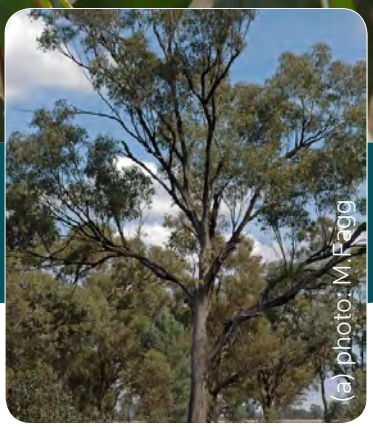
photo: / www.flickr.com/photos/47950330@N06/4484102844/

Eucalyptus microcarpa



(a) photo: M Fagg

Eucalyptus microcarpa is a medium-sized tree to 25 m high, the trunk typically forming a Y-shaped [7]. The bark is persistent on the trunk and larger branches, grey with whitish patches, fibrous-flaky (`box'), smooth above, grey, shedding in short ribbons [10]. Common names are Grey Box [2], Western Grey Box, Brown Box, Inland Grey Box [3], Gum-Topped Box [5], Green-leaved Box, Black Box, Southern Grey Box and Narrow-leaved Grey Box [6].

The specific name *microcarpa* comes from Greek micros meaning small, and carpos meaning fruit, referring to the small fruit [5].

E. microcarpa can be, and often is, mistaken for *Eucalyptus albens* as both have similar bark and grow in the same regions. *E. microcarpa* has narrower greener leaves, smaller buds and fruit with no grey/glaucous bloom, and usually prefers a heavier soil to *E. albens* [2, 5].

Within the species, three clinal forms are recognized, with variations in leaf and fruit shape and size; this includes the former '*Eucalytpus woollsiana*' [7].

Population map: www.ala.org.au/explore/species-maps/

Natural Populations

Euvalyptus microcarpa is widespread and locally abundant in grassy woodlands of the wheat belt through Qld., NSW, Vic. and S.A. [10] where there are hot summers and an annual rainfall of about 380-630 mm. It is found mainly at altitudes of 120-300 m, usually on gentle slopes and plains [3], particularly on brown loams or heavier alluvial [7], but also on shallower soils in hill country [7]. It also occurs on clays and limestone formations [3], often as the dominant species [6].

Greening Australia

Flowering and Seeds

Buds form on new growth during summer and flowering commences about 2 months later. The white flowers occur mainly in winter and less commonly in autumn or spring [2].

Seeds can be collected throughout the year but summer is more convenient [4]. The fruit is usually high in the trees. Collect the woody fruits as they turn from green to grey-brown [1]. Cut off mature fruits, with long loppers or secateurs. Place on material to dry. Once seed has been released sieve to remove unwanted material. Store away, in dry cool area [4]. Good crops may be irregular [5].

Material shedding from the capsules includes both viable seeds (only a few per capsule) and 'chaff' (infertile seeds), which usually exists in greater quantities than seeds. Seeds are usually various shades of brown, while chaff is dry, woody and usually tan brown. Generally, the chaff is not separated from seed, even with commercial seed lots [8].

(a) photo: M.Fagg

To source seeds or plants:

www.grassywoodlands.org.au

Cultivation and Uses

Propagation is from seed (129-770 seeds per gram [9]) [1, 5]. Sprinkle seed over propagating mix or direct sow into clean soil. Press or firm in, keep moist. Sow in spring or in warm conditions [4].

E. microcarpa establishes well when direct seeded [5]. Generally 10-60 grams of seed is required per kilometre to achieve a natural bush effect [9].

Natural regeneration occurs from seed, particularly in the absence of competitive exotic grasses or weeds, during wet summers. The trees also coppice vigorously from low stumps, and regrowth is long-lived.

While usually having a single trunk, a significant proportion of grey box individuals have multiple stems from near the ground. This is an artifact of enhanced epicormic growth when juvenile, often resulting from stock grazing disturbance [12].

While the preferred soil type for best growth is clay-loam [13], *E. microcarpa* will tolerate moderately alkaline soil [5]. It tolerates poor drainage, has a high tolerance to frost [13] and wind [5], but won't grow in deep sand [13].

E. microcarpa is useful as a medium-level cover in windbreaks and the spreading crown provides good shade [5].

E. microcarpa buds regularly and provides good nectar supplies [3]. Bees gather moderately good quantities of cream-coloured pollen [3].

The timber is pale, very durable, tough and strong with a density of about 1100 kg/m^3. It is harvested commercially in Qld and used in heavy engineering construction, bridges, wharves, shipbuilding, piles, poles and sleepers. It is also an excellent fuel wood [14]. It is an interesting furniture timber, although difficult to work [5, 6]. The wood dust is reported to cause eczema, irritation to nose and throat [15].

E. microcarpa provides excellent habitat for wildlife. Flowers are a food source for Sugar Gliders, Squirrel Gliders, native birds and insects, and insect-eating birds are attracted. Hollows are nesting and refuge sites for native birds and mammals.

E. microcarpa leaves produce a range of dyes depending on mordants used [5].

photo: C. Miller

References

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[2] Walker, K., Burrows, G., and McMahon, L. (2001). *Bidgee Bush, An identification guide to common native plants species of the South Western Slopes of New South Wales.* Greening Australia, South West Slopes.

[3] Clemson, A. (1985). *Honey and Pollen Flora.* Melbourne: Inkata Press.

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[5] Stelling, F. (ed.) (1998). *South West Slopes Revegetation Guide.* Murray Catchment Management Committee, Albury, NSW.

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Internet links

[10] PlantNET National Herbarium of New South Wales: **http://plantnet.rbgsyd.nsw.gov.au/cgi-bin/NSWfl.pl?page=nswfl&lvl=sp&name=Eucalyptus~microcarpa**

[11] Victorian Department of Primary Industry: **http://www.dpi.vic.gov.au/dpi/vro/wimregn.nsf/pages/natres_veg_riverine**

[12] **http://www.forestry.org.au/pdf/pdf-members/afj/AFJ%202005%20v68/AFJ%20December%202005%2068-4/Hamilton.pdf A**

[13] **http://www.privateforests.tas.gov.au/forestry_facts/info_sheets_species/grey_box**

[14] Australian forests website: **http://www.australianforests.org.au/forestindustries/species-list_2.htm**

[15] **http://www.vwa.org.au/des_dangwd.htm**

[16] Australian National Botanic Gardens & Australian National Herbarium, Harden Species List: **http://www.anbg.gov.au/greening-grainbelt/harden-species-list.xls**

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