



ALLAN POLL

The raucous screechings of a busy flock of kaka are a memorable welcome to the shores of Lake Rotoiti near St Arnaud, in Nelson Lakes National Park. According to the rather proud locals, these are the 'teenagers' of a growing lake-side population of this threatened native bush parrot. Their loud and youthful posturings become part of an astonishing symphony when the bellbirds and tui join in the daily dawn chorus. The cacophony of birdsong heralds the successes of a major conservation trial in the area.

The Rotoiti Nature Recovery Project is a Department of Conservation initiative aimed to create a largely pest-free refuge in the honeydew beech forests beside Lake Rotoiti. The current area encompasses 825 hectares at Kerr Bay, close to St Arnaud village.

Within three years the project team has achieved significant results by tackling both insect and animal pests. The possibility of extending the targeted area further along the lakeshore, and even into the Travers

A popular walking track through the beech forest skirts the shores of Lake Rotoiti in the 'mainland island' area of Nelson Lakes National Park. Encouraging visitors to understand the effect of pest control particularly on birdlife is part of the project. Once visitors here were harassed at times by European wasps, 1.7 million of which have been exterminated. The sound of birdsong during the day is another sign of improved forest health.

Valley at the head of the lake, is currently under review. Nearby, some private landowners are initiating their own pest control programmes, based on the department's methods.

'We aim to develop pest-control techniques that can be applied more widely,' says Dr David Butler, the project co-ordinator. 'We also see the project as a catalyst, to show other organisations what can be achieved and encourage them to try it on the land they administer.'

The project was set up as a pilot for recovering the natural environment within large honeydew beech forests, which are extensive in the South Island. There are two major challenges: wasps and animal pests.

Millions of European wasps invade these beech forests to feed on honeydew, which is produced on the trunks of beech trees by a tiny scale insect. The nectar is needed by native birds and insects but the wasps get to it first.

The other problem is the consequence of the 'beechmast cycle'. In seasons when the beech trees seed prolifically there is a population explosion of rodents. Then stoats, too, breed prolifically, turning on native birds when they have finished eating the mice and rats. Yellowhead, kaka and parakeets are particularly vulnerable to such pests because they nest in tree holes.

The Rotoiti Nature Recovery Project is one of several forest-ecosystem recovery projects, or 'mainland islands', managed by the Department of Conservation. These

Young kaka play raucously by the lakeshore near St Arnaud. They are the product of an intensely managed recovery project which secures their habitat from pests, in the 'mainland island' on the eastern shore of Rotoiti, Nelson Lakes National Park.

aim to restore and protect habitats on the mainland through intensive management of introduced pests. The Rotoiti project has concentrated on more than outright pest control, however. Results have been intensively monitored so that control methods can be fine-tuned. DoC has placed a strong focus on advocacy and education at the easily-accessed site. Community involvement is actively encouraged.

The three-year war on pests at Rotoiti has already reduced possum numbers by 97 percent. Decreased possum browsing in successive growing seasons has given their favoured vegetation a welcome break, with noticeable growth in endangered mistletoes and the rare *Pittosporum patulum*.

In 1999, the biggest wasp-control operation ever attempted in New Zealand reduced wasps by 90 percent. This included the destruction of 2300 nests and 1.7 million wasps. Monitoring has confirmed that lower wasp numbers have increased honeydew supplies for native birds, and reduced wasp predation on invertebrates.

A stoat-control programme, supported by local residents maintaining their own traps, is credited for the most successful



The honeydew produced by a scale insect on the bark of beech trees attracts European wasps which take the food favoured by honey-eating birds. In the 'mainland island', field staff poisoned 2300 nests killing some 1.7 million wasps during 1999.

breeding season on record for kaka. In two years, four pairs of kaka nesting in the project area produced 12 surviving young. This season three nests contained 10 more chicks. All three have been closely watched by project staff. At the time of writing, three chicks in one of the nests had fledged, putting them beyond danger of stoat predation.