



## PRESERVING OUR ENDANGERED INDIGENOUS SPECIES

Scion is applying over sixty years of tree breeding research and propagation expertise into preserving some of New Zealand's endangered indigenous species, safeguarding their survival for future generations.

### NGUTUKAKA (KAKABEAK)

Scion is working with the Department of Conservation (DOC), Lake Waikaremoana Hapu Restoration Trust and Forest Lifeforce Restoration Trust to re-establish ngutukaka in pest controlled environments.

**A rare beauty** - Ngutukaka, *Clianthus spp*, is a member of the pea family. It is one of four legumes native to New Zealand, another of which is kowhai.

Ngutukaka (*ngutu* means beak, *kaka* the bird) is a medium sized shrub. It produces clusters of red flowers in spring which resemble the beak of the kaka, New Zealand's native parrot and from which it assumes its common name, kakabeak.

The nutritious ngutukaka is favoured as a food source by a range of forest pests, particularly browsers like rabbits and goats as well as deer and snails, meaning young plants do not often

reach maturity. It also competes in the forest environment with introduced invasive plant species such as buddleia and gorse.

There are only about 110 ngutukaka known to be naturally occurring across the country.

**Propagation** - Scion nursery staff have mastered the technique of propagating ngutukaka from cuttings. One year old plants are dispatched to DOC for planting in pest controlled areas.

**Our research** - Scion is helping preserve the three distinct genetic populations of ngutukaka located at Waikaremoana, Wairoa and the East Coast through:

- the development of seed orchards in secure environments within existing populations
- maintaining an archive of plants and seed for future generations
- continuous improvement of our propagation techniques.



*Pua reinga flower*



*Flowering New Zealand broom*

## OTHER ENDANGERED SPECIES

### **Pua reinga (woodrose)**

*Pua reinga*, or *Dactylanthus taylorii*, is commonly known as the woodrose. It is a truly parasitic flowering plant endemic to New Zealand.

*Pua reinga* attaches itself to the root tips of the host plant, stimulating the root to form a ball-like structure that resembles a rose. They produce flowering shoots that emerge through the leaf litter in summer, containing nectar that attracts native short-tailed bats and, unfortunately, possums and rats. Humans also seek out *pua reinga* to obtain the novelty woodrose formed on the host's root.

There are thought to be only a few thousand *pua reinga* left, and the rate of reproduction is low. Scion is trialling different techniques to propagate *pua reinga* in pest controlled environments, including artificially inoculating *griselinia* hosts which are kept in our arboretum for future research.

### **Maukoro (native broom)**

*Maukoro* (*Carmichaelia spp*) is a genus containing 24 species of indigenous broom, belonging to the legume family. Some species are more at risk than others. Scion is currently investigating methods of propagating *maukoro* for future replanting programmes.

[www.scionresearch.com/services](http://www.scionresearch.com/services)

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## OUR FACILITY

Scion's ten hectare nursery is located at the edge of Rotorua's redwood forest.

Along with shadehouses and controlled climate propagation facilities, our purpose-built container growing facility has capacity to grow at least 700,000 seedlings per year, bringing the nursery's total capacity to over two million seedlings.

We propagate a wide range of indigenous species using containerised and bare-root technologies. Our research has successfully shown establishment costs of indigenous plantations can be reduced considerably using bare-root seedlings of selected native shrub hardwood species.

**Niche research** - Scion's nursery supports a comprehensive range of industry-led and commercial research, as well as niche research programmes for specialised or difficult to grow species. We apply this expertise to helping save endangered indigenous species.

**Propagation** - Our nursery staff are specialists in propagation. This expertise is tailored to individual species' requirements.

### CONTACT

Peter Harington  
Research Nursery Manager  
Email: [peter.harington@scionresearch.com](mailto:peter.harington@scionresearch.com)  
Phone: +64 7 343 5690

Nursery office  
Physical address: 99 Sala Street, Rotorua  
Postal address: Private Bag 3020, Rotorua 3046  
New Zealand  
Phone: +64 7 343 5691