

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.

BELLBIRD (Korimako, Makomako) *Anthornis melanura*

Common endemic

20 cm; ♂ 34 g, ♀ 26 g. Green bird with a short curved bill, slightly forked tail, and noisy whirring fast and direct flight. Adult male olive green, paler on underparts, head tinted with purple gloss; wings and tail dark bluish black, except for yellow patch at bend of folded wing; eye red. Female browner with narrow white stripe across cheek from bill and bluish gloss on forehead and crown. Juvenile like female, but with brown eye and yellowish cheek stripe. Song varies regionally but always loud clear liquid ringing notes, without grunts and wheezes. Alarm call a rapidly repeated harsh scolding 'yeng, yeng, yeng'. **Habitat:** Native and exotic forest, scrub, farm shelterbelts, parks and gardens. **Breeding:** Sep–Feb. [Sp 310]



HONEYEATERS

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.

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

Meliphagidae

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.

310. BELLBIRD *Anthornis melanura*

Plate 70

Other names: Korimako, Makomako
Size: 20 cm; males 34 g, females 26 g
Geographical variation: Four subspecies; the Bellbird *melanura* shows clinal variation in plumage colour from Northland to Stewart and Auckland Islands; the Three Kings Bellbird *obscura* is confined to the Three Kings Islands; and the Poor Knights Bellbird *oneho* breeds only on the Poor Knights but occasionally visits the nearby mainland of eastern Northland; and the Chatham Island Bellbird *melanocephala* was confined to the Chathams but became extinct about 1906.
Distribution: New Zealand only. Present and often common in forest and scrub areas on the North, South, Stewart and Auckland Islands and many offshore islands. In the South Island they have expanded into settled districts and large exotic plantations, and are common in orchards, gardens, parks and farm shelterbelts, and on river margins. On the mainland north of the Waikato, they became extinct in the 1860s, although, in winter, a few males fly to eastern Northland, e.g. to Tutukaka from the Poor Knights Islands, to Whangarei Heads from the Hen and Chicken Islands, to Leigh from Little Barrier Island,

and to Whangaparaoa Peninsula from Tiritiri Matangi Island. Females, however, seldom fly to the mainland, and so Bellbirds have not re-established, except that juveniles, together with a female feeding them, were seen at Shakespear Regional Park on Whangaparaoa Peninsula in November 1993.
Population: Common in many parts of the South Island and in some forested parts and offshore islands of the North Island.
Conservation: Protected endemic. The cause of the rapid decline of the Bellbird from Northland and around Auckland in the 1860s may have been caused by some disease, because island populations offshore were not affected and Bellbirds survive well elsewhere on the mainland in the presence of the same array of introduced mammalian predators.
Breeding: Bellbirds maintain the same breeding territory year after year. Mainland Bellbirds lay in September–January, rarely to March, during which they commonly raise two broods. On the Poor Knights Islands, the laying period is from late September to late November, and usually only one brood is raised. The female makes the nest, which is loosely built of twigs and fibres with a deep



cup lined with feathers and fine grass. Most nests are in dense cover in a fork, but on islands with nesting petrels many are sheltered in a rock or trunk cavity. At daily intervals, they lay 3–4–5 pinkish-white eggs (23 x 16 mm, 3.1 g) with reddish-brown spots and blotches, densest at the larger end; 2–3–4 eggs on the Poor Knights. The female incubates, from laying the last egg, for c. 14 days. Both parents feed the chicks, which fledge at c. 14 days old. Mainland birds can breed at 1 year old. The oldest Bellbird recorded lived 8+ years.
Behaviour: Bellbirds are territorial in the breeding season but may leave the territory to feed at a nearby nectar source. After breeding, they become nomadic and are usually solitary; even though several may be feeding simultaneously in a tree, they defend a feeding territory within the tree.

The famous bell notes are impressive only when given by many birds at once, mostly at dawn and dusk in places of high density and few other species.
Feeding: Diet is mainly nectar from many native and introduced plants, and in late summer and autumn, when flowers are not common, they take fruit. They also eat many insects and spiders by gleaning trunks, branches and leaves; also by hawking. Female Bellbirds take more insects and less nectar than males do, probably because the more aggressive males exclude them from nectar plants. The chicks are almost entirely fed insects.

Reading: Bartle, J.A. & Sagar, P.M. 1987. *Notornis* 34: 253–306. Craig, J.L. & Douglas, M.E. 1984. *Notornis* 31: 82–86. Gaze, P.D. & Clout, M.N. 1983. *NZ J Ecol* 6: 33–38. Sagar, P.M. 1985. *NZ J Zool* 12: 643–648.