

TAWARI AND ITS FRUITSLucy B. Moore

Tawari (*Ixerba brexioides*) is a plant that all Auckland naturalists should regard with affection. In the Waitakeres, as in Waipoua Forest, it comes in at higher altitudes and in places, for example along the old Cutty Grass Road, it is an important component of regenerating forest 4-6 metres tall, together with its usual associate, quintinia. On the summit of Te Moechau above Cape Colville, and on the tops of the Barrier Islands, the golden tones of its outer leaves add colour to the moss-draped cloud forest. It grows as a bigger tree, locally dominant, on the forested ranges from the Bay of Plenty to the Urewera where it reaches its southern limit.

Like kumarahou, tawari makes long promises of flowering. By the end of March the buds are well-formed, pale, and conspicuous, but the flowers open only in the following late spring. Creamy white and 2-3 cm across, these flowers display, better than those of any other native species, the basic arrangement of floral organs - silky sepals, well-separated petals, long stamens, nectar-producing disc, plump ovary, and stiff erect style. By the next April the fruit is fully grown but still drab green; with the dried nectary forming a sort of ruff round the base, it somewhat resembles the shape of the Queen's imperial state crown. The rarely-seen dehisced fruit is anything but drab. None of the standard Floras (Kirk, Cheeseman, Allan) gives a fully adequate description. Salmon has published colour photos, Audrey Eagle painted the newly-opened fruit at about life size, and Bruce Irwin made careful drawings to show structure of fruit and seeds, but these illustrations are not accompanied by satisfying explanatory notes.

The capsule splits outwards from the base of the style; in each of the five compartments lie two glossy black seeds, and each of these bears on its outer face a brilliantly scarlet aril which is a juicy, rough-surfaced swelling on the funicle or seed-stalk, like that of titoki. Very soon the funicle, attached to the capsule wall, straightens upwards, lifting the seed and its aril through 90° so that they lie quite above the capsule. This is like what happens in *Melicope* where the funicle is easily seen as it carries no aril. The display of black and scarlet against the pale fawn lining of the capsule no doubt quickly attracts birds. In any case, this colourful stage is soon over and therefore not often seen or commented upon. My description is based on a specimen collected in late March 1981. The twig bearing leaves and a terminal cluster of nine fruits was kept in water for a couple of days and then inadvertently was left in a dry open plastic bag. At the end of a week the leaves were still firm and fresh-looking and most of the capsules had opened with many of the seeds extruded and rather easily brushed off. On the tree, the dry empty capsules last a long time. Something parallel happens in hangehange (*Geniostoma ligustrifolium*). Everyone knows the small gaping black pods along the thin twigs but how many could tell the colour of the pulpy flesh in which the seeds are embedded when the two halves of the shell separate? This tasty morsel must aid the dispersal of the seeds; seedlings certainly come up here and there in a shrubby garden once a parent plant has become established. With tawari the problem is how to get a tree to maturity. Most gardeners find it frustratingly difficult to grow up to even a metre tall.

DICKSONIA FIBROSA (WHEKI PONGA) NEAR AUCKLANDR.O. Gardner

Mead (1972) included wheki ponga in his list of native plants of the Waitakeres with the comment (p.3) that there had been no recent sightings of it; Cranwell (1981 p.129) mentions it as having been found here by John Bishop and Elizabeth Kibblewhite (1920s ?) and recently by Kathleen Wood "at a higher altitude". But the floras of Cheeseman and Allan agree in putting the northern limit of this cool-loving tree fern well south of Auckland, in the Te Aroha - Tauranga district, and there appears to be no herbarium material to support Mead or Cranwell's records.

Wheki ponga does, however, grow wild in the Waitakeres today. In December 1980 I found a single healthy fertile adult on the stumpy edge of bush near Waiatarua. The obstacle to declaring this the "missing plant" is the possibility that it is not truly native to the Waitakeres but has come from a spore produced by the planted colony that still flourishes at the ARA Ranger's house on Mountain Road (see Mead 1972 p.4).

Three other northerly collections of mine are definitely native to their areas. The northernmost is from Te Moehau, 36° 22'S, near the upper limit of the rimu-kauri forest (c. 730 m). More surprising is the collection from near Makarau, Rodney County, almost as far north as Moehau but nearly at sea level. Here a couple of dozen adults 1.5-2 m tall grow in a relict piece of virgin podocarp forest. The damp and cool floodplain habitat would seem ideal for this species and it is probably the winter incursions by cattle that prevent its regeneration.

The third colony lies at the south end of the gorge made by the Wairoa River as it leaves the Hunua Ranges south of Clevedon. Here several adults and one juvenile grow in the open scrub on the river's edge; the site seems fairly exposed but perhaps the plants get some benefit from cool breezes off the river. There are almost certainly plants elsewhere in the Hunuas, e.g. Cranwell (1981 p.107) mentions it as occurring near the highest point (Kohukohunui).

Specimens for the above records of mine are in the herbarium of the Auckland Institute and Museum.

REFERENCES

- Cranwell, L.M. 1981: "The Botany of Auckland". Auckland Institute and Museum.
 Mead, A.D. 1972: "Native Flora of the Waitakere Range Auckland". 2nd edition Impex Press, Auckland.