

Botanical name

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

The botanical name is derived from the Latin *duriusculus* (somewhat hard or harsh) and probably refers to the coriaceous phyllodes. (Note: the author of the name, William Vincent Fitzgerald, did not indicate the origin of his new name.)

Common name

None known.

Characteristic features

Tall *shrubs* or small *trees* with a long flowering period, the flower heads scattered over the plants. *Phyllodes* linear to linear-elliptic, flat, 1-4 mm wide, very finely multi-nerved. *Heads* globular or obloid; *flower buds* resinous; sepals united. *Pods* linear, 2-4 mm wide, shallowly curved. *Seeds* mottled. *Granite rock* habitat.

Description

Habit. Rounded *shrubs* (1-)1.5-4 m tall and about the same across, maturing to often single-stemmed, slightly gnarled *trees* 4-5 m tall with trunks to 30 cm diameter at breast height, crowns moderately dense and occupying 60% of the total plant height (as a shrub) or 40% (as a tree).

Bark. Dark grey, thin, longitudinally fissured except smooth on upper branches.

Branchlets. Glabrous, light brown and resinous (but not viscid) at extremities, soon becoming grey and non-resinous.

Phyllodes. Linear to linear-elliptic, flat, (1.5-)2-7(-9.5) cm long, 1-4 mm wide, coriaceous, ascending to erect, straight to shallowly incurved, dull, greyish green, glabrous; *longitudinal nerves* numerous, very fine and close together, resinous but not viscid (they glisten in sunlight, especially when viewed at x10 magnification), the central nerve sometimes slightly more evident than the rest; *apices* not pungent.

Heads. Paired within axil of phyllodes, globular or sometimes (Kalannie plants) obloid, golden, scattered over the plants and not showy, 19-26(-45)-flowered; *flower buds* resinous; *peduncles* 2-5 mm long (in flower), up to 8 mm long when in fruit, glabrous or hairy.

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

Pods. Linear, slightly undulate, flat but slightly raised over seeds, 2-6 cm long, 2-4(-5) mm wide, held at various angles on the plants (ranging from erect to pendulous), firmly chartaceous, shallowly curved, glabrous, greyish brown.

Seeds. Longitudinal to longitudinally oblique in the pods, 2.5-3.5 mm long, 1.5-2 mm wide, shiny, light tan or brownish yellow mottled dark brown, or dark brown mottled cream; *aril* white.

Taxonomy

Related species. *Acacia duriuscula* is most closely allied to the widespread Arid Zone species, *A. kempeana* and *A. stowardii*, neither of which occur in the Kalannie region. Careful study is needed to resolve the taxonomic relationships between these three species. *Acacia duriuscula* may ultimately prove to be better treated as an infraspecific taxon within this group; the relationship between this species and *A. stowardii* is especially close.

Distribution

This species has a scattered distribution in Western Australia extending from near Mullewa and Paynes Find southeast to Tammin, Cardunia Rocks (east of Coolgardie) and near Bromus (south of Norseman).

In the Kalannie region *A. duriuscula* is not particularly common, however, it occurs on a number of the granite rocks throughout the region (e.g Dutakajen Rocks, Xantippe Rocks) at which locations it is quite abundant.

Habitat

Over its geographic range *A. duriuscula* has been recorded from a variety of habitats including plains and granite rocks in sand, gravelly sand and granitic loam.

In the Kalannie region this species is restricted to granite rocks where it occurs in soil pockets on the rocks and on the soil apron around the base of the rocks. The soils here are light brown or greyish brown, hard sandy loam.

Recorded from the following Kalannie region Land Management Unit. Shallow Soil over Granite.

Conservation status

Not considered rare or endangered.

Flowering

Available collections show *A. duriuscula* as flowering from April to October; however, it is likely that at least a few flowers are present on the plants in other months as well. This species may well flower in response to rainfall.

Plants in the Kalannie region have been observed in flower in April and July at which time both buds and heads at anthesis were present. The flowers are scattered over the plants and are not showy.

Fruiting

Over its geographic range pods with mature seeds have been collected from December to January. However, considering the long flowering period it is likely that further sampling will extend its known fruiting range.

Plants from the Kalannie region had pods with mature and immature seeds in early December 1996.

Pods are not especially easy to collect in quantity by hand as they tend to be scattered over the plants. The best method is to manually shake or gently beat the plants and collect the pods and seeds on a ground sheet.

Biological features

Growth characteristics. No firm data available but it is likely to be a slow-growing species.

Propagation

Propagate from seeds.

Informal germination tests, using various hot water treatments, were conducted by Angela Waters (Kalannie Tree Supplies). Good results were obtained by either soaking the seed overnight in just-boiled water before sowing, or by boiling the seed for 1 minute prior to soaking. Untreated showed lower rates of germination.

Revegetation

Well-suited for stabilising soils associated with granite outcrops. At Dutakajin Rock *A. duriuscula* showed good regeneration in an open fallow paddock around the base of this granite outcrop. Although under natural conditions the species is confined to granitic soils it is probably worth trialling for revegetation purposes on a range of loam and sandy clay soil types.

Utilisation

Soil stabilisation. See Revegetation above.

Windbreak, visual screen, shade and shelter. The growth form of this species renders it suitable as a windbreak and visual screen, and for providing shade and shelter for stock and wildlife.

Fodder. Probably of limited fodder value; however, at one locality in the Kalannie region some plants showed evidence of having been eaten by sheep, indicating at least some degree of palatability.