AQUATIC (NON-MARINE) and WETLAND plants and algae

For brackish wetlands see also sections of this bibliography on SEASHORE PLANTS and MARINE PLANTS AND MARINE ALGAE.

Aston HI (1973) Aquatic plants of Australia. Melbourne University Press, Melbourne. 368 pp. ISBN 0522840442.

Identification guide for native and naturalized species, though now very dated; good line illustrations; distribution maps for Victoria only.

Bayes E & Cook D (undated, post-2010) Seasonal herbaceous wetlands - identification and management handbook. Goulburn Broken Catchment and North East Catchment Management Authorities (Vic.). 102 pp. [ISBN lacking]. Free PDF via https://www.necma.vic.gov.au/News-Events/News/ArtMID/431/ArticleID/182/Seasonal-Herbaceous-Wetlands-Handbook

66 species, mostly grasses, rushes and herbs, many not often featured in other works, with fair-quality colour images and very brief plain-English descriptive notes

Beilby G, Shoebridge B, Carland F, Dennis C, & Jackson A (2006) Salt tolerant plants of the Western District RAMSAR lakes. Greening Australia (Victoria) / Australian Plants Society Colac Otway Group. 165 pp. ISBN 0980294002.

Covers 158 indigenous and introduced species, arranged alphabetically by scientific name. No keys. Fair-quality colour photos and short plain-English descriptions and habitat notes.

Calvert G & Liessmann L (2014) Wetland plants of the Townsville-Burdekin flood plain. Lower Burdekin Landcare Association Inc., Ayr, Qld. 142 pp. ISBN 9780992580704.

Spiral-bound tough guide, covering 58 aquatic native and introduced water plants commonly found within the region with descriptions,good colour images, and notes on habitat, impacts and uses; plus identification tips for an additional 65 water plants. Free PDF download from http://www.lowerburdekinlandcare.org.au/files/Wetland%20Plants%20of%20the%20Townsville-%20Burdekin%20Floodplain%20WEB.pdf

Chambers JM, Fletcher NL & McComb AJ (1995) A guide to emergent wetland plants of south-western Australia. Marine and Freshwater Research Laboratory, Murdoch University, Perth. 115 pp. ISBN 0869054015.

Ring-bound, field-tough, covering 14 common or significant species of rushes, sedge, bullrushes, and one grass. Brief descriptions, notes on biology and propagation, good colour photos.

Clarke I (2015) Name those Grasses. Identifying grasses, sedges and rushes. Royal Botanic Gardens, Melbourne, Vic. 536 pp. ISBN 9780980407648.

A 'how to identify' guide for these groups, rather than a comprehensive species guide, although 206 species are covered as examples, many of them common. As with Clark & Lee's (2003) general *Name that Flower*, this is a fabulous primer for improving your identification skills – in this case in three large groups that are often found intimidating. Illustrated throughout with excellent and well-labelled line drawings that help to decrypt the most difficult characters.

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 01568426.

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

Entwisle TJ, Sonneman JA & Lewis SH (1997) Freshwater algae in Australia : a guide to conspicuous genera. Sainty & Associates Pty Ltd, Potts Point, NSW. 242 pp. ISBN-10: 0646314084; ISBN-13: 9780646314082.

Paperback-sized field and laboratory guide. Easy illustrated key, short descriptions and notes, over 300 high-quality colour micrographs, plus line drawings. RECOMMENDED for field use.

Entwisle TJ, Skinner S, Lewis SH, Foard HJ (2007) Algae of Australia: Batrachospermales, Thoreales, Oedogoniales and Zygnemaceae. Algae of Australia Series. CSIRO Publishing / Australian Biological Resources Study (ABRS). 200 pp. ISBN 9780643094314.

Documents five families, 14 genera and 210 species and infraspecific taxa of red and green freshwater algae – covers the majority of macroscopic freshwater algae likely to be encountered in Australia. Descriptions of orders, families and genera and species are accompanied by photographs and line drawings, bibliographic lists, and identification keys. RECOMMENDED.

Entwisle TJ & Yee N [undated; c. 2007?] AFA – Australian Freshwater Algae. Royal Botanic Gardens & Domain Trust, Sydney. On-line acces via:
http://www.rbgsyd.nsw.gov.au/science/Plant_Diversity_Research/australian_freshwater_algae2

ELECTRONIC RESOURCES: ON-LINE, limited interactivity

This site is currently static but contains a number of useful external links and some internal sub-sites of continuing value:

- **Entwisle TJ & Nairn L [undated; c. 2007?] Census of freshwater algae in Australia, (version 1.0)**. (accessed 22 July 2015). http://www.rbgsyd.nsw.gov.au/science/Plant_Diversity_Research/australian_freshwater_algae . A database of freshwater algae, searchable on family and genus (geographic search functions appear to be disabled as at June 2015). Species entries show recognised name, map of distribution within Australia, and link to the global *Algaebase* nomenclatural data. The codes indicating endemism are probably the most dated elements.
- **Yee N & Entwisle TJ ([undated – c. 2007?]. ALGPIC – Quick pictorial identification of Australian freshwater algae**. http://www.rbgsyd.nsw.gov.au/information_about_plants/botanical_info/australian_freshwater_algae2/algpic. Very simple pictorial key (via arrangement by growth form) to genera, with good diagnostic colour photos (mostly micrographs) of a large number of species. Australia-wide in scope. Largely based on Entwisle Sonneman & Lewis 1997, updated.
- **Yee N & Entwisle TJ [undated – c. 2007?]. ALGKEY – Interactive identification of Australian freshwater algae. First release version**. http://www.rbgsyd.nsw.gov.au/science/Plant_Diversity_Research/australian_freshwater_algae/algkey Australia-wide in scope. This tool requires download and installation of the linked DELTA Intkey installation file and then download of the ALGKEY dataset. Continuing functionality of these elements has not been confirmed as at June 2015 (user

reports welcome). This sub-site also contains a list of all Australian freshwater algal genera (i.e. an unnotated generic checklist) which is static but so far only slightly dated.

Falconer R (2004) Down by the riverside – a field and management guide to native plants in and about the rivers of the Goulburn district, NSW. Goulburn Field Naturalists Society, Goulburn, NSW. 175 pp. ISBN 0959686126.

Good plain-English descriptions and colour photos of 80-odd native riparian species of the area, including a small selection of aquatic and semi-aquatic species.

Gell PA, Sonneman JA, Reid MA, Illman MA, & Sincock AJ (1999). An illustrated key to common diatom genera from southern Australia. (Cooperative Research Centre for Freshwater Ecology Identification Guide No. 26). Cooperative Research Centre for Freshwater Ecology, Thurgoona NSW. 68 pp. ISBN 1876144270; ISSN 1321280X.

ELECTRONIC RESOURCE, ON-LINE: free PDF download. Available at http://www.mdfrc.org.au/bugguide/resources/26-1999-Gell_etal_Key_to_Diatoms.pdf

Allows identification of the genera of Australian freshwater diatoms through a fairly simple key with embedded generic descriptions illustrated with electron micrographs. The language is kept as simple as the unavoidably technical nature of the process allows; a good glossary is included and critical morphological terms are illustrated in the introductory section.

[For an additional resource for freshwater diatoms, see also: Anon. (undated: 1999- ?) *Australian Diatom Iconograph* website (http://artsonline.monash.edu.au/diatoms/), with identification aids of uncertain functionality including micrographs of many Australian species.

Grantley J, McPherson F, Petroeschevsky A (2009) Recognising water weeds – plant identification guide. Industry and Investment NSW. 80 pp. ISBN lacking. Free PDF download from http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0007/329308/041209-DPI-RWW-PLANT-GUIDE.pdf

Plain-English descriptions, line drawings and good colour photos of 34 freshwater aquatic weeds – a southern temperate emphasis but applicable in subtropics to some degree.

Hughes JMR & Davis GL (1989) Aquatic plants of Tasmania. Department of Geography, University of Melbourne, Parkville, Vic. 117 pp. ISBN 0868399957.

Brief descriptions, black and white drawings, and distribution maps.

McCarthy PM & Orchard AE (eds) (2007) Algae of Australia: Introduction. Algae of Australia Series, ABRS. CSIRO Publishing / Australian Biological Resources Study. 744 pp. ISBN 9780643093775.

Introductory volume to the authoritative *Algae of Australia* series. Includes essays on the classification of Australian algae, research history, fossil record, systematic relationships, ecology, biogeography and economic significance. Keys to the identification of the orders of algae are accompanied by an extensive bibliography, and 29 synoptic chapters provide an overview of the biology of the algal classes. Also includes colour photographs, line illustrations, and a glossary of more than 1500 technical terms. RECOMMENDED for the order keys.

McGregor GB (2007) Freshwater Cyanoprokaryota of north-eastern Australia 1:

Oscillatoriales. Flora of Australia Supplementary Series 24. Australian Biological Resources Study (ABRS). 124 pp. ISBN 9780642568533.

Cyanoprokaryotes (cyanobacteria, or blue-green algae) of north-eastern Australia (Queensland and NT, although useful down the east coast as far as Sydney). Six families, 27 genera, and 122 species are covered, with keys, morphological decriptions, and ecological information. Photomicrographs and line illustrations of diagnostic features. RECOMMENDED

Mitrovic S (1995) What scum is that? Algal blooms and other prolific plant growth. Department of Land and Water Conservation, Parramatta, NSW. 24 pp. ISBN 0731023331.

Large-format booklet, with a simple key to commonly blooming freshwater algae, aquatic liverworts, ferns, and some angiosperms. Brief descriptions and illustrations. RECOMMENDED

Molonglo Catchment Group (undated - 2010) Glove Box Guide: Waterplants of the A.C.T. region. Molonglo Cathcment Group. 24 pp. ISBN 9780980319774.

Pocket-sized booklet covering about 35 native and introduced aquatic plants, with brief descriptive and habitat notes, including weediness status, and variable quality colour photos.

Roberts J & Marston F (2011) Water regime for wetland and floodplain plants - A source book for the Murray–Darling Basin. National Water Commission, Canberra. 170 pp. ISBN 9781921853036. Free PDF downloads of whole document [16.33MB] and chapters at: http://archive.nwc.gov.au/library/topic/environment/water-regime-for-wetland-and-floodplain-plants

More of a guide for management than identification, but twenty key common and important species of the riparian zone and floodplain (a mix of trees, one shrub, four grasses, six sedge/rush, and a couple of herbs) are profiled in great detail, with good photos and lots of ecological and management information.

Romanowski N (1998) Aquatic and wetland plants : a field guide for non-tropical Australia. University of New South Wales Press, Sydney, NSW. 119 pp. ISBN 0868406325.

Useful field guide to families and genera, and in many cases (c. 340) down to species, both native and naturalised. Short plain-English descriptions, and fair-quality colour photos.

Romanowski N (2011) Wetland weeds: causes, cures and compromises. CSIRO Publishing, Collingwood, Vic. 140 pp. ISBN 9780643103955 (pbk), 9780643103962 (epdf), 9780643103979 (epub).

130 native and introduced species, with notes on biology, origin, confusable species, environmental effects, and control/management. Variable quality colour photos for many species.

Sainty GR & Jacobs SWL (2003) Waterplants in Australia. 4th edn. Sainty & Associates Pty Ltd, Potts Point, NSW. 416 pp. ISBN 0958105510.

A pocket-sized field guide to 150 common and noxious species of aquatic and wetland vascular plants, charophytes, and blue-green algae. Good colour photos and line drawings for each species, with dot-pointed and diagrammatically coded descriptive information and notes. Includes chapters on waterplant management, willow impacts and control, and wetland classification. Not comprehensive but RECOMMENDED as a field guide.

Sainty G, Hosking J, Carr G, & Adam P (eds.) (2012) Estuary plants and what's happening to them in south-east Australia. Sainty & Associates (www.sainty.com.au). 652 pp. ISBN 0958105538.

First half of the book is a field guide to estuarine areas with some applicability to adjacent freshwater wetlands (i.e., some species overlap between these biomes). No keys, but excellent colour photos and good plain-language descriptions.

Skinner S [2010] Teach yourself: Conspicuous algal growth in waterways. A technique for field characterising conspicuous algal growth in urban and rural waterways. Molonglo Catchment Waterewatch (Queanbeyan NSW), and ACT Government.

ELECTRONIC RESOURCE, ON-LINE, free PDF: large file, 8.5MB.

Very simple and informative field guide using cover-density, colour, texture, smell and growth form: these characteristics allow identification (to family and genus level only) of freshwater non-vacular plants and 'related' groups: green algae, one red alga, diatoms, and cyanobacteria. The main geographical area of coverage is the NSW Southern Tablelands, but it is useful for much of SE Australia. Presented as PDFs of powerpoint slides, well illustrated with macro- and micrograph images. RECOMMENDED for simplicity.

Stephens KM & Dowling RM (2002) Wetland plants of Queensland : a field guide. CSIRO, Collingwood, Vic. 146 pp. ISBN 0643066748;also available as EBook ePDF ISBN9780643101449..

Describes and illustrates 90 common species, with keys to genera and species (including species not covered in detail); fair-quality colour photos, notes, and distribution maps.

Wheeler J & Chalmers L (1997) Native vegetation of estuaries and saline waterways in south Western Australia. Water & Rivers Commission**,** East Perth. 32 pp. ISBN 0730972451.

Useful booklet covering 28 species of emergent and waterside plants. Short descriptions, useful line drawings.

Wilson A (ed.) (2011) Flora of Australia. Volume 39 - Alismatales to Arales. Flora of Australia Series. Australian Biological Resources Study (ABRS) / CSIRO Publishing. 320 pp. ISBN: 9780643104235 hbk, 9780643104242 pbk.

This volume of the *Flora of Australia* series covers 17 families (76 genera and 256 species), most with a high proportion of aquatic, semi-aquatic, or strand species: Limnocharitaceae, Alismataceae, Hydrocharitaceae, Aponogetonaceae, Juncaginaceae, Potamogetonaceae, Ruppiaceae, Najadaceae, Zannichelliaceae, Posidoniaceae, Cymodoceaceae, Zosteraceae, Triuridaceae, Arecaceae, Pandanaceae, Araceae, and Lemnaceae. Keys to genera and species, nomenclature, descriptions, distribution statement and map, and habitat information. RECOMMENDED.