## **SPECIES FEATURE**

## ONGAONGA Urtica ferox

New Zealand is a relatively benign place for humans, at least with regard to wildlife. As per the lyrics of Randy Newman's song 'Sail Away', 'Ain't no lion or tiger, ain't no mamba snake.' However, New Zealand is the exclusive home of one of the world's most dangerous plants, the ongaonga.

Ongaonga, also known as tree nettle, is distributed across the North and South Islands as far south as Otago. It can grow into a woody shrub 2-3m tall and often grows together in thickets. Leaves are coarsely toothed. Stinging hairs (trichomes), up to 6mm long, sit at the ends of each tooth as well as along the leaf veins and stalks. When touched, even lightly, the hairs break, injecting painful toxins into the skin. A brush with ongaonga will leave one with a strange combination of prickly, tingling and numbing sensations for a few days. Intense encounters, such as blundering into a thicket, can lead to far more serious complications, such as respiratory stress, neurological problems, blindness, convulsions and even death. It is a plant to be treated with care and respect. For guidance on how to treat stings and when to see the doctor, please refer to Te Whatu Ora/Health New Zealand, for more information, click here.

Maori boiled the bark of ongaonga with the leaves of kawakawa to make a treatment for eczema and venereal diseases. They also used a decoction of ongaonga leaves and twigs to treat pains, stomach ache and gonorrhoea. At present, Dr. Eric Buenz of NMIT is among scientists attempting to isolate ongaonga's neurotoxins for use in treating neuropathy, which is damage to the peripheral nervous system, often suffered by individuals with diabetes, Guillain-Barré Syndrome and CIDP (chronic inflammatory demyelinating polyneuropathy).

Back in the wilderness, the caterpillars of kahukura (red admiral butterflies) find protection and food among the leaves of ongaonga. Protection is not complete, however, as shining cuckoos have also developed a resistance to ongaonga's toxins and are able to feed on the caterpillars. The nettle leafminer fly and the caterpillars of several moth species also feed on ongaonga.

Ongaonga flower between November and March. Tiny green flowers grow on short spikes at the base of the leaves. Ongaonga is dioecious, meaning there are separate male and female plants. Pollination is via wind. It has no specialized means of seed dispersal. The small fruits, each containing a single seed, simply drop to the ground.



Ongaonga leaves



Detail of ongaonga leaves showing poison-bearing stinging hairs

Compiled by Katherine Chamberlain