

# endangered

by Val English



## Rare plant community on massive limestone ridges

A number of distinctive plant communities occur on the limestone-rich soils of the Swan Coastal Plain. One particularly restricted community called 'Melaleuca huegelii - Melaleuca systema shrublands of limestone ridges' occurs near Perth on shallow soils over limestone or massive Tamala limestone ridges. The community was originally described in a 1994 report about the flora and plant communities of the southern Swan Coastal Plain. It occurs from near Yancheper in the north, to Lake Clifton in the south. This community is a species-rich shrubland of chenille honeymyrtle (*Melaleuca huegelii*), and coastal honeymyrtle (*Melaleuca systema*) often over heath species including parrot bush (*Banksia sessilis*) and spider net grevillea (*Grevillea preissii*). When long unburnt,

the community can develop an attractive mossy understorey.

The shrubland is known from less than 150 hectares, and less than a quarter of this area is within secure conservation reserves. A similar but more common plant community is found on lower slopes or in pockets with deeper soil, and is dominated by a different group of species that includes trees or mallees.

The ridges of Tamala limestone on which the community occurs, arise intermittently on middle and late Pleistocene and early Holocene ridges (formed between at least half a million years ago and about the past 10,000 years) that are roughly parallel to the coast on the Swan Coastal Plain. This aeolianite (wind-deposited) limestone is mainly composed of shell fossils and quartz sands that formed ancient dune systems. The dunes have been leached by percolating ground water, and lithified (changed into rock) by water percolating through the shelly sands dissolving the lime

content, and then re-depositing it and cementing the grains together.

Limestone is a source of road-making material and has many other uses, and quarrying remains one of the main threats to the community. In addition, the frequency of fires, impact of recreational uses and illegal rubbish dumping are generally increasing as urban areas expand. These additional factors can all lead to degradation of the community by causing changes to its composition, and increasing weed invasion.

The community has been listed as 'endangered' because of its restricted distribution and threats. Actions recommended in a recovery plan that is being implemented include seeking to increase the area of the community held within secure reserves, minimising clearing, improving management of fire and increasing general awareness of the importance of conservation of this limestone ridge community.

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