

Hybrid between *Eucalyptus tetraptera* and *Eucalyptus stoatei* from Jerdacuttup, Western Australia

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Abstract

E.M. Bennett. Hybrid between *Eucalyptus tetraptera* and *Eucalyptus stoatei* from Jerdacuttup, Western Australia. Nuytsia 10 (1): 1-5 (1995). An horticulturally attractive hybrid between *Eucalyptus tetraptera* Turcz. and *Eucalyptus stoatei* C. Gardner from near Jerdacuttup, Western Australia, is described. It is proposed this be named *Eucalyptus x stoataptera* E.M. Bennett.

Introduction

This spectacular small tree or medium sized mallee, a hybrid between *Eucalyptus tetraptera* Turcz. and *Eucalyptus stoatei* C. Gardner, was first seen by the author in 1980 when living in the Ravensthorpe area. After leaving Ravensthorpe in 1981 only a few field trips were made back to the area, unfortunately these were when the hybrid was not flowering. However fruiting material was collected for the Kings Park nursery and seed has been germinated. In late August 1991 the area was again visited specifically to collect the plants in full flower. Excellent flowering and fruiting collections were made.

Eucalyptus x stoataptera E.M. Bennett (Figure 1)

Arbor mediocris. Folia oblonga, 9-11 x 3-3.5 cm longa. Flos solitarius, pedunculus deorsum curvatis, 30-35 mm longus, 10-20 mm latus. Alabastrum breviter pedicellatum, pendus, quadrialatus; operculum conicum; stamine inflexa. Fructus pendens, ruber fuscescens, quadrialatus.

Typus: 18.8 km east along Upper Jerdacuttup Road, (just west of Mason Bay Road) between Ravensthorpe and Hopetoun, E.M. Bennett 5593, 6th October 1991 (holo: PERTH).

Upright tree to 4 m tall with dense canopy; bark smooth, dark grey and light grey. Young stems angular, mature stems round in section. Adult leaves, petiolate, alternate, oblong, apiculate, 9-11 x 3-3.5 cm, concolorous, glossy, thick, reticulation dense, broken with scattered, obscure oil glands. Flowers solitary; peduncle downcurved, angular at base becoming flattened beneath calyx, 30-35 mm

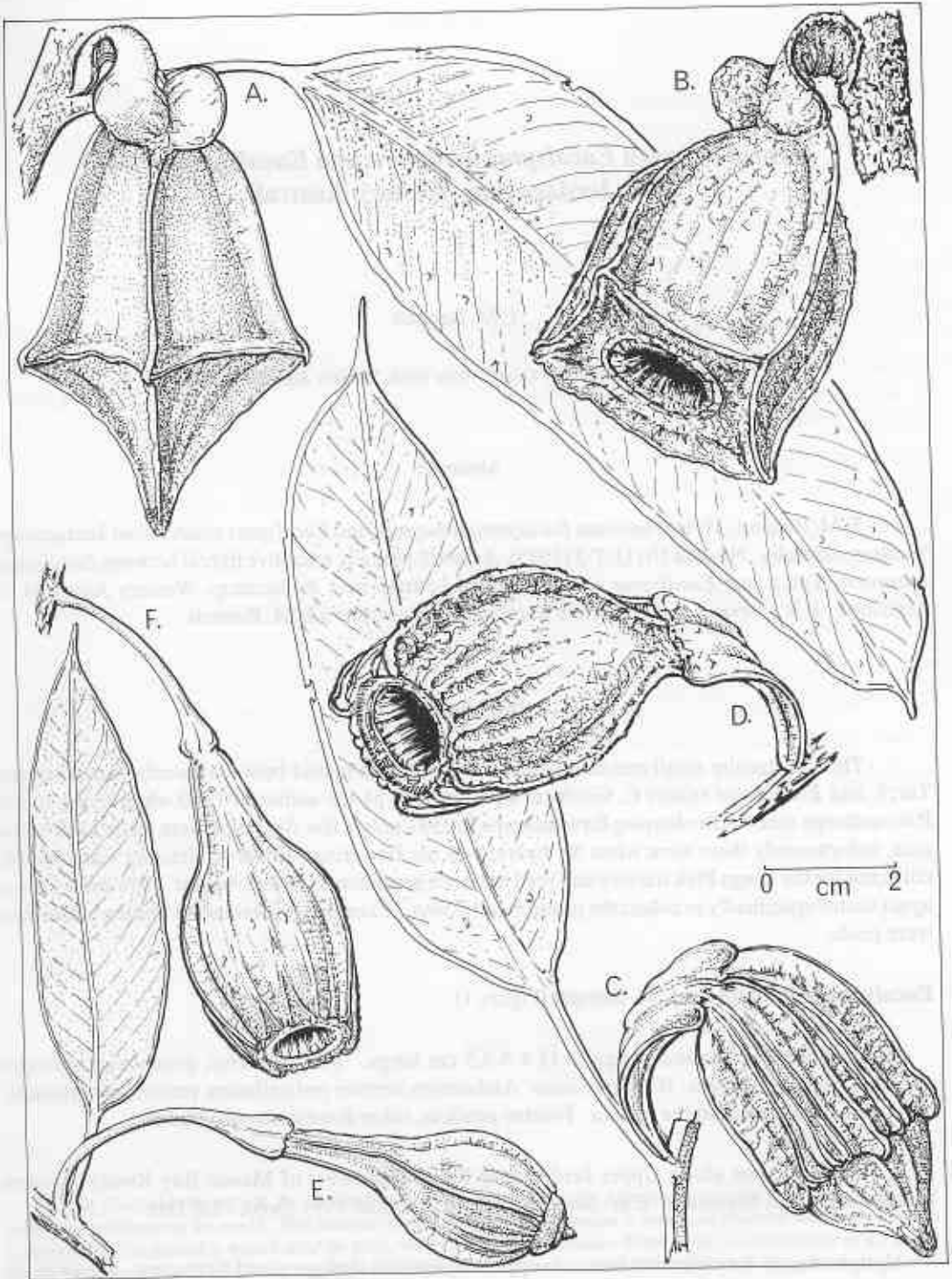


Figure 1. A-B *Eucalyptus tetraptera* A - bud and leaf, B - fruit. C-D *Eucalyptus stoataptera* C - bud and leaf, D - fruit. E-F *Eucalyptus stoatei* E - bud and leaf, F - fruit. Illustrations by M. Andrews.

long. *Buds* very shortly pedicellate, pendulous, red, square in cross section with the corners extended into wings, coarsely 2-4-ribbed between wings, 4.2-4.8 cm x 2.4-2.8 cm; operculum conical; stamens strongly inflexed in bud, \pm inflexed in flower, 4-8 mm long; anthers versatile, sub-basifixed, ovoid, 1.5 mm long opening in longitudinal slits; flowers apricot. *Fruit* shortly pedicellate, pendulous, red becoming brown with age, square in cross section, 3.6-5.8 cm x 2.5-3.2 cm with 4 wings, each 5-9 mm broad with 1-5 ribs between, rim 5.7 mm thick, disc descending; valves 3 or 4.

Flowering period. August-September

Distribution. Western Australia in the Eyre Botanical District of the South-west Botanical Province.

Habitat. In sandy-loam soil where the distribution of *Eucalyptus tetraptera* and *Eucalyptus stoatei* overlap. Grows in low to medium mallee shrubland with *Eucalyptus tetraptera*, *Eucalyptus stoatei* and *Eucalyptus kessellii* Maiden and Blakely the common mallee species.

Conservation status. A restricted hybrid known from along a road verge adjoining agricultural land. The hybrid is listed as Priority Two in the Declared Rare and Priority Flora list for WA, 1992. It has the category of 2V of Briggs and Leigh (1988).

Other specimens examined. WESTERN AUSTRALIA: Hopetoun, west of Swamp Road, on Jerdacuttup Road, E.M. Bennett 1980 (PERTH); Jerdacuttup, E.M. Bennett, September 1980 (PERTH); 12 miles along Jerdacuttup Road from Ravensthorpe, V. Klaplake S954, 29.12.1969 (KPBG).

Etymology. As it is certainly a hybrid between these two species a combination of both the parents' names is used.

Discussion

This hybrid has many of the stunning features of both parents. It has the upright habit of *Eucalyptus stoatei* but the large, glossy leaves of *Eucalyptus tetraptera*. The stamen colour is apricot, between the yellow of *E. stoatei* and pink/red of *E. tetraptera*, again a colour not common in eucalypts and is offset by the bright red calyx characteristic of both parents. There were several plants of the hybrid of varying age growing throughout the area. Currently seedlings growing at Kings Park are a few years away from flowering.

Below is tabled the comparisons between the two parents and the hybrid.

Comparison table between *Eucalyptus stoatei*, *Eucalyptus tetraptera* and
Eucalyptus x stoataptera

		Species		
		<i>E. tetraptera</i>	<i>E. stoatei</i>	<i>E. x stoataptera</i>
Habit		low, spreading mallee	upright tree	upright tree
Stems				
Young		angular	angular	angular
Mature		angular	round	round
Leaves				
Petiole	length	25-56 mm	13-20 mm	22-30 mm
	width	2.5-5 mm	1.5-2 mm	2-3 mm
Lamina	length	115-185(250) mm	55-90 mm	90-110 mm
	width	30-52(70) mm	17-27 mm	30-35 mm
	shape	lanceolate	elliptic/oblong	oblong/ obovate
Apex:	shape	apiculate	mucronate	apiculate
	size	10-12 mm	3-6 mm	5-11 mm
Bud				
Operculum	length	12-32 mm	10-12 mm	15-20 mm
	width	22-24 mm	10-12 mm	15-24 mm
	ribs	4	12-14 at base	0
Calyx	length	36-40 mm	40-48 mm	29-35 mm
	width	24-28 mm	17-19 mm	24-26 mm
	depth of wing	5-8(12) mm	-	1-3(5) mm
	rib number	0	12-17	2-4
	depth of ribs	-	1-3 mm	0.2-1.2 mm
Peduncle	length	18-28 mm	16-57 mm	30-35 mm
	width	12-34 mm	5-6 mm	10-20 mm
	appearance	tightly recurved	drooping	recurved
TS		V-shaped	angular	nearly flat
	length	0	(8)12-15mm	short, not readily seen
Stamens	colour	pink	yellow	apricot
	length	12-14 mm	9-11 mm	12-15 mm
	anther	1.5 mm	1-1.25 mm	1.5 mm
Fruit				
Calyx	length	43-65 mm	40-50 mm	36-58 mm
	width	26-40 mm	25-27 mm	25-32 mm
	major wings	4	0	4
	depth of wing	8-10 mm	-	5-9 mm
	number of ribs	0	12-17	1-5
	depth of ribs	-	1.5-3.5 mm	0.5-1.5
	thickness	11-20 mm	1-3 mm	5-7 mm

Peduncle	length	12-17 mm	30-57 mm	30-42 mm
	width (at apex)	19-20 mm	6-10 mm	15-19 mm
Pedicel	length	0	10-17 mm	6-8 mm
Seeds				
Colour		black	black	black
Dorsal side		shallow	smooth	shallow
		reticulations	or shallow reticulations	reticulations
Ventral side		ribs ascending to hilum	ribs ascending to hilum	ribs ascending to hilum
Cotyledons				
Shape		bilobed	bilobed	bilobed
Length		8.5-9 mm	9 mm	9 mm
Width		4.5 mm	3.5 mm	4 mm
Veining		3 prominent	3 ± prominent	3 prominent
Colour of undersurface		red	red	red
Flowering		Aug.-Dec.	Dec.-Feb.	Aug.-Sept.

NOTE: All measurements of bud and fruit width exclude the wing.

The above illustrates that the hybrid, *Eucalyptus x stoataptera* is sufficiently different to distinguish it from the two parents.

References

- Atkins, K.J. (1994). "Declared rare and priority flora list for Western Australia." Unpublished document, 52 pp. (Department of Conservation and Land Management: [Como].)
- Briggs, J.D. & Leigh, J.H. (1988). "Rare or Threatened Australian Plants." Revised edn. (Australian National Parks & Wildlife Service: Canberra.)
- Brooker, M.I.H. & Kleinig, D.A. (1990). "Field Guide to Eucalypts" Vol. 2. (Inkata Press: Melbourne.)
- Chippendale, G.M. (1988). "Flora of Australia" Vol. 19. (AGPS: Canberra.)