

REVIEW

A. E. ORCHARD & P. M. MCCARTHY (eds.): **Flora of Australia, Volume 48, Ferns, Gymnosperms and Allied Groups**. CSIRO Publishing, Victoria, Australia, 1998. XXII + 766 pp., illus. ISBN 0-643-05971-7 (hardcover). Price: AUD 94.95, USD 94.95. ISBN 0-643-05972-6 (softcover). Price: AUD 59.95, USD 59.95.

Another impressive volume of the Flora of Australia, dealing with the ferns, Gymnosperms and allied groups. Chapters on morphology, a glossary of botanical terms used, and a list of abbreviations and contractions make this work accessible also for non specialists. Moreover, the many illustrations, colour photographs as well as line drawings, provide a good help with identification (figure 151 is a colour photo that probably depicts two species of *Pyrrosia*). For the Gymnosperms an introduction is given of the evolution of the system of seed plants, and cladograms are given of the Cycadophyta, of *Cycas*, and of *Cycas* subsect. *Endemicae*.

In such a large work mistakes are inevitable. In the key to the families of ferns in lead 27 opposite characters are: Stipe articulated to a phyllopodium and Stipe not articulated to a leaf-like outgrowth of the rhizome. Not only that the same terms should be used, but a leaf-like outgrowth of the rhizome is a rather strange interpretation of a phyllopodium. In other places in the key this is also used. The last sentence under *Crypsinus simplicicimus* (p. 473) reads: "A very widespread fern and quite variable in form." This for a fern of very restricted occurrence (on the map only one dot to be seen). Possibly this sentence belongs under the genus.

I wonder what is meant by *Microsorium scolopendria* (Burm. F.) Copel. (p. 482). *Microsorium papuanum* auct. non (Baker) Parris: Nootboom is regarded as a misinterpretation of this species. But neither *M. papuanum* as interpreted by Nootboom nor *M. scolopendria* possess squarrose scales, as given in the description of *M. scolopendria*. Moreover, *M. papuanum* as interpreted by Nootboom is based on a type of Beccari from New Guinea and does not occur in India, and therefore cannot be the same as *Microsorium scolopendria*. I wonder if the species here named *Microsorium scolopendria* (Burm. F.) Copel. is a hitherto undescribed taxon?

As a whole this volume is excellently produced and should find its way to all people with interest in the families treated. However, I would have preferred to treat the ferns and Gymnosperms in separate volumes. Nearly 800 pages is too much for one volume, and fern lovers would be more inclined to buy a book with only ferns.

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