

SEABIRD ISLANDS

No. 38

Big Island, Five Islands, New South Wales

Location: 34°29' S., 150°56' E.; 500 m offshore from Red Point, Port Kembla, N.S.W.

Status: Nature Reserve under the control of the National Parks and Wildlife Service (N.S.W.); Entry permit required.

Other Names: Rabbit Island (former name and still used locally); Perkins Island; Five Islands, Nos. 1 and 2. The island is almost divided by a low isthmus, thus it is convenient to follow the separate numbering given originally by Consett Davis¹.

Description: 1100 m (E. to W.) by 600 m (N. to S.); 19 ha; No. 1 is irregular in shape, No. 2 is roughly rectangular; maximum elevation 20 m. A mostly inaccessible shoreline of dolerite rock forms low cliffs in many places but slopes moderately to sea level on much of the landward side of No. 1, which is strewn with water-washed boulders and has a small, sand beach. The soil cover is deepest on the landward slope of No. 1, but this has been increasingly eroded over the last 15 years. The plateau of No. 2 is mainly bare rock with a soil cap towards the western end. It is probable that the islands have never supported any tree growth. Principal woody plants are *Correa alba* and *Westringia* sp. seldom over 1 m; soil binders mainly comprise Angled Pigface *Carpobrotus glaucescens*, Buffalo Grass *Stenotaphrum secundatum*, Prickly Couch *Zoisia macrantha* and tussock grass *Poa* sp., but these have been reduced through erosion in recent years. Some tussocks of Mat Rush *Lomandra longifolia* on the upper westward slopes of No. 1 retain the soil, presumably at the original level, and provide a measure of the erosion which has taken place. In the summer of 1975-76, Kikuyu Grass *Penisetum clandestinum* and Crowsfoot Grass *Eleusine indica* spread rapidly in the very wet season. In March 1976 the Kikuyu Grass covered large areas of No. 1, forming a "mattress" about 1 m thick; the Crowsfoot Grass covered much of the normally exposed, rocky plateau

on No. 2. A freshwater soak of doubtful purity is located a few metres south-east of the beach.

Landing: The beach, when approached from the north, is a safe landing place under most conditions. There are submerged rocks near the shore, close to the surface at low tide. Swells from the south usually subside in deeper water just before reaching the landing area. In moderate conditions it is possible to land from a dinghy onto suitable rocks or sand on the lee side of No. 1 near the isthmus.

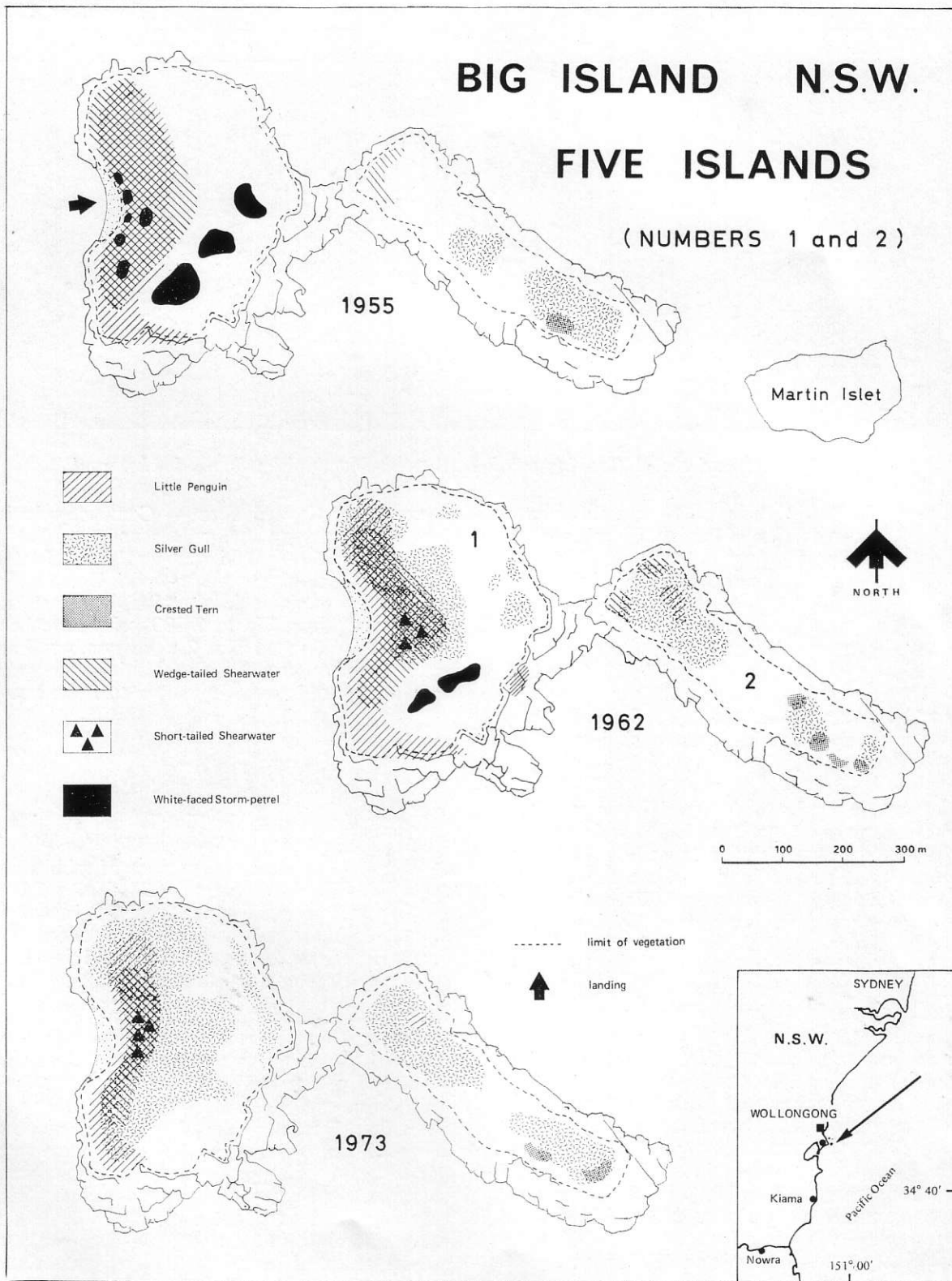
Ornithological History: Hull visited the Five Islands in October 1909⁸, but it is not clear whether he landed on Nos. 1 and 2. He did inspect these in December 1914⁹ and found Wedge-tailed Shearwaters and Little Penguins on No. 1. Iredale and Chisholm landed on Nos. 1, 2 and 3 in 1927¹¹. Three inspections were made by Keast¹² between January 1940 and November 1941, at which time Silver Gulls and Crested Terns were first starting to colonise No. 2. He also found White-faced Storm-petrels nesting on No. 2. The last-mentioned were discovered on No. 1 when the writer and others visited that island in 1949. Regular visits have been made by ornithologists since that time and some important banding studies undertaken^{2,14}.

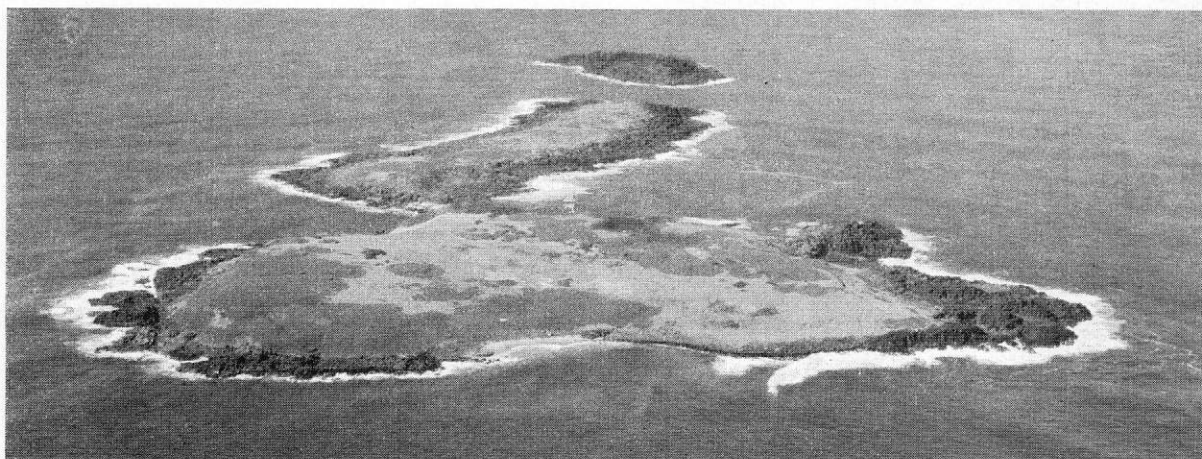
Breeding Seabirds and Status

Eudyptula minor Little Penguin — Up to 1962: nesting on both island in burrows, caves and under shrubs. Several hundred burrows in 1940¹³; over 1000 occupied burrows estimated in 1962. Since 1962: numbers have probably declined on No. 1 through deterioration of habitat though the population of the Five Islands Group may be stable. The breeding season is very protracted but August/September are the principal egg-laying months.

Puffinus pacificus Wedge-tailed Shearwater — Up to 1962: occupied burrows were spread over much of the western half of No. 1 and suitable areas on the western end of No. 2. "Over 1000

● see location map of Five Islands, page 114.





● *Big Island* — No. 1 and No. 2 (looking south-east), with Martin Islet in the background.

burrows" in 1940¹². Since 1962: numbers have declined due to erosion of habitat. Birds arrive in local water late in August, eggs are laid late November-early December, and all birds have departed mid-May.

Puffinus tenuirostris Short-tailed Shearwater — First discovered nesting on No. 1 in 1960¹³ when 17 burrows were found in *P. pacificus* colony. At least 100 burrows estimated in 1968 (H. Battam, pers. comm.). Breeding season similar to *P. pacificus*.

Pelagodroma marina White-faced Storm-petrel — First discovered on No. 2 in 1940¹², and on No. 1 in 1949 when burrows were located on the higher part amongst tussock and pigface, and also in parts of the shearwater colony. Probably there were more than 200 burrows in 1955, some in bare wind-blown soil. Since 1962: none found on No. 2 and drastically reduced population on No. 1 — possibly a few remain behind the beach. Breeding season October to February.

Larus novaehollandiae Silver Gull — First recorded on No. 2 in 1940¹² when a few pairs nested at the eastern end. This island was used exclusively up to 1952 when an overflow nested on nearby Martin Islet. Subsequently, Martin and Bass Islets were occupied in addition to No. 2. First nesting occurred on No. 1 in 1957 (northern end) and increased annually. In the 1962 census, there were 10 500 nests on No. 1 and 7 300 nests on No. 2. Breeds September to February.

Sterna bergii Crested Tern — Compact colonies are formed among the gulls usually on No. 2 (sometimes also on Martin and Bass Islets). Nesting has not yet occurred on No. 1. The colonies are variable in situation, numbers and peak laying time. Up to 2 000 pairs have been estimated nesting on No. 2. The numbers have not increased proportionately with the gulls. Present to breed from September to February.

Factors Affecting Status

Early references to the Five Islands mentioned rabbit-shooting visits (*Sydney Morning Herald* 18 March 1843) and the presence of rabbits and goats in 1849. From about 1888, No. 1 Island was occupied by the Perkins family. It is thought that Buffalo Grass was introduced about that time. The last goats were eliminated by 1917 but a small rabbit population still exists.

Loss of vegetation, especially on No. 1, has allowed soil to be severely eroded by wind and rain, thus reducing the nesting area available for burrowing petrels and penguins. Areas on No. 1 which were well grassed prior to colonising by Silver Gulls became denuded as the gull numbers increased, but over the last two years some vegetation recovery is apparent, helped by the spread of various self-introduced ground covers. Gulls have increased proportionately with the human population on the adjacent mainland, as the latter provides most of the birds' food resource. Other

factors, of much less significance than the above, include the following: (1) Urbanisation of the mainland district has resulted in an increased number of pleasure craft with easy access to No. 1 Island. Burrow damage inevitably has occurred, with some vandalism. (2) A significant mortality of fledgling shearwaters usually occurs during exodus in late-April and early-May, possibly due to the attraction of illumination from nearby Port Kembla industrial complex.

A proposal to increase harbour facilities at Port Kembla is being promoted at the present time. This involves large-scale physical changes to the adjacent land form including reclamation with industrial waste of a large area of ocean and the building of several breakwaters between, though not connecting, some of the islands. Proper vigilance and co-operation will be necessary to ensure that these works, if they eventuate, have minimum impact on the biotic communities involved.

OTHER VERTEBRATES (still present)

Rabbit *Oryctolagus cuniculus*, Skink *Sphenomorphus* sp.

Other Seabirds Recorded

Macronectes giganteus Southern Giant-petrel (derelict)

Pachyptila turtur Fairy Prion (derelict)

Phalacrocorax melanoleucos Little Pied Cormorant

Phalacrocorax carbo Black Cormorant

Phalacrocorax sulcirostris Little Black Cormorant

Egretta sacra Reef Heron

Haematopus fuliginosus Sooty Oystercatcher

Larus dominicanus Southern Black-backed Gull

Banding

Period covered June 1955 to 31 March 1976.

E. minor — 437 nestlings banded: 9 recoveries up to 354 km south and 148 km north; 2 recoveries at banding place.

P. pacificus — 794 adults and 138 nestlings banded: 3 recoveries on the coast of N.S.W. 5 km, 171 km and 194 km, 1 recovery in the Philippines (5 800 km NNW)¹, 14 recoveries at banding place.

P. tenuirostris — 49 adults banded: 1 recovery 22 km N. of banding place, 1 recovery at banding place.

P. marina — 218 adults and 78 nestlings banded: 9 recoveries (16 times) at banding place.

L. novaehollandiae — 315 adults and 16 523 nestlings banded: 696 recoveries away from banding place; 73 recoveries at banding place. Gulls from this colony disperse north and south, mainly to Sydney-Newcastle.

S. bergii — 606 adults and 3 436 nestlings banded: 184 recoveries away from banding place, 46 recoveries (47 times) at banding place. Extensive dispersal north and south, some nesting on other islands (e.g. Montagu) in subsequent years.

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