FLORA

USING THE BROOMBUSH KEY - INCREASING THE OPTIONS FOR REVEGETATION

Prue Dufty

A landholder east of Doodlakine recently asked us to visit his property for some information on restoration and revegetation. This property was situated on a salt lake system, so the challenge was to identify what species would have grown in that area previously, and even more importantly, would grow there again when site conditions and climate have changed. A walk in a small area of remaining vegetation revealed broombush growing around midslope on the lunette on the east side of Lake Baandee (Fig. 1). Whilst there was evidence of decline, some healthy trees were growing on obviously salt affected soils reflected by the presence of samphires as the major ground cover.

The salt lake system east of Doodlakine is typical of many areas where extensive clearing has triggered rising groundwater and, together with grazing, has resulted in deterioration of remaining vegetation. Many landholders are now prepared to fence off waterways, discharge areas and salt affected lands to protect them from stock. However revegetation of these areas is necessary to re-establish indigenous species due to the loss of seed bank and changed soil condition, as well as the establishment of an array of exotic species. The challenge is 'what native species will perform best and will also assist in reversing previous degrading trends?'

Eleven separate species of broombush are now recognised which makes identifying a particular plant difficult as most at first glance look remarkably similar. Whilst generally a flowering part is needed for a positive identification of most species, identifying broom bush species not in flower has been made easier by the key developed by Margaret Bryne, which is based on the main morphological characteristics (ref: WW 11/4).

Whilst this Broombush species found on the lunette was not in flower, the infructescence was cylindrical, the bark papery, leaf shape circular in cross section with scattered oil glands, identifying this species as *M. atroviridis*. This identification provided us with some additional options for this landholder. If this variant of *M. atroviridis* was a resprouter, as well as being a useful species in a biodiverse planting, it could also be a suitable agroforestry species (that is, if grown on suitable sites it could be harvested for an economic return). Broombush is increasingly being planted for harvesting for brush fencing, as most species within the complex have the ability to resprout, which means generally they can be harvested every 4 to 5 years. Margaret's key suggested there were two *M. atroviridis* variants, one a resprouter and the other not.

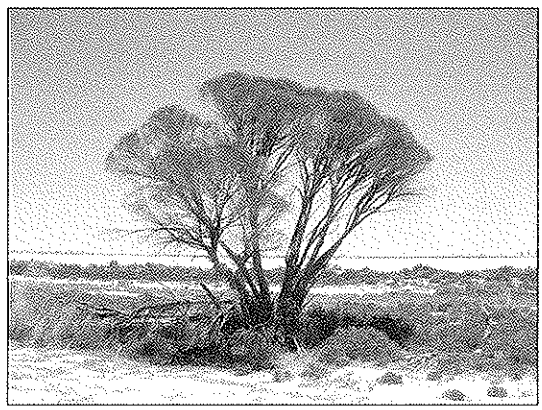

Fig. 1 M. atroviridis *growing at Lake Baandee*

Along Great Eastern Highway adjacent to this lake system we noticed a small broombush was growing on the gravel verge, as shown in the Fig 2. The base of the plant was quite thick, indicating that it had resprouted and hadn't reseeded. The leaf shape in cross section, oil glands and bark were similar to the trees growing on the lunette. It does appear this *M. atroviridis* variant growing around these lakes is a resprouter and would be suitable for agroforestry.

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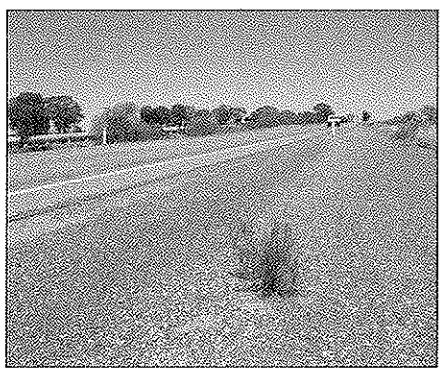

Fig. 2 M. atroviridis *on the road shoulder*

[Fencing and revegetation of waterways in the Avon Catchment is an Avon Catchment Council project delivered by the Dept. of Water and funded with investment from the State and Australian governments through the NHT and the National Action Plan for Salinity and Water Quality.]