Botanical name

Acacia nigripilosa Maiden (as 'nigripilosus') subsp. *nigripilosa*, J. & Proc. Roy. Soc. New South Wales 53: 172, t. 10, figs 1-8 (1920)

The botanical name is derived from the Latin *neger* (black) and *pilosus* (hairy) and refers to the (often sparse) diagnostic, black to brown, minute, appressed hairs that are present on the flower petals of this species.

Common name

None known.

Characteristic features

Bark ash grey and smooth from the base of stems to the ends of branchlets. *Phyllodes* linear, smooth, green, with one longitudinal nerve on each face when flat (4-nerved in all when +/- terete), apices acuminate with slender, normally shallowly curved and +/- pungent brown points. *Heads* globular to shortly obloid, arranged in short racemes which grow out at anthesis, enclosed by conspicuous brown bracts when young (bracts may persist to anthesis), bright light golden. *Petals* invested with +/- sparse, brown to black, appressed hairs. *Pods* aging black.

Description

Note. This is a somewhat variable species and is in need of critical revision. The description here applies only to plants occurring within the Kalannie region.

Habit: Obconic or rounded, dense to sub-dense *shrubs* (0.5-)1-2(-2.5) m tall, mostly 2- to many-branched from ground level, the stems slender, spreading and much-divided, infrequently single-stemmed, upper branches becoming slightly crooked with age, crowns normally 1-2 m wide and occupying 30-40% of the total plant height, however, in exposed sites (e.g. road verges) the crowns can spread to 3-3.5 m across and occupy 50-100% of the total plant height.
Bark. Ash grey and smooth from the base of stems to the ends of the branchlets.
New shoots. Glabrous or loosely hairy (the indumentum not conspicuous), the stems light brown.
Branchlets. Glabrous.
Phyllodes. Linear, narrowed towards the base, 2-5 cm long, 0.5-2 mm wide, (can reach 7 cm long and 5 mm wide outside the Kalannie region), flat to +/- terete (but then commonly drying +/- quadrangular), ascending to erect, straight to shallowly incurved (rarely shallowly recurved), fleshy and smooth (sometimes shallowly longitudinally wrinkled when dry), not rigid when fresh (drying sub-rigid), glabrous, green, dull or slightly shiny; with 1 *longitudinal nerve* (midrib) on each face when flat, 4-nerved in all when +/- terete, lateral nerves +/- absent; *apices* narrowed to slender, acuminate, normally shallowly curved and +/- pungent (infrequently straight or innocuous), brown points; *pulvinus* poorly developed, +/- smooth, yellow to brown, slightly dilated at base.
Heads. Arranged in 1-2-branched racemes 1-3 mm long and which grow out as a new shoot at anthesis, enclosed when young by conspicuous, brown, imbricate bracts (which may persist to anthesis), globular to slightly obloid, about 9 mm in diameter when fresh, light golden,18-34-flowered; *peduncles* 4-10 mm long, glabrous or sometimes loosely hairy.
Flowers. 5-merous; *sepals* united at base; *petals* with +/- sparse, brown to black, appressed hairs.

Pods. More or less moniliform to linear (but then rounded over seeds and shallowly constricted between them), 2.5-8 cm long, 4-6 mm wide, pendulous, thinly coriaceous-crustaceous, glabrous, dark (reddish) brown aging black (greenish yellow prior to maturity).
Seeds. Longitudinal in the pods, oblong to elliptic, 3.5-4.5 mm long, 2.5-3 mm wide, glossy, dark brown to black with pale-coloured tissue surrounding the pleurogram at centre of seed; *aril* white and extending down one side of the seed.

Taxonomy

Subspecies. *Acacia nigripilosa* comprises two subspecies but only the typical one, subsp. *nigripilosa*, is found in the Kalannie region. The other subspecies, subsp. *latifolia*, occurs between Caron and Maya and is recognized by its glaucous to sub-glaucous phyllodes which are 5-8 mm wide.

Related species. *Acacia nigripilosa* is probably most closely related to *A. inaequiloba* and *A. ashbyae*, neither of which occur in the Kalannie region.

Variants. As discussed by Maslin (in press) subsp. *nigripilosa* is very variable and probably comprises more than one taxon. Two variants can be recognized within the Kalannie region, one with +/- terete phyllodes (0.5-1 mm wide) and hairy new shoots, the other with flat phyllodes (1-2 mm wide) and +/- glabrous new shoots. Further studies are needed to determine the status of these variants and how they relate to the entities discussed by Maslin (in press).

Distribution

Acacia nigripilosa subsp. *nigripilosa* occurs in south-west Western Australia from Yuna south to near Goomalling and east to Mount Holland and near Queen Victoria Rock.

In the Kalannie region subsp. *nigripilosa* has a scattered occurrence across the area.

Habitat

Over its geographic range (including the Kalannie region) subsp. *nigripilosa* is commonly found in yellow or yellow-brown sand.

Recorded from the following Kalannie region Land Management Units. Colluvial Flat-Earth; Wodjil; Sand over Gravel; Pediment; Deep Yellow Sand; Shallow Soil over Laterite; Spillway Sand.

Conservation status

Not considered rare or endangered.

Flowering

Over its geographic range subsp. *nigripilosa* flowers between June and October, but the main flowering period is August to October.

In late August 1994 and early September 1997 the plants in the Kalannie region were just commencing flowering.

Fruiting

Over the geographic range of this subspecies pods with mature seeds have been collected in December and January.

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

There are about 65 000 - 150 000 seeds per kilogram. *Note*: This figure is derived from samples of the +/- terete phyllode variant 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

Informal germination tests (on the +/- terete phyllode variant), using various hot water treatments, were conducted by Angela Waters (Kalannie Tree Supplies). Good germination was achieved by either soaking the seed overnight in just-boiled water ahead of sowing, or by boiling the seed for 3 minutes prior to soaking. Untreated seed failed to germinate or showed a low germination response.

Revegetation

Acacia nigripilosa would appear to have limited revegetation potential within the Kalannie region but could be included in mixes for soil stabilisation or to increase biodiversity representation of the lower shrub stratum on a range of light-textured soils. Under natural conditions the species was shown to regenerate well in an area where grazing had been excluded, on land that had previously been cropped for 20 years.

Utilisation

Soil stabilisation. See Revegetation above.
Biodiversity planting. See Revegetation above.

Reference

Maslin, B.R. (in press). *Acacia*. In *Flora of Australia* vol. 11 (CSIRO, Melbourne: Australia.)