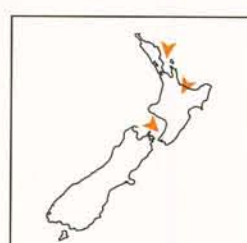


Passerines are the largest group of birds. They are small to medium sized land birds found worldwide, except on Antarctica. All species have four toes, three pointing forward and one back, well-adapted for perching. Most species are song-birds, with complex musical calls, but there are exceptions (e.g. crows). They show great diversity of form, behaviour and breeding biology.

STITCHBIRD (Hihi) *Notiomystis cincta*

Rare endemic

18 cm; ♂ 40 g, ♀ 30 g. Male has white erectile tufts behind eyes; velvety black head, upper breast and back, bordered golden yellow across breast and folded wings; rest of underparts pale brown. Female greyish brown with white wingbar; lacks ear tufts. Often cocks tail. Call an loud explosive whistle: 'see-si-ip'. **Habitat:** Forest on a few predator-free islands, especially Little Barrier, Tiritiri Matangi and Kapiti Is; recently released at Karori Sanctuary in Wellington. **Breeding:** Sep–Apr. [Sp 309]



HONEYEATERS

Meliphagidae

About 170 species in Australasia and the islands of the Pacific, to the Bonin Islands and Hawai'i; 3 endemic species in New Zealand. The Red Wattlebird *Anthochaera carunculata* was twice recorded in New Zealand as a vagrant in the 1800s, but is not covered here.

tip and has its edges frayed. It is used to reach deeply into flowers and drink nectar, or to extract sugar secretions from cracks in bark. Despite their name, all three New Zealand honeyeaters feed on a mixture of nectar, fruits and insects. They follow the seasonal flowering of certain plant species and play an important ecological role in pollinating the flowers of many native trees and shrubs, and dispersing the seeds of mainly small-fruited plants.

Honeyeaters are medium-to-large forest birds with a slightly decurved bill and a protrusile brush-tipped tongue, which is divided at the

309. STITCHBIRD *Notiomystis cincta*

Plate 70

Other name: Hihi
Size: 18 cm; males 40 g, females 30 g
Distribution: North Island only. Subfossil and midden remains and historical records show that Stitchbirds were throughout the North Island and on offshore islands such as Great Barrier, Little Barrier and Kapiti up to the 1840s. They have never been reported from the South Island. Up to the early 1870s, they were comparatively common in southern parts of the North Island, as far north as the Waikato. They then declined rapidly, and by 1885 had vanished from the mainland, Great Barrier and Kapiti Islands. They survived only on Little Barrier Island from 1885 to 1980, since when birds have been transferred to Hen, Cuvier, Kapiti, Tiritiri Matangi and Mokoia Islands, and to Karori Sanctuary, Wellington. A few are in captivity at Mt Bruce. They breed on all islands, but the Hen, Cuvier and Mokoia Islands releases have been unsuccessful; but the Kapiti, Tiritiri Matangi and Karori populations are maintained through supplementary feeding.
Population: Several thousand are probably now on Little Barrier Island and fewer than 200 at the other sites.
Conservation: Protected threatened endemic. The cause of the rapid decline in the late 1800s is not known but may be due to avian disease (perhaps introduced with European passerines) or, more likely, the spread of tree-climbing ship rats, stoats and feral cats. The extermination of cats (by 1980) and kiore (by

2004) on Little Barrier Island should allow that population to increase and be more secure. Management aims to establish self-sustaining populations of Stitchbirds on several islands, in case ship rats or stoats get to Little Barrier Island. The other islands tried to date, although lacking ship rats and stoats, may not have enough variety of nectar- and fruit-producing plants, especially since the more aggressive Tui and Bellbirds dominate the best nectar and fruit sources. Although Kapiti Island is large (2000 ha) and the habitat is improving with the eradication of possums (by 1985) and rats (by 1997), it is still short of nectar- and fruit-producing plants and, for some time yet, may not be self-sustaining without the supply of artificial nectar from feeders.

Breeding: Although Stitchbirds are apparently monogamous on Little Barrier, which is their one remaining natural habitat, on Kapiti Island, where there may be a shortage of suitable tree holes for nests and a lack of food plants, they are polygynandrous, i.e. many males and females breeding in the same nest; this is rare among passerines. The Stitchbird is one of only two honeyeaters known to nest in tree holes; they are usually high, in live, mature trees. On Little Barrier, these are mainly in pohutukawa, tawa and puriri; on Kapiti, in pukatea, rata, kamahi and hinau. Nests are usually level with or above the entrance holes, often on top of previous nests. The nest is a platform of sticks

with a cup on top made of tree-fern rhizomes, lined with tree-fern scales and feathers. Eggs are laid in September–March, and several broods are raised each year. They lay 3–4–5 white eggs (19x15 mm), which females incubate for c. 15 days. Both sexes feed the nestlings, and the young take 28–34 days to fledge. The oldest Stitchbird recorded lived almost 7 years.

birds are worried, e.g. by intruding humans. Among other calls is a penetrating alarm call: 'yeng, yeng, yeng', like a Bellbird's but higher-pitched.

Behaviour: Stitchbirds are quite nomadic, travelling several kilometres in a day between good feeding sites. During their first winter, the young may form loose flocks with an adult male. The adult male has a loud, explosive whistle: 'wee-a-wee' or 'see-si-ip', a territorial call given near the nest and when feeding. Both sexes give the familiar, loud 'stitch' note – the probable origin of the name stitchbird. It is also given as a warning call whenever

Feeding: Diet is a wide variety of nectar and fruits whenever available, also invertebrates gleaned from foliage and bark. Normally, whenever Tui and Bellbirds are present, Stitchbirds tend to feed in the lower strata of the forest, taking low-grade sources of nectar; however, when nectar is abundant they feed in the canopy with the other two honeyeaters.

Reading: Boyd, S. 1994. *Recovery Plan for the Stitchbird*. Wellington: DoC. Gravatt, D.J. 1970. *Notornis* 17: 96–101. Rasch, G. 1989. *Notornis* 36: 27–36. Rasch, G. & Craig, J.L. 1988. *NZ J Zool* 15: 185–190.