

XII. REVIEWS

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EDWARDS, I.D., A. A. MACDONALD & J. PROCTOR (Eds.). 1993. **Natural History of Seram, Maluku, Indonesia**. x + 240 pp, illus. Intercept Ltd., Andover, U.K. ISBN 0-946-707-82-0. Price unknown.

This volume contains 12 chapters on various aspects of the natural history of Seram (Ceram), written by 20 authors. In it the results are summarized of two scientific expeditions in 1987, known as 'Operation Raleigh' to Manusela National Park in Central Ceram (186,000 ha, highest point G. Binaya, 3000 m). Raleigh expeditions offer opportunities to young volunteers to support scientists in carrying out field research projects.

AUDLEY-CHARLES reviews the geological history of the island and concludes that no part of Ceram was above sea before the early Miocene (15 Ma) and that there are no indications for a direct land connection between it and New Guinea.

EDWARDS, PROCTOR, and RISWAN describe rain forest types of Manusela National Park, based on 16 0.25 ha plots, 7 in the lowlands and 9 in the mountains (4 on G. Kobipoto, 5 on G. Binaya). All trees with dbh > 10 cm were counted. In two of the lowland plots meranti (*Shorea selanica*) made up 30% of the individual trees, a situation similar to what I found in Buru in 1984. As to number of species the Ceram plots are, as expected, poorer in species than plots of similar size in Borneo and New Guinea, but only slightly lower than a plot in North Celebes. The authors are apparently unaware of a publication by Tantra and myself giving figures for central Celebes. The plots there show figures comparable in species richness to the Ceram plots.

PARRIS discusses phytogeography and altitudinal zonation of the *Pteridophytes*, represented in Ceram by 598 taxa. This compares well with the *Pteridophyte* floras of the much larger islands of New Guinea (c. 2000 taxa) and Borneo (c. 1050 taxa). The proportion of endemics is not surprising either: 65% for New Guinea, 27% for Borneo, and 12% for Ceram. What did surprise me was the distribution of taxa: about half were found to be wide-spread (both West and East of Ceram). The proportion of taxa based in West Malesia and extending to Ceram is larger than of that based in East Malesia, 20 vs. 17%. One would expect a larger proportion of New Guinea-based taxa in Ceram in view of the close proximity of the island to this *Pteridophyte*-rich source area.

BELL and VAN HOUTEN discuss the medicinal plants of Central Ceram. Medicinal uses were recorded for 150 species. They find that "the extent of knowledge and uses of traditional medicine in the coastal villages was somewhat surprising and probably reflects the continuing migration of people from highland villages to the coast."

Other chapters discuss the soils of Manusela Park, the moth fauna, arthropod abundance, the herpetofauna, the birds, the mammals, and human impact. The book is richly illustrated with black and white photographs and is concluded with an index.

This is the first modern book on the natural history of any island of the Moluccas. The editors are to be congratulated with their well executed effort. The only serious criticism I have is the rather large number of misspelt names. — M.M.J. van Balgooy.

GOLTE, W. 1993. *Araucaria*. *Erdwissenschaftliche Forschung* 27: 167 pp, illus. ISBN 3-515-05821-4. Franz Steiner Verlag, Stuttgart. DM 88.00 (SF 88.00, S 687.00) (In German).

Araucaria, a genus of majestic trees up to 90 m tall, is one of the oldest conifers still in existence. Fossils date back to the Late Trias. Although now present only in the Southern hemisphere, fossils have been found as far North as Scotland, and perhaps Greenland. At present the genus has 19 extant species, of which 13 are endemic in New Caledonia. These belong to a single section, which moreover has 1 species on Norfolk Isl., and 1 in East Australia and New Guinea. On the latter island there is a second species of another, monotypic section. One more monotypic section occurs in Australia, while a fourth section (erroneously called *Columbea* here, and not *Araucaria*) is represented by two widely disjunct species in S America.

Golte has since 1968 studied the ecology of the species and this beautifully executed hardcover book is the result of his endeavours. It is to be regretted that for those interested in the subject the information is hardly accessible, as there is no index, while for those who live where the species occur not even a summary in English, Spanish, or French has been provided. — J.F. Veldkamp

ORCHARD, A.E. & H.S. THOMPSON (Eds.). 1993. *Flora of Australia* 50. *Oceanic Islands* 2. Austr. Gov. Publ. Serv. Canberra. xxvi + 606 pp, illus. ISBN 0-664-14446-7. Price unknown.

This volume deals with the vascular plants of the tropical island groups of the Christmas, Cocos-Keeling, Ashmore Reef, Carter Islands, the Coral Sea Islands, and the subantarctic island groups of the Macquarie, Heard, and McDonald Islands.

Each of these islands or island groups is treated separately with chapters on geography, climate, vegetation, a key to the families, and a list of species. These introductory papers are followed by the flora proper comprising descriptions of 113 families by various authors. Each family treatment includes concise descriptions of the family, and all genera and species represented by indigenous or naturalized taxa, supplemented by notes or literature, ecology, distribution, and uses.

From a Flora Malesiana standpoint the most interesting of all is Christmas Island (137 sq. km), about 300 km S of West Java, with a relatively rich, predominantly Malesian flora. The indigenous flora comprises 170 genera (19 ferns) and 237 species (29 ferns), 16 species are endemic (1 fern). The original vegetation is rain forest over raised coral limestone blanketed by guano from sea birds. Although much of the forest has been cleared by mining for guano and for agriculture, the remaining part is now largely included in a national park of over 9000 ha. — M.M.J. van Balgooy.

FLORA MALESIANA

announces the publication of
Volume 11, Part 3 (pages 419–768) of Series I (Seed Plants),
comprising the important family

Sapindaceae

Published by Rijksherbarium / Hortus Botanicus, Leiden — 1994
ISBN 90-71236-21-8 — Price: Dfl. 100.00

The revisionary work on this family started many years ago by P.W. Leenhouts at Leiden. Contributions to the treatment were made and often published as precursors by several graduate students and later also by other staff members of the Rijksherbarium. The authorship of the Flora Malesiana treatment is, therefore, rather mixed. The three main and co-ordinating authors are F. Adema, P.W. Leenhouts, and P.C. van Welzen.

About the contents:

- The number of native and naturalized species in Malesia is ca. 235, divided over 42 genera. Two more genera only occur as cultivated plants. Only few of the genera are endemic to the region. All genera, species, and infraspecific taxa are fully described, giving the usual information on distribution, habitat, ecology, uses, variability, etc.
- Two identification keys to the genera are provided, one for vegetative and flower characters, the other for vegetative and fruit characters. All genera with more than one species (in the area) have keys to the species.
- There is also much information of a more general kind under the description of the family, among others more or less elaborate paragraphs with their own lists of references on palynology (by R. W. J. M. van der Ham), phytochemistry (by R. Hegnauer), wood anatomy (by R. K. W. M. Klaassen), leaf anatomy (by F. Adema), and chromosomes (by P. C. van Welzen & F. Adema).
- Illustration is by 86 line-drawings, many of them full-page. The part has its own register to scientific plant names.

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