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## A NEW *EUCALYPTUS* SPECIES FROM THE WYOLA REGION, IN THE FAR WEST OF SOUTH AUSTRALIA

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### Abstract

A new *Eucalyptus* species *E. wyolensis* (series *Oleoae*, superspecies *socialis*), is described from the North-West Region of South Australia. It is a mallee or small tree, which is allied to *E. socialis* by similarities in fruits and buds, and to *E. gilii* by the persistent, opposite, glaucous, rounded leaves of the mature crown.

### *Eucalyptus wyolensis* C.D. Boomsma, sp. nov.

Arbor parva multicaulis vel unicaulis ad c. 6 m alta, cortice superne laevi pallentique, versus basim asperantur et persistenti. Rami usque ad annos duos aetate valde glauci tetragonique sed glaucedone erodenti et caulibus post annos aliquot pluribus teretibus crescentibus. Folia plantularum sessilia decussata glauca; foliis superis ovato-lanceolatis, ovatis ovato-cordatis vel suborbicularibus apiculatis, nervatura obscura ubi glauca praeter costam prominentem. Ramuli valde glauci tetragoni initio alati post annos paucos teretes crescentes. Partium maturarum folia similaria foliis superis plantularum sed majora ad 6 x 7 cm crassa coriacea, costa robusta in superficiebus ambalus folii elevata, glaucedone erosa paribus c. 20 nervorum secundariorum sub angulo 45-60° ad costam distinguibilibus sed reticulo et glandulis olei obscuris remanentibus. Inflorescentiae axillares decussatae glaucae, floribus ad 11 in fasciculo quoque. Pedunculi glauci plani sursum dilati 10-15 mm longi. Pedicelli glauci angulosi robusti ad 6 x 1.8 mm. Alabastra glauca rostrata ad 15 x 6 mm, operculo hypanthium aequantibus vel superantibus. Stamina aurea inflexa omnino fertilia, antheris parvis "platyantherae" sensu Blakely. Stylus in alabastris super antheras elongatus. Fructus pedicellatus plus minusve cupulatus interdum orificio constricto interdum pariete valde incrassato ad 9 x 10 mm disco verticali, valvis subulatis exsertis ubi siccis fragilibus 4 (5). Semina elliptica ovato-acuminata vel oblongo-obtusa brunnea usque brunneo-cinerea vade foveata.

*Type:* 50 km W of Lake Maurice [south of Lake Wyola] (29°25'S, 130°E), 27.xii.1987, G. White 13, (holotype: AD; isotype: CANB, K, NSW). Fig. 1.

A mallee or small tree to 6 m tall, persistent rough bark at the base of the trunk replaced by smooth pale bark above. Branches up to two years old markedly glaucous and square in section but glaucescence eroding and stems becoming round after a few more years. *Seedling* leaves sessile, decussate, glaucous, upper leaves ovate-lanceolate, ovate, ovate-cordate to almost orbicular, apiculate, venation obscure while glaucous except for the strong midrib. *Branchlets* markedly glaucous, square in section, winged at first becoming rounded after a few years. *Leaves of the mature canopy* similar to upper seedling leaves, but larger to 6 x 7 cm, thick, coriaceous, midrib robust, raised on both leaf surfaces. After glaucescence erodes, about 20 pairs of secondary veins arising at angles 45°-60° to the midrib discernable but reticulation and oil glands remaining obscure. *Inflorescences* axillary decussate glaucous, and up to 11 buds per cluster. *Peduncles* glaucous, flat, dilated upwards, 10-15 mm long. *Pedicel* glaucous, angular, robust to 6 x 1.8 mm. *Buds* glaucous, rostrate, to 15 x 6 mm, operculum as long as or longer than hypanthium. *Flowers:* stamens golden, inflexed, all fertile, anther small, *platyantherae* (sensu Blakely, 1965) style elongated above stamens in bud. *Fruit* pedicellate, more or less cupular, sometimes constricted at the orifice, sometimes markedly thick-walled, to 9 x 10 mm. *Disc* a vertical inner lining to the fruit. *Valves* subulate, exsert, fragile when dry, 4 (5). *Seed* elliptical, ovate-acuminate, to oblong-obtuse, brown to brown-grey, shallowly-pitted. Fig. 2.

### *Distribution and habitat*

Appears to be restricted to patches of red-brown sands over limestone sandwiched between the north edge of the Nullarbor Plain and sandhills of the Victoria Desert. Its occurrence could therefore extend westwards in a similar habitat in Western Australia.

Fig. 1. Holotype of *Eucalyptus wyolensis*, White 13 (AD).



Fig. 2. *Eucalyptus wyolensis* is a codominant mallee associated with *E. socialis*, *E. oleosa*, *E. cornicina* and *E. striatocalyx* in open scrub over a discontinuous understorey of mainly *Triodia basedowii* and scattered shrubs and herbs (Dennis 304). Photo by T. E. Dennis.



It occurs in open scrub apparently in association with sandy soils overlying limestone (often shallow). Associated mallees include *E. concinna* Maiden & Blakely, *E. ewartiana* Maiden, *E. oleosa* F. Muell. ex Miq. and *E. striatocalyx* W.V. Fitzg. Small trees of *Acacia aneura* F. Muell. and a ground cover of *Triodia* sp. also occur.

#### *Flowering*

Flowering period in cultivation extends from late summer to early autumn.

#### *Affinities*

The elegant rostrate bud and subulate valves place it in the superspecies *socialis* in the series *Oleosae* of Pryor & Johnson (1971). It differs from *E. socialis* F. Muell. in the opposite rounded leaves of the mature canopy, from *E. gillii* Maiden by the large size of its leaves, buds and fruits as well as the bright yellow colour of the flowers and from *E. yumbarrana* C.D. Boomsma by the persistent opposite leaves in the mature canopy.

#### *Specimens examined*

SOUTH AUSTRALIA: *T. Dennis* 304, vii.1982, north-west Maralinga and south-west of Lake Wyola (AD); *G. White* 18, 29.viii.1986, south of Lake Wyola (AD); *P. Canty* 2373, 16.x.1987, 2 km east of Vokes Hill-Muckera Junction on Oak Valley Road (AD).

EX CULT.: *C.D. Boomsma* 878, 10.i.1987, Clovelly Park (AD); *C.D. Boomsma* 903, 24.iii.1988, Clovelly Park (AD).

#### **References**

- Blakely, W.F. (1965). A key to the eucalypts, edn 3. (Forestry and Timber Bureau: Canberra).  
Pryor, L.D. & Johnson, L.A.S. (1971). A classification of the eucalypts. (Australian National University: Canberra).

