

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.

YELLOWHEAD (Mohua) *Mohoua ochrocephala*

Rare endemic

15 cm; ♂ 30 g, ♀ 25 g. Male has *bright yellow head and underparts* with contrasting black bill, eye and legs; upperparts yellowish brown. Female and immature similar, but crown and nape shaded brown. Tip of tail often worn to spine-like shafts. Usually in small *noisy* feeding flocks or family groups, high in canopy, uttering loud staccato chattering calls and trills and slurs. Male song clear and Canary-like. **Habitat:** Tall native forest, especially red beech of South I. **Breeding:** Oct–Feb. [Sp 299]



WHISTLERS and allies

Pachycephalidae

28 species confined to Southeast Asia, Australasia and the southwestern Pacific; 3 endemic species in New Zealand.

stout bills for catching insects amongst foliage and from crevices on branches and trunks. Most species have loud and varied calls, usually melodious but sometimes harsh and scolding.

These small, robust forest and scrub birds have relatively large rounded heads and short

299. YELLOWHEAD *Mohoua ochrocephala*

Plate 68

Other names: Mohua, Bush Canary
Size: 15 cm; males 30 g, females 25 g
Distribution: South Island only. In the 1800s, Yellowheads were abundant and conspicuous in the beech forests, particularly red beech, from Nelson and Marlborough to Southland, and in the podocarp-hardwood forests of the West Coast and Stewart Island. They declined throughout the South Island in the late 1800s and disappeared from Banks Peninsula. However, the dramatic decline of Yellowheads began in c. 1890 after ship rats and mustelids were introduced. By 1930, they had disappeared from Stewart Island and the podocarp forests of the West Coast, and subsequently have gone from northwestern Nelson, Nelson Lakes National Park, Lewis Pass, Paparoa Range and many South Island beech forests, including northern and central Westland. They have now gone from nearly 85% of their former range and are well established only in Fiordland and Mount Aspiring National Parks, extending east to the Dart Valley. Moderate pockets remain in and near Arthur's Pass National Park (especially in the South Hurunui); Catlins, Blue Mountains and the Landsborough Valley. Small, isolated groups remain in the Rowallan, Takitimu, Longwood and Waikaia forests. Introduced to Breaksea Centre, Pigeon, Nukuwaiata and Ulva Islands.

Population: Several thousand birds, mainly in Fiordland and adjacent forests.

Conservation: Protected threatened endemic. Forest clearance and selective logging of mature trees removed most of their prime habitat: lowland red beech on fertile river terraces. Stoat and rat predation are probably the main cause of Yellowhead decline. Numbers of rodents explode after beech has flowered and seeded profusely, about every 5 years, and the number of stoats also explodes following this boom in their main prey. Yellowheads often feed noisily on or close to the ground, and females incubate and oversee nestlings for long periods in their nest holes; this results in a periodic population crash and a disproportionately high loss of females. Competition with introduced ves-

pulid wasps since the 1940s may have contributed to the dramatic decline of Yellowheads in the northern half of the South Island. The aims of conservation management are to control stoats and rats around the best remaining breeding sites, and to transfer birds to predator-free islands and to captivity.

Breeding: Yellowheads breed as pairs or in small groups with one or more helpers. They nest in holes high in mature or rotting trees, usually beech trees. The female builds a cup-shaped nest of moss, rootlets, twigs and spiders' webs, lined with fine grass; this is unusual for a hole-nesting bird. Laying is from early October to late January, with peaks in early November and late December corresponding to the two clutches usually laid by each pair in good habitats; however, in places where the habitat is poor, most pairs probably lay just one clutch per year.

They lay 1–3–5 pink eggs (23.5 x 18 mm), faintly freckled pale reddish brown. The female alone incubates for c. 20 days, and broods. The male and any helpers help to feed the chicks during the c. 22-day fledging period and after they have flown. The chicks still beg and get fed right through their first winter. The young usually breed first at 2 years old. Adult Yellowheads at Knobs Flat, Eglinton Valley, had an annual survivorship of 83% and life expectancy of 5 years, but the oldest bird lived to at least 16 years old.

Yellowheads and Brown Creepers are the hosts of the Long-tailed Cuckoo, and in late summer Yellowheads can sometimes be seen feeding a cuckoo chick many times larger than themselves.

Behaviour: Gregarious when not breeding. From mid-summer to the end of winter, family parties coalesce into roaming feeding flocks of up to 25 Yellowheads; the bigger the flock, the noisier. They often lead mixed-species feeding flocks, and especially join parakeets to feed on insects they have disturbed. They are vocal all day and all year, except during the late summer moult. Territorial song peaks in late spring. Only males give the loud territorial song: musical, canary-like whistles

and trills. Other calls are loud and varied, mainly a rapid staccato chatter, musical whistles and slurs, and the female only sometimes utters a buzzing call.

Feeding: Diet is mainly invertebrates but includes some fruit. They search vigorously for insects and spiders, often upside down, in or just under the canopy in the leaves, twigs, cracks and crevices of branches and trunks, pressing with their tail feathers until these

are so worn down that they look like spines. Yellowheads sometimes come to ground but prefer to scratch through the leaf litter that accumulates in tree forks.

Reading: Elliott, G.P. 1990. Unpubl PhD thesis, Victoria Univ, Wellington. Gaze, P.D. 1985. *Notornis* 32: 261–269. O'Donnell, C. 1993. *Mohua/ Yellowhead Recovery Plan*. Wellington: DoC. Read, A.F. 1987. *Notornis* 34: 11–18. Read, A.F. & O'Donnell, C.F.J. 1987. *Notornis* 34: 307–315.