

Land birds of Little Broughton Island

M. Schulz¹ and S. Callaghan²

¹ 2-8 Buttenshaw Drive, Coledale, NSW 2515, Australia

² Department of Planning, Industry and Environment, Locked Bag 99, Nelson Bay, NSW 2315, Australia
Correspondence – E: anarcticmartin@gmail.com

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Little Broughton Island (32°37'S, 152°20' E) situated off the Myall Coast is a roughly oval-shaped island covering 27 hectares and rising to a height of 98 m above sea level. It has a rocky shoreline backed by cliffs rising in height from 15 m in the north-west to 98 m in the south-east, composed primarily of Carboniferous rhyolite with basalt intrusions (Carlile *et al.* 2013). Above the cliffs is a vegetated area of 19 ha comprising primarily dense 'grassland' characterised by Spiny-headed Mat-rush *Lomandra longifolia*, Coast Tussock Grass *Poa poiformis*, Blue Flax Lily *Dianella caerulea* and Kangaroo Grass *Themeda australis*. Scattered stunted scrub patches are dominated by Tuckeroo *Cupaniopsis anacardioides* and Tree Broom-heath *Monotoca elliptica*, with various vine species present. An elevated aeolian dune north of the summit is dominated by low Coast Banksia *Banksia integrifolia* and Coast Tea-tree *Leptospermum laevigatum* with a Bracken *Pteridium esculentum* understorey. There are few soaks and no permanent wetlands are present. The island is separated by a narrow channel from the eastern end of the far more regularly visited Broughton Island.

The island is seldom accessed as there are no easy landing points and successful landing is highly dependent on suitable sea conditions (Hull 1911; Lane 1976). As a result the terrestrial avifauna present on this island has been poorly documented. During a visit in March 1911, Hull (1911) made no mention of land birds observed when traversing the island over a three-hour period in search of nesting seabirds. Similarly, Hindwood & D'Ombraïn (1960) and Lane (1976) made no mention of land birds encountered on the island. Carlile *et al.* (2013) noted the presence of raptor species: White-bellied Sea-Eagle *Haliaeetus leucogaster*, Swamp Harrier *Circus approximans* and Peregrine Falcon *Falco peregrinus*. However, no mention was made by those authors of other land birds present during visits on one day in April 1998 and over four days during visits in October and December 2010.

Similarly, no land bird records were documented in the Atlas of Living Australia or BioNet prior to 2020.

We visited the island on three occasions in 2020: circumnavigated the island with a failed attempted landing on 21 April; visited the island between 30 and 31 October to set remote cameras to document cryptic island fauna, confirm the successful eradication of the Black Rat *Rattus rattus* and determine whether the Green and Golden Bell Frog *Litoria aurea* was present; and on 7 December to search for the presence of nesting Gould's Petrel *Pterodroma leucoptera* in the north-eastern section. During all these visits, land birds seen while traversing the island or from close inshore were recorded.

Unsurprisingly, the assemblage of land birds present on Little Broughton Island was similar but less diverse than that of the close-by and larger Broughton Island, with no additional species recorded (Stuart 2020). Larger birds, such as various raptors and the Australian Raven *Corvus coronoides* were regularly seen commuting between the two. The following section summarises the land birds recorded:

Brown Quail *Synoicus ypsilophorus*: Widespread and common across the island, with an adult accompanied by chicks observed in the December 2020 visit.

White-throated Needletail *Hirundapus caudacutus*: Two seen flying low over the island after the passage of a storm front on the morning of 31 October.

Lewin's Rail *Lewinia pectoralis*: One heard calling from dense vegetation dominated by Spiny-headed Mat-rush and Coast Tussock Grass on the western end of the island following rain on 31 October.

Buff-banded Rail *Hypotaenidia philippensis*: Scattered single individuals seen and heard in dense vegetation, including around the summit, during all visits.

Osprey *Pandion haliaetus*: Single individuals were frequently seen flying over the island or perched, including one on the island's automatic light on 31 October.

Black-shouldered Kite *Elanus axillaris*: One bird was observed perched on the automatic light in the late afternoon on 30 October.

Swamp Harrier *Circus approximans*: Maximum of two individuals seen during all visits hunting over dense grassland and adjacent vegetation.

White-bellied Sea-Eagle *Haliaeetus leucogaster*: The most frequently observed raptor, with a maximum of two adults and two immature birds observed on 7 December. A careful scan of the cliff-lines along the shoreline from the water failed to locate evidence of nesting.

Whistling Kite *Haliastur sphenurus*: A single individual was regularly observed, including at the summit during the October visit.

Peregrine Falcon *Falco peregrinus*: Occasional single individuals were seen flying past during all visits.

Yellow-faced Honeyeater *Caligavis chrysops*: Scattered in small numbers across the island in taller denser vegetation stands, such as clumps of Tree Broom-heath and Tuckeroo, including adjacent to the summit during October. Fewer individuals were present in similar vegetation in the December visit.

Grey Fantail *Rhipidura albiscapa*: One seen in a stunted Tuckeroo patch on the plateau edge on 30 October and perhaps the same bird in relict dune vegetation below the summit on the following morning.

Australian Raven *Corvus coronoides*: Widespread across the island, with a maximum of four birds seen together in December.

Golden-headed Cisticola *Cisticola exilis*: Scattered in small numbers across the island, especially in extensive areas of Spiny-headed Mat-rush, Blue Flax Lily and Coast Tussock Grass.

Tawny Grassbird *Cincloramphus timoriensis*: Common and widespread across island in dense vegetation.

Welcome Swallow *Hirundo neoxena*: Widespread across island and along the shoreline, with up to eight birds seen hawking insects at the summit in October. Several recently used nests were found in overhangs along the western rocky shoreline.

Silvereve *Zosterops lateralis*: The most frequently observed passerine species. Widespread across the island, particularly in taller denser vegetation stands.

A number of species which are resident on nearby Broughton Island were not observed but may occur at times. These were Bar-shouldered Dove *Geopelia humeralis*, Pheasant Coucal *Centropus phasianinus*, Little Wattlebird *Anthochaera chrysoptera*, and Australasian Pipit *Anthus novaeseelandiae*. Similar to Broughton Island, it is likely that a variety of land birds visit the island as irregular visitors or vagrants (Stuart 2020). It is hoped that the documentation of the land bird component of the avifauna on Little Broughton Island will provide baseline information that will assist in biodiversity management, including the strategic control of various weed species, such as the Bitou Bush *Chrysanthemoides monilifera* and Dolichos Pea *Dipogon lignosus*.

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