

Botanical name

Acacia andrewsii W.Fitzg., J. W. Austral. Nat. Hist. Soc. 1: 6 (1904)

The botanical name commemorates Cecil Rollo Payton Andrews, a Director of Education for Western Australia from 1903-1929 (see Hall 1978 for biographical details). Cecil Andrews described a number of Western Australian plants, including three species of *Acacia* that occur in the Kalannie region, namely, *A. ancistrophylla*, *A. eremaea* and *A. lasiocalyx*.

Common name

Andrews' Wattle.

Characteristic features

Rigid prickly *shrubs*. *Bark* light grey from base of stems to the ends of branchlets. *Branchlets* +/- ribless. *Stipules* +/- spiny. *Phyllodes* small, rigid, upper margin thick and somewhat nerve-like (most apparent in dry specimens), midrib prominent and raised (when dry) on each face, apex narrowed to very sharp, needle-like points. *Heads* globular. *Pods* +/- terete, curved, dark red-brown.

Description

Habit. Harsh, rigid, prickly, usually erect, rather diffuse, much-branched *shrubs* usually 0.5-2 m tall and about the same across.

Bark. Light grey from base of stems to the ends of branchlets.

Branchlets. Terete, ribless or very obscurely ribbed, glabrous to sub-glabrous.

Stipules. More or less spiny, 1-1.5 mm long.

Phyllodes. Broadest near or below middle and tapered towards apex, usually 7-22 mm long and 1-2 mm wide, rigid, widely spreading, normally glabrous, green; with 1 prominent *longitudinal nerve* (midrib) on each face; *upper margin* thick and somewhat nerve-like (most apparent in dry specimens); *apices* narrowed to a needle-like very sharp points.

Heads. Single within axil of phyllodes, globular, 8 mm in diameter when fresh, golden, usually 20-30-flowered; *peduncles* usually 4-16 mm long (about 4-5 mm long when in flower in Kalannie region plants), pale-coloured, glabrous to sub-glabrous.

Flowers. 5-merous; sepals free.

Pods. Terete to compressed, quadrangular by broad margins when young, 4.5-6.5 cm long, usually 4-5 mm wide, held at various angles, sub-woody to coriaceous-crustaceous, curved, glabrous or sparsely minutely hairy, dark red-brown, obscurely striate.

Seeds. Longitudinal in the pods, usually 3.5-5 mm long, 2-2.5 mm wide, dull to slightly shiny, dark brown except dull yellowish at centre and around periphery; *aril* terminal, conical, dull greenish yellow.

Taxonomy

Related species. Within the Kalannie region *A. andrewsii* is most closely related to *A. aff. baxteri* which is most readily distinguished by its brownish green or pruinose, ribbed branchlets, shorter, red-coloured flowering peduncles, orange-tinged flower buds, lightly mottled seeds and non-thickened phyllode upper margins.

Variants. Specimens from the Kalannie region show little morphological variation. However, variants are known from elsewhere, e.g. Port Gregory to Kalbarri and Lake Grace to Lake King (see Maslin, in press).

Distribution

Occurs in southern Western Australia where it is widespread from Kalbarri south to Nyabing and extends inland to Paynes Find and east-northeast of Norseman.

Rare in the Kalannie region.

Habitat

Over its range *A. andrewsii* grows in a variety of habitats but commonly is commonly found on low laterite hills or associated with granite outcrops; it occurs in scrub, shrubland or Mallee communities. Between Port Gregory and Kalbarri the species grows in coastal heath on sandstone cliffs or limestone hills.

Recorded from the following Kalannie region Land Management Units. Red Brown Earth; Shallow Soil over Granite.

Conservation status

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

Flowering

Over its geographic range *A. andrewsii* flowers mainly from May to August, with some plants occasionally flowering in September or October.

In 1997 plants in the Kalannie region had almost finished flowering by late June, while just to the north of the region (around Buntine Rock) it appeared as though the plants did not flower at all that year.

Fruiting

Over the geographic range of this species pods with mature seeds have been collected from September to December.

Plants from around Buntine Rock were with mature seed in early December 1996.

Collecting pods by hand can be difficult on account of the prickly foliage (stout gloves are recommended) and because the pods are scattered over the plants. Gently beating of the plants and collecting the pods and seeds on a ground sheet is probably a more efficient way of collection. However, the pods may be difficult to dislodge and again the prickly phyllodes can cause problems if they become dislodged with the pods.

There are about 40 000 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

Growth characteristics. Drought resistant, and tolerates light to medium frost (Elliot and Jones 1982).

Propagation

Propagate from seed.

This species is very difficult to germinate. Informal germination tests, using various hot water treatments, were conducted by Angela Waters (Kalannie Tree Supplies).

The best results were achieved by boiling the seed for 5 minutes and then soaking overnight before sowing. Nevertheless, this pre-treatment resulted in rather low rates of germination. Untreated seed, or seed soaked overnight in just-boiled water showed even poorer results. It is possible that boiling seed for longer than 5 minutes would improve the germination rate, however, this would need to be tested.

According to Simmons (1987) *A. andrewsii* can be grown from seeds or cuttings and it should be pruned lightly after flowering.

Revegetation

Suitable for inclusion in biodiversity plantings as part of the low shrub stratum, especially for revegetation of granite rocks in the Kalannie region.

Acacia andrewsii was recommended by Wilcox *et al.* (1996) for revegetation of crabholes (Gilgai soils) and where the soil comprises brown alkaline clay or red sandy loam over hardpan, in the Midlands and northern wheatbelt regions of Western Australia; it was regarded by Clarke (1997) as being suited to revegetating drainage lines in these areas.

Utilisation

Biodiversity plantings. See Revegetation above.

Wildlife refuge. Its intricately-branched crown and prickly foliage provides good wildlife protection (especially for small nesting birds).

Ornamental. According to Simmons (1987) this species is suitable for rockery plantings in semi-arid areas.

References

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