'Archipel de Point Geologie. 66°40'S. 140°01'E.
11	Reid (1964)	Cape Hallett.
12	Reid (1962)	Cape Adare.
13	Spellerberg (1966)	Southern McMurdo Sound.
14	Winterbottom (pers. comm.)	circa. 69°25'S. 1°11'W.
15	Wood (pers. comm.)	Cape Crozier.
16	Young (1963a, b)	Cape Royds to Cape Bird.

In March of 1963 McCormick Skuas were found on the Balleny Islands (150 miles north west of Cape Adare) and were possibly breeding there (Kinsky, 1965; Spellerberg, 1965).

The southern limits for breeding of the McCormick Skua are equally vague. On the Antarctic Peninsula, the most southern nest recorded was at Refuge Island Lat. 68° 27′ S., Long. 67° 19′ W., (Eklund, 1945, p. 302). During the summer season of 1965/66 the author made a reconnaissance of the McCormick Skua colonies in the southern regions of McMurdo Sound. On the western coast of the sound, breeding colonies were found as far south as 78°5′ and as far as is known this is the southern-most breeding limit for a bird.

(b) *Flying Range*

Breeding ranges and flying ranges involve very different ecologies and there have been some very interesting reports of the flying range of the McCormick Skua. These reports give sufficient information to show that the winter range of the McCormick Skua may not be restricted to the pack ice of the Antarctic and that they may migrate much further north. (Fig. 2.)

McCORMICK SKUA FLYING RANGE REPORTS

Map Reference	Authority	Locality
1	Falla, 1940	New Zealand Coast.
2	Murphy, 1936	Japanese waters.
3	Slepstov, 1963	Russian waters.

There are few records of the McCormick Skua from New Zealand proper. The first was at Stewart Island (Falla, 1940); another from the west coast of the North Island in January 1940, and a third on the Northland coast in 1946. Fleming (1953) described a fourth bird that came ashore on the North Island in March 29. The latest record is of one ashore near Himatangi in June, 1965.

In November 1904, Argentine naturalists procured a specimen of *C. maccormicki* at Laurie Island in the easternmost South Orkneys at Lat. 60° 45′ S., 44° 35′ W., and up to that time it was the northern-most record of the species (Clarke, 1906).

A specimen collected in the Sagami Sea off the coast of Japan was identified as *C. maccormicki* by Murphy (1936, p. 1007). Although several McCormicks have been reported as far north as Japan (Austin,

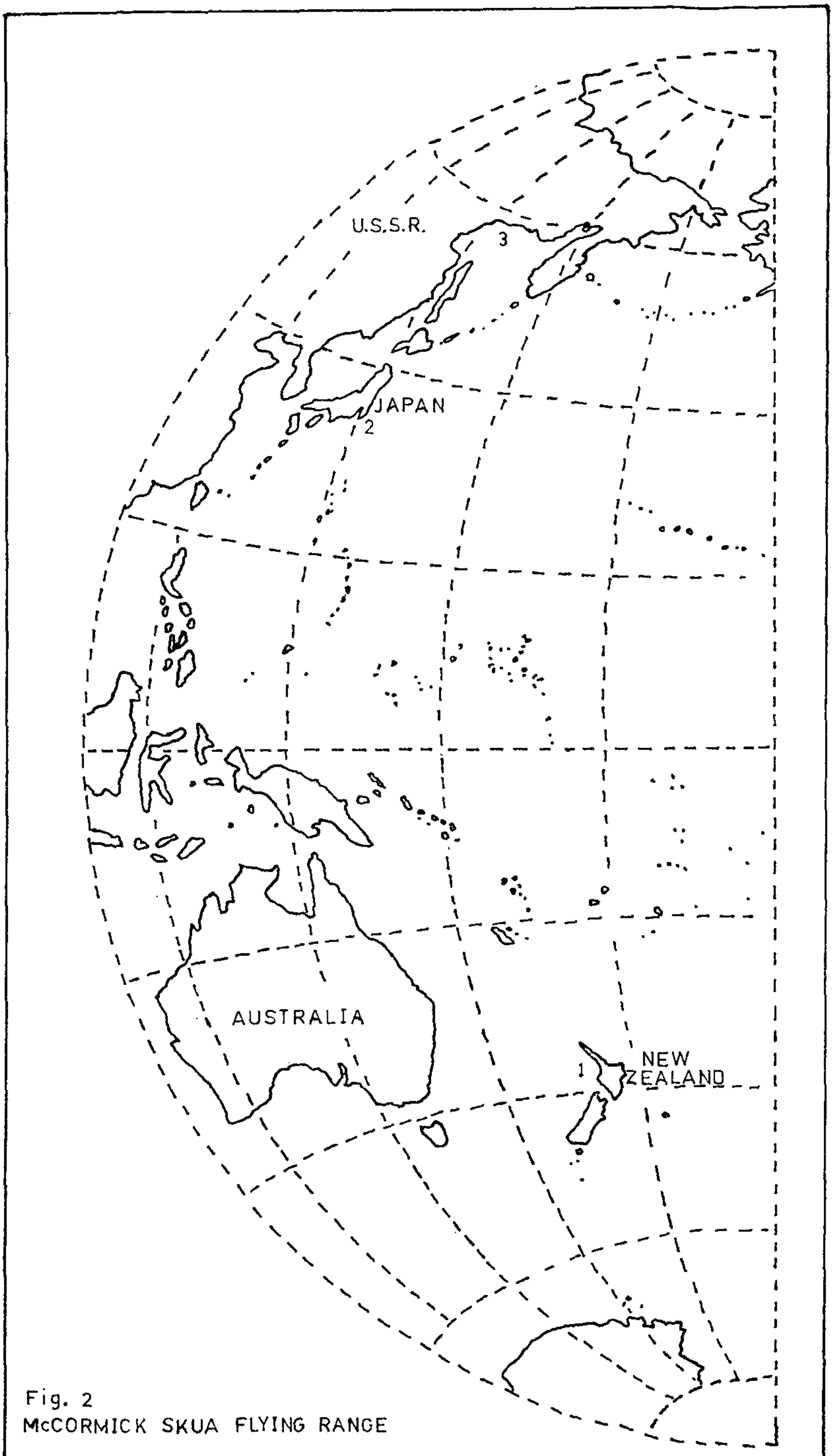


Fig. 2
McCORMICK SKUA FLYING RANGE

1957) this species has been recorded further north by the Russian author Slepstov (1963). He reports the McCormick Skua in the Kuril Straits of the Nemur Sea at Lat. 46° 20′ N., Long. 149° 30′ E. In the spring, summer and autumn, groups of two to eight birds have been seen in the vicinity of fish shoals. In 1954 the McCormick was found in the South Kuril Straits and in the vicinity of nearby islands.

Interesting reports have come from observers in the Antarctic continent and these reports illustrate the extensive flying range of the species. Amundsen encountered two birds at the inner edge of the Ross ice shelf in Latitude 84° 26′ S., on January 9, 1912. Gain believed that the two or three seen by Scott and Wilson in Latitude 80° 20′ S., more than 199 kilometers from open water, had been attracted this distance by the wind-borne odour of the blood of a sledge dog slain some time before. On the second Byrd Expedition one of this species was sighted at 86° 05′ S., and Hillary recorded a single bird at about 90 miles from the pole in January 1958 (Eklund, 1959).

It is clear that Murphy's (1936) earlier suggestion that the skuas which occur in the temperate north Atlantic during the breeding season of the northern hemisphere forms, may be migrants from some of the Antarctic breeding grounds, must be considered seriously. Skuas have been seen between the equator and the West Indies in April and May, off the West African Coast south of the Cape Verde Islands in November, January and February, and in the central part of the Sargasso Sea between October and December (Fisher and Lockley, 1954). It would seem likely, from these dates, that these were non-breeding birds, but the possibility that they are non-breeding birds from the southern ocean cannot be overlooked. Unfortunately it has not been determined whether these are southern or northern forms.

The Arctic Skua (*Stercorarious parasiticus*), which breeds from the British Isles and northern Labrador northward to the northern-most land area in the Arctic circle, has been recorded at the South Orkneys (Sladen, 1952). Jaegers are recorded annually in considerable numbers off the coast of New Zealand, and it is well known that these species winter in the southern hemisphere. It is also possible that both the northern and southern species spend their non-breeding months in the north Atlantic. This kind of movement away from the breeding range, well documented in the Jaegers may well be possible for the large McCormick Skua.

Obviously more records are needed and the extensive banding programmes now in operation may eventually result in some evidence. Meanwhile, it is suggested that the records of the McCormick Skua in Japanese waters and Russian waters indicate migratory behaviour of the McCormick Skua.

Part 2 — COLONIES IN SOUTHERN McMURDO SOUND

During the austral summer of 1965/66 a reconnaissance was made of the McCormick Skua colonies in the southern McMurdo Sound area. Two day trips by helicopter were made on 29 December and 14 January.

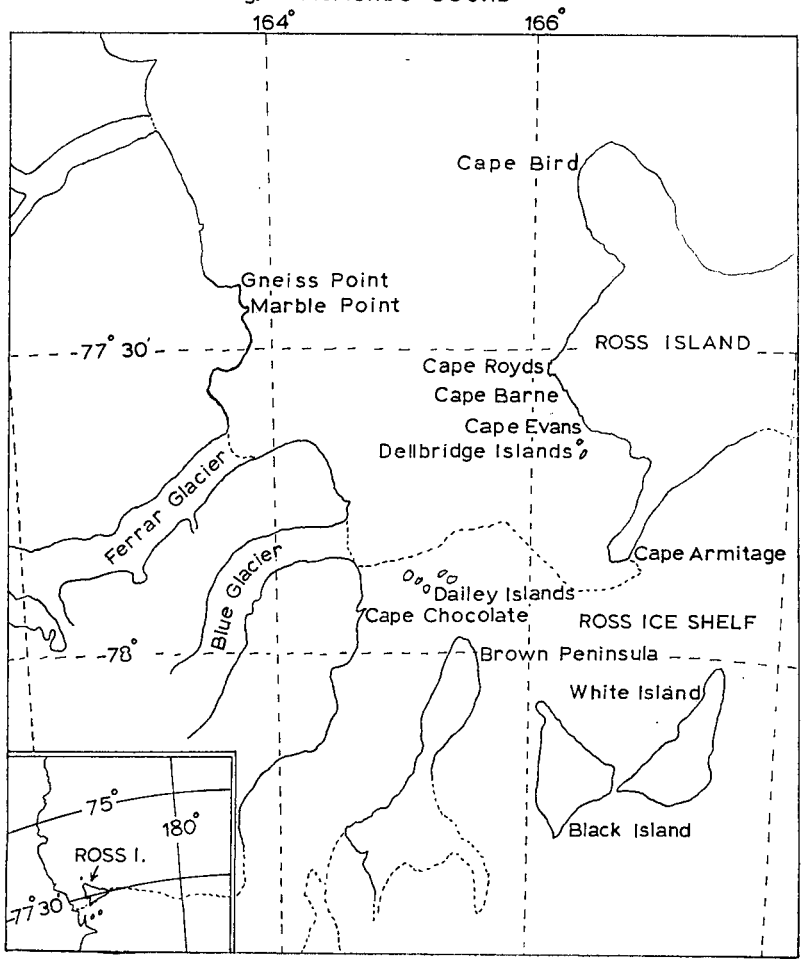
On Gneiss Point (Fig. 3), immediately north of Marble Point, Skuas were found on and about ponds, and two empty scoops (nests) were also discovered. Skuas were seen flying to and from the Marble

Point colony to Gneiss Point. As there are no ponds at Marble Point it appears that the Skuas come to Gneiss Point to bathe at the ponds.

On the southern side of Marble Point the Skua colony covers an area above a beach where shallow depressions and rocks offer protection from southerly winds.

The most southerly colony, found south of Cape Chocolate, extends up to 100 metres inland by the many melt streams and ponds which are found in the area. The nests are 80 - 100 metres apart, so that the birds are sparsely distributed compared with those in colonies further north.

Fig. 3 McMURDO SOUND



McCORMICK SKUA COLONIES IN SOUTHERN McMURDO SOUND

Locality	Situation	Breeding Pairs	Remarks
Gneiss Point.	Non-breeding colony around pond.	—	Some scoops, no breeding pairs resident.
Marble Point.	Breeding birds above beach on southern side.	20	20 clutches, 6 with 1 egg; 14 with 2 eggs.
Southern tip of Blue Glacier.	Breeding birds amongst stranded ice-cored moraines.	15-20	All nesting on the edge of ponds.
South of Cape Chocolate.	Breeding birds amongst ice-cored moraines.	25	Nests found as far as 78° 5′ S.
Dailey Islands.	Nests on raised beaches on the south-east sides.	14-16	—
Brown Peninsula.	Northern tip.	—	Several birds roosting near ponds.
Cape Armitage.	Southern tip.	1	Nesting beside a pond.
Cape Evans.	Widely distributed around ponds.	55	—
Cape Barne.	Breeding pairs around small ponds.	30	Colony extends well inland.
Cape Royds.	Around lakes on volcanic detritus.	57	—
Horshoe Bay, immediately north of Cape Royds.	South side.	23	—
Rocky Point, immediately north of Cape Royds.	North and south sides.	68	Colonies are concentrated.

A pair of birds has been recorded over three consecutive summers, 1963/64 - 1965/66, on the southern side of Observation Hill (Cape Armitage). This pair defends a territory of approximately 400 sq. metres during the summer season when a large colony of non-breeding birds roost in the area and bathe in the pond on Observation Hill. The refuse from two Bases at Cape Armitage, McMurdo Station (U.S.A.) constructed in 1955/56 on the western side, and Scott Base (N.Z.) constructed in 1956/57 on the eastern side, attracts many Skuas through the summer. In February 1964 the population of Skuas centred around McMurdo Station - Scott Base reached 525 birds.

The largest breeding colony is at Cape Evans, 21 kilometres north of Cape Armitage. F. A. de Hamel (unpub. report) reported 52 pairs nesting at Cape Evans in January of 1958. Fifty-four pairs were recorded in January 1964 and fifty-five in January 1965.

A flight by helicopter was made around the Dellbridge Islands, off Cape Evans and no signs of Skuas nesting were seen.

Cape Barne, immediately north of the Barne Glacier is dotted with many small ponds, some of which thaw during the summer months, and there are also some melt streams in late December and early January. Young (1963a) discovered 21 nesting pairs in this area. This number has been increased to 30 nesting pairs, some of which are nesting well inland, by searchers during the summer of 1965/66.

Cape Royds, three miles north of Cape Barne, with its characteristic irregular lava flows of Kenyite and low lava cliffs, is a strip of ice-free land dotted with small lakes and ponds in the valleys. Breeding colonies of Skuas were found in the valleys on the black volcanic detritus and on the slopes of Mount Erebus in the snow free areas. Six colonies of Skuas totalling fifty-seven nesting pairs were found by the end of the 1965/66 summer.

Immediately north of Cape Royds there is a colony on the southern side of Horseshoe Bay (about 23 nesting pairs), and two

colonies (one on each side) on Rocky Point. Further north on Ross Island there are no further suitable nesting areas until Cape Bird is reached.

The number of breeding birds in this area of McMurdo Sound is not large and together with the low breeding success there is a real need for their protection. In 1963/64 only 39.8% of the eggs laid at Cape Royds gave rise to chicks that left the colonies. In 1964/65 this rose to 42.4%, but in 1965/66 it fell to 16.5%. Although the McCormick Skua suffers heavily from the harsh weather conditions, interference by man and his machines is also an important factor affecting the breeding success (Spellerberg, 1966).

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