

Muelleria

Plant and Fungal Taxonomy & Systematics

Vol 26(1) 2008



Acacia Special Issue

Acacia penninervis Sieber ex DC.,
Prodr. 2: 452 (1825)
State Botanical Collection
Marion Simmons, *Acacias of
Australia* (1981)

Acacia is now predominantly an Australian genus, with *A. penninervis* as the newly designated type species. It was chosen because it is the type of subg. *Phyllodineae* (the name upon which *Racosperma* was based). Like *A. penninervis*, most Australian species have phyllodes rather than compound leaves.



Editors: D. Murphy and T. Lebel

Muelleria publishes research papers on Southern Hemisphere plant, algal and fungal systematics, particularly relating to Australia and to the collections of the National Herbarium of Victoria, Royal Botanic Gardens Melbourne. Acceptable submissions include: taxonomic revisions; phylogenetic and biogeographical studies; short papers describing new taxa, documenting nationally significant new records, or resolving nomenclatural matters; historical analyses relevant to systematics; any research contributing to our knowledge of plant, algal or fungal diversity. Special issues or reviews will also be considered after discussion with the Editor.

Editor in Chief Teresa Lebel

Associate Editors David Cantrill Frank Udovicic
 Tom May Neville Walsh
 Daniel Murphy

Editorial enquiries The Editor, *Muelleria*

Manuscripts & proofs: Royal Botanic Gardens Melbourne
Private Bag 2000
Birdwood Avenue
South Yarra Vic. 3141
Australia
muelleria@rbg.vic.gov.au

Publication times: January and July

Instructions: Please consult the Instructions to Contributors at the website below. A concise version is printed inside the back cover of each issue.
www.rbg.vic.gov.au/research_and_conservation/publications/muelleria

Subscriptions: The Editor, *Muelleria*

Exchange: For all enquiries about exchange or missing issues please contact the Library Manager at the above address or at: library@rbg.vic.gov.au

Subscription rates		Within Australia	Overseas
(annually – 2 issues)	Individuals	\$80	\$100
Includes airmail & GST	Organisations	\$120	\$150

Cheques to be made payable to the Royal Botanic Gardens Melbourne. All payments must be in \$AUD.

Layout: SUBStitution Pty Ltd

Printer: Document Printing Australia

© Royal Botanic Gardens Melbourne 2008

ISSN 0077-1813

***Muelleria* volume 25 was distributed on 22 May 2007**

MUELLERIA INSTRUCTIONS FOR CONTRIBUTORS

Submission. Editor, *Muelleria*,
Royal Botanic Gardens Melbourne,
Birdwood Avenue, South Yarra, VIC 3141
Email: muelleria@rbg.vic.gov.au

Deadlines: August 5th for January issue;
February 5th for July issue
(papers may be submitted at any time)

Submit one hardcopy set of all material, including illustrations (with author name, figure number, and title of article on the back) and tables, and one electronic copy as a pdf or in MS WORD format on a CD or by email. Illustrations may be supplied electronically or as original artwork; artwork will be returned once the manuscript has been accepted for publication. Illustrations should be in TIFF or JPG format for pictures (at no less than 400 dpi for final size). Line art, including graphs or maps, may be supplied as EPS or JPG format (at no less than 600 dpi). Each figure and table should be supplied as a separate file. All papers are peer reviewed and should not be accepted or be under consideration elsewhere. No page charges apply, however colour plates will only be considered after discussion with the Editor and you may be asked to provide funds towards the cost of producing them.

Preparation and organization. Double-sided, 1.5 line-spacing throughout, left justified, with left and right margins of 2 cm. All pages are to have the first author's surname and page-number in the upper right hand corner. All body text Times New Roman, 10pt. All text should be in the style in which it will be published, i.e. **bold** or *italics*. See website for full details (www.rbg.vic.gov.au/research_and_conservation/publications/muelleria).

Title. Should be concise and informative, with only proper names capitalised. **Centred, bold, 12pt.** Follow on the title with full names of author(s), authors' address, including post code, country and email address. Addresses and affiliations to appear below authors, keyed by superscripted numbers.

Abstract. The main text should be preceded by an abstract not exceeding 150 words, covering the scope of the work and findings. All new names and combinations made in the paper must be explicitly given in the *Abstract*. Species and genus names in the abstract must be accompanied by the nomenclatural authorities.

Main text. In the main text, the first paragraph of any section is flush left. Subsequent paragraphs are to be indented and not separated by a blank line. Three main headings should be used, all flush left:

Heading level 1

HEADING LEVEL 2

heading level 3: followed by text on the same line.

References should be cited in text as, Walsh (1992); Brown and Murphy (2004); for three or more authors use *et al.* Within parentheses, in year order (Kuntze 1891; Lawrence *et al.* 1968; Allan 1979, 2000; Jarman 1990; Lewis & Entwisle 1995a, 1995b). All measurements are to be in SI units; footnotes are not allowed. Insert an 'en-rule' (–) between measurements and page numbers, and a multiplication sign (x) for measurements. All scientific names at generic rank and below when first introduced must be accompanied by the nomenclatural authorities.

Nomenclatural citations must follow the rules and recommendations of the most recent *International Code of Botanical Nomenclature*. Book titles must be abbreviated following *Taxonomic Literature II* (Stafleu & Mennega 1992-), and journal citations in the synonymy must follow *Botanico-Periodicum-Huntianum* (Lawrence *et al.* 1968). Author's names must follow *Authors of Plant Names* (Brummitt & Powell 1992). Designations of herbaria should follow *Index Herbariorum* (Holmgren *et al.* 1990). Homotypic synonyms are to be included in one paragraph, listed in chronological order. Heterotypic synonyms should follow chronologically in separate paragraphs. Misapplied names to follow the heterotypic synonyms.

Figures and Tables. Figures should fit within page size as closely as possible. Do not embed images in text. Publisher files are no longer accepted; please convert to EPS or other standard format. Illustrations require a scale bar or an indication of the magnification in the caption. Figures and Tables may be one or two column's width, full page size, or in landscape format. A list of figure, table and appendix captions should be given after the references.

References. Only publications cited in the text should appear in the Reference list. List alphabetically, then chronologically. Write out journal names in full. Floras in a series may be cited in journal format, or in book format.

Allan, H.H. (1961). *Flora of New Zealand*. R.E. Owen, Government Printer: Wellington.

Ahti, T. and Kashiwadani, H. (1984). 'The lichen genera *Cladia*, *Cladina* and *Cladonia* in southern Chile'. In H. Inoue (ed.), *Studies on the cryptogams of southern Chile*, pp. 125–149. Kenseisha Ltd: Tokyo.

Brummitt, R.K. and Powell, C.E. (1992). *Authors of plant names*. Royal Botanic Gardens: Kew.

Jarman, S.J. (1975). *Experimental taxonomy on the family Epacridaceae*. PhD thesis, The University of Tasmania, Hobart, Tasmania.

Pickett, J.W., Smith, N., Bishop, P.M., Hill, R.S., Macphail, M.K. and Holmes, W.B.K. (1990). A stratigraphic evaluation of Ettingshausen's New England Tertiary plant localities. *Australian Journal of Earth Sciences* **37**, 293–303.

Swofford, D.L. (2000). *PAUP. Phylogenetic analysis using parsimony (version 3.1.1)*. Illinois Natural History Survey: Champaign, USA.

Walsh, N.G. (1994). Poaceae. *Flora of Victoria* **2**, 356–627. **OR** Walsh, N.G. (1994). 'Poaceae'. In N.G. Walsh and T.J. Entwisle (eds), *Flora of Victoria*, Vol. 2, pp. 356–627. Inkata Press: Melbourne.

Muelleria

Royal Botanic Gardens Melbourne
Birdwood Avenue, South Yarra
Victoria 3142, Australia

www.rbg.vic.gov.au

ISSN 0077-1813

Contents

Volume 26(1), 2008

Contributed Papers	Page
Acacia 2006: Knowing and growing Australian wattles..... D.J. Murphy	3
Generic and subgeneric names in <i>Acacia</i> following retypification of the genus..... B.R. Maslin	7
A review of the classification of <i>Acacia</i> (Leguminosae, Mimosoideae) D.J. Murphy	10
Systematics of the tribe Ingeae (Leguminosae-Mimosoideae) over the last 25 years..... G.K. Brown	27
Leaf ontogeny and morphology in <i>Acacia</i> (Mimosaceae) S. Gardner, A.N. Drinnan, E. Newbigin and P.Y. Ladiges	43
Three new <i>Acacia</i> species (Mimosaceae) from East Gippsland, Victoria W.M. Molyneux and S.G. Forrester	51
Some case studies of <i>Acacia</i> as weeds and implications for herbaria..... J.C. Reid and D.J. Murphy	57
Biological control of Australian native plants, in Australia, with an emphasis on acacias R.J. Adair	67
Australian acacias as multi-purpose agro-forestry species for semi arid regions of Africa T. Rinaudo and P. S. Cunningham	79
Reproductive biology and germplasm evaluation of <i>Acacia nilotica</i> (Linn.) Willd. ex Del. from North India V.K. Singhal, Amandeep Kaur and M.I.S. Saggoo	86
Nomenclatural Note	
A new combination in <i>Gentianella</i> for the Australian species <i>Chionogentias demissa</i> D. Glenny	95