

head differs from that of most other rare New Zealand birds. Early in the history of European colonisation it disappeared from the podocarp-hardwood forests of Stewart Island and central Westland. Douglas² writing of yellowheads in Westland about 1899 noted:

"At one time they were common all over the country, but now they must be very rare — cats again — I haven't seen one for years even in the uninhabited South."

Certainly by the 1930s they were only rarely reported from the podocarp-hardwood forests of Westland and had disappeared entirely from Stewart Island. Despite this, yellowheads remained common in many beech forests throughout the South Island well into this century. Since then there has been a gradual contraction of their range with yellowheads disappearing from most of Nelson and Marlborough, and more recently, from parts of north Westland.

Explanations for the yellowhead's decline are not easy to find. Introduced rats, stoats and cats have probably played some part. Stoats certainly prey on nesting yellowheads and the early disappearance of yellowheads from Stewart Island and central Westland podocarp-hardwood forests parallels the spread of these predators. However, yellowheads persist in relatively high numbers in Fiordland, where stoats and rats are present and apparently reasonably common. Forest clearance has also played some part in their decline. Their disappearance from much of the eastern South Island can be explained by forest clearance alone, but their disappearance from the large relatively intact forests of north Westland and north-west Nelson would suggest it is not so simple.

No obvious explanation

There is no obvious single explanation for the decline of the species.

Forest clearance is still one of the greatest threats to the continued survival of the yellowhead and proposals to log large areas of beech forest for chips and pulp and paper production do nothing to reduce this threat.

In Dean, Rowallan and Longwood State Forests in western Southland, yellowhead habitat continues to be logged for beech timber, as do forests in north Westland which are likely to contain remnants of the region's once large yellowhead population.

Yellowheads are particularly vulnerable to forest logging. Their nests are usually built in holes in large beech trees and they spend much of their time feeding amongst the epiphytic mosses, ferns and lichens which only grow on older trees. Logging that removes all the larger trees make the forests unsuitable for yellowheads and young regenerating stands of beech, such as those in forests managed for sustained yield, are also unsuitable.

Beech forest birds

Today yellowheads are characteristically found in beech forests. They occur in highest numbers in tall, red beech-dominated



Chipmilling operations such as this in the Rowallan Forests do nothing for the survival of yellowheads. A stop to logging and research programme into their needs is vital.

forests on fertile valley floors, in rain-shadow areas. During the winter in some parts of the South Island one can still see noisy mobile flocks of up to 30 yellowheads in company with yellow-crowned parakeets. They move through the forest, feeding mainly in the canopy and on trunks and branches, but occasionally descending to the lower understorey and even to the ground. These flocks are rather fluid in their composition, with yellowhead family groups constantly leaving and re-joining.

In the spring these flocks break up as the yellowhead pairs establish territories and begin breeding. Eggs are laid from October to January, with peaks of egg laying in early November and at New Year. In the best habitats yellowheads lay two to four eggs in cup nests they construct in holes in trees. Most use knot holes in large live beech trees, but some use holes in decaying timber. Most nests are high off the ground; the highest nest recorded so far was 30 m off the ground.

Yellowheads form tightly knit family groups. Pairs stay together for many years and chicks are fed for up to nine months after they fledge. Excess adults and non-breeding juveniles often help feed the chicks of breeding adults.

Insect eaters

Yellowheads are largely insectivorous. Unlike many of New Zealand's small insectivorous birds they take all their food while perched and none on the wing. Their most conspicuous feeding technique involves perching on a vertical trunk or branch, using the tail as an extra prop, and scratching vigorously at the bark and epiphytic growths, often sending showers of debris onto unwary birdwatchers. This feeding method results in the yellowheads characteristically abraded tail. Another energetic technique involves hanging upside down

on the end of a small dead twig and probing into the broken end in search of beetle larvae.

The noisy and often messy feeding behaviour of groups of yellowheads frequently attracts camp followers. Fantails often follow yellowheads to take insects they disturb and yellow-crowned parakeets hang around apparently just for the company.

Unwitting host

Yellowheads play host, albeit unwittingly, to long-tailed cuckoo eggs and chicks. The long-tailed cuckoo replaces a yellowhead egg with one of its own, then leaves the yellowheads to incubate the mixed clutch. Soon after hatching, the young cuckoo pushes the yellowhead eggs or chicks out of the nest so that it alone benefits from the yellowheads' parental care. The cuckoo leaves the nest after about 30 days (which is 8 — 10 days longer than yellowhead chicks). The adult yellowheads continue to feed the cuckoo for at least two weeks. Cuckoos have a significant effect on yellowhead breeding success. In the Eglinton Valley in Fiordland in 1984–85 they caused an estimated 7.5% drop in yellowhead breeding success.

The yellowhead is closely related to the whitehead of the North Island, but the latter is faring much better. Soon after European colonisation of New Zealand, the whitehead suffered a dramatic decline which prompted Buller to prophesy its extinction.³ Happily the whitehead recovered and is now common in native forest, scrub and some exotic forests south of Auckland. It has so far failed to recolonise north of Auckland.

The brown creeper, another close relative of the yellowhead, has also survived relatively well and is still common in native forest and scrub throughout the South Island. It too has invaded some exotic forests.

Perhaps the key to the yellowhead's failure to thrive lies in its relatively narrow habitat requirements. Yellowheads are today primarily birds of tall beech forests and they have been unable to colonise exotic forests or survive in regenerating forest and scrub. The least we can do to ensure their survival is to stop logging their forest homes and commence a major research programme to protect the bird. 🦜

References

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- 3 TURBOTT, E.G. (ed.). 1967. *Buller's Birds of New Zealand.* Whitcombe and Tombs, Christchurch.

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