

What are the worst predators?

Stoat

(*Mustela erminea*)

Stoats are very widespread in native forest throughout New Zealand, and are one of the biggest threats to birds. While their main prey is ship rats, they also eat mice, birds, and eggs. They are active 24 hours a day and are good at climbing trees. Stoats are particularly lethal to hole-nesting birds such as kaka, yellowheads, and parakeets.

Ship rat (also called black rat)

(*Rattus rattus*)

Though very common throughout New Zealand, ship rats are rare in beech forests. They are important predators of many native birds including kokako and yellowhead, as they are very agile climbers. They eat insects, seeds, eggs, chicks, and small adult birds. Rat numbers rebound within 6 months of control operations, so the most effective time to trap is in winter and spring, as this protects nesting birds.

Domestic and feral cats

(*Felis catus*)

Wild cats eat relatively few birds, preferring mice, rats and rabbits. Many of the birds they do eat are introduced species. Cats may actually indirectly benefit birds by keeping rat numbers down. However, domestic cats are a major predator of native birds in urban areas.

Australian brushtail possum

(*Trichosurus vulpecula*)

Possums are opportunistic feeders. As well as browsing on leaves and twigs they eat eggs and kill the adults of at least seven different native bird species.

Australian magpie

(*Gymnorhina tibicen*)

This aggressive Australian bird eats eggs and harrasses native birds in some areas.

Australasian harrier hawk

(*Circus approximans*)

The native harrier hawk sometimes attacks bird nests and eats chicks.

Christchurch City Council Port Hills predator plan

The Port Hills rangers have a variety of traps (including Timms, Fenn and cage traps) available for loan to the public and they will collect and dispose of the captured animal pests. They can also advise on the use of poison baits as an alternative.

The Port Hills rangers have continuous control operations underway in many reserves along the Summit Road where possums, rats, stoats and goats are being controlled throughout the year. The areas targeted have a network of bait stations and traps to ensure that the reinvasion of animal pests is kept to a minimum.

It is planned to widen the areas of effective animal control as far as possible outside the reserve boundaries. Without costly predator-proof fencing, many animal pests can invade the reserves through normal stock fences.

Pamphlets in this series are:

1. Bellbird identification
2. Bellbird in Canterbury
3. Bellbird predation
4. Bellbird food sources

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Bellbird

(Korimako)

Predation



Stoat at bellbird nest

Do predators reduce bellbird numbers?

Although bellbirds are still widespread on the New Zealand mainland, research has shown that mammalian predators, such as rats and stoats, keep their numbers low.

Historical declines

When Pakeha arrived, bellbirds were common throughout the North and South Islands. Their numbers declined steeply about 1860 in the North Island, and about 1880 in the South Island, and for a time it was thought they may vanish from the mainland. Their numbers recovered somewhat from about 1940 onwards, but they are still rare in parts of Wellington, and almost completely absent on the mainland north of Hamilton. That they still survive on predator-free islands off the Northland coast, and that their decline coincided with the arrival of ship rats and stoats, all suggest that predation is a major limiting factor to bellbird abundance. Where bellbirds persist on the mainland, numbers seen or heard are usually lower (0.5 to 1 per 5-minute count) than on islands where predators are absent (2 or more per count).

Predator-control experiments

Experiments where predator numbers are reduced usually show an increase in bellbird numbers. In the Nelson Lakes National Park, intensive control of stoats, rats and wasps has led to bellbirds increasing 5-fold (to 8–10 per 5-minute count). In the Eglinton Valley, bellbird numbers increased during stoat trapping, then decreased again when trapping ceased. At Craigieburn, stoat trapping in one catchment led to an 80% increase in bellbird numbers in one season. Nest success in the trapped catchment was 81%, compared with 18% in an adjacent untrapped catchment. This shows that bellbirds would be more common on the mainland if they could be protected from predators.



Ship rat

What can you do to help?

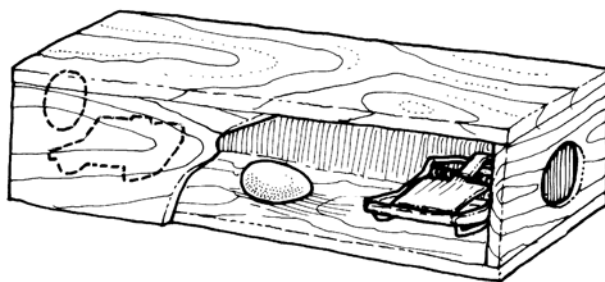
There are a range of ways you can help.

1. Provide tall roost trees

Bellbirds need tall trees to roost and nest in to be safe from predators. If you are able to grow, or preserve, tall trees this will help them to shelter in your area. Even exotic trees can be useful both for feeding (e.g. eucalypts for nectar) and for shelter (bellbirds are recorded as nesting in exotic conifers such as pines or Douglas fir) – the taller the better.

2. Trap for rats and/or stoats

If you live in or near the countryside, consider setting snap (kill) traps for stoats and/or rats on your land. These snap traps (the stoat version is called a Fenn trap) should be placed in a wooden or wire-mesh tunnel so larger animals (hedgehogs, cats etc.) cannot enter and be harmed. Bait the trap with a small piece of meat, or a hen's egg. Check the trap regularly to remove dead animals.



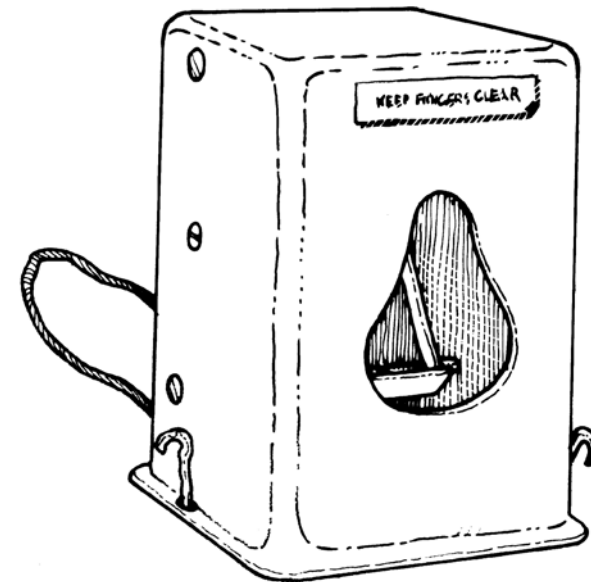
Wooden box containing Fenn traps, for stoats

3. Control cats

If you have a cat, put a bell on its collar – this seems to save some birds, while not preventing the cats from catching rodents. When your cat dies, consider not getting another to replace it. If you don't have a cat, consider setting rat traps in spring to keep rats down during the bird-breeding season. While cats are probably not the worst predator of bellbirds, they do eat many native birds that venture into towns (especially silvereyes, fantails, and grey warblers).

4. Trap for possums

Possums are widespread in towns and the country. If you set a kill trap for possums (a Timms trap) baited with apple and a dab of cinnamon, you can help to keep this pest under control. While possums are not proven to kill bellbirds, they do compete with bellbirds for food, and also kill a number of other native birds, ruin fruit trees and roses, spread bovine Tb, and generally cause a nuisance.



Timms trap for possums

5. Support your local council and the Department of Conservation

In bush areas such as reserves and national parks, your local council (such as the Christchurch City Council) or DOC will have a pest control strategy, which nearly always includes possum control, and sometimes also includes stoat or rat control. Let them know that you support their efforts to protect native birds!