

## Botanical name

*Acacia longispinea* Morrison, Scott. Bot. Rev. 1: 96 (1912); Trans. Bot. Soc. Edinburgh 26(1): 52 (1912)

The botanical name is derived from the Latin *longis* (long) and *spineus* (thorny), in allusion to the long, narrow, rigid phyllodes found on this species.

## Common name

Spine-leaved Wodjil.

## Characteristic features

*Branchlets* with obvious lenticels. *Phyllodes* pentagonal in cross-section, long and narrow, rigid, ascending to erect, with 5, prominent longitudinal nerves; *pulvinus* very reduced. *Heads* globular and large, on long peduncles. *Pods* papery. *Seeds* mottled; *funicle* not expanded into an aril.

## Description

**Habit.** Dense, rounded or obconic *shrubs* or occasionally *small trees* 1.5-4(-6) m tall and 2.5-6 m wide, single-stemmed to 1 m or multi-stemmed from ground level, the main stems sub-straight and 2-6 cm diameter at breast height (or to 10 cm when plants single-stemmed), crowns occupying 30-60% of the total plant height.

**Bark.** Grey, thin, smooth except rough and flakey at base of stems on oldest plants.

**Branchlets.** Scarred by raised stem projections where phyllodes have fallen, lenticellular, glabrous, grey.

**Phyllodes.** Pentagonal in cross-section, (5-)7-23 cm long, 1-2.5 mm wide, rigid, ascending to erect, straight to shallowly incurved, glabrous, dark green; *longitudinal nerves* 5, prominent and clearly separated from one another; *apices* abruptly contracted into a short, acuminate, straight or very slightly curved, dark brown, fairly pungent point, with age the point commonly breaks off so that the phyllode apex is then scarcely pungent; *pulvinus* very reduced, lime green.

**Heads.** 1-3 within axil of phyllodes, globular, 12 mm in diameter when fresh, golden, 60-85-flowered; *peduncles* 9-20 mm long, glabrous.

**Flowers.** 5-merous; *sepals* free.

**Pods.** Narrowly oblong to linear, raised over and sometimes constricted between the seeds, (3-)4-8 cm long, 4-6 mm wide, pendulous (because the peduncles are recurved from their base), papery, straight, glabrous, light brown.

**Seeds.** Longitudinal in the pods, 3-6 mm long, 2-5.5 mm wide, sub-shiny, mottled dark brown or black and yellow; *funicle* not expanded into an aril.

## Taxonomy

**Related species.** *Acacia longispinea* has no readily apparent close relatives.

**Superficially similar species.** Sometimes *A. longispinea* may superficially resemble *A. cylindrica* in its growth habit and in phyllode length and colour (see *A. cylindrica* for differences); these two species grow together in places.

## Distribution

Occurs in Western Australia where it extends from near Hamelin southeast to Narembeen and Boorabbin with eastern outliers at Albion Downs, Comet Vale and near Spargoville.

*Acacia longispinea* has a scattered but fairly wide-spread distribution in the Kalannie region. It often regenerates readily along fencelines.

**Habitat**

Over its geographic range this species most commonly grows on sand or gravelly sand, only sometimes on loamy soils.

**Recorded from the following Kalannie region Land Management Units.** Wodjil; Sand over Gravel; Pediment; Shallow Soil over Laterite; Spillway Sand.

**Conservation status**

Not considered rare or endangered.

**Flowering**

Over its geographic range *A. longispinea* flowers in September and October.

Plants in the Kalannie region were in full flower in mid-October 1993 and in bud in early September 1997.

**Fruiting**

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

In early December 1996 plants in the Kalannie region had large pod crops and while some seeds were just reaching maturity most had aborted. It is possible that adverse local conditions (perhaps the timing and/or intensity of rainfall events) caused this seed loss; the same thing happened in a number of other acacias in the area that year.

There are about 180 000 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**

No information available.

**Propagation**

Propagate from seed.

Informal germination tests, using various hot water treatments, were conducted by Angela Waters (Kalannie Tree Supplies). Best results were obtained by either soaking the seed overnight in just-boiled water or by boiling the seed for 3 minutes prior to soaking. However, neither of these pre-treatments produced maximum germination. Untreated seed produced very low germination rates.

**Revegetation**

Because *A. longispinea* can grow to a reasonably large plant and occurs naturally on a range of sandy and gravelly soils it would be suitable for including in shelter belt plantings as a low windbreak and stock shelter.

Recent observations in the central wheatbelt showed natural regeneration of this species within a gravel pit located in a paddock that had been under crop and pasture for about 50 years; this suggests that seed of *A. longispinea* can remain viable in the soil for long periods (A. Napier, pers. comm.).

### **Utilisation**

**Windbreak.** On account of its porous crown this species would appear to have some potential as a low windbreak.

**Shade and shelter.** See Revegetation above.

**Ornamental.** Although not widely cultivated this species may have some ornamental potential for semi-arid areas on account of its very showy, large golden heads.