

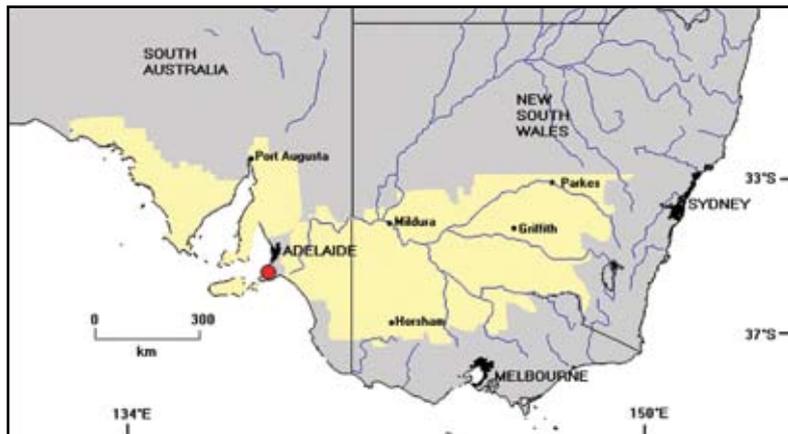
Acacia retinodes Schldtl. ('Normanville' variant)

Common Name

None known.

Habit

Obconic or rounded trees to 6–10 m tall, single-stemmed or more commonly dividing into 2 to many main stems at (or just above) ground level, main stems sub-straight, moderately branched and to 24–30 cm dbh; crowns spreading. Bark smooth to sub-smooth, thin and tightly held.

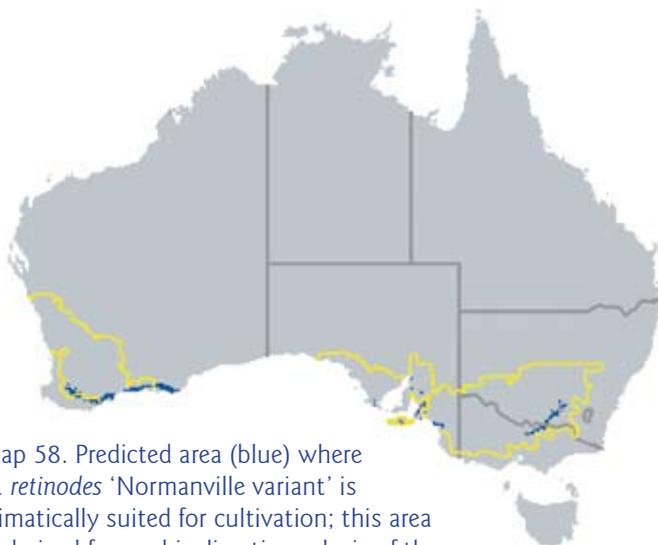


Map 57. Distribution of *A. retinodes* 'Normanville' variant'.

Taxonomy

See note on the taxonomy of this variant under *A. retinodes* ('typical') above. Maslin (2001a) suggested that the Normanville variant might represent a natural hybrid between *A. retinodes* var. *retinodes* 'typical' variant and *A. retinodes* var. *uncifolia*. This suggestion was based on an assessment of morphological criteria, not on genetic evidence. In the absence of detailed study its taxonomic status remains uncertain.

The Normanville variant of *A. retinodes* is referable to *Acacia* section *Phyllodineae*, a diverse, and probably artificial, group of about 408 species (Maslin 2001) which are characterized by having '1-nerved' phyllodes and flowers arranged in globular heads (see Maslin & Stirton 1998 and Maslin 2001 for discussion). More specifically this species is a South Australian member of the Australia-wide '*Acacia microbotrya* group' (Maslin 1995). A number of other species from this group are detailed in this report, namely, *A. bartleana*, *A. euthycarpa*, *A. microbotrya*, *A. rivalis* and *A. watsiana*. Species of section *Phyllodineae* are widespread in Australia with the main centres of richness located in temperate and adjacent semiarid areas of eastern, southeastern and southwestern Australia; species number greatly decline in the arid zone and in northern tropical/subtropical areas (Hnatiuk & Maslin 1988 and Maslin & Pedley 1988).



Map 58. Predicted area (blue) where *A. retinodes* 'Normanville' variant' is climatically suited for cultivation; this area is derived from a bioclimatic analysis of the natural distribution (red circles, Map 57), see also Table 5. Target area shown in yellow.

Conservation status

Not currently classified as rare or endangered. However, given its very restricted distribution within a fairly disturbed habitat, it should be assigned a conservation rating.

Distribution and habitat

Restricted to a very small area near Normanville at the southern end of the Fleurieu Peninsula in South Australia. This region lies just outside the target area. It comprises two populations about 2 km apart

Figure 28. *Acacia retinodes* 'Normanville' variant



A – Mature tree with large quantity of wood biomass (insert showing the near-population). (Photos: B.R. Maslin)



B – Stem base (with insert showing gum exudation). (Photo: B.R. Maslin)



C – Branch showing pale-coloured heads in racemes. (Photo: B.R. Maslin)



D – Section of branch (from plant in A). (Photo: B.R. Maslin)

and is reasonably common in the areas where it occurs. Grows in sandy loam along a seasonal creek on the leeward side of low coastal dunes and also in remnant banksia scrub at the base of low hills .

Flowering and fruiting

Flowers from mid-June to September. Fruiting period unknown.

Biological features

Growth rate is unknown but judging from the other three taxa included in *A. retinodes* it is likely to be at least moderately fast. This variant does not appear to root sucker. It probably has at least moderate coppicing ability because we observed one plant that had been pollarded at about 0.5 m above the ground which produced 4 main stems (12–14 cm dbh) above the cut. Copious amounts of gum were exuded from the stems of these plants. It is probably relatively long-lived.

Cultivation

Not known in cultivation.

Weed potential

No records of weediness and it is unlikely to cause problems.

Wood

Field observations from a single plant show the wood to be not dense, the sapwood pale brown and the heartwood dark brown.

Utilisation

No recorded uses except that it is employed locally around Normanville in revegetation programs (P. Lang, pers. comm.). This variant could be a candidate species for use in windbreaks.

Potential for crop development

Because of a paucity of information it is difficult to accurately assess the wood crop potential of this variant. It is provisionally ranked as a category 2–3 taxon and may have prospects for development as both short and long duration crops (Table 6). The striking feature of this variant is its large woody biomass production. The growth form is reasonable and the wood appears not to be overly dense (it might be similar to, or less than, that of *A. microbotrya* which averages about 832 kg/m³). The plants have the ability to coppice but whether the vigour is sufficient to sustain them as coppice crops is unknown. Similarly, their growth rate is unknown but is likely to be moderately fast in appropriate environments (under natural conditions it favours light, well-drained sandy soil). The apparent absence of root suckering would be an advantage in the management of this taxon. Perhaps one of the main draw-backs of this variant is its extremely narrow genetic base. Genetic improvement through hybridization with the other variants of *A. retinodes*, or with some other members of the ‘*Acacia microbotrya* group’, might be a possible but would be expensive. Because of its potential for the production of relatively large quantities of woody biomass, research is needed to assess the taxonomic status of this entity and to determine whether or not it is of hybrid origin.

This variant has a highly localised natural distribution and the bioclimatic analysis (see Map 58) indicates that it is climatically suited to very small and discontinuous parts of the target area. These are in South Australia (near its native habitat), Western Australia (southern coastal regions) and New South Wales (west of Albury north to approximately the West Wyalong region). However, we expect that this variant would be capable of being cultivated over a wider area, perhaps similar to that of *A. retinodes* 'typical' variant. The Normanville variant is most likely to do best on well-drained sandy soils.