

Kea monitoring results, Okarito (2011)

DOC radio tracked 37 kea during an aerial 1080 operation in Okarito (South Island West Coast) in 2011. The purpose of the monitoring was to determine the risk and benefits to kea of predator control using aerially applied 1080. Eight kea died from eating toxic baits, and photos of six of them are below (note that 2 kea were not photographed). The kea's names were Uli, Tarzan, Ranger, Oroko, Lbit, Ginger Nut, Bridget and Kramer Blue.

It's really regrettable to lose any kea when 1080 is used but research shows that overall kea are better off with predator control than without.

Research was carried out at Okarito in 2009-2012 to test the effects of aerial 1080 predator control on kea nesting success. Kea were also monitored at Fox-Paringa—an area where there was no predator control. Results showed that kea nests were nine times more likely to survive and successfully produce chicks after aerial 1080 than without.

Initial nest success at Okarito was 46% and increased to 85% in the two years after aerial 1080. In contrast, nest success at Fox-Paringa, where there was no predator control, was initially 21% and fell to 12% over the same two-year period.

This substantial positive effect on kea nesting success is due to effective control of mammalian nest predators, especially stoats.

DOC has been researching kea and outcomes of predator control for a decade and has published papers on this work. For more information see: www.doc.govt.nz/kea-monitoring

Overall, studies show when predators are controlled with well-timed aerial 1080 and/or traps, about 70% of nests produce chicks. Without predator control, typically only about 40% of kea nest succeed, and this drops to only about 10% the year after a forest mast (seeding) when rodents and then stoat numbers, increase dramatically.

The research also shows that kea are at greater risk of eating 1080 baits when they live near areas they have learnt to scrounge human food at sites like Fox Glacier, Arthur's Pass and the Homer Tunnel. Kea are nearly seven times more likely to survive aerial 1080 operations in remote areas more than 40 km away from potential scrounging areas than kea at sites less than 20km from these areas such as Okarito.

Kea in the remote backcountry, where most of DOC's aerial 1080 predator control work is done (more than 80%) are at a low risk of being poisoned and any deaths are easily offset by greater nesting success and more young birds in the population.

Use of aerial 1080 in kea habitat should follow DOC's code of practice to ensure that the risk to kea from 1080 is minimised and they benefit from stoat control. Cereal baits are laced with cinnamon and dyed green to avoid attracting birds including kea. Bait distribution is controlled to effectively kill rodents and possums (and stoats as they eat poisoned carcasses) but limit bait availability to birds.

Kea 1



Kea 2



Kea 3



Kea 4



Kea 5



Kea 6

