



The *Pied Piper of Hamelin* really is just a fairy tale compared with the real life achievements of conservation staff and scientists who are ridding New Zealand's offshore islands of rats. These introduced animals are the enemies of birds, lizards, insects and plants, and their removal has resulted in a spectacular recovery in natural values on some of our most precious reserves.

To date rats have been eradicated from 54 of our offshore islands, ranging from small rock stacks to the rugged 1965 hectares of Kapiti Island. Presently, Kapiti ranks as the largest rat eradication success in New Zealand and already the reserve is showing dramatic recovery signs.

Stitchbird numbers have rocketed (to a 78 percent survival rate for young birds, compared with 33 percent previously). Saddleback numbers have increased from nine pairs to 20, where previously they were declining. Anecdotal evidence reports an increase in lizards and invertebrates on Kapiti. A partly completed vegetation study has already noted increased numbers of native seedlings, many growing in some areas for the first time on record. Breeding seasons must surely improve for the bush parrot, kaka, considering that pre-poison monitoring showed half of their nests were preyed on by rats.

Like other rodent-free, offshore islands, Kapiti plays a key role in safeguarding populations of New Zealand's threatened wildlife. Several threatened species are already on the island. The way is now clear to transfer more.

During the 1990s, expertise for the eradication of rats has developed so much that the Department of Conservation is now planning to eradicate rats from several major islands, including Little Barrier in the Hauraki Gulf, Tuahua or Mayor Island in the Bay of Islands, Raoul Island in the Kermadec group, and Campbell Island in the subantarctic.

The story of rat eradications combines developing technical expertise with personal determination. Patience and extended sojourns in cold, wet and rugged environments have all played a part. Key examples of the developing techniques can be traced in the increasingly difficult challenges met.

Rugged Breaksea Island (170 hectares) lies on the Fiordland coast. Norway rats were exterminated there in 1988. Rowley Taylor of the then Department of Scientific and Industrial Research led this operation, the first on such a major-sized island. The method used was a 'rolling front' of bait stations placed 40-50 metres apart. The island was cleared in sections with the 'rolling front' advancing progressively along the length of the entire island.

Rats are a major predator of native birds and other animals. Their raids on nests, eggs and chicks have been blamed for the critical state of many bird populations. New Zealand has three species of rats, all introduced: the black or ship rat; the Norwegian or brown rat; and the kiore or Polynesian/Pacific rat.

The black rat (pictured) is an adept tree climber, where it robs nests.



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