

Keeping kea safe

The Department of Conservation is testing a bird repellent (D-pulegone) on kea in Arthur's Pass to see if it stops them interacting with cereal bait used in predator control.

The purpose of the trial, funded by DOC and OSPRI (TBfree NZ), is to reduce the risk to kea during aerial 1080 predator control operations.

Keeping kea safe is a challenge

Kea are a taonga for Ngāi Tahu and Te Tau Ihu iwi (northern South Island iwi). They are famously smart, which can get them into trouble. Kea live in alpine areas and forests, where they tend to nest. Predators (stoats, possums, and feral cats) are their biggest threat, and without widespread predator control, they are at risk of extinction.

Keeping kea safe while controlling predators is a challenge. Kea in some areas have died by eating 1080 cereal baits. Research has shown kea are at greater risk from 1080 where they regularly interact with people and human food in places like Arthur's Pass and Franz Josef.

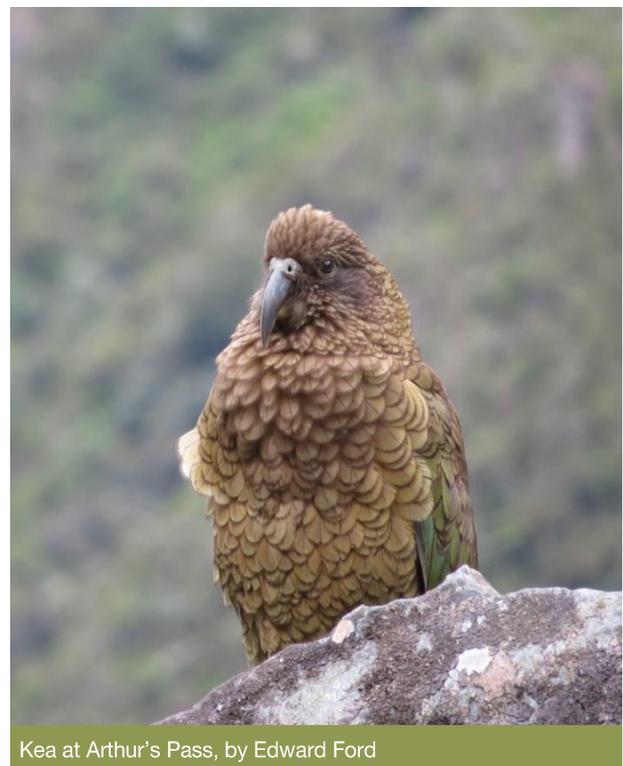
Repellent trial

D-pulegone is a harmless, peppermint-flavoured food additive, which birds don't like the smell and taste of. Previous trials using this repellent with kea have shown promise, but it evaporated too quickly from the cereal bait to be effective. A new method is being tested using tiny capsules of repellent in the bait.

DOC staff will test the repellent in green, non-toxic cereal baits with kea around Arthur's Pass village to see if it repels them.

Individual kea will be fitted with coloured leg bands so they can be identified and monitored. This work will take place from December 2021.

Depending on the results, DOC may test another repellent Anthraquinone in brown non-toxic cereal bait, which is typically used as a prefeed in aerial operations. This repellent makes birds feel temporarily sick and puts them off eating cereal bait in the future. It has shown promise in previous trials in South Westland.



Kea at Arthur's Pass, by Edward Ford

The repellent trials at Arthur's Pass are part of wider research into methods to keep kea safe during predator control. DOC, Ngāi Tahu, Kea Conservation Trust (KCT), ZIP (Zero Invasive Predators) and OSPRI (TBfree NZ) are involved in this work.

Importance of predator control

Biodegradable 1080 bait applied by air is highly effective for controlling rats, possums, and stoats, which are the biggest threats to our native birds. It's also used to control the spread of bovine tuberculosis, a disease carried by possums that can infect cattle and deer herds and threaten New Zealand's export markets.

Predator control using 1080 over large, rugged areas where kea live, has been shown to significantly boost their nesting success and chick survival. About 70% of kea nests are successful after predator control. Without predator control, only 40% of nests produce chicks, and this drops to 10% in the year after a forest mast or seeding when predator numbers skyrocket.

All 1080 predator control in kea habitat must comply with DOC's code of practice, which is based on extensive research over the past 15 years and has measures for minimising risk to kea.

Next steps

If the D-pulegone repellent trial with kea is successful, further tests will be done with rats and possums, to check baits remain attractive to these target pests.

All going well, the repellent could be tested in a predator control operation next year. Kea would be monitored through the operation to gauge if the repellent works. The effectiveness of the operation on pests would also be measured.

The repellent trials will contribute to the science that underpins kea conservation work.

How you can help

Thanks for your interest in this work. If you have questions about kea research email: arthurspassvc@doc.govt.nz

You can help kea by giving them space. Getting too close can cause them distress.

Please never feed kea or leave food rubbish lying around. Human food is not good for them and can lead to risky scavenging.

You can help scientists monitor kea by reporting sightings of banded kea to the Kea Database: <https://keadatabase.nz/>



Kea at Otira Viaduct Arthur's Pass, by Fanny Cuzon