

OBSERVATIONS ON ONGAONGA (*URTICA FEROX*)

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Ongaonga is a plant usually carefully avoided by travellers in the bush. Its bad reputation is justified, as at least one person is known to have died from its stings (Connor, 1992). Nevertheless ongaonga has some interesting, even attractive features. The fearsome armament, ranks of long, stinging hairs on leaves and young stems, is quite beautiful and the plant's light green leaves always look fresh.

Ongaonga is a dioecious shrub (separate male and female plants), one or two metres tall. On Banks Peninsula it often forms dense patches at forest margins and in openings. It can grow on a range of soil types, but prefers fertile conditions; basaltic rocks provide a good substrate for it. It occurs on such rocks quite considerable distances inland, e.g. in Canterbury on the Harper Hills near Glentunnel (where it is rare). In the upper Taramakau Valley, Westland, in Arthurs Pass National Park, it is found on alluvial soils on the valley floor, and sometimes on upturned fallen tree bases.

In Ahuriri Valley, western Banks Peninsula, in most months from 1986-1997, I visited a study site where ongaonga is common. In winter the shrub is dormant. In sheltered sites it retains its leaves, but in exposed frosty sites they are shed. Sheep or goats then eat the bare stems back severely, so it appears to be very palatable. This may be because it accumulates nitrogen and phosphorus, a feature noted for Northern Hemisphere herbaceous nettles (Grime *et al.*, 1988). The browsers stay well clear of ongaonga in summer. Although, during the drought summers 1988-89, 1997-98, 1998-99 mature ongaonga plants on well-drained sites shed their wilted leaves and some were then chewed by sheep or goats, when the rains came new leaves soon resprouted.

In spring there is a rapid burst of growth with new jagged-margined leaves unfolding and production of the rather uninteresting hanging tassels of flowers (and, later, fruit). New branches can extend a metre in one growing season. The species is wind-pollinated. The dry fruit wall surrounds the single seed tightly, so the fruit is an achene. There seems to be no specialisation for seed dispersal. The seeds, enclosed by the fruit wall, simply fall to the

ground. Stinging hairs on the fruit clusters presumably deter animals that might otherwise swallow and disperse the seeds.

We have an ongaonga plant in our Avonhead garden, beside the path to our front door. It keeps everyone on their toes, as it quite often extends itself over the path! It revives quickly after being pruned back. In early February 1999 suddenly the leaves disappeared from it. The culprits were well-disguised, large, green- and white-striped, spiny caterpillars. They soon pupated; the chrysalids were very beautiful – green with golden markings. They hung suspended beneath the branches. Within two weeks they darkened, and, over two or three days the gorgeous adults – velvety young red admiral butterflies emerged. It was well worth growing the plant for such a lovely result. However I have orders to shift the plant to a place where it will be less of a threat to passers-by. The effects of caterpillar browsing on the plant were temporary, as, in March the lost leaves were replaced.

Germination of ongaonga seeds is a fairly long drawn-out process. Some seeds in a moist, relatively well-lit test germinated within a month (autumn), but others delayed their germination until spring, and a few more sprouted in later-summer-autumn of the following year (Burrows, 1996). Thus it is likely that, as do its Northern Hemisphere cousins *Urtica dioica* and *U. urens*, ongaonga maintains a soil seed bank (cf. Grime *et al.*, 1988). The young seedlings grow quickly. In good conditions, in their first year branches may extend for 30-50 cm. Young plants have appeared in our garden, the seeds probably having been carried there from the bush, on muddy boots.

References

- Burrows, C.J. 1996. Germination behaviour of seeds of the New Zealand woody species *Melicope simplex*, *Myoporum laetum*, *Myrsine divaricata*, and *Urtica ferox*. *New Zealand Journal of Botany* 34: 205-213.
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