CRYPTOGAMS -- MOSSES

On-line Moss information systems:

McCarthy PM (ed.) (2012-ongoing) Australian mosses on-line. Australian Biological Resources Study, Canberra.

ELECTRONIC RESOURCE, ON-LINE: http://www.anbg.gov.au/abrs/Mosses_online/

This website is a work in progress, but already includes authoritative taxonomic treatments of the many families and genera of the moss flora by a variety of authors, some from the Moss volumes of the *Flora of Australia*. All have keys and descriptions, and varying levels of illustration. The site also includes (as a stand-alone PDF) the *Key to the Genera of Australian Mosses* by Buck & Vitt (from McCarthy (ed) (2006) *Flora of Australia* vol. 51 - see below. RECOMMENDED

Klazenga N [ongoing] AUSMOSS - Catalogue of Australian mosses. Royal Botanic Gardens Melbourne.

ELECTRONIC RESOURCE: ON-LINE searchable database.

Not an identification system, but this comprehensive database of Australian moss names allows search and browse on currently recognised names or synonyms, and generates reports with citation of nomenclatural references, distribution statement and map, and some external links to more information. It supersedes the catalogues of Streimann & Klazenga (2002) and Streimann & Curnow (1989).

Other Moss resources:

Beever J, Allison, KW & Child, J (1992) The mosses of New Zealand. 2nd edn. University. of Otago Press, Dunedin, NZ. 214 pp. ISBN 0908569521.

Keys to, and descriptions of, the NZ species, many of which also occur in Tasmania and the cooler and higher areas of the Australian mainland.

Buck WR, Vitt DH & Malcolm WM (2002). Key to the genera of Australian mosses. Australian Biological Resources Study, Canberra. (Flora of Australia supplementary series no. 14) 120 pp. ISBN 0642568197.

Ring-bound and field-hardy, with a fairly technical key; well-illustrated with excellent colour photographs and micrographs. For a decade the field-guide of choice for identification to generic level, this is now superseded by a revised key of the same title by Buck & Vitt in McCarthy (ed) (2006), *Flora of Australia* vol. 51, see below, which is also available as a stand-alone PDF at *Australian mosses on-line* (http://www.anbg.gov.au/abrs/Mosses_online/).

Catcheside DG (1980) Mosses of South Australia. South Australian Government Printer, Adelaide. (Handbook of the flora and fauna of South Australia) 364 pp.

Keys and descriptions of species; well-illustrated and useful, particularly in arid areas.

Eldridge D & Tozer M (1997) A practical guide to soil lichens and bryophytes of Australia's dry country. NSW Dept of Land & Water Conservation, Sydney, NSW. 80 pp. ISBN 0731303024.

An excellent general guide to the organic soil-crusts of the Australian rangelands, with a view to their use as indicators of land and soil condition. The main groups involved – lichens. mosses, hepatics, and cyanobacteria are discussed, and a brief and easy key provided to assign samples to them; the more conspicuous genera are described and illustrated with excellent colour photos. RECOMMENDED

Entwisle TJ (ed.) (1994) Aquatic cryptogams of Australia:- a guide to the larger fungi, lichens, macroalgae, liverworts and mosses of Australian inland waters. Australian Society for Limnology, Abbotsford, Vic. (Australian Society for Limnology special publication no. 10) 151 pp. ISSN 0156-8426.

Key to the major groups of the title, then keys within each group. Black and white drawings of selected species.

Jackes BR (1990) Plants of the tropical rainforest: Mt Spec area, North Queensland. Botany Department, James Cook University, Townsville, Qld. 81 pp. ISBN 086443359X.

Guide to ID of the trees, shrubs, vines, folliicolous lichens, bryophytes, and ferns of the Mt Spec - Paluma Range area. Few illustrations, but good exhaustive keys. Foolscap format.

Jarman SJ & Fuhrer BA (1995) Mosses and liverworts of rainforest in Tasmania and south-eastern Australia. CSIRO Australia, East Melbourne, & Forestry Tasmania, 134 pp. ISBN 0643056858.

A short introductory section on bryophytes, followed by brief descriptions and superb colour photos for about 100 species. RECOMMENDED

Malcolm WM & Malcolm N (2013, unpublished work in progress) The mosses of Tasmania: An Illustrated Key. 500+ pp. Micro-Optics Press. Nelson, New Zealand.

[Further information: http://www.micro-opticspress.com/Site/MICRO-OPTICS_PRESS.html, email: nancym @ clear.net.nz; postal: PO Box 320, Nelson, New Zealand 7040.]

A highly visual guide to identification of the genera (and many of the species) of Tasmanian mosses, using mainly leaf characters, illustrated by superb colour micrographs and with short descriptions and notes. Currently only at the stage of a draft for critical comment, awaiting final updating and revision. However a number of copies of very useable earlier and shorter drafts (2013, 2010; and 2007 as '*Tasmanian Mosses: A Colour Atlas*') are in circulation and in some botanical libraries.

McCarthy PM (ed.) (2006) Flora of Australia Volume 51: Mosses 1. Flora of Australia Series. CSIRO Publishing / Australian Biological Resources Study (ABRS). 472 pp. ISBN 9780643092402 HBK, 9780643092419 pbk.

The first of three projected volumes in the *Flora of Australia* series describing and illustrating more than 1000 species of Australian mosses. This first volume provides a synopsis of the history of moss studies in Australia, and overviews of classification, morphology, sexuality, ecology and evolution. This is followed by a key to the more than 300 genera of mosses known from Australia and its island territories, plus detailed keys and descriptions down to species and variety for the first 22 families, 42 genera and 238 species. 50 pages of line-art and 64 colour photographs.

Meagher D & Fuhrer B (2003) A field guide to the mosses & allied plants of southern Australia. (Flora of Australia supplementary series no. 20). Australian Biological Resources Study,

Canberra and The Field Naturalists Club of Victoria, Blackburn. 280 pp. ISBN 0642568286.

Near-comprehensive guide to the mosses, liverworts and hornworts occurring south of a line from Geraldton WA to Coffs Harbour NSW, with many of the species also found further north. Species are grouped artificially, with straightforward group keys. The excellent colour photos are unfortunately marred by a blue cast in printing in this first edition. Good plain-English descriptions are accompanied by fair-quality line drawings of diagnostic features, notes on similar species, and cryptic distributional information. RECOMMENDED

Ochyra R (1998) The moss flora of King George Island Antarctica. Cracow, Poland.

278pp.. ISBN 8385444602.

Keys, descriptions and good line drawings; introductory chapters on the island and its biota.

Ramsay HP (1984) Census of New South Wales mosses. *Telopea*, vol. 2, no. 5, pp. 455-533. Royal Botanic Gardens, Sydney. ISSN 0312-9764.

Now very dated. Checklist and distribution codes for NSW mosses (including ACT), plus information on distributions outside NSW and Australia.

Ramsay HP & Streimann H (1984) Mosses and their distribution in the Australian Capital Territory. *Telopea*, vol. 2, no. 5, pp. 559-574. Royal Botanic Gardens Sydney. ISSN 0312-9764.

Checklist and distribution of ACT mosses by region (Canberra Plain, Brindabella Ranges, Booth Range, Southern Ranges, Kowen Forest); also with information on distribution of the taxa outside the ACT.

Read C & Slattery B (2014) Mosses of dry forests in south eastern Australia. Friends of the Box-Ironbark Forests (Mount Alexander Region) Inc., PO Box 322 Castlemaine Vic. 3450; www.fobif.org.au. 101 pp. ISBN 9780646916934.

Pocket-sized guide, with fair to excellent colour photos and brief plain-english descriptions. The geographic scope is a little vague – the focus is on species of the Box-Ironbark community in north-central Victoria but many of the 38 species covered have much wider ranges.

Scott GAM & Stone IG (1976) The mosses of southern Australia. Academic Press, London. 495 pp. ISBN 0126338507.

Keys to, and descriptions of, the mosses of the area. Good diagrams. Now dated.

Seppelt R (2004) The moss flora of Macquarie Island. Australian Antarctic Division, Kingston, Tas. 328 pp. ISBN 1876934077.

Keys, descriptions, and good line illustrations of the 845 species of moss on this subantactic Island.

Seppelt RD, Jarman SJ, Dalton PJ (2013) An illustrated catalogue of Tasmanian mosses, Part

1. Tasmanian Museum & Art Gallery. 98 pp. ISBN 4187002812, 9784187002811.

RECOMMENDED

Spirally bound. First of a projected multi-part series, this volume covers 37 species (out of c. 400), with detailed diagnostic line drawings, Tasmanian distribution maps and altitude charts, and references to other information sources (e.g. taxonomic descriptions). No keys. Introductory section on the hIstory of Tasmanian bryology.

Streimann H (2002) The mosses of Norfolk Island. Australian Biological Resources Study, Canberra. (Flora of Australia, supplementary series no. 16) 178 pp. ISBN 0642568219. Covers the island's 69 known species, with moderately technical keys to genus and species, technical descriptions, excellent line drawings, and a few colour photos.