

## SEABIRD ISLANDS

No. 239

**Bedout Island, Pilbara Region, Western Australia**

**Location:** 19°35'21"S, 119°05'50"E; 100 km north-east of Port Hedland, Western Australia, and 35 km north of Larrey Point, the closest point of the mainland.

**Status:** Reserve No. 33811 for the Conservation of Flora and Fauna, vested in the Western Australian National Parks and Nature Conservation Authority and managed by the Western Australia Department of Conservation and Land Management.

**Other Names:** Bedout Islet.

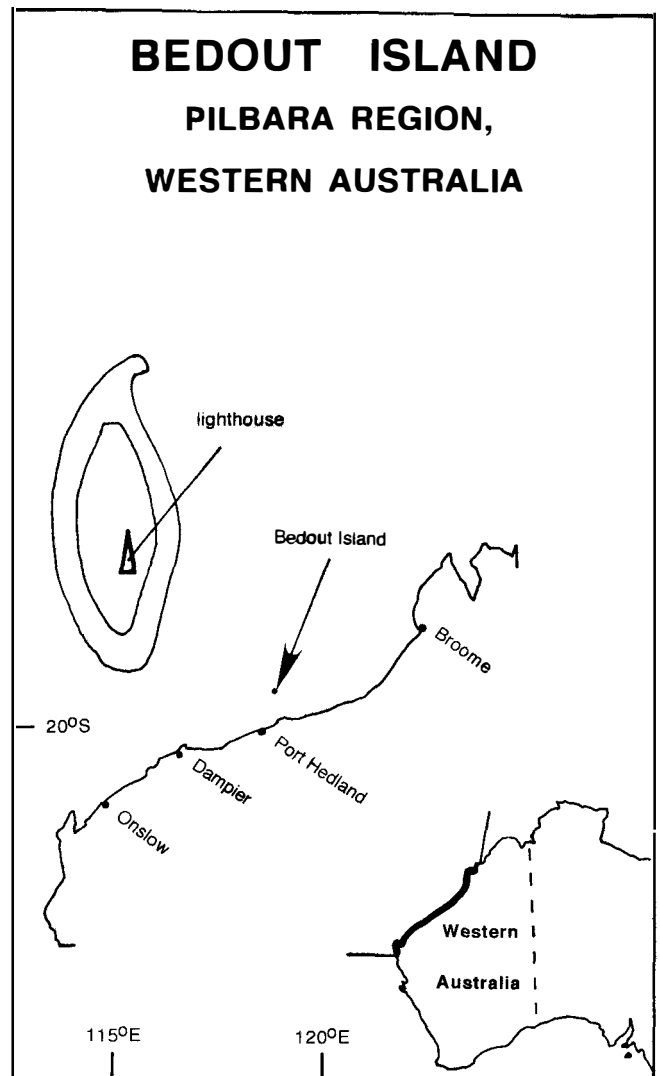
**Description:** About 24 ha, about 1 km long and 300 m wide, situated on a limestone reef. The long axis is roughly north-south. Bedout is a low sand and shell grit cay, surrounded by a sandy beach and vegetated with clumps of *Spinifex longifolius*. A lighthouse, first erected in 1909, is located at the highest point.

**Landing:** Because of the extensive limestone and coral reef, landing is possible from a boat only at high tide and in relatively calm conditions. Helicopter access is possible; however landing must be carried out with care due to the numbers of large birds, and should not be attempted in the early morning or late afternoon.

**Ornithological history:** The island was named by Nicholas Baudin<sup>22</sup> in 1801 after Rear Admiral Bedout (1751–1818) 'a distinguished naval officer of the Revolutionary Wars'<sup>14</sup>. P. P. King<sup>12</sup>, who explored the area in 1820–23, marked the island on his charts as Bedout Islet, but did not record any natural history observations. Bird records date from April 1901 when J. T. Tunney<sup>30</sup> visited to collect bird specimens and bird eggs. These are lodged in the Rothschild Museum at Tring<sup>11</sup>, the Western Australian Museum and the British Museum (Natural History), London. S. Fowler carried out aerial surveys on 9 September 1944 and 7 September 1945<sup>24</sup> and D. L. Serventy<sup>24</sup> visited on 19 October 1949. T. E. Bush and G. A. Lodge<sup>5</sup> spent two days on the island from 14 to 15 May 1972 and N. Kolichis<sup>13</sup> reported on a visit on 11 May 1975. I. Abbott<sup>1</sup> visited on 28 May 1978. P. J. Fuller visited on his own from 23 September to 1 October 1981, with A. A. Burbidge from 5 to 7 June 1982 and with K. D. Morris from 4 to 7 June 1984. The island is regularly visited by staff from the Australian Marine Safety Authority, who service the lighthouse.

**Breeding Seabirds and Status**

*Sula dactylatra* Masked Booby — Estimates and counts are: c. 300 birds in October 1949<sup>24</sup>, 400 pairs and c. 270 nesting pairs in May 1972<sup>5,13</sup>, 177 nests and 235 birds in May 1978<sup>1</sup>, 300 to 400 birds and 50 nests still in use on



25 September 1981, 120 occupied nests on 5 June 1982<sup>4</sup>, and 178 nests on 5 June 1984. In 1982, most nests were on an area of bare ground north-west of the lighthouse, on another bare area near the lighthouse and on the beaches, with a few nests scattered among those of Brown Boobies. The two eggs are laid on the ground, usually in an unlined scrape; some nests have a lining of a few *Spinifex* stems. Tunney recorded eggs in April; eggs and chicks were recorded by other visitors through to October.

*Sula leucogaster* Brown Booby — About 5 500 occupied nests were estimated by quadrat sampling in June 1982<sup>4</sup> and 11 200 on 5 June 1984. Other estimates are: 5 000 in May 1972<sup>5</sup>, 1 000 in May 1975<sup>13</sup>, 600 700 in May 1978<sup>1</sup>, and about 600 chicks and 400 to 500 birds sitting on eggs on 25 September 1981. In June 1982 and June 1984, nests were located throughout the vegetated parts of the island, between the *Spinifex* clumps as well as on the beaches above high water mark. Tunney recorded eggs in April; the May, June, September and October visits found eggs and chicks at various stages. The two eggs are laid in a nest on the ground, sometimes lined with *Spinifex* stems or flotsam. Usually, only one chick is raised. Serventy<sup>24</sup> suggested continuous nesting with major peaks of egg-laying in the autumn and spring. Available data suggest continuous egg laying throughout the cooler months; however, there are no data from summer.

*Fregata ariel* Lesser Frigatebird — 2 290 and 1 113 occupied nests were counted on 6 June 1982<sup>4</sup> and 5 June 1984. Estimates and counts by other visitors were: c. 2 000 pairs in May 1972<sup>5</sup>, c. 900 nesting pairs in May 1975<sup>13</sup>, 300 nests in May 1978<sup>1</sup> and 700–800 old nests and 40 to 45 large chicks on 25 September 1981. The single egg is laid in a raised nest constructed from stems and leaves of *Spinifex* and cemented with excreta, situated on the tops of clumps of *Spinifex*. Nests average 25–30 cm across with a 4 cm deep depression<sup>13</sup>. Nests are usually clumped together, with individual nests pecking distance apart. Eggs were recorded in April; visits in May and June found eggs and chicks, while visits in September and October found only chicks with most young on the wing.

*Larus novaehollandiae* Silver Gull — A single nest with two eggs was seen in June 1981; 300–400 birds were present. In June 1982 a few dead chicks were present and 20 to 30 birds were on the island. In June 1984 there were c. 200 birds present, but no evidence of breeding. Apparently an autumn breeding species.

*Sterna bengalensis* Lesser Crested Tern — One pair breeding in May 1972<sup>5</sup> and two pairs in May 1975<sup>13</sup>, all among nesting Crested Terns.

*Sterna bergii* Crested Tern — Recorded breeding by Tunney<sup>30</sup> in 1901 (no numbers); other records are 300 pairs in May 1972<sup>5</sup>, and c. 200 nesting pairs in May 1975<sup>13</sup>. About 400 birds were present on 26 September 1981 and c. 600 on 5 June 1982, with one non-flying chick. Apparently an autumn-winter breeder.

*Sterna dougallii* Roseate Tern. Breeding recorded by Serventy, Serventy and Warham<sup>25</sup>, but no details given.

*Sterna fuscata* Sooty Tern — Recorded breeding by Tunney<sup>30,11</sup> in April 1901; no later records.

*Anous stolidus* Common Noddy — Although not recorded by Tunney in his paper<sup>30</sup> both Hartert<sup>11</sup> and Serventy<sup>24</sup> note that Tunney collected specimens of this species 'on the nest' in 1901. There are no later breeding records. Bush

and Lodge<sup>5</sup> and Abbott<sup>1</sup> suggest that birds they saw ('several thousand' in May 1972 and 120 in May 1978) were about to breed; however, they presented no evidence to support their statements.

### Factors Affecting Status

Bedout Island was mined for guano between 1877 and 1882, when 69 tons were removed<sup>24,34</sup>. A lease for guano mining was issued from 1928 to 1937<sup>13</sup>, but was cancelled in 1930; there is no evidence that any guano was removed during this period.

The White-bellied Sea-Eagle *Haliaeetus leucogaster* nests on the island and would take seabirds.

Abbott<sup>1</sup> suggested that the numbers of breeding Masked Booby, Brown Booby and Least Frigatebird on Bedout Island showed a marked decline between 1972 and 1978, attributing this to a decline in productivity of the waters around the island. Our data from June 1981 show that the decline had been reversed for two of the species (Table 1).

TABLE 1

Numbers of pairs of breeding seabirds on Bedout Island (modified from Abbott<sup>1</sup>).

| Species            | 14 May 1972 | 11 May 1975 | 28 May 1978 | 5 June 1982 | 5/6 June 1984 |
|--------------------|-------------|-------------|-------------|-------------|---------------|
| Masked Booby       | 400         | 270         | 120         | 120         | 170           |
| Brown Booby        | 5 000       | 1 000       | 600–700     | 5 500       | 9 576         |
| Lesser Frigatebird | 2 000       | 900         | 300         | 2 290       | 1 113         |

The disappearance of breeding populations of Sooty Terns and Common Noddies could have been due to the presence of Black Rats *Rattus rattus*, which are known to predate smaller seabirds. Rats were extremely abundant when eradicated by Fuller of the then Department of Fisheries and Wildlife in 1981<sup>19</sup>.

### OTHER VERTEBRATES

Black Rat *Rattus rattus*. It is unknown when rats became established on the island; however, they established on many other islands off the Pilbara coast, probably from pearling luggers, during the nineteenth century. Rats are now eradicated<sup>19</sup>.

Green Turtle *Chelonia mydas*. Seen on the beach in September 1981; old nests, presumably of this species, seen on the beach in 1981–1984. Hawksbill Turtle *Eretmochelys imbricata*. One seen in a pool on the reef on 6 June 1984. Skink *Ctenopus fallens*. Two specimens of this skink were collected in 1981 and deposited in the Western Australian Museum.

### Other Seabirds Recorded

|                                 |                            |
|---------------------------------|----------------------------|
| <i>Phalacrocorax varius</i>     | Pied Cormorant             |
| <i>Pelecanus conspicillatus</i> | Australian Pelican         |
| <i>Egretta sacra</i>            | Eastern Reef Egret         |
| <i>Sterna caspia</i>            | Caspian Tern               |
| <i>Sterna anaethetus</i>        | Bridled Tern <sup>24</sup> |

### Banding

Nil.

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