

REVIEWS.

Flora Malesiana, Vol. I.

With reference to and in continuation of our elaborate announcement in *Blumea* VI, nr. 2, 1950, p. 544—545, it is a pleasure to report now the publication of Vol. I, entitled: *Malaysian plant collectors and collections, being a cyclopaedia of botanical exploration in Malaysia and a guide to the concerned literature up to the year 1950* by Mrs. M. J. van Steenis—Krusseman (CLII + 639 pp., 3 maps and about 220 illustrations).

The General Part (roman page numbers) comprises introductory paragraphs (aim of work, interesting data and hints on labeling, lists of illustrations and literature of use to collectors and investigators, terminology of altitudinal zones, and the use of vernacular names) as well as chapters on the technique of botanical exploration and collecting, on the phytogeographical delimitation and subdivision of Malaysia, on the collections made in the area concerned (arranged both chronologically and geographically, with 1 map), statistics of collections and desiderata for further exploration with 2 maps), sources consulted for the data mentioned (literature and herbaria), and samples of handwritings of 70 collectors and botanists.

The Special Part consists of an alphabetical list of more than 3000 collectors, many (about 180) adorned with portraits of which several never have been published before; each entry gives, as far as possible, a concise biography and detailed particulars on the trips made, their collections and main publications.

An Index on geographical names, expeditions etc., and persons not mentioned in the main list is a valuable addition and key.

It is our impression that this book, which is the result of many years of painstaking work, has been very accurately prepared and I know that both Dr and Mrs Van Steenis never permitted themselves to be satisfied with data, even seemingly minor ones, unless they had checked them up themselves as far as the original sources were available to them. This makes the work as trustworthy as may be reasonably expected of human achievements. The work is simply unique and will doubtless prove to be an unending source of information for many years to come. In a certain way, it concludes a period and we may therefore safely assume that a carefully conceived work like this will never be surpassed.

The volume is well-edited by Noordhoff-Kolff Ltd., Djakarta; printers are the renowned Joh. Enschedé & Sons, Haarlem. The price, bound in cloth, is Hfl. 55.—

H. J. LAM.

Taylor, William Randolph, *Plants of Bikini and other Northern Marshall Islands*, University of Michigan Studies, Scientific Series Vol. XVIII — The University of Michigan Press, Ann Arbor, 1950, XV + 227 pp., 79 black plates and 1 coloured plate, \$ 5.50.

The four atolls studied here have been rarely visited and probably will not be visited again in a near future. Moreover, this was the first time that the flora of the Northern Marshall Islands has been studied thoroughly and since this was done by an energetic and able student of marine Algae, it is only natural that the greatest stress has fallen on the seaweeds. Though the littoral marine flora is rather poor — certain common tropical Algae are wanting — the vegetation of the bottom of the lagunes appeared to be rich in Algae. After having described the algal flora of the reefs and the lagunes, the author enumerates the collected species, adding to each species detailed notes about the habitats. Larger genera have been elucidated with a key down to the formae, such as the ecologically interesting genus *Halimeda* which,

like *Lithothamnion* and allied genera, is very important for reefbuilding, *Caulerpa* with its variable species, and *Liagora*. Instructive information about the special technique in studying *Halimeda* has been added.

The *Myxophyceae*, among which a number of interesting species, have been studied by Dr Fr. Drouet. He changed the names of some common species on nomenclatural grounds, after study of types.

Only few *Fungi* and *Lichens* and only one *Bryophyte* have been found. Prof. Taylor has described 13 new species and 5 new formae of Algae, and Prof. L. E. Wehmeyer 1 new Fungus. We feel sorry for the fate of those new species which have been found at Bikini only and we can only hope that they either survived the atom bomb destruction or will be eventually found on other atolls as well.

The porous and poor calciferous soil bears a fairly small number of Spermatophytic species. These only cover some 40 pages and 16 plates and there are no new species. Identifications were made or checked by various experts amongst whom Prof. H. H. Bartlett, Mrs. A. Chase, Dr H. St. John, Dr J. P. Swallen, Dr F. R. Fosberg, and Dr R. McVaugh. Only two specimens could not be named beyond the genus (*Pandanus* and *Caesalpinia*) and most belong to wide spread species. Mention has been made of 56 species in all, of which 13 grasses, the others belonging to 30 different families.

To all species more or less elaborate descriptions, but no synonymous and no literature have been added, which render it impossible to check names. This is partly compensated by the bibliography given at the end of the book. Likewise it is regrettable that no mention has been made of the distribution.

A remarkable feature is the forest of high specimens of *Pisonia grandis* R. Br. in the central parts of the larger islands.

Cocos nucifera was found only in a cultivated state and does not seem to establish itself independently. Specimens manifestly growing from nuts washed ashore were always found "depauperate". This is a remarkable statement. On account of it, it would seem of importance to investigate this problem all over the Pacific area in order to state where the coconut-tree, which is considered being of Malaysian or Pacific origin, is evidently planted or grown by man and where it is spontaneous.

Among the 147 excellent photographs there are 2 splendid coloured ones. Together with 4 maps they provide the book with ample illustration, showing one vegetation, separate plants and structural details of *Corallinaceae*. In a single case, like *Pocockiella papenfusii* n. sp., detailed drawings might have been more enlightening. An Index facilitates the use of this well-edited work which we wish in the hands of all botanists working on the Pacific flora or merely in love with that remarkable region.

JOSÉPHINE TH. KOSTER and H. J. LAM.

Dr. G. Huber-Pestalozzi, Das Phytoplankton des Süßwassers, Systematik und Biologie, Teil 3 — Prof. Dr. A. Thienemann, Die Binnengewässer, Einzeldarstellungen aus der Limnologie und ihren Nachbargebieten, Band XVI, 3. Teil — E. Schweizerbart'sche Verlagsbuchhandlung (Erwin Nägele), Stuttgart, 1950, 16.5 × 25 cm., 310 pp., 350 fig. on 69 plates and in the text; paper bound DM 67.—, cloth DM 70.—.

The third part of Volume XVI of the well-known series of monographs concerning the freshwater hydrobiology gives a review of the classes *Cryptophyceae*, *Peridineae* (*Dinophyceae*) and *Chloromonadinae*, all unicellular *Algae*, provided with 2 (rarely 1) flagellae. In imitation of Pascher the first classes are combined in the *Pyrrophyta*, but also the last class is brought to the same division.

Here 236 species, 35 varieties and 67 formae have been described in a clear and ample way and nearly all of them have been illustrated. In total there are 1415 drawings, most of which are very good, especially those of the *Peridineae*. Biological and ecological data, taxonomic and phylogenetic speculations and critical remarks render the book most valuable. Some new taxa have been created. However, the new species of *Amphidinium*, since a latin diagnosis is wanting, is not validly published in the sense of the International Rules of Nomenclature (art. 38), even though figures are added (art. 43 and 44). According to the same rules it is not allowed to change the specific epithet of *Amphidinium amphidinioides* (Geitler) Schiller only because it does not sound well and is a pleonasm (art. 59).

The keys enhance the usefulness of the work considerably. It is a pity that the author postpones the enumeration of the used literature to the final part of Volume XVI, the more so as no citations of literature have been added to the descriptions of the species.

The great value of this work is not only caused by the numerous data concerning these difficult classes, but also by the results of the author's own investigations which are incorporated.

The book is conveniently arranged and printed on good paper, the plates even on firmer paper.

JOSÉPHINE TH. KOSTER.