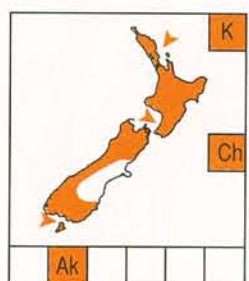


Passerines are the largest group of birds. They are small to medium sized land birds found worldwide, except on Antarctica. All species have four toes, three pointing forward and one back, well-adapted for perching. Most species are song-birds, with complex musical calls, but there are exceptions (e.g.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

TUI *Prothemadera novaeseelandiae*

Common endemic

30 cm; ♂ 120 g, ♀ 90 g. Dark bird with two white throat tufts, or poi. Looks black in dull light, but has green, bluish-purple and bronze iridescent sheen, back and flanks dark reddish brown; a lacy collar of filamentous white feathers on neck; white wingbar; slightly decurved black bill and strong black legs. Sexes alike. Juvenile dull slate black with glossy wings and tail, greyish-white throat, lacks tufts. Energetic and acrobatic while feeding in trees on nectar and fruit. In flight, round wings with white shoulder patches; long broad tail; noisy whirring flight between short glides. Song has rich fluid melodic notes (often repeated) mixed with coughs, clicks, grunts and wheezes; varies regionally. **Habitat:** Native forest and scrub, farmland with kowhai, gums and flax, parks and gardens. **Breeding:** Sep–Feb. [Sp 311]



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

311. TUI *Prothemadera novaeseelandiae*

Plate 70

Other name: Parson Bird
Size: 30 cm; males 120 g, females 90 g (mainland); males 150 g, females 110 g (Chatham Islands)
Geographical variation: Two subspecies; the Chatham Island Tui *chathamensis* breeds on the Chatham Islands only, the nominate race *novaeseelandiae* breeds elsewhere in New Zealand.
Distribution: New Zealand only. Throughout forests and towns in the North, South and Stewart Islands and many offshore islands. They have spread north to the Kermadec Islands, east to the Chatham Islands and south to the Auckland Islands. They are abundant in subfossil and midden deposits in both North and South Islands, being the main passerine found in middens. Tui are mainly forest and scrub birds; however, outside the breeding season they become partially nomadic and travel to towns and rural gardens and forest patches in search of good sources of nectar or fruit. Some birds regularly occupy each year a summer breeding and winter feeding territories that are 20+ km apart.
Population: Common on the Kermadec and Auckland Islands, and locally common in the main islands, but scarce east of the Southern Alps. Chatham Island Tui are now rare on Chatham Island, in moderate numbers on Pitt Island, and common on South East Island.
Conservation: Protected endemic. Tui have adapted well to human changes in New Zealand. Even though much prime lowland forest has been cleared, the widespread planting of flowering plants (especially gums, banksias, kowhai, flax and puriri) in town and rural areas has probably provided them with a regular year-round food supply. Tui play an important ecological role as pollinators of many native trees, and, being highly mobile, they are one of the main dispersers of seeds of plants with medium-sized fruits.
Breeding: Tui establish their territories in September–October and sing from high perches, especially in the early morning and late afternoon. The female alone builds the nest. It is a bulky structure of twigs and sticks, lined with fine grasses, in a fork or an outer

branch in the canopy or subcanopy. Eggs are laid in September–January, mainly November–December. They lay 2–3–4 eggs (29 x 21 mm), which are white or pale pink with reddish-brown spots and blotches, especially at the larger end. The female alone incubates for c. 14 days. The young are at first fed by the female, then by both adults, and take c. 21 days to fledge. The oldest Tui recorded lived 12+ years.

Behaviour: Tui are usually solitary, but when travelling long distances between feeding sites they usually wheel upwards calling others, and then travel in small loose flocks. In winter, they sometimes form loose communal roosts. Even though several birds may feed simultaneously in the same tree, they have clearly defined feeding territories. Tui are the dominant honeyeater in New Zealand; they are aggressive and pugnacious, particularly near the nest or a prominent food source. They vigorously chase other Tui and other birds from their feeding territory, and chase other Tui from breeding territories in the forest at great speed and with noisy, whirring wings. The notch in the 8th primary, particularly of males, makes the wingtips flutter, which produces a noise in flight.

They also soar above the canopy and then make a noisy, near-vertical dive back into the forest. The song dialect varies in each district. It consists of rich, fluid, melodious notes intermixed with croaks, coughs, clicks, grunts, wheezes and chuckles. An energetic, high-pitched subsong is only partly audible close up.

Feeding: Preferred diet is nectar, honeydew, fruit and invertebrates. When breeding, they often commute 10+ km in a day to visit a prime nectar source, such as a stand of kowhai, fuchsia, rewarewa, flax, pohutukawa or rata. Outside of the breeding season, they will shift 20+ km to gain regular access to winter-flowering gums, puriri or kowhai, or to good crops of kahikatea fruit. When breeding, they hawk large flying insects, and jump around beating the outside branches of shrubs and trees to disturb stick insects, cicadas and other large insects. They

feed nestlings at first on small insects and nectar, and later also on berries and larger insects, spiders and moths.

Adult males are larger than adult females, and the sexes can be told apart by a combination of wing length, head and bill length, and weight.

In the hand: Juveniles are at first browner (except on wings and tail) and lack the throat tufts for c. 6 weeks. Juveniles and first-year birds may be told by the lack of a notch in the 8th primary until their first complete moult in their second autumn.

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