Botanical name

Acacia brumalis (incurved phyllode variant)

The species name is derived from the Latin *brumalis* (wintry) and refers to the predominantly winter flowering habit of this species.

This taxon was treated as *A. brumalis* Variant 3 by Maslin in *Nuytsia* 10: 185 (1995).

Common name

Narrow-leaf Winter Wattle.

Characteristic features

Phyllodes linear to very narrowly oblanceolate, shallowly and uniformly incurved, dull green to sub-glaucous, with one longitudinal nerve on each face, glands 1 or 2, the lowermost 1-3(-5) cm above the pulvinus. *Heads* globular, arranged in short racemes, the raceme axes and peduncles densely appressed hairy (hairs commonly yellow). *Bracteole laminae* dark brown, white-fimbriolate.

Description

Habit. *Shrubs* 1.5-2 m tall, either multi-stemmed with dense, rounded crowns (when growing in open sites such as road verges) or single-stemmed to sparingly branched base with straight, erect stems (1.5-2 cm in diameter at ground level) and open to sub-dense crowns (when growing in dense vegetation).
Bark. Dark red to light brown (tinged red) aging grey on the main stems, smooth.
Branchlets. Glabrous, dark red or light brown.
Phyllodes. Linear to very narrowly oblanceolate, narrowed towards the base, (5-)6-12 cm long, 3-6(-8) mm wide, ascending to widely spreading, shallowly and uniformly incurved, glabrous, dull green to sub-glaucous; with 1 *longitudinal nerve* (midrib) on each face; *apices* acute to obtuse, not pungent; *gland*s not prominent, 1 or 2 on upper margin of phyllode, the lowermost 10-30(-50) mm above the pulvinus.
Heads. Arranged in 3-8(-10)-branched racemes 5-20 mm long, globular, 6-7 mm in diameter when fresh, bright golden, showy, fragrant, 18-30-flowered; *raceme axes* appressed hairy (the hairs white or pale yellow); *peduncles* 3-4(-5) mm long, densely appressed hairy (the hairs pale yellow or golden).
Flowers. 5-merous; *sepals* united; *bracteole laminae* +/- circular, dark brown and evident in buds, white-fimbriolate.
Pods. Only a few old pods seen (collected from ground under the plants). Linear to sub-moniliform, 3.5-6 cm long, 6-7 mm wide, glabrous.
Seeds. Not seen.

Taxonomy

Acacia brumalis is a very polymorphic species and may well comprise more than one taxon (see Maslin 1995 for discussion). Much of the variation is accommodated within the three variants that were recognized by Maslin, however, much more research is needed to elucidate the complex patterns of morphological variation within this species and to clarify its relationship to the similarly variable close relatives such as *A. chrysella*, *A. chamaeleon* and *A. microbotrya*. In view of the above *A. brumalis* (incurved phyllode variant) cannot yet be formally described; furthermore, good pod material of this taxon is yet to be collected.

Related species. As discussed by Maslin (1995) *A. brumalis* is a member of the large, Australia-wide assemblage informally called the "*Acacia microbotrya* group".

Five members of this group occur in the Kalannie region, namely, *A. brumalis* (incurved phyllode variant and light land variant), *A. daphnifolia* (syn. *A. microbotrya* var. *borealis*), *A. jennerae* and *A*. affin. *jennerae*.

Variant 3 of *A. brumalis* is distinguished from the other members of the *A. microbotrya* group within the Kalannie region by its narrow, incurved, green to subglaucous phyllodes and its densely yellow-hairy peduncles.

Variants. Two collections (B.R. Maslin 7681 and 7685) from near the Rabbit Proof Fence east of Wubin are unusual in that they have straight phyllodes; one has peduncles 5-7 mm long. They are not included in the present circumscription of *A. brumalis* (incurved phyllode variant) even though they are clearly related to this taxon.

Distribution

Acacia brumalis (incurved phyllode variant) occurs in northern wheatbelt region of south-west Western Ausrtalia mainly in the Wubin-Pithara-Kalannie area, and north to near Morowa. It is confined to the western perimeter part of the Kalannie region and does not appear to be common. It can colonize disturbed road verges but does not form clonal clumps like *A. daphnifolia* which occurs in the same area.

Habitat

Recorded from the following Kalannie region Land Management Unit. Colluvial Flat-Earth.

Conservation status

Not considered rare or endangered.

Flowering

Over its geographic range this variant of *A. brumalis* flowers from June to August.

Plants in the Kalannie region were commencing flowering in late June 1997.

Fruiting

Unknown.

Biological features

No information available.

Propagation

Propagate from seed.

Revegetation

On account of its growth form and prolific seed production this taxon has some potential for revegetation on light- to medium-textured soils. However, more information is needed in order to more accurately assess its potential.

Utilisation

Wildlife refuge. The dense crowns could offer protection for small wildlife.
Seed for human food. As discussed by Maslin *et al.* (1998) *A. brumalis* is one of the lesser-known species suggested for trialling as a source of seed for human food. Although seeds of the incurved phyllode variant are currently unknown, it is likely that this taxon will have the same desirable characteristics for this purpose as other forms

of *A. brumalis*. It is emphasised, however, that much more research is needed before this species can be recommended for food production; in particular, there is a need for comprehensive biochemical analyses to ascertain if any anti-nutritional or toxic components are present in the seeds.

References

Maslin, B.R. (1995). *Acacia* miscellany 14. Taxonomy of some Western Australian "Uninerves-Racemosae" species (Leguminosae: Mimosoideae: section Phyllodineae). Nuytsia 10(2): 181-203.

Maslin, B.R., Thomson, L.A.J., McDonald, M.W. and Hamilton-Brown, S. (1998). *Edible Wattle Seeds of Southern Australia. A review of species for semi-arid regions of southern Australia.* (CSIRO, Forestry and Forest Products, Australian Tree Seed Centre: Canberra.)