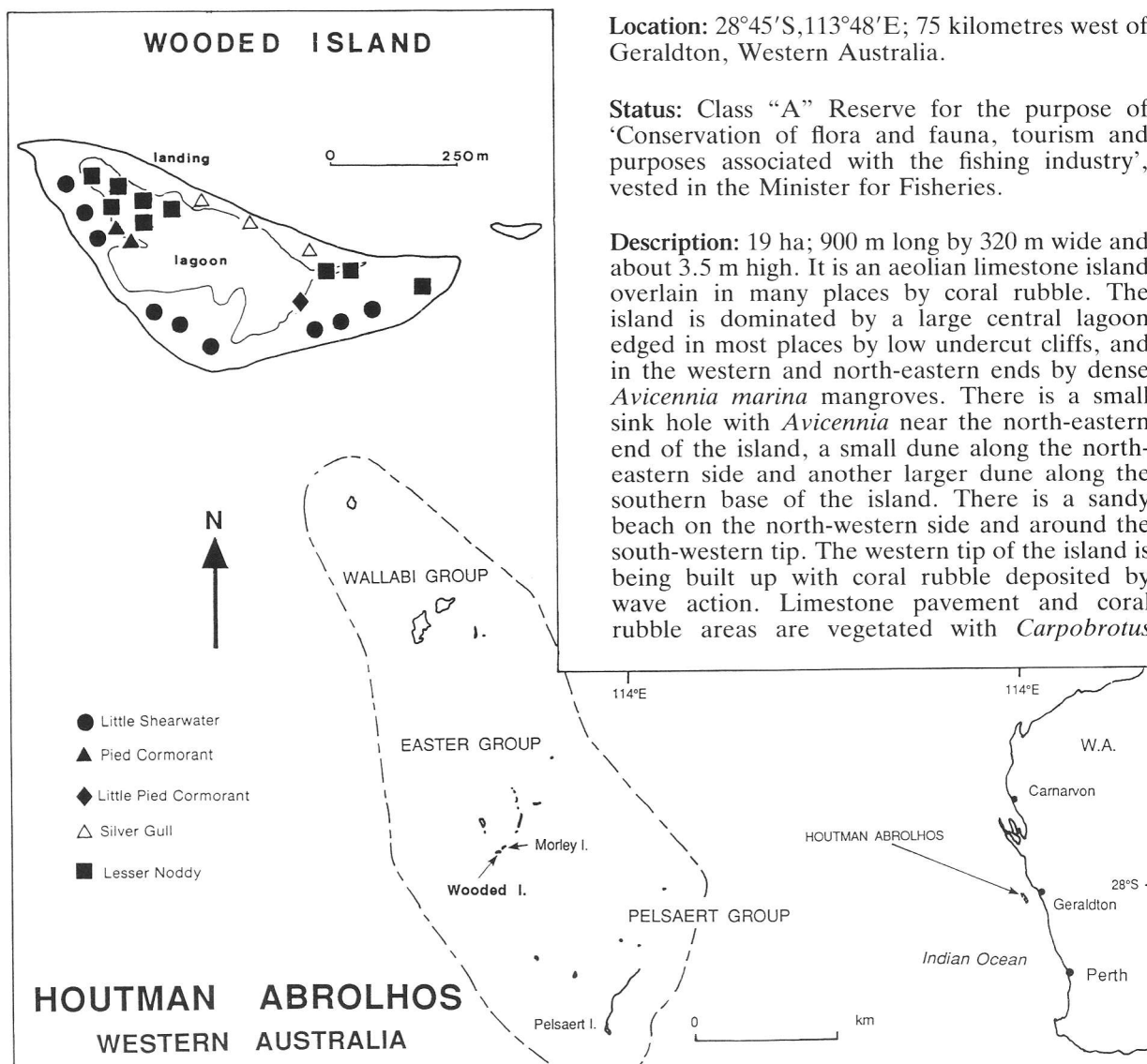


SEABIRD ISLANDS

No. 216

Wooded Island, Easter Group, Houtman Abrolhos, Western Australia



virescens and the exotic ice plant *Mesembryanthemum crystallinum*. Sandy areas contain *Spinifex longifolius*, *Senecio lautus*, *Cakile maritima*, *Atriplex cinerea*, *Nitraria billardieri*, *Myoporum insulare*, *Avena barbata*, *Bromus diandrus*, *Sonchus oleraceus*, *Ehrharta longiflora*, *Threlkeldia diffusa*, *Enchylaena tomentosa*, *Tetragonia zeyheri* and *Lavatera plebeia*.

Landing: On to a sandy beach on the north-western side.

Ornithological History: O. Lipfert no doubt visited the island during his stay on Rat Island in November 1894. The first accounts of the birds of Wooded Island came from C. G. Gibson⁴ who visited the island in November 1907. The Percy Sladen Trust Expedition to the Abrolhos in 1913 and October–November 1915³ produced further details of the island and its fauna. Alexander¹ wrote up the vertebrate fauna collected and observed on the expedition although he only took part in the 1913 visit. P. T. Sandland and C. Allen visited the island on 9 November 1939 and V. N. Serventy⁷ in December–January 1940–1941 and 1941–1942. Next were visits by D. L. Serventy in December 1945 and V. N. Serventy, G. Pizzey and A. G. Mathews in December 1963. Green⁵ published details of the Aquinas College expedition carried out in August 1970; T. E. Bush visited the island on 8 November 1970; R. E. Johnstone on 22 and 23 August 1977, 6 May 1981, 8 October 1981 and 15 August 1983; K. Coate visited on 13 December 1987, 4 and 11 December 1988, 1 December 1989, 6 November and 1 December 1991, and P. J. Fuller and A. A. Burbidge in December 1989 and December 1991.

Breeding Seabirds and Status

Puffinus assimilis Little Shearwater — About 1 000 pairs breed on the island. Most burrows are in areas with soil (guano or shale) vegetated with *Atriplex* and *Nitraria* especially an area 100 m × 30 m around the southern and south-western end of the lagoon. Burrow density varies from 1.2 to 1.4/m² and length of burrows varies from 50 to 100 cm. A few birds nested under dense shrubs, matted vegetation or between limestone blocks or in crevices. On 6 May 1981 most burrows had been re-excavated. Egg laying occurs from early

July to late August varying slightly from year to year. On 15 August 1983 four freshly excavated burrows were examined and all were empty. On 22 August 1977, 19 burrows were examined; 13 contained an adult incubating an egg and the rest were empty. On 8 October 1981, four burrows were examined; one contained a half grown nestling and three were empty. In November 1907 burrows contained full grown young. Young leave the burrows early in December, judging from juveniles, just able to fly, found on the lagoon by K. Coate on 4 December 1988 and 1 December 1991.

Pelagodroma marina White-faced Storm-Petrel — Listed as a breeding species on Wooded Island by Serventy and Whittell⁶; however, the prime source of this record cannot be traced. Possibly it is based on eggs collected in the Easter Group by O. Lipfert in 1894.

Phalacrocorax varius Pied Cormorant — Five hundred to 1 000 breeding pairs. Nests are in mangroves *Avicennia marina* around the south-western end of the lagoon. On 10 December 1945, D. L. Serventy found 650–700 nests in low mangroves on the southern side of the lagoon. The western end of the colony contained mainly large young but in the middle and east end breeding was at all stages from eggs, eggs just hatching to large young. On 10 December 1963, V. N. Serventy noted nests with young. In August 1970, Green⁵ found hundreds of nests in mangroves surrounding the lagoon (up to 9 nests per tree) but no eggs or young were observed. In August 1977 about 2 000 birds were roosting and about 200 pairs were nesting in mangroves in the south-western end of the lagoon. Most nests were constructed of matted *Myoporum*, *Nitraria* and seaweed (wet and dry) held together with excreta and placed in branches of dome-shaped *Avicennia*. Breeding had just begun, most nests were complete, ready for eggs with adults in attendance, and 128 nests contained eggs (1, 2 and 3 egg clutches). In October 1981, 500–600 pairs were breeding in the same place and nests contained 1–3 fresh eggs. On 11 August 1983, 500–800 pairs were breeding in mangroves on the western end of the lagoon. The colony ranged from birds just starting to build, to complete nests with adults sitting but no eggs. On 13 December 1987, breeding had finished except for two almost



• *Wooded Island (looking east); Morley Island in the background.*

Photo: S. Fowler

fully feathered young in nests. On 4 December 1988, K. Coate found nests with almost fully fledged young and noted that the colony had moved into the south-west corner of the lagoon (well into the Lesser Noddy breeding area). After two or three breeding seasons the nests and droppings almost kill the vegetation and at that stage the birds shift into a new area and the mangroves re-shoot. In 1991 the colony had moved back eastwards away from the Lesser Noddy breeding area.

Phalacrocorax melanoleucos Little Pied Cormorant — In August 1983 ten nests were found on a rock ledge 1 m above water on the eastern edge of the lagoon. The nests were sheltered above by overhanging limestone. Two

nests contained 4 eggs and one 5 eggs. One old nest with an addled egg was also found. In December 1991, 20 adults were observed on the eastern end of the lagoon.

Egretta sacra Eastern Reef Egret — In November 1913 Alexander¹ found two nests, one empty and the other with two fresh eggs, on a rock ledge under an overhanging cliff at the edge of the lagoon.

Haematopus longirostris Pied Oystercatcher — Recorded with young on 11 December 1988.

Haematopus fuliginosus Sooty Oystercatcher — One young found on 1 December 1991.

Larus novaehollandiae Silver Gull — About 25 pairs breed on the island. Alexander¹ recorded a small breeding colony with eggs and young. Green⁵ found two nests and banded one chick in August 1970. In August 1977, 14 nests were found on the northern side of the island (one with 1 egg, 11 with 2 eggs and two with 3 eggs). On 6 May 1981, about 25 pairs were breeding in a strip 250 m long by 20 m wide down the northern side of the island. Fourteen nests were located; eight were empty but recently used, five contained two eggs, and two newly hatched chicks were found near a nest with egg shells. On 15 August 1983, 20 nests were found along the northern side of the lagoon, all were empty, but had been recently used. Breeding was also reported in December 1988 and 1991.

Larus pacificus Pacific Gull — Up to eight pairs breed on the island. A nest with two eggs was found in August 1970, three immatures and one adult were observed on 6 May 1981. About eight pairs were breeding (large chicks found) on 1 December 1989, and six young (two about half grown) were found on 1 December 1991.

Hydroprogne caspia Caspian Tern — In November 1913 Alexander¹ found eight nests with eggs and young, and on 1 December 1991 K. Coate found one large young.

Sterna dougallii Roseate Tern — In December–January 1940–1941 V. N. Serventy⁷ observed a breeding colony of about 60 birds. In November 1970 T. E. Bush found a few pairs commencing to breed and noted one nest with two eggs, and four with single eggs.

Sterna fuscata Sooty Tern — A common visitor from August to early May. About 100–500 breeding pairs. The Wooded Island colony was first noted by Alexander¹ in November 1913. In December–January 1940–1941, V. N. Serventy⁷ recorded about 100 on fresh eggs and in December 1963 birds were incubating eggs. On 8 November 1970 egg laying had just commenced and in December 1987, 1988 and 1989 eggs were recorded.

Sterna anaethetus Bridled Tern — Common visitor from October to early May. About 250 pairs breed on the island. Most nests are under bushes of *Atriplex* and *Nitraria* around the lagoon. Breeding was recorded during the summer of 1940–1941 and 1941–1942, and also in December of 1945, 1987, 1988, 1989 and 1991. K. Coate recorded only six on the island on 6 November 1991 and a month later 200–300 were on eggs. Eggs are laid from mid-November to early January.

Sterna nereis Fairy Tern — About 5–10 breeding pairs. One nest was found in December–January 1940–1941 and five nests, each with two eggs in November 1970.

Sterna bergii Crested Tern — Alexander¹ observed a breeding colony in November 1913 and noted that young birds were much more numerous than eggs, many being almost fully fledged. Green⁵ found one pair nesting at the northern end of the island in August 1970.

Anous stolidus Common Noddy — In November 1913 Alexander¹ recorded a small colony breeding among the Sooty Terns, but there are no subsequent records. Alexander was also the last ornithologist to see the huge colonies of the Common Noddy and Sooty Tern on nearby Rat Island. It would appear that these colonies on Rat Island and of the Common Noddy on Wooded Island vanished between 1913 and 1936.

Anous tenuirostris Lesser Noddy — Five thousand to 7 000 breeding pairs. Nests are in dense mangroves (up to 4 m high) around the lagoon. Gibson⁴ estimated their numbers as 'hundreds of thousands' in 1907. This was probably a gross over estimate for the mangroves of Wooded and Morley Islands combined could hardly support more than 30 000 breeding birds. However, Alexander¹ in 1913, considered the Lesser Noddies far fewer than the Sooty Terns or Common Noddies. In mid-summer of 1940–1941, V. N. Serventy⁷ estimated their numbers at 5 000 birds, and 10 000 a year later. In late August 1977, Johnstone recorded 10 000 to 15 000 breeding birds and 6 000 to 10 000 in October 1981. On

22 August 1977, Johnstone counted 1 739 attended or fresh nests in 49 trees in two transects through the main colony near the western end of the lagoon. About 200 trees contained nests giving an estimate of 7 000 nests. Two other smaller colonies were found. One of 1 500 pairs on a mangrove-lined gully on the north-eastern end of the lagoon, and the other of 188 pairs in a sink hole with mangroves near the north-eastern end of the island. In December 1989, A. A. Burbidge and P. J. Fuller² estimated the number of Lesser Noddy nests at 6 875, and 5 325 in December 1991.

Nests are constructed of seaweed, especially *Ulva* and *Cystophora* spp., held together with excreta and placed in the fork of a mangrove. Eggs are laid from mid-August to late November. Eggs and young were recorded on 1 December 1989.

Factors Affecting Status

The island is often visited by fishing parties, yacht crews and groups of naturalists. Despite these visits there is very little evidence of human interference. Ospreys *Pandion haliaetus* — a pair breed on the island — and White-bellied Sea-Eagles *Haliaeetus leucogaster* no doubt take some breeding seabirds and nestlings. The Spotless Crake *Porzana tabuensis* occurs on the island and undoubtedly predated some eggs and small chicks.

OTHER VERTEBRATES

On 4 December 1988 one young female Australian Sea-lion *Neophoca cinerea* was present, and a large green turtle was observed in the lagoon. On 11 December 1988 three Sea-lions were recorded. One species of reptile, the gecko *Phyllodactylus marmoratus* is known from the island.

Other Seabirds Recorded

<i>Puffinus pacificus</i>	Wedge-tailed Shearwater (derelict)
<i>Pelagodroma marina</i>	White-faced Storm-Petrel (derelict)
<i>Phaethon rubricauda</i>	Red-tailed Tropicbird

Banding

August 1970.

Puffinus assimilis — 25 adults

Larus novaehollandiae — 1 runner

Bibliography

1. Alexander, W. B. (1922). The vertebrate fauna of Houtman's Abrolhos (Abrolhos Islands), Western Australia. *J. Linn. Soc. (Zool.)* 34: 457–486.
2. Burbidge, A. and Fuller, P. (1991). A million seabirds. *Land-scope* 6: 17–23.
3. Dakin, W. J. (1918). The Percy Sladen Expeditions to the Abrolhos Islands. Report 1. *J. Linn. Soc. (Zool.)* 34: 127–180.
4. Gibson, C. G. (1908). Notes on some birds of the Abrolhos Islands (W.A.). *Emu* 8: 64–66.
5. Green, G. A. (1972). Fifth Abrolhos Expedition, 1970. (Aquinas College. Manning, W.A.)
6. Serventy, D. L. and Whittell, H. M. (1976). *Birds of Western Australia*. 5th edition. (University of Western Australia Press: Perth.)
7. Serventy, V. N. (1943). Notes on the nesting birds of the Abrolhos Islands. *Emu* 42: 235–241.
8. Storr, G. M., Johnstone, R. E. and Griffin, P. (1986). Birds of the Houtman Abrolhos, Western Australia. *Rec. West. Aust. Mus. Suppl.* No. 24: 1–42.

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R. E. Johnstone, Western Australian Museum, Francis Street, Perth, Western Australia 6000.

K. Coate, 21 Acanthus Road, Willetton, Western Australia 6155.