

SEABIRD ISLANDS

No. 44

Masthead Island, Queensland

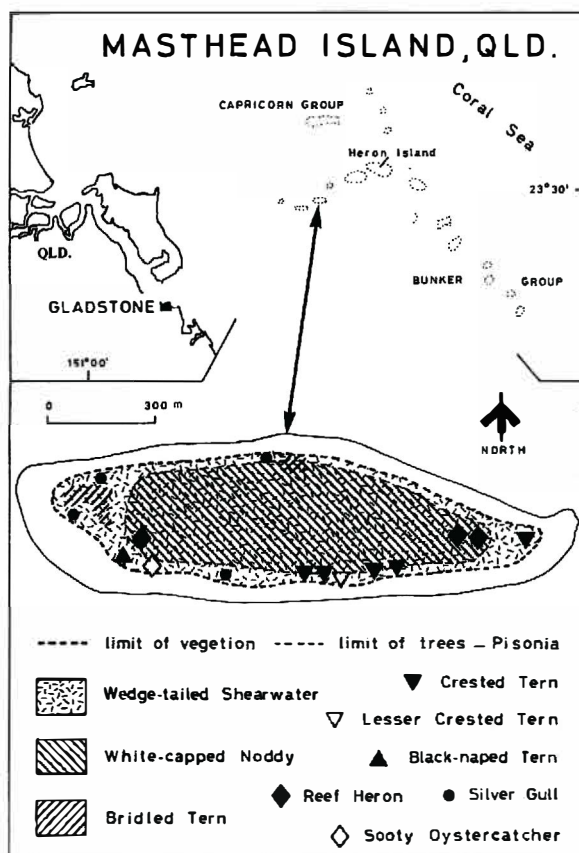
Location: 23°32' S., 151°44' E.; about 58 km north-east of Gladstone, Qld.

Status: Recreation and Scientific Reserve.

Description: A typical coral cay, somewhat oval in shape and about 1 400 m long by 400 m at the widest point. It is composed of coral sand with some coral beach rock along the southern shore and at the most, it is about 2 m above extreme high tide mark. Most of the island is covered with almost pure stands of *Pisonia grandis* to 15 m high and surrounding strand vegetation of *Casuarina equisetifolia*, *Tournefortia argentea*, *Scaevola taccada*, *Pandanus* sp., *Ficus opposita*, *Sophora tomentosa*, *Cordia subcordata* and *Celtis paniculata*. At a depth of about 30 cm a crumbly brown rock is found which is thought to be a humus soil named by F. R. Fosberg as of the Jemo series⁴. On many islands such as nearby Heron Island this soil is not found and its absence there has been attributed to the burrowing activity of the Wedge-tailed Shearwaters; yet this soil occurs on Masthead Island where these birds are very active breeders.

Landing: Because of the surrounding reef, access is best made up to and on high tide when a dinghy may be used to cross over the reef from an anchored vessel. However, on very high tides in calm weather a launch can, with caution, pass over the reef and beach on the sand surrounding the island.

Ornithological History: In 1843 Professor Jukes visited the island in HMS *Fly* and C. Hedley of The Australian Museum made some notes on the bird life during his conchological studies there in 1904⁵. However, the first major ornithological study was made in October 1910, by a party from the Royal Australasian Ornithologists



Union and documented by Charles Barrett, A. J. Campbell and Captain S. A. White^{1, 2}. J. A. Edgell visited the island in December 1926⁶ and commented on the teeming bird life. There are specimens in The Australian Museum of the Greater Frigatebird taken by Charles Hedley in 1905 and of the Lesser Frigatebird taken by A. R. McCulloch in 1912 and 1914. W. D. K.



● *Silhouette of Masthead Island — a typical coral cay.*

MacGillivray, an amateur ornithologist of Broken Hill, New South Wales, revisited the island in 1927 "to become better acquainted with the birds"¹². His earlier visit in 1925 with the then Tasmanian Government Botanist, F. A. Rodway, was to study the plant life. In 1946, R. P. Cooper and others visited the island to study the bird life³, and in November-December 1972 the Queensland Naturalists' Club conducted a field trip to coincide with the nesting of the seabirds. With other members of the Club B. R. Jahnke endeavoured to obtain a numerical estimate of some species of seabirds nesting at the time⁹.

Breeding Seabirds and Status

Puffinus pacificus Wedge-tailed Shearwater — These birds are very common on the island where the sandy soil is easily utilized for nest burrows. Most authors have made special mention of the abundance of these birds, or of their burrows if visiting the island in the non-breeding season. In 1972, estimated 5 000 to 6 000 breeding pairs⁹.

Egretta sacra Reef Heron — In 1946 these birds were reported to be common and breeding freely³, but in 1972 only three unoccupied nests were found⁹. However in 1971-72 they were known to be breeding in large numbers on One Tree Island which is also in the Capricorn Group⁵.

Haematopus fuliginosus Sooty Oystercatcher — A pair was found nesting in the strand vegetation on the southern side of the island in December 1972⁹.



● *Part of the beach at low tide showing beach rock and some coral reef rubble.*

Larus novaehollandiae Silver Gull — These birds were found to be breeding at intervals around the island in October 1910² and again in 1946³. In November-December 1972 most of the nests were among the more open vegetation around the western half of the island⁹. Estimated 10 breeding pairs (1972).

Sterna sumatrana Black-naped Tern — A few probably nest irregularly on the island. Three breeding pairs in 1972.

Sterna anaethetus Bridled Tern — Regularly breeds on the outer zone. In 1972, 12 breeding pairs.

Sterna bergii Crested Tern — Also a regular breeding species; in 1927 W. D. K. MacGillivray¹² reported colonies on the eastern and western ends of the island; in 1946 R. P. Cooper³ described seven colonies above the southern shore. In November-December 1972⁹ there was one colony on the eastern end and four others along the southern shore; estimated 270 breeding pairs.

Sterna bengalensis Lesser Crested Tern — Probably breeds irregularly on the island. There was a small nesting colony in December 1946³ but no breeding was evident in the 1972 visit. In 1946, 7 breeding pairs³.

Anous minutus White-capped Noddy — This is the most common and conspicuous bird on the island. During the 1910 visit, good descriptions were recorded of its nesting behaviour². Estimated 75 000 to 85 000 breeding pairs in 1972⁹.

Factors Affecting Status

The large number of White-capped Noddies may be controlled by the sticky fruit of *Pisonia grandis* as many dead and dying birds are found on the ground during the breeding season, covered in the sticky seeds. The birds appear to succumb very easily to this hinderance and rapidly become exhausted.

Silver Gulls are known to feed freely on the eggs of the Crested Terns and White-capped Noddies while no doubt cyclones cause considerable damage to breeding seabirds as they do on nearby Heron Island¹¹.

Other Seabirds Recorded

Sula leucogaster Brown Booby (derelict).
Fregata minor Greater Frigatebird.
Fregata ariel Lesser Frigatebird.
Haematopus ostralegus Pied Oystercatcher.
Hydroprogne caspia Caspian Tern.
Sterna dougallii Roseate Tern.

Banding

Nil.

Bibliography

1. Barrett, C. (1910), 'Narrative of the Expedition to the Islands of the Capricorn Group', *Emu* 10: 181-194.
2. Campbell, A. J. and S. A. White (1910), 'Birds Identified on the Capricorn Group during Expedition of R.A.O.U., 8th to 17th October, 1910', *Emu* 10: 195-204.
3. Cooper, R. P. (1948), 'Birds of the Capricorns — Great Barrier Reef', *Emu* 48: 107-126.
4. Cribb, A. B. (1975), 'Terrestrial Vegetation of Masthead Island', *Qd. Nat.* 21: 74-78.
5. Domm, S. and H. F. Recher (1973), 'Birds of One Tree Island with notes on their Yearly Cycle and Feeding Ecology', *Sunbird* 4:63-86.
6. Edgell, J. A. (1927), 'Bird-Life in the Capricorn Group', *Emu* 26: 292-296.
7. Gilbert, P. A. (1925), 'Biology of N. W. Islet', *Aust. Zool.* 4: 210-215.
8. Hedley, C. (1906), "The Mollusca of Mast Head Reef, Capricorn Group, Queensland", Part 1, *Proc. Linn. Soc. N.S.W.* 31: 453-479.
9. Jahnke, B. R. (1975), 'Population Studies of Some Bird Species on Masthead Island, Queensland', *Qd. Nat.* 21: 67-73.
10. Kikkawa, J. (1976). The Birds of the Great Barrier Reef, Biology and Geology of Coral Reefs, Vol. III, Biology, 2, pp 279-341. Academic Press, Inc. New York.
11. Kikkawa, J. and W. Boles (1976), 'Seabird Islands No. 15, Heron Island, Queensland', *Aust. Bird Bander* 14: 3-6.
12. Lavery, H. J. and R. J. Grimes (1971), 'Seabirds of the Great Barrier Reef', *Qd. Agric. J.* 97: 106-113.
13. MacGillivray, W. D. K. (1928), 'Bird-Life of the Bunker and Capricorn Islands', *Emu* 27: 230-249.
14. MacGillivray, W. D. K. and F. A. Rodway (1931), 'Plants on islands of the Bunker and Capricorn Groups', *Rep. Gt. Barrier Reef Comm.* 3: 58-63.
15. Serventy, D. L., V. Serventy and J. Warham (1971), *The Handbook of Australian Sea-birds*. A. H. & A. W. Reed, Sydney.
16. Storr, G. M. (1973), *List of Queensland Birds. Spec. Publs. West. Aust. Mus.* No. 5.

Acknowledgement

I am indebted to the Queensland Naturalists' Club for providing the opportunity through its 1972 field trip to become more acquainted with the island and its fauna.

B. R. Jahnke,
 St Peter's Lutheran College,
 Field Station,
 Crow's Nest, Qld.

Date compiled:
 26 April 1976