

Botanical name

Acacia merrallii F.Muell., Proc. Linn. Soc. New South Wales ser. 2, 5: 18 (1890)

The botanical name commemorates Edwin Merrill who collected the type specimen from near Lake Brown in 1890 (see Hall 1984 for biographical details).

Common name

Merrall's Wattle.

Characteristic features

Shrubs low and spreading. *Phyllodes* short and broad, smooth, thick and sub-fleshy, minutely hairy when young but glabrous with age, obscurely 1-nerved on each face, apical point distinct. *Heads* globular. *Pods* sub-terete, small, strongly curved to irregularly coiled, dark brown to black. *Aril* bright orange (rarely yellow), conspicuous and partially sheathing the seed.

Description

Habit. Low-domed or flat-topped, multi-stemmed *shrubs* (0.2-)0.3-1.5(-2.5) m tall, often +/- circular in plane view and the dense crown spreading 1-4 m wide.

Bark. Smooth and grey from base of main stems to the branchlets.

New shoots. Grey-green due to a dense layer of hairs.

Branchlets. Usually minutely hairy.

Phyllodes. Variable in shape and size, obliquely obovate to elliptic-orbicular or oblong-elliptic, rarely ovate, usually 8-25 mm long and 5-17 mm wide with l:w = 1.2-3, smooth, thick and sub-fleshy, green, grey-green or sub-glaucous, finely appressed-hairy when young but becoming glabrous with age; with 1 obscure *longitudinal nerve* (midrib) on each face, lateral nerves +/- absent; *marginal nerves* prominent and yellowish; *apices* ending in a small, curved or straight point which varies from innocuous to +/- pungent; *gland* situated on the upper margin of the phyllode (on its lower half), not raised.

Heads. 1-3 within axil of phyllodes (on rudimentary racemes to 1 mm long), globular, 8 mm in diameter when fresh, light golden, 22-35-flowered; *peduncles* 6-18 mm long, glabrous.

Flowers. 5-merous; *sepals* free.

Pods. Sub-terete, 2-3 mm wide, strongly curved into a circle or more or less irregularly coiled, 2-3.5 cm long (about 2 cm in the coiled state), thinly coriaceous-crustaceous, glabrous or almost so, dark brown to black.

Seeds. Longitudinal in the pods, about 2.5 mm long and 1.5 mm wide, black, shiny; *aril* conspicuous, bright orange (rarely yellow), partially sheathing seed.

Taxonomy

Related species. *Acacia merrallii* is closely related to a number of species that occur in the south coast regions of Western Australia: see Maslin (in press) for discussion. Within the Kalannie region its closest relative is *A. ligustrina* which is distinguished by its taller growth habit and longer, thinner phyllodes with 1-3 glands (commonly on short projections) along their upper margin.

Variants. Considering its entire geographic range *A. merrallii* shows considerable morphological variation (especially phyllode shape and size) and much work is still needed to resolve the taxonomy of these: see Maslin (in prep.) for discussion. Within the Kalannie region, however, the species shows little variation.

Distribution

A widespread species in southern Western Australia (Wubin to Pingrup, eastwards to Madura) and extending to the Moonta-Maitland area on Yorke Peninsula in South Australia.

Acacia merrallii is not common in the Kalannie region; it can form localized, rather dense populations in appropriate habitats.

Habitat

Grows in calcareous clay, sandy clay, sand, sandy loam and clay loam. Grey-brown hard loam beneath Eucalyptus, near granite outcrop.

Recorded from the following Kalannie region Land Management Units. Red Brown Earth; Sandy Loam over Clay.

Conservation status

Although *A. merrallii* is not common within the Kalannie region in the broader context it is not considered rare or endangered.

Flowering

Over its rather extensive geographic range *A. merrallii* flowers from August to October.

In the Kalannie region at least there appears to be some variation between populations with respect to flowering. For example, in September 1997 plants in one population were in full flower while those in another were sterile. It is not known what factors affect flowering but it might be related to the incidence and intensity of rainfall events.

Fruiting

Over the rather extensive geographic range of this species pods with mature seeds have been collected in December and January.

Plants from the Kalannie region were with mature seeds in early December 1996.

Biological features

Growth characteristics. Drought and frost tolerant according to Simmons (1987).

Propagation

No information available.

Revegetation

On account of its low-spreading growth habit and dense crowns *A. merrallii* offers good potential for erosion control, particularly on duplex soils.

Wilcox *et al.* (1996) recommend this species for revegetation of crabholes (Gilgai soils) and where the soil comprises sand over red clay or red sandy loam over clay or hardpan, in the Midlands and northern wheatbelt regions of Western Australia. *Acacia merrallii* is also recommended by Lefroy *et al.* (1991) for regeneration of "White gum" country (i.e. shallow grey neutral to acidic sand over sandy clay with kaolinitic clay at depth) and "Salmon gum" country (i.e. alkaline loam over clay with distinctive white nodules of calcium carbonate at depth) in the central wheatbelt region.

Utilisation

Soil stabilisation. See Revegetation above.

Ornamental and horticulture. Little known in cultivation but this hardy, adaptable species which is very showy when in flower would be useful as a low ground cover.

References

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Maslin, B.R. (in press). *Acacia*. In *Flora of Australia* vol. 11 (CSIRO, Melbourne: Australia.)

Simmons, M.H. (1987). *Growing Acacias* (Kangaroo Press.)

Wilcox, D.G., Lefroy, E.C., Stoneman, T.C., Schoknecht, N.R. and Griffin, E.A. (1996). *Trees and shrubs for the Midlands and Northern Wheatbelt*. (Agriculture W.A.: Western Australia.)