

XV. BOOK NOTICES

Boomsma, C.D.: Native trees of South Australia. Woods & Forest Department, Adelaide. 1972, Bull. 19, 224 pp., 26 fig., 107 pl.

A description in detail of 107 major indigenous trees; the first survey published since the Forest Flora of South Australia (1883-1890). With this companion bulletin one can by means of many keys (3 keys for Eucalyptus) identify these trees which are mentioned in Forest Vegetation of South Australia, issued in 1969. In the introduction the technique of plant description is explained. Also honey and pollen yield is listed. Each species is depicted on a plate with a map of distribution in the State. And the caption to each plate provides detail information of field data. A well-executed, useful work.

Corner, E.J.H. & K. Watanabe: Illustrated Guide to Tropical Plants. Hirokawa Publishing Company, Inc. Tokyo. 1969, 2206 (15 col.) fig., 15 col. pl. Clothbound c. £ 28 (225 DM).

A massive Atlas of plant drawings (Gymnosperms & Angiosperms) made at Singapore 1942-45 by Prof. Watanabe. The small line-drawings (c. 10 by 6 cm) are rather crude; the name giving is here and there less accurate than desirable as fitting such an expensive, magnificently produced work. Brief descriptive notes in English and Japanese with each species.

Foreman, D.B.: A check list of the Vascular Plants of Bougainville, with descriptions of some common forest trees. Division of Botany, Department of Forests, Lae. 1971, Bot. Bull. no. 5 (stencilled), 194 pp., 58 pl., map; Addenda & Corrigenda 4 pp., 1 pl.

A check list of all collections made since 1875 in the island (Shortland and Fauro island groups excluded). List of collectors given as well as a concise idea of the climate, topography and soils, with emphasis on the Tonolei Harbour timber area. The habit line drawings on the plates are rather well reproduced.

Hatusima, S.: Flora of Ryukyus (including the Amani, Okinawa, Daito (Borojino) and Yaeyama Is. Publ. by the Okinawa Assoc. of Biol. Education. In Japanese. July 1971, 940 pp., 30 pl. (8 in col.). \$ 35.

This large important book contains keys to genera and species and is executed as Ohwi's Flora of Japan. In the introductory chapters a history is given, with 80 portraits of botanists and a botanical glossary.

Hiepkö, P. (ed.): Herbarium Willdenow. Alphabetical index. Interdocumentation Co. A.G. Zug, Switzerland. 1972, 136 pp. This is a supplementary alphabetical index to the microfiches of the Willdenow herbarium. It contains an introduction to the herbarium (in German and English) and a short biography of Willdenow (by Prof. Eckardt, also in 2 languages) preceding the index. In the index each name is followed by the sheet number(s) of the herbarium. This list is a most welcome tool for those confronted in their work with the many type specimens this herbarium contains.

Johns, R.J. & P.F. Stevens: Mount Wilhelm Flora. A check list of the species. Division of Botany, Department of Forests, Lae. 1971, Bot. Bull. no. 6 (stencilled), 60 pp., 1 cover drawing, 7 photogr., 1 map; Addenda & Corrigenda by P.F. Stevens, April 1972, 4 pp., loose sheet.

A most attractive guide to the flora (606 spp., also ferns) above 2743 m altitude; added are references to Mt Wilhelm, a list of collectors, list of taxa typified by Mt Wilhelm plants, and a generic index. Large groups in the flora are naturally Cyperaceae, Gramineae, Orchidaceae, Compositae, Ericaceae and ferns, also Rosaceae and Rubiaceae. The beautiful photographs were provided by Mr. Womersley.

Kellman, M.C.: Secondary plant succession in tropical montane Mindanao. Research School of Pacific Studies; Dept. Biogeogr. & Geomorph. Publ. BG/2, 1970, 174 pp., 24 fig., 35 tab., 11 pl., 4<sup>o</sup> stencilled. Distr. ANU Press, P.O. Box 4, Canberra, A.C.T. 2600. A\$ 2.50.

A detailed account and analysis of 18 stands with many factors involved; micro-factors; soil analysis; biomass; life forms; *Trema* and *Melastoma* seem to enrich soil in P; elevation 900-1200 m; everwet; sites are on upper fringe of lowland dipterocarp forest which is the climax type; regeneration observations. In appendix observed plants are listed.

Lawton, Elva: Keys for the identification of the mosses of the Pacific Northwest. The Hattori Bot. Laboratory, 3888 Hon-machi, Nichinan-shi, Miyazaki-ken, Japan. 66 pp.

This is a reprint of the great Moss Flora of the Pacific Northwest, covering the states of Washington, Oregon, Idaho, W. Montana, Wyoming, British Columbia, Alberta, etc., in all c. 600 spp. As many mosses have wide ranges these keys are also of importance to workers in Asia. Dr. Iwatsuki makes use of them for classes.

The official price is \$ 4, but in quantities over 5 the price becomes proportionally lower.

Maheshwari, P. † & C. Biswas: Cedrus. Council of Scientific & Industrial Research, Rafi Marg, New Delhi, India. 1970, Bot. Monogr. no. 5, 115 pp., 55 fig. 8°. To order from: Stores Supervisor, Publications & Information Directorate, C.S.I.R. Hillside Road, New Delhi-12, India. Rs 24., Sh. 48 or US\$ 8.

In this richly illustrated book a very detailed information is given on the Deodar, *Cedrus deodara*, including the morphology and anatomy, embryology, fungal diseases, regeneration and economic importance. Some chapters are clearly compilatory (taxonomy, diseases, regeneration) but others are distinctly not, making this book an indispensable source of information on this important tree which yields one of the three best timbers of India along with sal and teak.

Smith, A.C.: The Pacific as a key to Flowering Plant History. Univ. of Hawaii, Harold L. Lyon Arboretum Lecture no. 1, 1970, 28 pp.

Short note on the career of Lyon, founder of the Arboretum. Smith reviews the geography of the primitive families, assumes that their birth centre was in Indo-Australia and from there spread towards Africa, towards America via Beringia and towards Australia. This focus began spreading in the Jurassic or even Triassic from a monophyletic, pteridosperm-like ancestor, after establishment and initial diversification. In the Cretaceous configuration of the world's land surfaces were not vastly different from those today. Part of them travelled in floras, but the oceanic islands were peopled by saltatory long-distance dispersal. Beringia had warm-temperate to (possibly) subtropical conditions at that time, as had the south Pacific-subantarctic zone. Superimposed were transtropical highland bridges. And superimposed on the whole was the random pattern of saltatory long-distance dispersal. No continental shift affected angiosperm distribution except for Antarctica which separated from Australia in mid-Tertiary. The Australasian area must have reached its present position during the Early Cretaceous at the latest.

Smith, A.W.: A gardener's Dictionary of Plant Names. Second revised and enlarged ed. by W.T. Stearn. Publ. Cassell, London, 1972, 391 pp. 8°. £ 3.25 net.

A most useful glossary of Latin names of plant genera and species, with concise explanation of derivation, in all some 6000 names. Dr. Stearn added an Introduction to Vernacular Names, an alphabetical list of English vernacular names with their Latin equivalents, and an Introduction to botanical names, with a guide for their pronunciation and the nomenclature. The original author's intention was to have it as a guide to practising gardeners. But in this form it will serve also many others.

Stone, B.C.: The Flora of Guam. Micronesica vol. 6. University of Guam, Box EK, Agana, Guam, U.S.A. 1970, 657 pp., 101 fig., 15 pl. (some in colour), 2 maps.

It is introduced by some excellent general chapters on history, plan of the work, climate and soils, vegetation, phytogeography, plant cover, forest reserves, agriculture, gardens, horticulture, how to collect, future work.

The flora itself, encompassing also ferns and gymnosperms, is provided with keys; the ferns are without descriptions, in the Angiosperms there are brief descriptions of families, genera and species. The total amount of species treated is 931 including the native and introduced vascular plants; the latter make up c. 63% (585 spp.). Except for botanists generally, this work is an admirable handbook for biology students and their teachers and for all agents who deal with plants, vegetation and land use. A plea is made for extended re-forestation with native plants. An unusually big asset for the Pacific flora.

Water relations of Malesian forests. Ed. by J.R.Flenley. Trans. 1st Aberdeen-Hull Symposium on Malesian Ecology, Hull. 1970 (1971), folio offset, 97 pp., illustr. Dept. Geogr. Univ. Hull, Inst. for SE. Asian Biol., Univ. of Aberdeen. £ 1 (plus postage and packing).

This symposium consisted of 4 papers by invited speakers:

J.G.Lockwood treated the question 'Does Malaysia really have a hot wet climate?' He comes to the conclusion that comment on the water balance problem must be postponed until more information is available on soil moisture storage and evaporation rates from dry soil. His figures relate from Alor Star and Penang. He suggests an approach through water-tight catchments.

I.Douglas treats 'Aspects of water balance of catchments in the Main Range near Kuala Lumpur'. Attention to variations of run-off. Water balance in rain-forest catchments are rather variable, influencing growth rhythm of rain-forest.

J.B.Kenworthy treated 'Water and nutrient cycling in a tropical rain-forest'. The movement of potassium is used to demonstrate the fast-flowing nature of the cycling.

E.F.Brunig spoke about 'Ecological significance of drought in the equatorial wet evergreen rain forest of Sarawak'. He finds information on this point inadequate.

All contributions are followed by an abundant interesting abstract of the informative discussion by experts following the lectures.