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LAMBERTIA - WILD HONEYSUCKLE

Amanda Spooner

The genus *Lambertia*, the Wild Honeysuckles, belongs to the Proteaceae, an ancient plant family that first appeared 144 million years ago during the Cretaceous period.

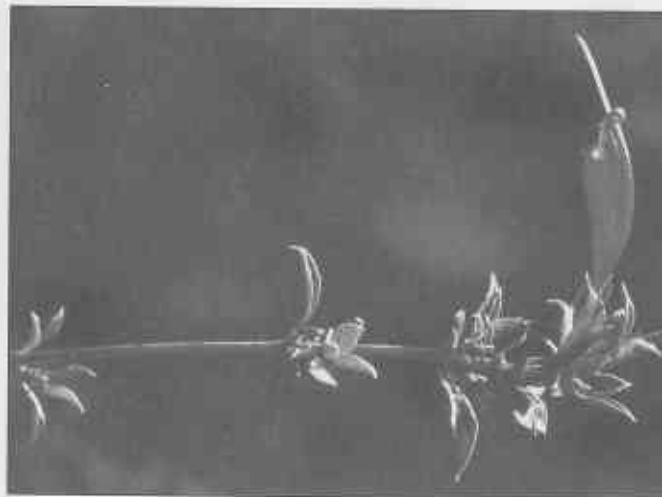
Lambertia is an endemic Australian genus of 10 species, nine of which occur in the south-west of Western Australia and one, *L. formosa*, along the Central Coast, Blue Mountains and Southern Highland regions of New South Wales. Of the nine WA species, five are further divided into sub-species; in total 16 taxa are currently recognised.

The genus *Lambertia* was named in 1798 by Sir James Edward Smith in honour of an English botanist, Aylmer Bourke Lambert. Lambert, an original member of the Linnean Society and a member of the Royal Society, collected a herbarium of over 30,000 specimens, causing Smith to call him "one of the most ardent and experienced botanists of the present age" – high praise indeed considering another botanist of that "present age" was Sir Joseph Banks.

All of the WA species of *Lambertia* are endemic to the South-West Botanical Province. This province is in an ancient, stable landscape with complex mosaic soils producing the richness of species diversity with which we are so familiar. This region is cited as one of the world's biodiversity 'hotspots' with nearly 80% of its species endemic to WA, over 50% strictly endemic to the province and a high occurrence of rare species.

Lambertias occupy a wide variety of habitats throughout the province. They grow in coastal regions, plains and mountain areas in sands, clays, gravel, rocky or swampy soils, often over laterite or ironstone, in open or closed forest, banksia woodland or kwongan heath.

Lambertias are sclerophyllous (literally 'hard-leaved') shrubs or small trees. They range in habit from compact, dense shrubs to large, open bushes with lax, spreading branches. As small trees, they reach heights of seven metres (to which the author can personally attest, having found it necessary to climb one, once). Their leaves are simple, often lobed and spiny and mainly arranged in whorls of three (sometimes four or eight) or in pairs. Interestingly, in their juvenile stage, all



Lambertia uniflora

species show pairing of leaves before exhibiting their adult arrangement. The leaf shape is extremely variable between the species, ranging from linear through elliptic and oblong to orbicular.

By contrast, the flowers show remarkable similarity of form – all are asymmetrical with a long floral tube and tightly-rolled lobes. The flowers are red, orange, yellow or green and are arranged in a terminal inflorescence of one, four or seven flowers. It is thought that the difference in flower number within the inflorescence shows an evolutionary trend, with the solitary flowers of *L. uniflora* and *L. rariflora* representing the most advanced stage.

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FLORA

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Lambertias

The type of inflorescence divides the species loosely into two groups – those whose flowers face and fall outward and those whose flowers face towards the centre of the head. Their fruit is a beaked and horned woody follicle, splitting when ripe to reveal two more or less circular seeds.

Whilst all are striking, some deserve special mention.

The NSW species, *L. formosa*, was the first species to be described and therefore the type of the genus. Due to its prominently horned fruit, which prompted the common name of Mountain Devil, is easily recognised in NSW. It is in cultivation – indeed it was first cultivated in Europe in the late 1700s – and the beautiful red flowers against the dark green leaves make it a popular plant in NSW gardens, not least with the parrots and honey eaters, attracted by the promise of much delicious nectar. Although at present classified as only one taxon, there is anecdotal evidence suggesting several varieties or sub-species may exist.

L. formosa has large flowers but the largest flowers are those of *L. ericifolia* – a tall, open shrub growing mainly in the foothills and slopes of the Stirling Range. Its leaves are linear and revolute, like the leaves of heather, and its branches are long and widely spreading reflecting the orientation of the orange flowers within the inflorescence.



Lambertia ilicifolia

The smallest flowers are those of *L. ilicifolia*, a beautiful wheatbelt species growing up to two metres with holly-like leaves, striking yellow flowers and extremely ornamented fruit.

Among the 15 WA taxa, five are Declared Rare Flora, i.e. rare in the wild and under threat of extinction, and two are Priority taxa. Those on the rare list, *L. fairallii*, *L. echinata* subsp. *echinata*, *L. echinata* subsp. *occidentalis*, *L. orbifolia* subsp. *orbifolia*,

and *L. orbifolia* subsp. 'Scott River Plains (L.W. Sage 684)', all have restricted distributions and habitats which are under threat from invasive agents, such as *Phytophthora* Dieback, or impacts by mankind.

L. fairallii is a beautiful plant with strong yellow flowers shown off by red bracts and is critically endangered. It has a restricted distribution in the eastern and western regions of the Stirling Range and few actual populations, all under imminent



Lambertia fairallii

threat of extinction from *Phytophthora*. One of the management strategies adopted by conservation officers in their fight to save our rare species is that of relocation. Initial studies indicate a genetic divergence between the eastern and western populations of this species and there needs to be certainty about the taxonomic status of the plants of both areas before relocation can commence.

L. echinata subsp. *echinata*, a very prickly subspecies (named from the Latin 'echinus', meaning hedgehog), is also critically endangered. It is known only from a few rocky locations around Esperance. This particular species was first discovered by Robert Brown on his epic voyage with Flinders, aboard the Investigator and described in 1810, in his "Prodromus Florae Novae Hollandiae", the first Australian flora.



Lambertia orbifolia

L. orbifolia is divided into two subspecies, one yet to be described, and is the only species with orbicular leaves. The two subspecies are geographically separated by 200 km. *L. orbifolia* subsp. *orbifolia* grows on sandy loams over laterite while *L. orbifolia* subsp. 'Scott River Plains (L.W. Sage 684)' occurs in ironstone soils in seasonally wet areas and is distinguished by its

large leaves. Both these species are suffering from habitat disturbance and *Phytophthora*.

As always with our rare flora we are ever hopeful of finding hidden populations. *Lambertia* species do flower throughout the year but primarily bloom during spring and summer. If you think you have found a new population please contact your regional DEC office and speak

to your *LFW* Officer or the Flora Conservation Officer. You can check *Lambertia* species' distributions on the WA Herbarium's flora information website, FloraBase.

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