

***Acacia conniana*, a new name for a Western Australian *Acacia* section
Juliflorae species (Leguminosae: Mimosoideae)**

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Abstract

Maslin, B. R. *Acacia conniana*, a new name for a Western Australian *Acacia* section *Juliflorae* species (Leguminosae: Mimosoideae). Nuytsia 5(2): 323-325 (1984). The name *Acacia conniana* Maslin replaces the illegitimate homonym *A. cognata* Maiden et Blakely (1928). *Acacia acuminata* var. *latifolia* Benth. is relegated to synonymy under *A. conniana*. The distinguishing features between *A. conniana* and its closest relative, *A. lasiocalyx*, are discussed.

Introduction

The following new name is required for inclusion in a forthcoming paper by E. E. Conn and myself on cyanogenic Australian *Acacia* species. The taxon was originally described by Bentham (1864) as a variety of *A. acuminata* and later as a distinct species by Maiden and Blakely (1928). Maiden and Blakely's name, *A. cognata*, is illegitimate, being a later homonym of *A. cognata* Domin (1926) and therefore must be replaced. Blakely was aware of the need to replace the name *A. cognata* because in an undated, unpublished manuscript (copy found among papers belonging to the late C. A. Gardner) he proposed a new name for it.

***Acacia conniana* Maslin, nom. nov.**

Base name: *Acacia cognata* Maiden et Blakely

Acacia cognata Maiden et Blakely, J. Roy. Soc. W. Austral. 13:28 pl.20 figs. 1-5 (1928), non Domin (1926). *Type*: Israelite Bay, W.A., Sept. 1915, J. P. Brookes s.n. (iso: K, MEL, PERTH — fragment).

Acacia acuminata var. *latifolia* Benth., Fl. Austral. 2:404 (1864). *Lectotype* (here selected): Middle Island, W.A., Maxwell s.n. (K — right hand specimen on sheet annotated "Negative No. Kew 454"; iso: K; possible iso: MEL — see discussion below).

Distribution and habitat. South-east Western Australia in the Eyre Botanical District (1:250,000 maps I51-6, 7, 10 and 11). Restricted to coastal and near-coastal areas from Cape Le Grand (25 km southeast of Esperance) east-northeast to near Israelite Bay (about 190 km east of Esperance); recorded from both Mondrain Island and Middle Island in the Recherche Archipelago, east of Esperance. The most inland record is R. A. Saffrey 1249 from near Mt Sparkle which is about 40 km from the coast. The species is normally found associated with granite rocks.

Typification. Although I have not seen the holotype of *Acacia cognata* Maiden et Blakely I have examined isotypes at herb. K and MEL as well as a fragment of isotype at PERTH. The Kew specimen is ex herb. NSW and is labelled "Acacia cognata Maiden et Blakely. Israelite Bay, J. P. Brookes, 9/1915" in what I believe is Maiden's handwriting. The original description of the species is quite comprehensive and is accompanied by a fine illustration. I therefore have no doubts about the application of this name and accordingly have based *A. conniana* on it.

Table 1. Principal distinguishing features between *Acacia conniana* and its closest relative, *A. lasiocalyx*.

| Attribute | <i>A. conniana</i> | <i>A. lasiocalyx</i> |
|--------------------------------|---|---|
| Habit* | Dense, bushy shrubs or trees 2-5(6) m high, branchlets and phyllodes seemingly erect | Spreading or erect tall shrubs or trees commonly 3-7 m high ((sometimes to 12 m), canopy rather loose and open (often bushy on young plants), branchlet extremities or phyllodes often rather pendulous |
| Bark (mature plants)* | Grey or dark red-brown, with longitudinal fissures (of a fawn colour) at base of main trunks; upper branches and branchlets not pruinose | Fibrous and grey at base of main trunks; smooth, pruinose and brown, reddish, pinkish or orange on upper branches; branchlet extremities often not pruinose |
| Phyllodes | (50)80-160 | 120-260(320) |
| —length (mm) | (3-4)5-12 | 2-6(9) |
| —width (mm) | 10-25(40) | (20)30-80(150) |
| —l/w | Ascending to erect; seemingly neither lax nor pendulous | Often pendulous or sub-pendulous, lax and rather strap-like |
| —aspect | | |
| Flowering peduncle length (mm) | 4-10 | 7-18 |
| Flowering spike length (mm) | 10-25 | (15)20-40(50) |
| Areole | Closed or with a narrow opening at hilar end, narrowly oblong, 3.5 mm long | Open "u"-shaped, 0.5-1 mm long |
| Distribution | Restricted to southern regions in coastal-near coastal areas (extending 40 km inland) from Cape Le Grand to Israelite Bay (1:250,000 maps: 151-6,7,10,11) | Widespread in wheatbelt region of the south-west from Coorow southeast to Bremer Bay and Mt Burdett (1:250,000 maps: H50-6,10, 11,14,15,16; I50-2,3,4,7, 8,12; H51-9,13; I51-1,2, 5,6) |

* I have examined only a single population of *A. conniana*. Additional field studies are required to assess the range of variation in habit, bark and phyllode aspect for this species. The parameters listed above for these attributes are derived principally from herbarium labels.

The type of *A. acuminata* var. *latifolia* at herb. K consists of two sheets both of which are stamped "Herbarium Hookerianum" and labelled by Benthams as *A. acuminata* var. *latifolia*. Each sheet supports two specimens which although showing some variation in phyllode width, are all referable to the same taxon. The specimen selected as lectotype is indicated above. I have compared this lectotype with the isotype of *A. cognata* at herb. K and there is no doubt that the two are the same taxon. At herb. MEL there are two specimens of *A. conniana* from Middle Island which are labelled "TYPE". No collector is given on these specimens so their type status cannot be accurately ascertained, however, they may be isotypes. Someone (seemingly Benthams) has annotated one of these sheets as "*Acacia drepanophylla* F.M." but this name was never published for this taxon.

Affinities. *Acacia conniana* is most closely allied to *A. lasiocalyx* C. R. P. Andrews and the principal differences between the two species are given in Table 1. The most obvious features distinguishing *A. conniana* from *A. lasiocalyx* are its non-pruinose branches, its larger seed areoles, its generally shorter, broader, erect phyllodes and its more southerly distribution. Current indications are that *A. conniana* and *A. lasiocalyx* are allopatric. The latter species is widespread in the wheatbelt area of south-west Western Australia (Maslin and Pedley 1982) and like *A. conniana* is often associated with granite rocks. The closest records of *A. lasiocalyx* to *A. conniana* are from the Wittenoom Hills-Mt Ney area, about 50 km northeast of Esperance. I have examined the area south of Wittenoom Hills to Merivale Road (where B. R. Maslin 5544, *A. conniana*, was collected) and have not been able to find either species. This area, however, is intensively cultivated. Further field work in the region east of Mt Ney is necessary to ascertain the extent, if any, of overlap in range between these two species.

Etymology. The species is named in honour of Professor Eric Conn, University of California, Davis, in recognition of his biochemical work on cyanogenesis in plants, including *Acacia*. During the past two years the present author and Eric Conn have been examining cyanogenesis in Australian species of *Acacia* and the results of this research are soon to be published elsewhere.

Index to specimens of *Acacia conniana* studied

Unless otherwise stated the specimens listed here are lodged at the Western Australian Herbarium (PERTH).

Aplin, T.E.H. 2612 and 4245; *Brookes J.P.* s.n. Sept. 1915 — type of *A. cognata* (K, MEL, PERTH — fragment); *Brown, A.* 178; *Daniell, T.C.* s.n. Dec. 1964 (K); *Donner, N.N.* 2650; *Edinger, D.J.* 187; *Eichler, H.J.* 20068; *Goodwin, J.* 251; *Hart, C.* s.n. Feb. 1984; *Haegi, L.* 1227 and 1233; *Hnatiuk, R.J.* 761177; *Hopper, S.D.* s.n. 9 Sept. 1982; *Jackson, E.N.S.* 1241 and 1314; *Maslin, B.R.* 5544 (CANB, PERTH); *Maxwell, G.* s.n. type of *A. acuminata* var. *latifolia* (K. ?MEL); *Muir, B.G.* 501, 502 and s.n. 15 Nov. 1983; *Newbey, K.* 8058; *Orchard, A.E.* 1105; *Royce, R.D.* 6206; *Saffrey, R.A.* 1249 (BRI, MEL, MO, PERTH) and 1369 (CANB, K, PERTH); *Weston, A.S.* 7201, 8917, 8921 and 10775; *Wilson, P.G.* 3079 and 8125 (AD, NSW, PERTH).

References

- Bentham, G. (1864). "Flora Australiensis" Vol. 2 (Reeve: London).
 Domin, K. (1926). *Acacia*. Biblioth. Bot. 89: 803-827.
 Maiden, J. H. and Blakely, W. F. (1928). Descriptions of fifty new species and six varieties of western and northern Australian acacias, and notes on four other species. J. Roy. Soc. W. Austral. 13: 1-36.
 Maslin, B. R. and Pedley, L. (1982). The distribution of *Acacia* (Leguminosae: Mimosoideae) in Australia. Part 1. Species distribution maps. W. Austral. Herb. Res. Notes No. 6:1-128.

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