

SEABIRD ISLANDS

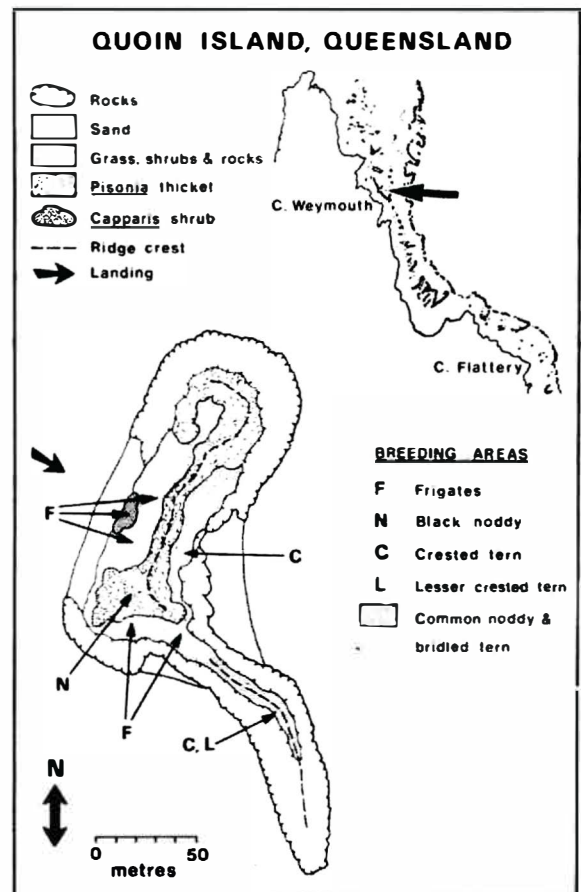
No. 151

Quoin Island, Great Barrier Reef, Queensland

Location: 12° 24' S., 143° 29' E.; about 43 kilometres north-north-east from Cape Weymouth, Cape York Peninsula, Qld.

Status: Vacant Crown Land; Queensland Fauna Sanctuary.

Description: 1.5 ha; 290 m long by 75 m wide and 20 m high. It is a small, rocky, continental island in the inner complex of reefs of the northern Great Barrier Reef Province. On the eastern and western sides are small beaches of coralline sand and shingle. The rest of the island is bordered by rocks and cliffs. The main body of the island consists of a steep, rocky ridge which rises steeply from sea level to terminate in a sharply-edged, roughly horizontal crest. The crest is wider and more level at its southern end. A second ridge projects from the south-eastern corner as a small, rocky headland of some 100 m in length. A small, fringing coral reef surrounds the island. The slopes are covered by a mat of the grass *Lepturus repens* and associated *Boerhavia diffusa*, *Achyranthes aspera*, *Sesbania cannabina* and *Amaranthus viridus*. The herb *Portulaca oleracea* occurs in exposed localities. Outcrops of unvegetated granite rock project from the vegetation. The vine *Ipomoea tuba* is also present. Behind the western beach, at the base of the ridge slope, is a large shrub of *Capparis lucida*. The crest and eastern slopes bear a low (1-2 m) dense, windshorn stand of



Pisonia grandis which rises to a height of 5 m on the lee side where some shelter is afforded from the prevailing south-easterly wind and vegetation cover is more developed. A total of 13 plant species was recorded in December, 1979. The rocks and vegetation are heavily stained with guano.

Landing: For most of the year the winds are south-easterly and a landing is made onto the western beach from an anchorage at the reef edge in the lee of the island. Care and local knowledge are required when navigating among the reefs of this area.

Ornithological History: The only published record of a visit to Quoin Island is that of W. MacGillivray, who landed with W. McLennan on 30 November, 1913⁴. He briefly described the island and vegetation and recorded numbers of breeding Bridled Terns, Crested Terns and a single nesting Eastern Reef Egret. He also recorded evidence of previous Black Noddy nesting in the trees, and a number of frigatebirds. A number of later general accounts refer to Quoin as a site for seabird breeding, viz. Black Noddy (1, 2, 5, 6), Bridled Tern (3,5) and Crested Tern (3,5). Since MacGillivray's visit there have been no reported visits until R. C. Buckley landed on 13 December, 1979, to record vegetation and birds. On 8 April, 1980, C. J. Limpus (pers. comm.) flew over the island and recorded the presence of nesting frigatebirds. On 7-8 June, 1980, D. H. C. Seton recorded birds and vegetation. B. R. King visited the island on 24 June and 16 December, 1981, and again on 12 July, 1982, to record vegetation and birds.

Breeding Seabirds and Status

Fregata minor Great Frigatebird — Isolated pairs nest among the Least Frigatebirds on the upper parts of the southern slopes. One nest was present in June, 1980, and two in June, 1981. Occasional birds are to be seen flying over the island among the other species. Nest construction and clutch size are similar to the Least Frigatebird.

Fregata ariel Least Frigatebird — Courtship and nesting begin in March or April. By mid-year some eggs are still being incubated while

other pairs are tending downy chicks. In December large numbers of juveniles are flying over the island and being fed at nest sites by parents. The size of the breeding colony is variable, and the birds may be absent in some years (e.g. June, 1982). The birds nest in two main areas, viz. the grassy slopes of the southern end and the western side of the island. All nests are built on the ground, except for a group in the large *Capparis** shrub at the base of the slope behind the western beach. In June, 1981, there were 26 nests in the shrub and 130 on the southern slope. Nests are constructed of twigs and other plant material, and form a raised platform up to 15 cm high and 50 cm in diameter. A single white egg is laid. When these birds are in residence, their presence is indicated by a cloud of sometimes hundreds soaring above or around the island.

Larus novaehollandiae Silver Gull — No nests have been recorded but in June, 1981, three juveniles were present, attended by adults. Adult numbers vary between 20 and 40 on each visit.

Sterna anaethetus Bridled Tern — Breeds throughout the year, but no nests were present in July, 1982. Numbers of nests are impossible to count or estimate accurately because of the secretive nature of the species when breeding. The nests are simple scrapes in the soil in which the single egg is laid; they are well concealed under rocks or shrubs, or in crevices. The birds nest all over the rocky slopes. Numbers of nests may not exceed 200 at any time, and are more numerous in the winter.

Sterna bergii Crested Tern — Breeds in colonies throughout the year but mostly in mid-year. One area is favoured, a grassy slope on the eastern side of the ridge close to the eastern beach where colonies were recorded in June 1980 (over 200 nests), June 1981 (c50 old nests) and July, 1982 (c20 old nests). In December, 1981, there was a small colony (3 nests) with four Lesser Crested Tern nests on the top of the rocky ridge that forms the base of the south-eastern headland. After hatching, runner chicks from the eastern slope colony make their way to the eastern beach where they form a creche attended by the adults. The nest is a small scrape in the ground in which the egg (usually one) is laid. Nests are

* This shrub was removed by a cyclone in April, 1984.



• *Quoin Island (looking south-east).*

always placed close together, about 50-70 cm apart. The ground between the nests becomes heavily encrusted with guano.

Sterna bengalensis Lesser Crested Tern — Breeding in December, 1981, when four nests were found and about 20 adults were flying over the island. The colony site is described above. No birds were recorded on other visits. The nesting pattern is identical to that of the Crested Tern.

Anous stolidus Common Noddy — Breeds in mid-year. In June, 1980, there were about 1000 nests, in June, 1981, about 500 nests but in July, 1982, there was no nesting and less than 50 birds were present. Nests are mostly built on tussocks of *Lepturus* grass and sometimes on other vegetation but are rarely placed directly on the ground. They are usually lined with small, white fragments of bleached coral, shell or coralline algae and occasionally also contain a small amount of vegetation. A single egg is laid.

Anous minutus Black Noddy — Breeds all year round in the taller stand of *Pisonia grandis* on the upper lee slopes of the southern end of the ridge. The greatest numbers breed in the summer months, e.g. in December — 800 nests, in June and July — 100 to 200 nests. The nests are simple platforms built of *Pisonia* leaves cemented to the branch with guano. A single egg is almost always laid.

Factors Affecting Status

At present the only known source of disturbance to the island's birds are the occasional human visitors. The island has no water and probably has never been inhabited. Its isolation

and poor anchorage keep visitors to a minimum. Silver Gulls predate eggs and chicks while frigatebirds and Buff-banded Rails *Rallus philippensis* may also take some. Quoin, Raine and Frigate Islands are the only recorded breeding sites for frigatebirds in the northern Great Barrier Reef. Quoin is also one of a small number of northern islands that support a colony of Black Noddies.

Other Seabirds Recorded

<i>Sula leucogaster</i>	Brown Booby
<i>Egretta sacra</i>	Eastern Reef Egret
<i>Nycticorax caledonicus</i>	Rufous Night Heron
<i>Sterna sumatrana</i>	Black-naped Tern

Banding

Nil.

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