

Botanical name

Acacia jennerae Maiden in A.J.Ewart & O.B.Davies, Fl. N. Territory 333, t. 26, figs N-S (1917)

The botanical name commemorates Miss Amelia Maud Jenner, librarian at the Royal Botanic Gardens in Sydney at the time when Maiden was Director of that organisation.

Common names

Coonavittra Wattle; Lalkerrek and Walalyirrkki (central Australian aboriginal names: see Latz 1995).

Characteristic features

Shrubs or *small trees* often with an “Mallee-like” growth form, commonly suckering to form clonal thickets. *Bark* generally red-brown to light brown. *Phyllodes* rather spreading, +/- straight, grey-green to glaucous, with one longitudinal nerve on each face, apices acute to long-acuminate; *glands* normally 2-3, the lowermost 3-10 mm above pulvinus. *Heads* globular, arranged in racemes, the raceme axes and peduncles +/- glabrous. *Pods* moniliform to sub-moniliform, 6-8 mm wide, dark-coloured. *Seeds* large; *funicle* yellow, commonly extending to just below the seed in a single fold (see description below for details).

Description

Habit. Obconic *shrubs* or small *trees* often with an “Mallee-like” growth form, 1.5-4(-6) m tall, often suckering to form clonal thickets, sometimes single-stemmed but more commonly the trunk dividing at ground level into 2 to many, straight, rather slender main stems, growth form often superficially resembling a low mallee eucalypt, the crowns dense, rounded and 1-3(-5).

Bark. Smooth, grey towards the base of main stems of mature plants, red-brown to light brown on young plants and on upper branches of mature plants.

Branchlets. Glabrous, yellow-orange.

Phyllodes. Narrowly elliptic to narrowly oblanceolate, mostly 5-11 cm long and 5-15 mm wide, thinly coriaceous, rather widely spreading, +/- straight, glabrous, grey-green to glaucous; with 1 evident *longitudinal nerve* (midrib) on each face, finely penninerved; *apices* acute to long-acuminate, not pungent; *glands* not prominent, normally 2-3 along upper margin of phyllode, lowermost gland situated 3-10 mm above the pulvinus.

Heads. Arranged in 5-13-branched racemes 10-40 mm long, globular, light golden, 20-30-flowered; *flower buds* reddish brown; *bracteole laminae* normally with minute golden hairs on the margins; *raceme axes* often flexuose and usually glabrous; *peduncles* 3-6 mm long, slender, usually glabrous.

Flowers. 5-merous; *sepals* about 5/6-united.

Pods. Moniliform to sub-moniliform, mostly 5-15 cm long and 6-8 mm wide, thinly coriaceous to firmly chartaceous, glabrous, dark brown to blackish.

Seeds. Longitudinal in the pods, 6-8 mm long, 4-5 mm wide, dull, black; *funicle* cream-coloured when dry, extending to just below the seed in a single fold (or sometimes 3/4 encircling seed but if so then not folded back on itself as in *A. daphnifolia*).

Taxonomy

Related species. As discussed by Maslin (1995) *A. jennerae* is a member of the large, Australia-wide assemblage informally called the "*Acacia microbotrya* group". Five members of this group occur in the Kalannie region, namely, *A. brumalis* (incurved phyllode variant and light land variant), *A. daphnifolia* (syn. *A. microbotrya* var. *borealis*), *A. jennerae* and *A. affin. jennerae*.

Within the Kalannie region *A. jennerae* is most closely related to *A. daphnifolia* and *A. affin. jennerae*. *Acacia daphnifolia* is much more common in the region than *A. jennerae* and is most readily recognized by its appressed-hairy peduncles and raceme axes and its funicle which clearly encircles the seed in a double fold and is dark-coloured when dry. *Acacia affin. jennerae* is recognized by its sparser crowns, generally longer, less glaucous phyllodes with the lowermost glands generally further removed from the pulvinus, different bracteole hairs, and narrower pods, smaller seeds with the funicle drying light brown or dark red-brown.

Distribution

Acacia jennerae has a scattered distribution in southern arid and semi-arid areas from near Kalannie in southwest Western Australia eastwards through Northern Territory and South Australia to Wilcannia in western New South Wales.

Acacia jennerae is seemingly rare in the Kalannie region, being known from a single population on the western margin of Lake Moore.

Habitat

Over its range *A. jennerae* grows on acid to neutral sands and loams, commonly in dune swales or along drainage lines, including the margins of salt lakes.

In the Kalannie region it occurs on saline grey brown sandy loam in *Eucalyptus* woodland (with *Santalum*) on the western shore of Lake Moore.

Recorded from the following Kalannie region Land Management Unit.
Alluvial Sand over Clay.

Conservation status

Although *A. jennerae* is apparently rare within the Kalannie region in the broader context is not considered rare or endangered.

Flowering

Over its wide geographic range *A. jennerae* flowers from January to August, with the main flowering flush occurring from April to July.

It is not known when this species flowers in the Kalannie region.

Fruiting

Pods mature in October-November in central Australia and November-January in the southern parts of its range.

In December 1996 plants in the Kalannie region were sterile (reduced seed set also occurred in many other acacias in the region that year). This suggests that local conditions (perhaps the timing and/or intensity of rainfall being the most important) influence pod production.

During good seasons the pods of *A. jennerae* are produced in large pendulous bunches. At full maturity the pods can be rapidly harvested by hand: the large to very large black seeds (about 9 000 viable seeds per kg) are simply and rapidly extracted. Mechanical threshing is required for efficient seed extraction if pods are harvested before attaining full maturity.

Biological features

Growth characteristics. *Acacia jennerae* is an adaptable, moderately-fast growing species which is reasonably fire and drought tolerant. In Tucson, Arizona, U.S.A., this species was unaffected by temperatures as low as -8.3°C and was assessed as being well-suited to hot, dry climates (Johnson 1996). It has strong coppicing and root-suckering ability and this can lead to the formation of dense clonal thickets.

Wood. Wood air dry density: 862 kg/m³, based on 13 samples tested (G. Pronk, pers. comm.).

Propagation

It may be possible to rejuvenate over-mature stands by inducing coppicing and/or root-suckering.

Revegetation

Although *A. jennerae* is seemingly rare in the Kalannie region it has some attributes that make it desirable for inclusion in revegetation programs. In particular, its suckering habit and salt tolerance suggest it would be useful for soil stabilisation in some saline areas. With age the plants attain a height and form suitable for use as a visual screen and in shelterbelt plantings as a low windbreak and for providing shade for stock and wildlife.

Utilisation

Salinity control. See Revegetation above.

Soil stabilisation. See Revegetation above.

Windbreak. Useful as a windbreak according to Thomson *et al.* (1994); see also Revegetation above.

Shade and shelter. See Revegetation above.

Visual screen. See Revegetation above.

Wildlife refuge. See Revegetation above.

Fodder. According to Cunningham *et al.* (1981) in New South Wales this species has not been observed to be grazed by stock.

Fuel wood. Has potential as a source of fuelwood in developing countries according to Thomson *et al.* (1994).

Ornamental and amenity planting. The growth form, bark and showy flowers make this an attractive species for dryland planting.

Seed for human food. *Acacia jennerae* is one of the promising species suggested by Maslin *et al.* (1998) for trialling as a source of seed for human food. However, it is emphasised that much more research is needed before this species can be recommended for food production; in particular, there is a need for comprehensive biochemical analyses to ascertain if any anti-nutritional or toxic components are present in the seeds. Nevertheless, in the Lander River area of central Australia, the seeds are highly regarded by Aboriginal people and the seed may be consumed either green, or if mature are roasted and ground into flour (Morse and Butcher 1996). The seeds and gum of this species are recorded as being consumed by central Australian Aborigines (Latz 1995).

References

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