

Botanical name

Acacia densiflora Morrison, Scott. Bot. Rev. 1: 96 (1912)

The botanical name is derived from the Latin *densus* (close, thick) and *floris* (flower), and refers to the proliferation of flower-heads that occur along the terminal branches.

Common name

None known.

Characteristic features

Branchlets densely and minutely hairy at extremities. *Phyllodes* linear, sub-terete (on plants in Kalannie region), quite rigid, straight, dark green, obscurely multi-nerved, stomata evident (at x10 magnification) between nerves, pulvinus hairy (especially on its upper surface), the tips on plants in the Kalannie region are shallowly curved and +/- pungent. *Heads* globular, on very short, hairy peduncles; *sepals* united. *Pods* linear, undulate, minutely white-hairy.

Description

Habit. Dense *shrubs* 0.5-1.5 m tall and 0.5-2 m wide, dividing at ground level into about 4, somewhat contorted, much-branched main stems.

Bark. Grey, thin, hard, finely longitudinally fissured.

Branchlets. Densely and minutely white-hairy at extremities.

Phyllodes. Linear, flat to terete (sub-terete in Kalannie region plants), 2-5(-6) cm long, 1-2 mm wide, quite rigid, straight, dark green, glabrous except hairy at base (especially on the upper surface of the pulvinus); *longitudinal nerves* numerous, obscure and close together, stomata evident (at x10 magnification) between the nerves; *apices* narrowed to curved (Kalannie region plants) or straight, brown, +/- pungent tips; *glands* obscure, 1 or occasionally 2 on upper margin of phyllode, lowermost gland 7-15 mm above the pulvinus.

Heads. Paired within axil of phyllodes, globular, golden, mostly 15-18-flowered; *peduncles* 0.5-1.5 mm long, hairy as on the branchlets.

Flowers. 5-merous; *sepals* 1/2-3/4-united.

Pods. Linear, undulate, raised over the seeds and slightly constricted between them, 3-5(-7) cm long, 2-2.5 mm wide, held at various angles, firmly chartaceous to thinly coriaceous-crustaceous, straight to slightly curved, minutely white-hairy, light brown.

Seeds. Longitudinal in the pods, 2.5-3 mm long, 1.3-1.5 mm wide, somewhat shiny, brown to black; *aril* white.

Taxonomy

Related species. *Acacia densiflora* together with *A. dissona*, *A. eremophila*, *A. hadrophylla*, *A. kalgoorliensis*, *A. mackeyana*, *A. papulosa* and *A. undosa* constitute the taxonomically very complex "*A. densiflora* group", see Cowan and Maslin (1995) for discussion. Apart from *A. densiflora* itself, the other members of this group that occur in the Kalannie region are *A. dissona* var. *indoloria*, *A. eremophila* var. *variabilis*, *A. kalgoorliensis* and *A. mackeyana*.

Within the Kalannie region the species that *A. densiflora* is most likely to be confused with is *A. kalgoorliensis*. However, *A. kalgoorliensis* can be distinguished by its perfectly terete phyllodes with straight, long-tapered needle-sharp points (in the Kalannie region the phyllodes of *A. densiflora* are sub-terete and have shallowly curved, less pungent tips). Also, the flower sepals in *A. kalgoorliensis* are free (or

united near their base) whereas in *A. densiflora* they are about 3/4 united, however, this character is difficult to observe without the aid of a microscope.

Variants. Over the geographic range of this species the gradual progression in phyllode shape in cross-section from completely terete (as in the type) to sub-terete to flat makes the recognition of infraspecific taxa impractical, at least on this basis, even though the extremes look superficially very different. Plants in the Kalannie region show little variation and all have sub-terete phyllodes.

Distribution

Occurs in Western Australia where it extends from near Wyalkatchem and Chiddarcooping (which is about 80 km due north-northeast of Merredin) south to Ongerup and Frank Hann National Park (east-northeast of Lake King), with outliers near Kalannie and Coolgardie.

Acacia densiflora is rare in the Kalannie region.

Habitat

Over its geographic range the species grows mostly on sand and loam in mallee communities.

In the Kalannie region it occurred in yellow sand on the edge of a dense Wodjil (*A. resinimarginea*) community.

Recorded from the following Kalannie region Land Management Unit. Spillway Sand.

Conservation status

Not considered rare or endangered.

Flowering

Over the geographic range *A. densiflora* flowers from June to September.

There is no information available on the time of flowering for plants in the Kalannie region.

Fruiting

Over its geographic range species produces pods with mature seeds in December. Considering the rather long flowering period it is likely that further sampling will extend the known fruiting range.

Plants in the Kalannie region were with mature seed in mid-December 1996.

Biological features

No information available.

Propagation

No information available.

Revegetation

Acacia densiflora would appear to have relatively low value for revegetation in the Kalannie region. It could, however, be included in seed mixes where biodiversity

representation for the low shrub stratum is required; its dense crown offers protection for small birds.

Utilisation

Wildlife refuge. See Revegetation above.

Biodiversity plantings. See Revegetation above.

Reference

Cowan, R.S. and Maslin, B.R. (1995). *Acacia* Miscellany 15. Five groups of microneurous species of *Acacia*, mostly from Western Australia (Leguminosae: Mimosoideae: section Plurinerves). *Nuytsia* 10(2): 205-254.