Botanical name

Acacia ramulosa W.Fitzg. var. *ramulosa*, J. W. Austral. Nat. Hist. Soc. 1: 15 (1904)

The botanical name is derived from the Latin *ramulosus* (full of branchlets) in allusion to the branching habit of this species.

Common name

Bowgada (in W.A.), Horse Mulga (eastern Australia); Aboriginal names recorded are wonuy or wanyu (W.A.), palpa (N.T.) and wintalyka (S.A.), for central Australian aboriginal names see Latz (1995).

Characteristic features

Phyllodes linear, long and narrow, flat, rather rigid, ascending to erect, +/- straight, finely and uniformly multi-nerved. *Spikes* short. *Pods* +/- terete, long, pendulous, indehiscent, striate by reddish brown longitudinal nerves (silvery appressed hairy between the nerves). *Seeds* large.

Description

Habit. Erect, spreading, much-branched, dense, rounded or obconic *shrubs* or *small trees* 2-4(-6) m tall and 2-5 m across, at maturity the crowns occupying about 20% of the total plant height, multi-stemmed at base when young but can become single- or few-stemmed with age.
Bark. Dark grey, fissured on main stems (especially near their base), smooth on branches.
Branchlets. Silvery appressed-hairy at extremities.
Phyllodes. Linear, flat, 6-16(-19) cm long, 1.5-3 mm wide, rather rigid, ascending to erect, more or less straight, dull, greyish green or sometimes green, minutely appressed hairy between the nerves (hairs often very difficult to see); *longitudinal nerves* numerous, very fine and close together, of uniform prominence; *apices* acute and not pungent.
Spikes. Single or paired within axil of phyllodes, 1-2 cm long, golden; *peduncles* 3-6 mm long, appressed hairy.
Flowers. 5-merous; *sepals* free.
Pods. Indehiscent, terete to sub-terete, 7-19 cm long, mostly 5-8 mm wide, pendulous, coriaceous-crustaceous, straight, silvery appressed-hairy between the red-brown longitudinal nerves.
Seeds. Longitudinal in the pods and separated from one another by pith, large, 5-8 mm long, 3-6 mm wide, glossy, dark brown.

Taxonomy

Related species. *Acacia ramulosa* is a member of the *A. aneura* (Mulga) group of taxa which are widespread and common in the Arid Zone (just to the east of the Kalannie region). This group was recently revised by Randell (1992) but another review is currently in progress (Pedley, unpublished). *Acacia ramulosa* is the only member of this group recorded for the Kalannie region.

Superficially similar species. Within the Kalannie region *A. ramulosa* is superficially similar to *A. coolgardiensis* subsp. *effusa* which is recognized by its sessile spikes, much narrower pods and smaller seeds.

Distribution

Widespread in the arid and fringing semi-arid areas of all mainland states except Victoria; it is most common in the western parts of the continent.

Acacia ramulosa is uncommon in the Kalannie region, being known from only the north eastern extremity of the area.

Habitat

Over its wide geographic range this species grows in a wide variety of habitats including rocky hills, sand or loam in Mulga communities or eucalypt woodland, or clay.

In the Kalannie region this species grows on reddish brown earths associated with outcropping sheet granite or colluvial flats.

Recorded from the following Kalannie region Land Management Units. Colluvial Flat-Earth; Shallow Soil over Granite.

Conservation status

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

Flowering

Over its geographic range *A. ramulosa* flowers mainly from July to September, and occasionally between March and June. The onset for flowering is seemingly influenced by local conditions (the timing and/or intensity of rainfall events perhaps being the most important).

There is no information available as to when plants in the Kalannie region flower.

Fruiting

Over the extensive geographic range of this species pods with mature seeds have been collected from September to November and occassionally from December to January.

Plants in the Kalannie region were sterile in December 1996.

Unopened pods often fall to the ground and occur in quantity beneath the plants. The pods are easily picked by hand from the plants, or collected from the ground. Because they are generally indehiscent the pods need to be cracked open manually to release their seeds. According to Rusbridge *et al.* (1996) cracking can be achieved by walking or driving over the pods on a hard surface.

Biological features

Longevity. Probably fairly long-lived (25+ years).
Growth characteristics. Drought and frost tolerant (Elliot and Jones 1982) but killed by severe summer fires (Latz 1995).
Sandalwood host. Under natural conditions reported to be a host for Southern Sandalwood, *Santalum spicatum* (Jon Brand and Steve Fry, pers. comm.).
Wood. Air dry density is 1169 kg/m^3, based on 6 samples tested (G. Pronk, pers. comm.).

Propagation

No information available.

Revegetation

Acacia ramulosa is rare in the Kalannie region (although it is very common in the Arid Zone to the east of Lake Moore) and would appear to have limited rehabilitation value for the area.

Rehabilitation results using this species are reported by Rusbridge *et al*. (1996) as being generally fairly poor.

Utilisation

Erosion control. The South Australian plants of this species are reported by Whibley and Symon (1992) as being useful for soil stabilisation.
Shade and shelter. The South Australian plants of this species are reported by Whibley and Symon (1992) as being useful for shelter belt planting.
Fodder. The information provided by Mitchell and Wilcox (1994) for *A. linophylla* is likely to apply also to *A. ramulosa* as these two species are very closely related. According to these authors the foliage of *A. linophylla* is rarely eaten, but the seeds and pods contain over 20% crude protein and are sought after by sheep. They are, therefore, an important forage in some seasons; however, insect damage to the pods is always high.
Amenity planting. Little known in cultivation but this hardy species could be useful in amenity plantings as a provider of shade.
Seed for human food. There are reports of the seeds of this species having been consumed by traditional aborigines (Cherikoff and Isaacs 1989; Latz 1995); however, *A. ramulosa* is not one of the highly recommended "human food" species by Maslin *et al.* (1998).

References

Cherikoff, V. and Isaacs, J. (1989). *The Bushfood Handbook*. (Ti Tree Press: Balmain)

Elliot, W.R. and Jones, D.L. (1982). *Encyclopaedia of Australian Plants suitable for cultivation.* vol. 2. (Lothian Publishing Company.)

Latz, P.K. (1995) *Bushfires and bushtucker: Aborigines and plants in central Australia*. (IAD Press: Alice Springs.)

Maslin, B.R., Thomson, L.A.J., McDonald, M.W. and Hamilton-Brown, S. (1998). *Edible Wattle Seeds of Southern Australia. A review of species for semi-arid regions of southern Australia.* (CSIRO, Forestry and Forest Products, Australian Tree Seed Centre: Canberra.)

Mitchell, A.A. and Wilcox, D.G. (1994). *Arid shrubland plants of Western Australia*. ed. 2 (University of Western Australia Press in association with the Department of Agriculture, Western Australia: Perth.)

Randell, B.R. (1992). Mulga, a revision of the major species. Journal of the Adelaide Botanical Garden 14: 105-132.

Rusbridge, S., Bradley, G. and G. (1996). *Plant Identification Handbook for Land Rehabilitation in the Goldfields of Western Australia.* (Published by the Goldfields Land Rehabilitation Group.)

Whibley, D.J.E. and D.E. Symon (1992). *Acacias of South Australia*. (South Australian Government Printer: Adelaide.)