

FIGHTING THE THREAT OF POSSUMS TO NATIVE TREES



New Zealand has one of the highest extinction rates of native species in the world, largely due to predation by introduced mammals. Introduced mammals are costly to our economy as well as our environment.



Threatening our native trees

An estimated 30 million possums consume over 20,000 tonnes of foliage produced each day by our forests. Although this appears to be a modest amount, the preference of possums for certain species such as pōhutukawa, rātā, kāmahī, tree fuchsia, totara, māhoe, tawa and kaikawaka, can and has caused catastrophic collapse of forests dominated by these species.



Browsing on species such as pōhutukawa is particularly damaging where the preference for newly expanding flower and vegetative buds causes rapid canopy dieback. Severe defoliation over just two years can cause the death of large old pōhutukawa and rātā, and has resulted in the loss of these species from large areas of New Zealand's native forest.

Possums also browse regeneration critical to the future health and survival of these forests. For example, in one part of the Ruahine forest, possums took less than 10 years to reduce the proportion of rātā and kamahi in the forest canopy from 74% to 8%.

War on possums!

In the 1940s, New Zealand declared war on possums and millions of dollars have been spent trying to get rid of possums to protect the New Zealand environment from possum destruction since.

DOC staff have also been busy getting rid of possums in New Zealand's national parks and conservation land through baiting and trapping. Farmers, conservationists, regional councils, land owners and businesses have also been working hard by setting traps and laying bait to kill possums.

You can help too

- The most effective and preferred strategy is direct control of local possum populations. Techniques include kill traps and poison bait stations. Talk to your local or regional council.
- Physical barriers around areas of bush and on individual trees offer some protection but are often unsightly and bypassed by smart possums.
- Eliminate potential nesting sites. Check dark, dry sites such as sheds and compost areas.



Possums

Brushtail possums were brought to New Zealand over 150 years ago from Australia to establish an export fur trade. The total number originally imported was 200 to 300 and most were introduced into the lower South Island and around Auckland.

Possums are now found almost everywhere in New Zealand, and there can be as many as 25 per hectare in preferred habitats. There are an estimated 30 million possums in New Zealand today. They are the major cause of the decline of some of our native trees, including pōhutukawa and rātā and can change the composition and structure of native forests. They destroy the nests of kererū, and North Island kōkako. Possums have also been recorded killing adults or young of tītī (sooty shearwaters or muttonbirds), kāhu (harrier hawks), pīwakawaka (fantails) and tāiko (Westland black petrels).

In their native Australia, possums are a natural part of the environment, are not a conservation threat, and are legally protected under Australian law.



The use of 1080 to control possums in New Zealand

1080 is an essential pest control tool. In rugged, inaccessible areas where ground baiting is too difficult, local regional councils in conjunction with DOC undertake carefully controlled aerial drops of 1080. This means about one teaspoon of 1080 per hectare is applied.

Prior to a 1990 possum eradication programme using 1080, Rangitoto Island's pohutukawa forest was dead and dying. Rangitoto is now a blaze of healthy pohutukawa, flowering throughout the summer. Monitored bird life records show that since possums were eradicated

there are 10 times more tui and silvereye living on the island. Honey production on the island pre-1080 possum control was 7kg per hive. One year later it rose to 25kg per hive, and two years later it was 50kg per hive.

Likewise rātā and fuschia are flourishing on the Otira valley in Arthur's pass after 50 years of 1080 drops. Ten kilometres down the road on the Arahura valley where there's no pest control, rātā skeletons are abundant, and the forest is silent.

Why Project Crimson

The introduction of the Australian brushtail possum, together with human development not only destroyed many of New Zealand's pōhutukawa and rātā forests but also, by late last century, threatened the species.

Since 1990, Project Crimson has been working with communities around New Zealand to renew and restore our precious ecosystems, with a particular focus on our iconic pōhutukawa and rātā trees.

Both pōhutukawa and rātā belong to the genus *Metrosideros*. While there are a number of different species of these trees, Project Crimson focuses only on the mainland pōhutukawa and three tree rātā – northern, southern and Bartlett's.

Through a wide range of programmes to educate and inform, community partnerships, widespread planting and possum eradication programmes, Project Crimson has made remarkable progress in our mission to enable pōhutukawa and rātā to flourish again in their natural habitat.

All New Zealanders can be part of our work by joining our planting days, making a donation to the Trust or buying our products. Join us in our mission to protect and enhance New Zealand's natural environment. **Visit www.projectcrimson.org.nz**

