



Another refuge of the orange-fronted parakeet is in the Hawdon River valley, adjacent to Arthur's Pass National Park. The Hawdon is just across a mountain range from the Hurunui but drains into the upper Waimakariri River. Recent surveys have confirmed a third population in the nearby Poulter River which also drains into the Waimakariri River.

baited by parakeets,' Richard Suggate says. At time of writing, the size of the buffer zone is being assessed. Orange-fronted parakeet were seen in the nearby Poulter valley last summer, and there is the possibility they may be located in others adjacent, such as the Esk.

Possums are controlled within the orange-fronted parakeet areas to maintain the quality of the vegetation, but are considered less of a direct threat to kakariki as they usually cannot get into the holes where the birds nest.

'In the Hurunui we have used ferratox and 1080 in bait stations. Bait stations are placed along the bush edge every 100 metres. Changing the poison prevents bait shyness.

'The system along valley-floor margins is successful at reducing possum numbers over the whole hillside. This is because of the high mobility of possums. Possums move in to replace those killed. We are confident that it has kept possums in low numbers (less than three caught per 100 trap nights).'

DoC is also controlling stoats through existing trapping operations in both valleys.

'We run trap lines using hen eggs as a lure for stoats every 100 metres along the forest edge and up side creeks for 200-300 metres. In the Hurunui prior to 2001 we used 1080 poison in eggs. We changed from 1080 to traps, as the "experimental-use permit" for using 1080 on stoats had expired and by trapping we can obtain a better count of stoat numbers.

'We use chocolate buttons to attract rats so we can catch them in the same system that we use for stoats. There are now a total

of nearly 1000 rat-trapping stations deployed in the Hurunui.'

A programme of counting orange-fronted parakeet and nest identification will also occur in the Hawdon and Hurunui throughout the summer, to build up a picture of the population and to assist efforts to locate eggs for captive rearing and subsequent release.

The need for this programme illustrates the severe plight of New Zealand's forest birds. It also raises questions about the impact of rats on forest birds and ecosystems away from the protection of the intensive predator control practised only in the few 'mainland islands'.

At the beginning of December 2003, the Department of Conservation and the various ministries for the Environment, Fisheries, and Agriculture and Forestry, released a discouraging annual report on the implementation of the Biodiversity Strategy. This strategy sets the direction of Government action to protect New Zealand's native plants and animals for the next 20 years.

The report concluded that New Zealand was failing to protect its native plants and animals. Although current Government and community action was slowing the decline in New Zealand's biodiversity, it was not halting it. The report identified that efforts to protect nature were being hampered by a lack of knowledge and funding — problems that have haunted efforts to protect orange-fronted parakeets and their habitat.

— **GEOFF KEELY** is a conservation officer with Forest and Bird. The Hurunui 'mainland island' and orange-fronted parakeet were the subject of articles in *Forest & Bird*, in November 2000.

Pacific Parakeets in Peril

Until news broke of their critical state, orange-fronted parakeets were unknown to most New Zealanders. Long thought to be a variation of the more common yellow-crowned parakeet, the orange-fronted is now recognised as an individual species.

Genetic research published by the Department of Conservation in 2001 reveals that orange-fronted parakeets share a more recent common ancestor with New Zealand's red-crowned parakeet rather than with the yellow-crowned parakeet.

New Zealand's parakeets (or kakariki) belong to the genus *Cyanoramphus*, which also includes seven other species and four subspecies distributed throughout the South Pacific. *Cyanoramphus* parakeets occupy a wide range of habitats from the wet and windswept subantarctic tussocklands of the Auckland Islands to the lush tropical rainforests of New Caledonia.

The *Cyanoramphus* genus appears to have originated in Australia and spread throughout the South Pacific, diversifying into the many species we know today.

Molecular data suggests that New Zealand's parakeets arrived here from Australia via New Caledonia between 450,000 and 625,000 years ago. Unfortunately, the spread of people and their associated pests through the South Pacific has taken its toll on parakeets; three species and one subspecies are now extinct, lost from the Society Islands, Macquarie Island and Lord Howe Island.

In the 1800s, orange-fronted parakeets were found throughout the South Island, Stewart Island and a few northern offshore islands. Now they are found only in three valleys within Arthur's Pass National Park and Lake Sumner Forest Park.