Botanical name

Acacia longiphyllodinea Maiden, J. & Proc. Roy. Soc. New South Wales 51: 254 (1917)

The botanical name is derived from the Latin *longis* (long) and *phyllodineus* (phyllode), and refers to the excessively long phyllodes which characterise this species.

Common name

Long-leaf Rock Wattle.

Characteristic features

Branchlets normally (lightly) pruinose at their extremities. *Phyllodes* continuous with the branchlets (pulvinus +/- absent) and not easily separated from them, terete to rhombic-terete, very long and narrow, incurved to shallowly sinuous, longitudinally multi-nerved with the nerves fine and very close together. *Spikes* long, densely flowered, on stout, glabrous peduncles. *Flowers* 5-merous. *Pods* mostly linear, flat, long and narrow. *Granite rock* habitat.

Description

Habit. Glabrous *shrubs* or *small trees* 2-5 m tall, single-stemmed to about 0.5 m or dividing at ground level into about 4 main stems, crown dense or open and at least 2-3 m across.
Bark. Fissured and fibrous at base of main stems, +/- smooth on upper branches.
Branchlets. Glabrous except hairy within axil of phyllodes, normally (lightly) pruinose at extremities.
Phyllodes. Continuous with the branchlets (and not easily separated from them), terete to rhombic-terete, 15-45 cm long, 1-1.5 mm wide, ascending to erect, incurved to shallowly sinuous, green; *longitudinal nerves* numerous, fine, close together; *apices* normally curved, narrowed into acute to acuminate, coarsely pungent or non-pungent points; *pulvinus* absent or extremely reduced, orange, smooth.
Spikes. Single or paired within axil of phyllodes, 3-5 cm long and 10-11 mm wide when fresh, bright light golden, flowers very densely arranged within the spikes; *peduncles* stout, 5-20 mm long.
Flowers. 5-merous; *sepals* united.
Pods. Mostly linear, straight-edged or slightly constricted between the seeds, flat, 7-17 cm long, 3.5-5 mm wide, +/- pendulous, straight or slightly curved, thinly coriaceous, light brown with a slight purplish hue.
Seeds. Longitudinal in the pods, 3.5-5 mm long, 2-2.5 mm wide, slightly shiny, dark brown to black, areole yellowish; *aril* white.

Taxonomy

Related species. Acacia *longiphyllodinea* is related to *A. lasiocalyx* which is readily distinguished by its flat phyllodes that have a distinct basal pulvinus and which are not continuous on the branchlets.

Superficially similar species. On account of its very long, narrow phyllodes and spicate inflorescences this species can superficially resemble *A. jibberdingensis* and *A. stanleyi. Acacia longiphyllodinea* is distinguished from both these species by its commonly pruinose branchlets, 5-merous flowers and flat pods (see *A. stanleyi* for further details).

Distribution

Occurs in southwest Western Australia where it extends from near Mullewa south through Perenjori and Coorow to near Kalannie.

Acacia longiphyllodinea is uncommon in the Kalannie region.

Habitat

In the Kalannie region *A. longiphyllodinea* is associated with granite rocks where it grows on light brown loam. It may regenerate naturally along roadverges where it can form localized dense populations; however, these are uncommon.

Recorded from the following Kalannie region Land Management Units. Shallow Soil over Granite; Pediment.

Conservation status

Not considered rare or endangered.

Flowering

Over its geographic range *A. longiphyllodinea* flowers in August and September.

Plants in the Kalannie region were at peak flowering in early September 1997.

Fruiting

Over its geographic range this species produces pods with mature seeds in November and December.

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

There are about 145 000 seeds per kilogram. *Note*: This figure is derived from a single sample counted by Angela Waters (Kalannie Tree Supplies) and would most probably have included both viable and non-viable seeds.

Biological features

Toxicity. The phyllodes of *A. longiphyllodinea* contain low concentrations of cyanogenic glucoside; however, they do not appear to possess an endogenous enzyme that is needed to hydrolyse this into hydrogen cyanide (Maslin *et al.* 1987). There are no reported cases of stock losses involving this species.

Propagation

This species is not easy to germinate. Informal germination tests, using various hot water treatments, were conducted by Angela Waters (Kalannie Tree Supplies). Less than 50% germination was achieved by boiling the seed for 3 minutes and then soaking them overnight before sowing. Even poorer responses were obtained from using untreated seeds or ones that had simply been soaked overnight in just-boiled water before sowing.

Revegetation

Acacia longiphyllodinea would appear to have limited scope for use in revegetation within the Kalannie region.

This species is recommended by Wilcox *et al*. (1996) for revegetation in the Midlands and northern wheatbelt regions of Western Australia where the soils comprise sand over gravel.

Utilisation

Visual screen. There may be some scope for using this species as a visual screen because of its growth form.

Ornamental. Particularly on account of its large showy spikes this species has scope as an ornamental for planting in semi-arid areas.

References

Maslin, B.R., Conn, E.E. and Dunn, J.E. (1987). Cyanogenic Australian species of *Acacia*: A preliminary account of their toxic potential. pp. 107-111. In: Turnbull, J.W. (ed.) 'Australian *Acacia*s in Developing Countries'. Proceedings of an international workshop held at the Forestry Training Centre, Gympie, Qld, Australia, 4-7 August 1986.

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.).