NOTES ON *TORRENDIA*, AND A REQUEST FOR INFORMATION ABOUT THE GENUS IN AUSTRALIA

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Torrendia is a genus of sequestrate (truffle-like) Basidiomycetes. It is generally considered to be a sequestrate relative of *Amanita*. *Torrendia* fruit bodies develop and mature underground, but they may crack the soil surface or partially emerge at a late stage of maturity. Their fruit bodies have a well developed stem and cap, and the stem is subtended by a cup-like volva. The hymenium is loculate and does not produce a spore deposit.

Torrendia has included only two species: *T. pulchella* Bres. which occurs in northern Africa and southern Europe, and *T. arenaria* O.K. Mill. & E. Horak which occurs in south-west Australia. However, there are at least two additional species which we have recently discovered in Western Australia. One is considerably larger than the other known species and is being published as *Torrendia grandis*. The other new species has rather untidy fruit bodies and is being published as *Torrendia deformans*.

Request for information about *Torrendia* in Australia

1. Does anyone have (or know of) records of *Torrendia* in areas of Australia other than Western Australia? It seems unlikely that the Australian species are restricted to WA.
2. Does anyone have records of specimens other than those belonging to *T. pulchella* and *T. arenaria* from anywhere? Perhaps some old dried specimens of *Torrendia* species are hiding under other names in the 'gasteromycetes' section of your herbarium?

If you are able to contribute any information (which will be duly acknowledged) could you please contact:
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Two references about the genus *Torrendia*

Bas, C. (1975). A comparison of *Torrendia* (Gasteromycetes) with *Amanita* (Agaricales). *Beiheife Nova Hedwigia* **51,** 53–60.
Miller, O.K. & Horak, E. (1992). Observations on the genus *Torrendia* and a new species from Australia. *Mycologia* **84,** 64–71.

THREE NEW PUBLICATIONS FROM WESTERN AUSTRALIA ON MYCORRHIZAL AND OTHER FUNGI

1. *Working with Mycorrhizas in Forestry and Agriculture*

By: Mark Brundrett, Neale Bougher, Bernie Dell, Tim Grove and Nick Malajczuk

This manual provides clear, concise and abundantly illustrated explanations of methods used to work with mycorrhizal plants and fungi. The colour illustrations include 120 pages of photographs and diagrams. There is emphasis on the practical utilisation of mycorrhizal associations in plantation forestry using Australian trees in Asia and Australia. However, we anticipate that most mycorrhizal scientists will find this book to be a valuable research tool, as will many other scientists, forest managers, or students who work with fungi or trees. Summaries of chapters are provided below.

1. The introduction provides essential background information, defines important terminology, illustrates key features of mycorrhizal roots and provides a brief introduction to microscopy.
2. Procedures for collecting, processing and describing macroscopic and microscopic features of larger fungi and the management of fungal collections are explained in detail. This section includes lists of diagnostic features of fungal groups and contains numerous photographs of fungal associates of Australian trees.
3. The identification of vesicular-arbuscular mycorrhizal fungi by characteristics of spores and mycorrhizal morphology is explained. Protocols for isolating and propagating fungi to provide inoculum for practical use are provided.

4. Procedure for sampling roots, examining mycorrhizal associations and quantifying fungal activity in roots and soil are described. An introduction to more advanced sectioning, staining and microscopy procedures is provided.
5. Detailed explanations of procedures for isolating and maintaining sterile cultures of ectomycorrhizal fungi are provided. Methods used for the synthesis of associations and the formulation and application of inoculum are also provided.
6. A guide to the management of mycorrhizal plants includes (i) the prediction of benefits from mycorrhizal inoculation and the selection of superior fungal isolates, (ii) the production, care and quality control assessment of mycorrhizal seedlings in the nursery, and (iii) the mineral nutrient requirements and fertilisation of plants in the nursery and field.
7. Discussion of mycorrhizal field experiments, which includes an introduction to the planning, maintenance and measurement of experiments, as well as data processing and statistical analysis.

This book is published by the Australian Centre for International Agricultural Research (1996). The cost is $AUS120.00, and it is available through Bibliotech, Anutech Pty Ltd (Reply Paid 440, GPO Box 4, Canberra, ACT 2601, Australia. Phone (616) 249 2479; Fax (616) 257 5088. CSIRO Publishing, PO Box 1139, Collingwood, Victoria 3066; Phone 61 3 9662 7666, Fax 61 3 9662 7555 is also selling this book.

2. *Mycorrhizas for Plantation Forestry in Asia*

Edited by: Brundrett, M., Dell, B., Gong, M. & Malajczuk, N.

ACIAR Proceedings No. 62. Australian Centre for International Agricultural Research, Canberra.

This book contains papers presented at an ACIAR-sponsored conference and workshop organised by CSIRO Division of Forestry and the RITF Chinese Academy of Forestry. It was held at Kaiping, Guangdong Province, China from 7–11 November 1994, and was attended by about 100 delegates including researchers, and forest managers from China, Australia, the Philippines, Vietnam, Indonesia and Thailand. Although this meeting primarily focussed on practical applications of fungi in eucalypt plantations, many participants presented conference papers that encompassed broader interests, such as fungal biodiversity, physiology, ecology and edible fungi. The book contains sections on the following broad topics (1) the diversity, physiology and ecology of fungi, (2) the development of mycorrhizal technology, and (3) field applications of this technology. This provides the first international exposure for much of the current Australian/Chinese research on mycorrhizas.

This book is published by the Australian Centre for International Agricultural Research (1995). The cost is $AUS39.00, and it is available through Bibliotech, Anutech Pty Ltd (Reply Paid 440, GPO Box 4, Canberra, ACT 2601, Australia. Phone (616) 249 2479; Fax (616) 257 5088.

3. *Fungi of South-West Australia*

By: Neale Bougher and Katrina Syme

Flyers are now available for this forthcoming book. A copy is enclosed in this *Newsletter*. This book is being published by University of Western Australia Press, and will be on the shelves by March 1997. Comprehensive scientific information and microscopic line drawings are coupled with exquisite colour illustrations of fungi in their natural habitats.

To receive a notice of publication and/or any further information, contact: University of Western Australia Press, Tuart House, Nedlands Western Australia 6907. Tel.: (09) 3803670, Fax: (09) 3801027, Email: uwap@cyllene.uwa.edu.au