

PEST CONTROL AND BIRDS

The use of 1080 for pest control plays a vital role in protecting native birds.

WHY WE CONTROL PESTS

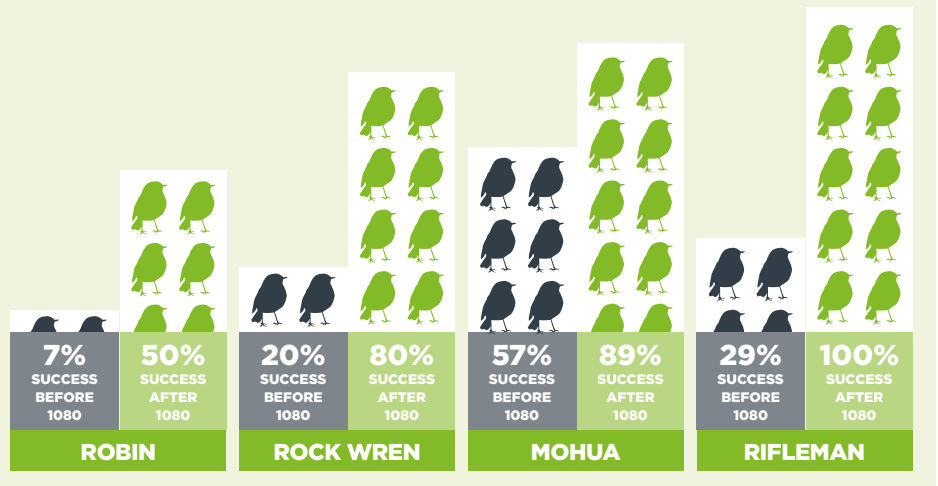
OSPRI's TBfree programme controls pests (mainly possums) to protect cattle and deer herds from bovine TB. The disease in cattle and deer herds can impact meat and dairy production which affects farmers' income and the willingness of export markets to buy New Zealand products. Possums are responsible for around half of all new herd infections, with the others due to stock movement. If we reduce possum numbers to below two possums per ten hectares for a number of years, the disease will eventually die out. Pest control has dramatically reduced the number of infected herds in New Zealand.

Depending on the area, OSPRI's TBfree programme targets possums through ground-based control with traps and baits or aerial control using sodium fluoroacetate (1080). The same pest control techniques are also used by the Department of Conservation and regional councils.

HELPING NATIVE BIRDS

Possums eat native plants and are a major predator of our native birds, preying on eggs and chicks. By keeping possum numbers low, our native wildlife and bush get a chance to thrive. Along with possums, 1080

NESTING SUCCESS OF NATIVE BIRDS FOLLOWING AERIAL 1080 OPERATIONS



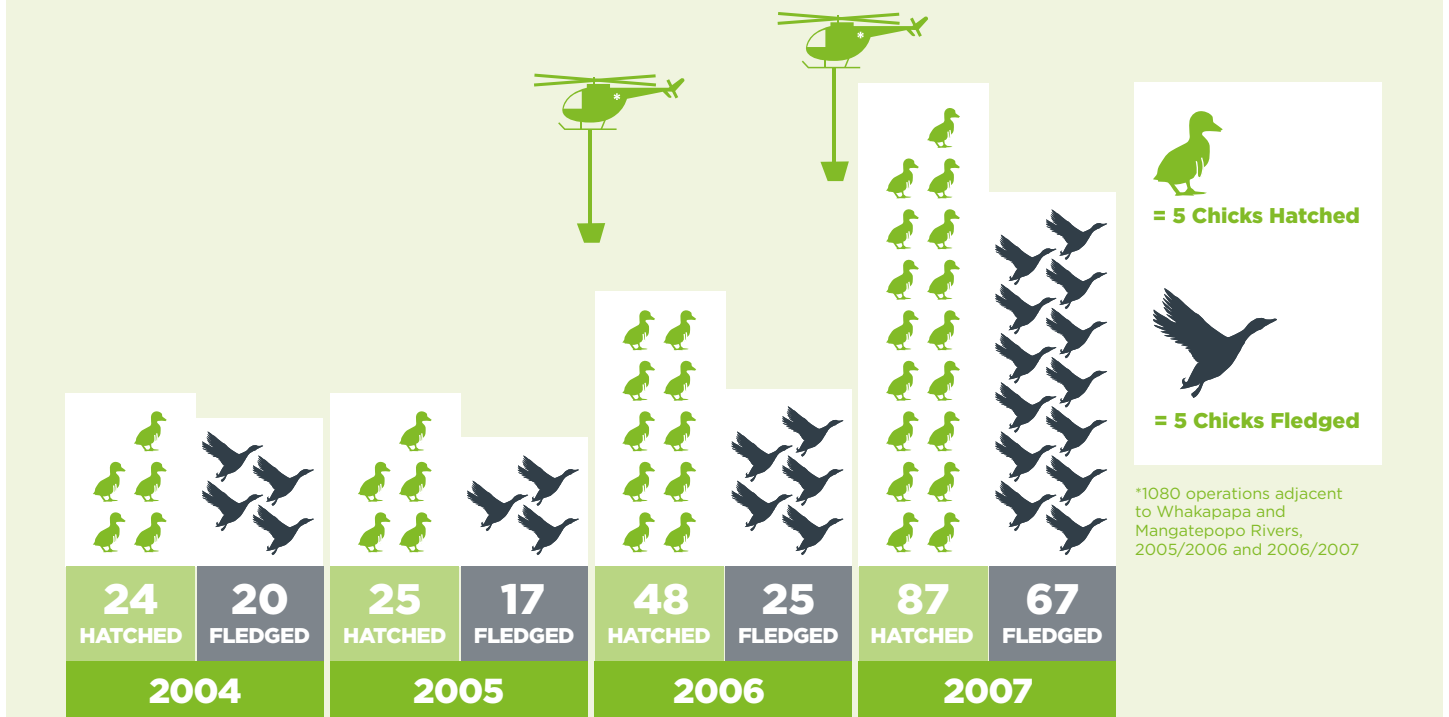
also kills rats and stoats indirectly when they scavenge poisoned possum carcasses. This triple hit provides a breeding window for birds that is crucial to increasing chick survival.

Many studies show that introduced predators are the main cause of declining mainland bird populations. Pests such as possums, rats and stoats eat millions of bird eggs and chicks every nesting season. They also eat bird food such as leaves, fruit and invertebrates. The most sensitive birds, such as tieke, hihi and kakapo,

are now confined to pest-free islands, but in recent years some have been returned to pest-free sanctuaries on the mainland.

Keeping our native and endemic birds safe depends on pest control. Large-scale control is required because the pests are pervasive and bird populations naturally occupy large areas, including rugged terrain. Until radical new techniques arrive, birds like kiwi, whio and mohua will disappear from mainland New Zealand unless aerial 1080 is used to control possums, rats and stoats.

WHIO BREEDING FOLLOWING 1080 DROPS IN THE CENTRAL NORTH ISLAND



WHAT THE RESEARCH TELLS US

Bird populations are difficult to count precisely and often change for unknown reasons. However, most bird populations increase or are unaffected in areas where pest control is carried out compared with populations in non-treated areas. Measures are put in place to prevent birds from accessing traps, making traps a very low risk.

There is an extremely low risk to kiwi, kaka, whio and kokako during aerial 1080 operations, and other bird species that are monitored through aerial operations steadily increase. There have been instances where some kea have been killed by 1080 baits. This may be because kea have adapted to eating non-natural foods around humans. However, the loss of a small number of birds was outweighed by overall population gains because stoats are known to prey on nesting kea.

Pest control with traps or poisons can never be risk-free. Very few birds

are found dead after aerial 1080 operations and most are introduced birds, especially blackbirds. In a study by Landcare Research, only 2 birds tested positively for 1080 from the 11 native birds found dead after 15 aerial 1080 operations during 2003-2014. These results support bird count studies showing that modern aerial 1080 operations pose an insignificant risk to bird populations, and a small threat to individual birds.

A recent study by Victoria University of Wellington used automated recording devices to measure bird

song after an aerial 1080 operation in the Aorangi Range. It found that periods with silence (no bird song) decreased after a 1080 operation – contrary to anecdotal statements that forests go silent after 1080 drops.

Declining populations of birds where there is no pest control means that removing these predators is now seen as the most important tool for bird conservation in New Zealand. Recovery of whio, kiwi, kokako, mohua, kakariki, robin, kea, tui, bellbirds and kereru is being achieved through controlling pests.



Kokako © Herb Christophers

CHANGES TO BAITS AND TRAPS

Research has allowed for dramatic improvements to the way we use 1080. Around two weeks before 1080 is aerially dropped, non-toxic bait is now dropped over the site. Possums are creatures of routine and this 'pre-feed' helps overcome their bait shyness. This increases the operation's effectiveness, so less toxic baits are needed. Sow rate have decreased from 30kg per hectare in 1970 to around 2kg or less per hectare today. That's only

about five baits for an area the size of a tennis court. Each bait contains only 0.15% biodegradable 1080.

Modern cereal-based baits are designed to stop the pellet breaking up, and toxins are masked with cinnamon and orange and coloured green, making them more enticing to possums and less attractive to birds.

The types of traps used are also developing rapidly. The restricted leg-hold 'gin' traps historically used to target possums were known to mistakenly catch kiwi, and more refined and humane traps are now used to target stoats.



Pre-feed pellets (top) and toxic baits (bottom)



ONGOING RESEARCH

Long-term studies of bird populations in areas with repeated 1080 drops are ongoing. They include acoustic monitoring and bird counts in:

- Aorangi Range (Victoria University of Wellington)
- Kahurangi National Park (Canterbury University)
- Waimarino and Rotoaira Forests
- Tararua Range
- Whanganui National Park
- Waitutu
- Landsborough
- Eglinton, and
- other Department of Conservation sites in the Battle for Our Birds programme.

The Department of Conservation also undertakes more specific species-focused programmes looking at welfare of mohua, orange-fronted parakeets and rock wrens during aerial 1080 operations.

The Parliamentary Commissioner for the Environment supports aerial control. The Commissioner completed an extensive review into the use of 1080, in which she strongly endorsed its continued use in New Zealand.

Visit pce.parliament.nz to read the report.



Bellbird © Richard Ashurst



North Island Robin © Richard Ashurst



Kereru © Matt Winter



FURTHER INFORMATION

DEPARTMENT OF CONSERVATION

doc.govt.nz/battleforourbirds

FOREST AND BIRD

forestandbird.org.nz

WHY 1080 IS USED IN NEW ZEALAND

1080facts.co.nz

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