# Three Isles, Great Barrier Reef, Queensland

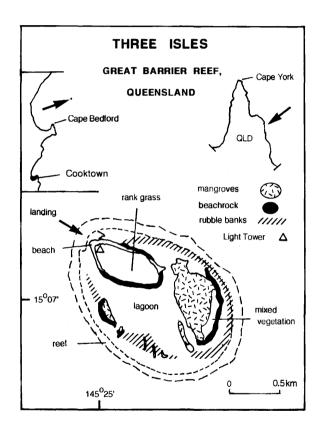
Location: 15°07′S, 145°25′E; 16 kilometres northnorth-east of Cape Bedford, the closest mainland, and 43 kilometres north-north-east from Cooktown, Queensland (GBRMPA reef code 15–005).

Status: Queensland National Park.

Other Name: Three Island.

Description: Three Isles comprises a group of four low wooded cays of the inner northern Great Barrier Reef. The island complex and platform reef are both elliptical with the main axis running north-west to south-east. Considerable areas of intertidal beach-rock and coral rubble banks surround the island. The northern islet supports a beach of coral sand mainly towards the north-western and south-western quarters. An extensive shallow lagoon comprised of sand and small patch coral lies central to the island complex. At low tide it is possible to walk between the islets and across the lagoon. An unmanned navigation light tower stands near the western end of the northern islet.

NORTHERN ISLET: about 17 ha;  $650 \text{ m} \times 300 \text{ m}$ ; height about 2 m above high water level. There is an extensive cover of rank grass Panicum maximum var. coloratum throughout the islet to 1.8 m high interspersed with numerous small trees of Terminalia sp., Macaranga tanarius, Morinda citrifolia and Vitex sp. Low thickets of Caesalpinia bonduc and Columbrina asiatica are also present. At the perimeter of the islet shrubby Pamphis acidula and trees of Casuarina equisetifolia var. incana previal in areas. An occasional Cocus nuclifera (introduced) are located by the shoreline at the north-western sector. A few Rhizophora stylosa mangrove are found near the southwestern shoreline and a few scattered Avicennia sp. off the north-eastern shoreline.



EASTERN ISLET: about 20 ha; 680 m × 350 m; height about 3 m. Mangrove forests cover 85 per cent of the islet, with at least 12 mangrove species present. Stands of *R. stylosa, Osbornea octodonta* and *Ceriops tagal* var. *tagal* predominating. At the seaward mid and south-eastern portion of the islet trees *Manilkara kauri*, some *Planchonella* sp. and *Terminalia* sp. are present. A mixture of shrubs, climbers and runners are also found here comprising *Vitex* sp., *Capparis* sp., *Canavalia* sp., *Ipomaea* spp. plus some other types of vegetation.

SOUTHERN ISLET: about 1.0 ha; 340 m  $\times$  30 m; height 1.5 m. Mangrove forest.

WESTERN ISLET: about 2.5 ha;  $390 \text{ m} \times 70 \text{ m}$ ; height 1.5 m. Mangrove forest. What appears to be small islets between the southern and western islets on the map are coral rubble banks with a few stunted mangroves which are covered at high water.

Landing: From a dinghy on to the beach on the north-western quarter of the northern islet. A small yacht can be brought in close to the islet at this point on neap tides. Anchorage is only mediocre during south-east trade winds. Care should be exercised in navigation among patch coral.

Ornithological History: J. Warham landed on the island for three hours on 5 October, 1958<sup>7</sup>. He recorded only Osprey *Pandion haliaetus* nesting. Seabirds recorded were Australian Pelican, Eastern Reef Egret (10 dark morph and 14 light morph) and Silver Gull. J. Kikkawa<sup>2</sup> mentioned Three Isles but provided no details. J. A. Mclean<sup>3</sup> made seven visits to Three Isles — 12–13 July, 1983; 16–21 September, 1985; 13–17 January, 1991; 24–27 August, 1991; 4–10 May, 1992; 14–16 November, 1992 and 7–10 February, 1993.

## **Breeding Seabirds and Status**

Egretta sacra Eastern Reef Egret — Up to 21 white phase and 10 grey phase were seen on all visits. Breeding occurs in summer. In February 1993 three nests with eggs and chicks were observed 2.5 to 3.5 m above ground level in mangroves Osbornea octodonta at the western islet. One nest with eggs also was noted on the southern islet during the same visit. Several disused nests were found at both islets.

Haematopus fuliginosus Sooty Oystercatcher — Two to five birds were seen on all visits except September 1985. One runner was noted on the eastern islet on 25 August, 1991, and one juvenile was present in February 1993.

Larus novaehollandiae Silver Gull — Recorded on all visits — from 72 (winter) to 57 (summer). At least six nests with eggs were found among rank *Panicum* grass near the navigation light tower in August 1991.

Sterna caspia Caspian Tern — Breeding occurred on the eastern islet during winter. A scrape found in pumice on a rubble bank on 7 May, 1992 contained one egg (60 mm in length). A second slightly smaller and darker egg was present the following morning. Only one or two birds were present on all visits except January 1991 and November 1992.

Sterna bengalensis Lesser Crested Tern — A maximum of 14 birds were observed in January 1991 when two nests containing a single egg were located on a rubble bank on the eastern islet. Four resting birds were noted in February 1993; not recorded on other visits.

Sterna sumatrana Black-naped Tern — Mainly a summer visitor. A few eggs and chicks were found at a rubble bank near the high water line on the eastern islet in January 1991. Although present in November 1992 and February 1993, no further nests were found. A maximum of 60 birds was noted during January 1991, 10 during November 1992 and 14 for February 1993.

Sterna anaethetus Bridled Tern — A common summer visitor which breeds in hundreds. In January 1991 and February 1992 numerous nests with eggs, chicks and runners were located on both major islets, primarily under low shrubs among grass, but also in the open. During February 1993, a rough estimate of birds engaged in late afternoon flights involved 1 000 to 1 500 adults.

## **Factors Affecting Status**

Currently Three Isles is protected by National Park status and the surrounding reef by Marine Park Buffer Zone status. The island is on the main shipping channel and yachts, commercial vessels and runabouts (from the nearby mainland) occasionally visit. Some human disturbance probably occurs to nesting seabirds on the more exposed areas of the two major islets. Illegal shooting of Pied Imperial-Pigeons *Ducula bicolor* which breed in thousands mainly in mangrove areas also causes occasional disturbance in summer. Some kleptoparasitism by a few resident Buffbanded Rails *Gallirallus phillippensis* and Silver Gulls is suspected.

#### Other Seabirds Recorded

Sula leucogaster
Phalacrocorax sulcirostris
Phalacrocorax varius
Pelecanus conspicillatus
Haematopus longirostris
Stern bergii
Sterna dougallii
Sterna albifrons
Anous stolidus
Anous minutus

Brown Booby
Little Black Cormorant
Pied Cormorant
Australian Pelican
Pied Oystercatcher
Crested Tern
Roseate Tern
Little Tern
Common Noddy
Black Noddy

# **Banding**

Nil.

# **Bibliography**

- 1. Domm, S. (1977). Seabirds and waders of the Lizard Island area. *Sunbird* 8: 1–8.
- Kikkawa, J. (1976), The birds of the Great Barrier Reef. In 'Biology and Geology of Coral Reefs, Vol. III.' (Ed E. A. Jones and R. Endean.) pp. 279–341 (Academic Press: New York.)
- McLean, J. A. (1993). The birds of Three Islands, North Queensland. Sunbird 23: 95–106.
- 4. Serventy, D. L., Serventy, V. and Warham, J. (1971). 'The Handbook of Australian Sea-birds.' (Reed: Sydney.)

- Smith, G. C. (1987). The birds of Eagle Island a tropical cay on the northern Great Barrier Reef, Australia. Sunbird 17: 1-11.
- Smith, G. C. and Ogilvie, P. (1989). Rocky Islets. Great Barrier Reef. Seabird Islands No. 197. Corella 13: 107–109.
- Warham, J. (1962). Bird islands within the Great Barrier Reef and Torres Strait. Emu 62: 99–111.

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J. A. McLean, Box 203, Cooktown, Queensland 4871.



• Three Isles, from the air.

Photo: Oueensland NPWS