

The reduction of *Acacia burkittii* to *Acacia acuminata* subsp. *burkittii* (*Acacia* sect. *Juliflorae*: Fabaceae, Mimosoideae)

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Abstract

Kodela, P.G. and Tindale, M.D. (National Herbarium of New South Wales, Royal Botanic Gardens, Mrs Macquaries Road, Sydney, N.S.W. 2000, Australia) 1998. The reduction of *Acacia burkittii* to *Acacia acuminata* subsp. *burkittii* (*Acacia* sect. *Juliflorae*: Fabaceae, Mimosoideae). *Telopea* 7(4): 415–417. *Acacia burkittii* is here transferred to *A. acuminata* as subsp. **burkittii**. *Acacia acuminata* subsp. *acuminata* is endemic to south-west Western Australia, while *A. acuminata* subsp. *burkittii* extends from south Western Australia to western New South Wales.

Introduction

Acacia burkittii has long been separated from *A. acuminata* mostly on the basis of phyllode shape and width, as well as other phyllode characteristics which are less consistent or useful such as phyllode curvature and indumentum. An investigation of flowers, legumes and other characters of the two species, however, found them comparable or sufficiently similar that species rank for both is not justified. For example, in both taxa the 4-merous flowers have a calyx dissected by $\frac{1}{2}$ or more with the \pm keeled, usually narrow lobes clothed with white or yellowish hairs (mostly on the base, midrib and margins) and having rounded obtuse apices.

A. randelliana is considered to be conspecific with *A. burkittii* (see also Maslin 1981, Whibley & Symon 1992).

***Acacia acuminata* Benth. subsp. *burkittii* (F. Muell. ex Benth.) Kodela et Tindale, comb. et stat. nov.**

Basionym: *A. burkittii* F. Muell. ex Benth., Fl. Austral. 2: 400 (1864).

Holotype: Lake Gilles in the interior, [S.A.], *Burkitt* (K); isotypes: MEL *n.v.*, PERTH (fragment) *n.v.*

A. randelliana W. Fitzg., J. W. Austral. Nat. Hist. Soc. 1: 14 (1904).

Lectotype: Mount Malcolm, W.A., July 1899, W.V. Fitzgerald *s.n.* (NSW 359347, flowering specimen), *vide* Maslin & Cowan (1994); isolectotype: PERTH 00769991. Paralectotype (fruiting specimen): 12 miles [19.2 km] north-east of Kanowna, W.A., Nov 1903, W.V. Fitzgerald *s.n.* (NSW 359348 & 359369, PERTH 00769983 — not ex herb. W.V. Fitzgerald).

Illustrations: Maiden (1917: pl. 224), Rotherham et al. (1975: fig. 486), Armitage (1978: 136 & pl. 46), Costermans (1981: 303), Cunningham et al. (1981: 348), Morrison & Davies (1991: 347), Tame (1992: 58 & pl. 38), Whibley & Symon (1992: 275); all as *A. burkittii*.

Bushy, rounded, spreading or erect shrub or tree to 4 m high, rarely to 10 m high; bark dark brown and slightly fissured on main trunks, otherwise smooth, greenish grey, silvery grey or grey. *Branchlets* \pm terete, glabrous. *Young shoots* golden-sericeous (more

often seen in specimens of subsp. *acuminata*). *Phyllodes* linear-filiform, usually upright, terete or subterete to rarely somewhat flattened (broader phyllodes, mainly in S.A. & W.A.), (2–)5–16 cm long (rarely longer), 0.5–1.3 mm wide (rarely to 1.5 mm wide), finely multistriate, with central vein sometimes slightly more prominent (in broader phyllodes), normally ciliolate (mainly on upper c. ½) especially towards apex; apex delicately curved, non-pungent, usually puberulous especially along the margins with appressed to suberect, white hairs. *Spikes* (4–)5–15(–17) mm long, (1–)2–3 in phyllode axils, mostly ± sessile, densely flowered, bright or golden yellow. *Flowers* 4-merous. *Legumes* linear, moniliform, convex over seeds, chartaceous. Burkitt's Wattle, Gunderbluey, Pin Bush, Sandhill Wattle, Fine Leaf Jam.

Distribution: extends ± from eastern margin of subsp. *acuminata* in south-eastern Western Australia, through inland South Australia to the western plains of New South Wales. Its distribution (as *A. burkittii*) is illustrated by Hall et al. (1964), Maslin & Pedley (1982), Tame (1992) and Whibley & Symon (1992).

Habitat: often in red earths and calcareous red or brown earths, also sandy soils, in low open woodlands and shrublands, often with mallee, eucalypts or Mulga. Occurs on flat plains (often in areas subject to flooding) or on dunes (sandhills), often forming dense clumps.

Selected specimens: Western Australia: Cosmo Newberry, 23 Oct 1992, *M. Hancock* 500 (NSW, PERTH); 20 km S of Paynes Find on Great Northern Hwy, 3 Sep 1984, *B.R. Maslin* 5587 (NSW, PERTH); near cemetery, Menzies, 8 Nov 1990, *M. Hancock* 314 (NSW, PERTH); 64 miles [103 km] W of Coolgardie, 13 Feb 1971, *M.G. Brooker* 6004 (NSW); 57 km E of Hyden on Hyden Norseman track, 28 Nov 1990, *M. Hancock* 293 (NSW).

South Australia: along track Cook-Vokes Corner, 21 Aug 1980, *J.Z. Weber* 6394 (AD, NSW); c. 102 km N of Cook, 28 km N of Abundant Well, 18 Aug 1980, *N.N. Donner* 7241 (AD, NSW); c. 3 km S of 'Koonamore' on road to Yunta, 29 Aug 1984, *E.H. Norris* 199 (NSW, MQU); between Hesso and Tent Hill, 19 Aug 1968, *B.J. Blaylock* 937 (AD, NSW); 21 miles [33.8 km] S of Port Augusta, towards Whyalla, 11 Sep 1970, *M.D. Tindale* 426 (AD, CANB, K, L, NSW, US).

New South Wales: 164.7 km E of Tibooburra on road to Wanaaring, 8 Sep 1989, *R.G. Coveny* 13644, *B. Wiecek* & *M. Savio* (AD, BRI, MEL, NSW, PERTH); 'Allundy', Wanaaring, 8 Nov 1977, *D.F. Thompson* 1879 (NSW); along Cobar–Wilcannia road, 45 miles [72 km] from Wilcannia, 1 Jan 1956, *J. Martin* (NSW 359259); 'Willgareena', N of Cobar, 4 Sep 1968, *E. D'Arnay* 674 & *K. Wells* (CANB, NSW); 'Tundulya', c. 25 miles [40 km] SE of Louth, 16 Aug 1968, *C.W.E. Moore* 5264 (CANB, NSW); Cobar, 20 Aug 1973, *G.M. Cunningham* 840 (NSW); Broken Hill, 2 Dec 1919, *A. Morris* 82 (NSW); Lake Cargellico, Oct 1906, *J.L. Boorman* (B, BRI, CANB, CHR, LE, MEL, MO, NSW 171624, NY, P, PERTH, PRE, TL, US); Dareton, 19 Dec 1958, *C. Sparke* (NSW 359326).

Notes: *Acacia acuminata* subsp. *burkittii* differs from subsp. *acuminata* mainly in its narrower, terete to subterete (rarely flattened) phyllodes, normally shorter spikes and often more bushy, shrub habit. In subsp. *acuminata* the cilia on the linear to very narrowly elliptic (tapered both ends) or rarely narrowly oblanceolate phyllodes are more often visible without a 10 times lens than in subsp. *burkittii*. Intermediates occur between the subspecies, possibly reflecting clinal variation in Western Australia, e.g. 96.5 km from Meekatharra to Cue, *I.B. Armitage* 244 (NSW); 46 km W of Meekatharra, *M. Hancock* 502 (NSW, PERTH); Meekatharra–Mt Margaret region, at Cue on Great Northern Hwy, the Day-David Mine, *I.V. Newman* 725 (NSW); 5 miles [8 km] W of Meekatharra, *N.H. Speck* 580 (CANB, NSW).

Specimens from South Australia and New South Wales with slightly broader (to 2 mm wide) and ± flat phyllodes warrant further investigation, e.g. S.A.: 5 miles [8 km] E of Ooldea, *B. Copley* 3175 (NSW); 80 miles [c. 130 km] N of Yalata, *B. Copley* 2654 (AD, NSW); crossing of Phillips R., c. 15 km SW of Ravensthorpe on main road to Ongerup, *L. Haegi* 1041 (AD, NSW); N.S.W.: Umberumberka Road, 16 miles [25.7 km]

SW of Broken Hill, *E. Baker* (NSW 256165). Notes on distribution, ecology, cultivation, and the impacts of sheep and rabbit grazing are provided by Whibley & Symon (1992).

Key to subspecies of *A. acuminata*

- 1 Phyllodes mostly 1.5–9 mm wide, flat. Spikes 10–30 mm long subsp. *acuminata*
 1* Phyllodes 0.5–1.3(–1.5) mm wide, terete to subterete (rarely \pm flat). Spikes mostly
 5–15 mm long subsp. *burkittii*

Acknowledgments

Funding was provided by the Australian Biological Resources Study (ABRS), Canberra, the Royal Botanic Gardens and Domain Trust, Sydney, and the Janet Cosh Bequest. We are grateful for the support given by Prof. T.C. Chambers, Dr B.G. Briggs (NSW) and Dr H. Hewson (formerly ABRS) provided at the time of this project. We thank Mary Hancock for her many collections of specimens that have assisted our work. Dr Peter Wilson kindly commented on the manuscript.

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Manuscript received 17 March 1998

Manuscript accepted 16 April 1998

