

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.

SILVEREYE (Tauhou) *Zosterops lateralis*

Abundant native

12 cm, 13 g. Small green bird with conspicuous white eye-ring. Head and upperparts olive green with grey back and wash on lower neck and onto breast; underparts creamy white with pinkish-brown flanks and white undertail. Sexes alike. Juvenile lacks eye-ring. Usually in small flocks, except when breeding. Readily attracted to bird tables in cold winters. Flight call from flocks an excited 'cli-cli-cli'; single birds give a plaintive 'cree'. Song a melodious mix of warbles, trills and slurs. **Habitat:** Forests, scrub, orchards, parks and gardens. **Breeding:** Sep–Mar. [Sp 308]



WHITE-EYES

Zosteropidae

85 species in Africa, southern Asia, Australasia and the southwestern Pacific; 1 native to New Zealand.

with white rings around the eyes. They have a fine, tapered bill and a brush-tipped tongue for drinking nectar, but they also feed extensively on insects and fruit.

Small, mainly olive-green forest birds, most

308. SILVEREYE *Zosterops lateralis*

Plate 66

Other names: Tauhou, Waxeye, White-eye

Size: 12 cm, 13 g

Geographical variation: This species has complex racial variation in Australasia and the southwestern Pacific. Up to six subspecies are recognised in Australia alone: one breeding in the west, one confined to islands of the Great Barrier Reef, three breeding in the east between South Australia and Queensland, and one breeding in Tasmania. The Tasmanian subspecies *lateralis* migrates to eastern states of the Australian mainland in winter, and it is this form that colonised New Zealand.

Distribution: Breeds in Australia, Norfolk Island, New Caledonia, Vanuatu, Loyalty Group, Banks Island, Fiji and New Zealand. Silvereyes were recorded in New Zealand as early as 1832, and may have established on Stewart Island and in Southland, but it was not until 1856 that they apparently arrived in large numbers in many parts of the country and colonised permanently. The Maori name 'tauhou' means 'stranger', thus implying that Silvereyes were a new bird to New Zealand. It is now among the most abundant of New Zealand birds, being found in native forest and scrub from sea level to the treeline, in

exotic plantations, orchards and suburban gardens. Since colonising the mainland of New Zealand, they have spread to all offshore islands, the Kermadecs, Chathams, Antipodes, The Snares, Auckland and Campbell Islands, and possibly provided birds that colonised Norfolk Island in 1904.

There is considerable local movement of small flocks in autumn and winter, mainly seeking fruit or nectar, and banded individuals are often recorded in the same town gardens, or other wintering site, year after year. The pattern of regular seasonal movements is sometimes disrupted by irregular variations in food supply, such as the periodic intense flowering of rata, or in years when there is very good fruiting of kahikatea, when several thousand birds can occupy a forest patch for several weeks or months.

Flocks of Silvereyes have been reported flying northwards up the South Island at night in autumn and winter, and at Farewell Spit flocks have been seen on clear, calm mornings flying very high towards the northeast, and heading for southern Taranaki; however, movement across Cook Strait has not yet been supported by band recoveries.

Population: Widespread and locally abundant. Silvereyes are especially common in podocarp forests and some orchards and vineyards when fruit is available in autumn and winter, and in town gardens in the winter when food (fat, fruit or sugar water) is provided for them in the winter. The only places where Silvereyes are relatively scarce are in open habitats such as tussockland and grassland, and on some offshore islands where the forest and native forest bird communities are relatively intact, e.g. the Poor Knights, Little Barrier and Kapiti Islands.

Conservation: Partially protected native. Because the Silvereye colonised New Zealand naturally (although possibly helped by sailing ships), it has been classified as a native species. It is likely that Silvereyes have had a significant impact on native forest habitats by changing the pattern of seed dispersal and by competing with other animals for fruit, nectar and invertebrates, because the biomass of Silvereyes in some forests, especially in autumn and winter, exceeds that of any other bird species. Silvereyes can cause considerable economic damage to grapes and other fruit crops, especially cherries, apricots and figs; although they often feed from fruit already damaged by other birds.

Breeding: Established pairs remain together in winter territories, but in late winter they leave to set up territories and first-year birds pair up. The nest is a delicate cup suspended like a hammock from twigs and foliage. The nest is woven strongly from fine grasses, rootlets and fibres, with fragments of moss, spider web, lichen and thistle-down, which provide camouflage. Nests are from 1–2–3–15 m above the ground, usually towards the outermost branches of a tree, shrub or tree fern.

Eggs are laid from September to February, during which pairs can raise 2 or 3 broods. Each clutch is of 2–3–5 pale blue eggs (17.5 x 13 mm), laid at 24-hour intervals. Incubation starts after the second egg is laid and is shared by both parents during the 10–11–12-day incubation period. Both parents brood and feed nestlings during the fledging period of 9–10–11 days. The family stays together for 2–3 weeks after the chicks leave the nest, but the young then become independent. The

interval between successive clutches has been recorded as 47–60 days. Young breed at 9 months old, and pairs remain together year after year. The oldest banded bird recorded in New Zealand lived at least 11.5 years. **Behaviour:** Pairs are strongly territorial during the breeding season, but Silvereyes form winter flocks. Within flocks, there are dominance hierarchies, and birds are often seen fluttering their wings aggressively at another bird. The flocking call, often heard in flight, is an excited chirping 'cli-cli-cli', and single birds often give a plaintive 'cree' call. The song of males in the breeding season is similar to that of the Dunnock but is a less powerful and more melodious mix of warbles, trills and slurs, interspersed with occasional high-pitched plaintive notes; it is usually given from a song-post within a tree or shrub, not from the top like a Dunnock. Also, in autumn they also give a Blackbird-like warbling subsong from dense cover.

Feeding: Diet is varied, mainly comprising invertebrates, fruit and nectar, although some birds rely on fat, cooked meat, bread and sugar water provided at bird tables in winter. The main invertebrates eaten include caterpillars, spiders, bugs, flies and beetles. In the early phase of their colonisation of New Zealand, Silvereyes were known as 'Blight-birds' because they fed on woolly aphids that infested apple trees. They feed on a variety of fruit, including commercial fruit and grape crops, but most fruit eaten is taken from native trees and shrubs, such as kahikatea, rimu, *Coprosma*, fuchsia, broadleaf, hangehange and kiekie. They eagerly take nectar from native plants such as rata, fuchsia, kowhai, rewarea, kiekie and puriri, and from introduced species such as gums and banksias, but they are often excluded by local Tui and Bellbirds. Their specially modified tongue, with bristles, allows them to lap up nectar.

Reading: Dennison, M.D. *et al.* 1981. *Notornis* 28: 119–120. Fleming, C.A. 1943. *Emu* 42: 193–217. Kikkawa, J. 1961. *Ibis* 103A: 428–442. Kikkawa, J. 1962. *Notornis* 9: 280–291. Kikkawa, J. 1963. *Emu* 63: 32–34. Marples, B.J. 1944. *NZ Bird Notes* 1: 41–48. Moeed, A. & Fitzgerald, B.M. 1982. *NZ J Zool* 9: 391–403. Stead, E.F. 1932. *The Life Histories of New Zealand Birds*. London: Search.