

## SEABIRD ISLANDS

No. 32

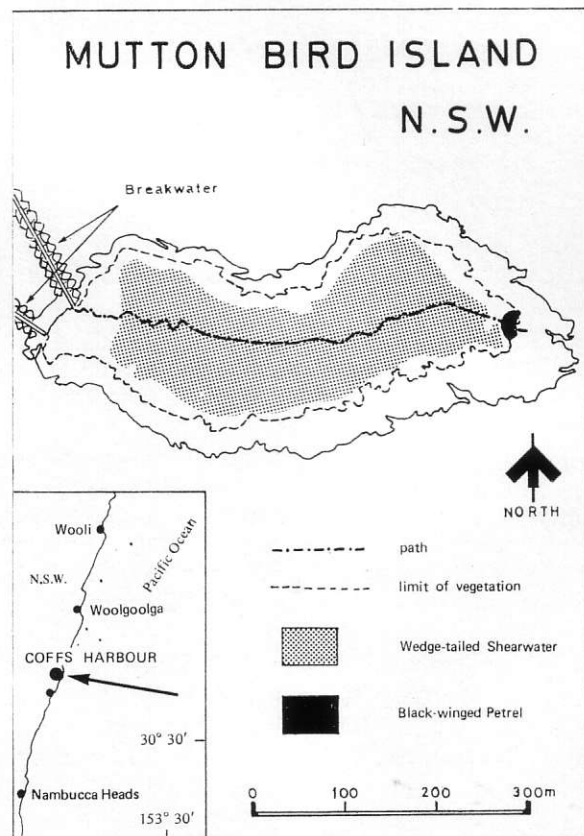
## Mutton Bird Island, New South Wales

**Location:** 30°18' S., 153°09' E.; joined to the mainland at Coffs Harbour, N.S.W., by a breakwater thus forming part of the harbour after which the town is named.

**Status:** A nature reserve under the control of the National Parks and Wildlife Service (N.S.W.).

**Other Name:** North Coffs Island.

**Description:** 8 ha; 600 m by 200 m at the widest. Roughly ovoid in shape with a humped appearance when viewed from the harbour area. Formed of a sedimentary 'Greywacke' rock which is evident in the adjacent outcrops rising sharply from the sea. A track winds up steeply from the breakwater to an undulating ridge which runs lengthwise on the island and rises to 45 m at the highest point before dropping to the rocks at the ocean end. The shallow soil cap supports a thick, low vegetation cover. Shearwater burrows are all in areas where the major vegetation is Blue Wandering Jew *Commelina cyanea*, and a vine, Dusky Coral Pea (Soldier Vine) *Kennedia rubicunda*. Other plants that grow in the areas favoured by the shearwaters are Variable Groundsel *Senecio lautus*, New Zealand Spinach *Tetragonia tetragonioides* and Saloop Saltbush *Rhagodia hastata*. Prickly Couch *Zoisia macrantha* is the main grass in shallower soil and areas exposed to salt spray; Prickly Couch areas contain few burrows. The most prolific of eight species of introduced grasses on the island is Spiny Burr Grass *Cenchrus caliculatus* which covers large areas of the northern slopes, the western and north-eastern ends and large patches on the top ridge. It has spread considerably since 1970. The only bushes are low stands of Tuckeroo *Cupaniopsis anacardioides* and the introduced



Lantana *Lantana camara*. Pigface *Carpobrotus glaucescens* is found in areas similar to the Prickly Couch.

**Access:** A breakwater connects the island to the mainland making it easily accessible in most weather conditions. Occasionally strong winds and a big sea swell from the north-east cause waves to crash over the breakwater making access



● Mutton Bird Island (looking south-east).

Photo: S. G. Lane

dangerous. A vehicle track runs along the top of the breakwater but vehicle access is controlled at present by a locked gate at the shore end.

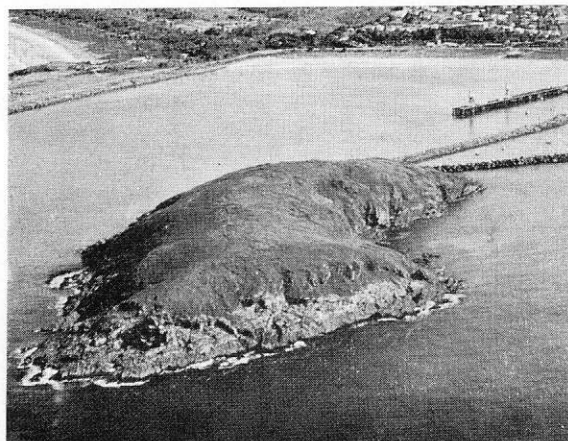
**Ornithological History:** A. J. North<sup>7</sup> recorded probably the earliest ornithological information from the island; he stated that Wedge-tailed Shearwaters' eggs were "taken by E. H. Sanchis on Mutton-bird Island, in November 1887, . . .". The next recorded visit by ornithologists was in 1913 by A. F. Basset Hull and Henry Grant<sup>3</sup>, well before the building of the breakwater about 1925.

I could find no other records of visits until banding commenced on 13 March 1960 when N. W. Burnett banded 21 Wedge-tailed Shearwaters, including 14 nestlings. In the following season D. G. Dent and J. L. McKean<sup>6</sup> banded 418 incubating adults during visits on 29 November and 7 December 1960.

In ten breeding seasons from 1959-60 to 1968-69, between one and four visits were made each season by banders except in 1963-64 when there were seven visits, and eight in 1964-65. During the period 1963-65 H. E. Brenton banded 2 681 free-flying Wedge-tailed Shearwaters. Since 1969 regular visits and studies have been carried out<sup>2,11,14</sup>. In all, 24 banders have operated on the island.

#### Breeding Seabirds and Status

*Pelagodroma marina* White-faced Storm-petrel — On 8 September 1966, S. G. Lane found a wing, leg and feathers of one of these birds on the top



● Mutton Bird Island (looking south-west); the breakwater, jetty and part of the township can be seen at the top of the picture.

Photo: North Coast Color Productions

of the island; the bird had been killed during the previous night and a cat was thought to have been responsible. Despite frequent visits from 1969 to 1971, none was observed. In 1972, F. D. Merritt and P. E. Roberts<sup>11</sup> observed these birds in May; Roberts indicated that they were present through the winter with ". . . a falling off in the numbers . . ." by early August when they ". . . were spending a lot of time burrowing". He went on to say: "By September 1972 our visits to the island failed to find any storm-petrels." He recorded that a large colony of storm-petrels had returned to the island in August-September 1973. However, no further evidence of breeding has been recorded.

*Pterodroma nigripennis* Black-winged Petrel — Probably present about the island in December 1974. Observed in January 1975 by N. G. Holmes<sup>2</sup> who reported three pairs apparently attempting to colonise. Present again the following season when four of the banded birds were recaptured.

*Puffinus pacificus* Wedge-tailed Shearwater — A large colony occupies most of the island wherever soil depth and vegetation permits. Present from August to early May with egg-laying in late November and early December; hatching occurs

from mid-January to the end of that month. Young depart from late April to early May<sup>14</sup>. Estimated 5 000 to 6 000 breeding pairs.

### Factors Affecting Status

The White-breasted Sea-eagle *Haliaeetus leucogaster* is a natural predator of the shearwaters, taking both adult and young birds. The Black-shouldered Kite *Elanus notatus*, Nankeen Kestrel *Falco cenchroides* and Barn Owl *Tyto alba* hunt on the island, probably taking smaller vertebrates such as the House Mouse *Mus musculus*, Brown Rat *Rattus norvegicus* and bandicoots *Isodon sp.* but are not known to interfere with the seabirds. The only reptile recorded since 1969 is Burton's Snake Lizard *Lialis burtonis*, although the Eastern Water Dragon *Physignathus lesueurii* was plentiful before about 1930. Five House Mice and one rat were caught for identification in August 1973; these introduced animals are probably scavengers but may also be responsible for some of the holed eggs found during the early part of the breeding season. Silver Gulls remove or eat any exposed eggs during the egg-laying period.

The bandicoots are mostly seen on the edges of the introduced Spiny Burr Grass; they were often observed in 1973 and 1974, particularly during the winter. Feral Cats *Felis catus* and dogs had easy access to the island before the erection by the National Parks and Wildlife Service of an 'animal-proof' fence in July 1973. Resident cats were found killing storm-petrels in 1972-73<sup>10</sup> and N. G. Holmes considered a fox was killing shearwaters in August and September 1975; a Fox *Vulpes vulpes* was subsequently shot by the Ranger-in-Charge.

Human interference has occurred for many years, probably since the initiation rites by aborigines who ate the young shearwaters. Hull<sup>3</sup> wrote that the fishermen who accompanied him on his visit in 1913 had said that "... the birds always laid their eggs on the 25th November", indicating that the fishermen must have regularly visited the island before the breakwater was built. Rock fishermen are still regular visitors by day and night; they are mainly responsible for the tracks which have been worn over the island.

With the growth of Coffs Harbour and its tourist population, day visitors have increased and



● Banding nestling shearwaters on Mutton Bird Island.

Photo: S. G. Lane

the tracks have worn noticeably. The human traffic causes deviations and changes in the tracks and subsequent spread of grasses. Burrows are broken when walked on by visitors and some digging up of burrows and egg collecting also occurs. Introduced grasses particularly the Spiny Burr Grass have spread, thus reducing the suitable burrowing areas. Fires, in addition to exposing soil to wind erosion, have accelerated the spread of the grasses. The last fire was in 1970 but the recovery of the severely burnt area to a state where it was fully utilised by the birds for burrowing, took about four years. Patches of exposed soil continually develop where excessive burrowing by the shearwaters causes 'roof collapse'.

### Other Seabirds Recorded

*Puffinus griseus* Sooty Shearwater — Found on the surface at night in December 1969<sup>5</sup>. The same bird was recaptured in the following December, and other were banded in similar circumstances in November 1970, October 1972 and January 1976. One found in a burrow on 1 December 1975 "had a well-developed brood patch but no egg was present"<sup>13</sup>.



*Puffinus tenuirostris* Short-tailed Shearwater — Heard calling from a burrow in 1970<sup>5</sup>. No positive breeding record has been established but birds have been caught on the surface at night.

*Haematopus fuliginosus* Sooty Oystercatcher

*Larus novaehollandiae* Silver Gull

*Sterna bergii* Crested Tern

### Banding

Period — 13.3.60 to 30.6.75

*P. nigripennis* — 6 'adults' banded in 1975; 3 recoveries at banding place six times in the same season; 3 recaptured at the same place in the following season.

*P. pacificus* — 11 462 adults or free-flying birds, 3 243 nestlings or 'runners' banded (total 14 705). Recoveries — 1 829 individuals recovered at banding place a total of 2 275 times to 30.6.75. Local recoveries 22, mostly newly-fledged birds; 15 recoveries 17 km to 590 km from banding place; 3 recoveries in the Philippines<sup>1,8</sup>.

*P. griseus* — 5 'adults' banded; 1 recovery at banding place one year later.

*P. tenuirostris* — 1 'adult' banded.

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