

## REVIEWS

**RUMPHIUS MEMORIAL VOLUME**, edited by H. C. D. de Wit, sponsored by "Greshoff's Rumphius Fonds", acting under patronage of "Het Koninklijk Instituut voor de Tropen", Amsterdam. Published by Uitgeverij en Drukkerij Hollandia N.V. Baarn. 1959. 8°, pp. V + 462, 3 fig., 3 pl., 27 page-size photographs. Clothbound Nfl. 45.— (£ 4.10.—; \$ 12.50).

In 1902 Greshoff edited, for the "Koloniaal Museum" at Haarlem, a folio memorial volume, "Rumphius Gedenkboek", dedicated to the memory of that great pioneer in the East Malaysian tropics, Rumphius, at the occasion of the bicentenary of his death in Ambon, the Moluccas, where he lived from 1654 till his death in 1702. Notwithstanding many mishappenings he attained the ripe age of 75 years, a most unusual career for a pioneer in the tropics, and carried on, as a disinterested hobby, nay as a vocation, his studies of plants and animals. His observations, laid down in voluminous MSS, none of which was published during his life-time, are, besides being written in a most lively style, so accurate, that they still form a source of knowledge today.

The 1902 Memorial Volume was partly in Dutch, partly in German, and is still a standard work, but it was not exhaustive. There were chapters devoted to an evaluation of the invertebrate animals described in Rumphius's "Rariteitkamer", but not of the other animals and there was no evaluation of the Herbarium Amboinense; in his attempt to re-collect Rumphian plants and make this account Boerlage even lost his life (1900).

The present volume, which is entirely written in English, covers only part of the ground of its predecessor and does not intend to replace it. It is rather supplementary and deals with many subjects not touched on in the "Gedenkboek". In it it has been attempted to re-evaluate Rumphius's observations in his "Rariteitkamer" and in his other works on Mammals and Birds (A. C. V. van Bommel), Fishes (L. F. de Beaufort), Crustacea (L. B. Holthuis), Echinoderms (H. Engel), Corals (F. M. Bayer and H. Boschma), and new chapters have been added on Algae (J. S. Zaneveld), Fungi (Boedijn), and economic plants (D. F. van Slooten †). In addition to a concise biographical introduction De Wit himself has given a "Checklist" to Rumphius's Herbarium Amboinense, consisting of two alphabetical lists, one arranged by scientific plant names, the other by the Rumphian names. Besides being Rumphius's magnum opus the "Herbarium Amboinense" owes its prime importance for Malaysian botany to the fact that numerous species have been typified by the Rumphian records.

On the basis of Robinson's collections and with his unequalled knowledge of plants and of literature Merrill has in 1917 devoted a fully documented, classic work to the interpretation of the Rumphian records which run over a thousand. Later Backer has, in Heyne's "Nuttige Planten" (1927), given many additional identifications. These two sources are the main pillars on which De Wit's present "Checklist" rests. Occasional later evaluations which came to his knowledge have been inserted and as far as he could manage the nomenclature has been brought up to date. The "Checklist" can therefore not claim to be more than a bibliographic one. De Wit admits that the keeping track of new evaluations of over 1000 species represents no mean task and he "is aware that he missed many references", as "botanical literature nowadays is of enormous scope and size". However, it might have been expected that he had at least consulted all post-1917 major works and monographs on Malaysian botany, but some random tests with contemporary work showed serious lapses in this respect. For example: *Cortex filarius* is the type of *Aquilaria filaria* (Oken) Merr., cf. J. Arn. Arb. 31 (1950) 283; *Carbonaria mas* is according to the monograph of Bakhuizen van den Brink not ebenaceous but probably *Elaeocarpus*, as Hasskarl had it; *Scrotum cussi* is certainly *Dichapetalum*, cf. Leenhouts in Fl. Mal. 5, p. 309; *Cortex foetidus* is *Pittosporum moluccanum*, cf. Fl. Mal. 5, p. 356, 359.

It is also not always clear why De Wit sometimes deviated from Merrill's interpretation, for example why *Olis sanguinis* has been referred to *Cardiopteris qui(n)queloba*

instead of *C. moluccanum* Bl., as Merrill had it rightly. I feel mystified by the interpretation of *Daun parawas*, which Merrill, following Hasskarl, reduced with doubt to *Clausea* sp., but which De Wit refers to ?*Micromelum minutum* with reference to Heyne, p. 666—667, where we find the native name daun prawas mentioned for a West Javanese species of *Litsea* (sic); *Arbor pudica* is reduced to ?*Mimosa pudibunda* L., but Linnaeus never described it, it is of Willdenow and is reduced in Ind. Kew. to *Mimosa pudica*. There seem also to be definite omissions, e.g. *Mangium silvestre* H. A. 3: 57, t. 31, which I cannot find cited.

It is unfortunate that the Checklist shows unnecessary shortcomings and inaccuracies, some of which might have been avoided if De Wit had solicited the collaboration of the large group of taxonomists actually working on the Malaysian flora at the Rijks-herbarium, Leyden. It makes the impression that De Wit has either underrated the bibliographic task he set himself or that the MS has been given to the press in an immature stage, and has *coûte que coûte* been printed because the appearance of the book was already overdue for seven years. It would have been preferable if simply Merrill's list would have been given with necessary nomenclatural polishing. Its present shape is very much in contrast with the spirit of the works written by the man in whose memory the volume is compiled.

Yet, for those many biologists in the Anglo-Saxon countries who are not in command of the Dutch language and hardly of the German tongue, and who are thus deprived of the pleasure to study the "Rumphius Gedenkboek", the present memorial volume must be very welcome indeed, as it presents a large body of extremely interesting, mostly original information and illustration. The printing and binding are of good quality; the number of printing errors is negligible.

C. G. G. J. VAN STEENIS.

**H. H. ZEIJLSTRA**, Melchior Treub (1851—1910), Pioneer of a new era in the history of the Malay Archipelago — Publ. by the Royal Tropical Institute, Amsterdam 1959, 128 p. Price Hfl. 7.— (£ 0.15.—; \$ 2.—).

This charming little book is a biography of Melchior Treub, written by one of the few living men who have known him intimately; the writer was one time his assistant in the great days of the Buitenzorg Botanical Gardens, now Kebun Raya Indonesia, Bogor. As one may imagine it is a tribute to the memory to this great figure, eminent both as a botanist and as an organizer and a "man of the world". His life as a scientist covered an extremely important period in the development of science in the Netherlands Indies and in the botanical world of those days generally (1880—1909), since Treub not only made the Buitenzorg institute a working place of wide extension and of pure science, but attracted a great many of leading investigators from many countries, thus making Buitenzorg one of the world's centres of high standard investigations.

Despite some minor errors and impurities — among which unfortunately too many printing ones — and a not always correct and fluent handling of English, the writer has succeeded to imbue the reader with the greatness of Treub's personality and his period. The book is well documented by the quotations of literature, many annotations, and portraits and other illustrations.

It may be warmly recommended to all who are interested in the history of tropical science. It has been nicely edited with the financial support of some cultural and scientific societies.

H. J. LAM.

**J. HUTCHINSON**, The Families of Flowering Plants, arranged according to a new system based on their probable Phylogeny, 2 vols, 792 pp., 450 fig., and several area maps — Clarendon Press: Oxford University Press, 1959 — Price 147/—.

The second edition of this well-known handbook presents a considerable extension in comparison with the first one of 1926 (Dicotyledons), and 1934 (Monocotyledons), respectively. This is, of course, as it should be on account of newly acquired knowledge: the number of pages was raised from 571 to 792, that of the figures from 371 to 450,

apart from a limited number of area maps. The number of families has increased from 332 to 411, which means that the author might be called a family splitter, a procedure which, nowadays, seems to be "in the air". A general tendency has of late been felt to "purify" larger families by brushing off smaller groups with more or less aberrant characters; similarly, several newly discovered types were immediately given family rank instead of having them forced into one of the standing families, as might have been attempted in an earlier period. Not all of these, however, are mentioned by Hutchinson, and not all of those proposed have been accepted by him as families.

There is little alteration in the general design of the work, except in that the distinction between *Lignosae* and *Herbaceae* has become sharper, the result being that the number of "parallel developments" has increased at the cost of those which are considered taxonomical relationships. Those of my readers who are familiar with my views regarding phylogeny will not be surprised to learn that this sort of consideration is, to my mind, pseudophylogeny, not even probable phylogeny. It is just a personal view on the "taxonomic value" of similarities and differences. Accordingly it is a matter of taste whether or not the system here presented is to be considered "more natural" than any other. Personally, I do not feel that, e.g. putting the *Labiatae* and the *Verbenaceae* far apart as the ends of parallel lines, is an improvement. On the other hand, it is to be welcomed that such unnatural groups as *Sympetalae* and *Apetalae* have been abandoned.

Apart from these theoretical considerations which also apply to many cases of taxial delimitations in which personal difference of opinion is possible though of less consequence, it is somewhat disappointing that a not negligible number of errors can be stated. It is evident that a condensed work like this cannot be expected to be fully correct from the specialist's viewpoint, but it is regrettable that the general keys, despite the family purifications mentioned above, hardly take account of important exceptions to many family diagnoses; that they therefore not rarely lead astray as do some keys to infrafamily taxa; that under the families generic names are mentioned which are long antiquated; that several area-maps are incomplete; in short, that in spite of the increased size of the work, the revision has apparently been undertaken with an insufficiently methodical consultation of the allegedly enormous but not masterable literature of the last thirty years.

The new edition has been printed on very good paper, on which, however, the pictures appear somewhat less clearly than on the smoother paper of the first edition.

H. J. LAM.

**FLORA MALESIANA — Series II, Vol. I, part 1 — Pteridophyta. Ferns and Fern Allies**, by E. E. Holttum (Kew), Dec. 1959 — P. Noordhoff N.V. Groningen. XXIII + 64 pages, 32 ill. Price Nfl. 10.—; £ 1.—; US \$ 2.65.

Despite several difficulties, none of which so far really threatening this grand enterprise, Flora Malesiana, which is now in its twelfth year, is well on its way.

As was explained in a review by the present author (*Blumea* VI, 2, 1950, p. 544—5), the work was designed in five series, in addition to several introductory volumes (*Cyclopaedia of Collectors*; *Malaysian Plant Life*; *Plant geography*; etc.) of which so far only the first one (741 pp.) has been published and the second is nearing completion. Of series I (*Phanerogams*) so far 9 instalments in two Volumes (4 and 5) have been issued, comprising 1778 pages and containing 60 mostly smaller families.

The first issue of Series II has now appeared. The Editor-in-Chief, Prof. C. G. G. J. van Steenis, has been fortunate indeed in acquiring the collaboration of the well-known pteridologist Prof. E. E. Holttum, formerly of Singapore, now of Kew, who has consented to act as editor for the Pteridophytes and who undertook to write the greater part of the first instalment, containing *Gleicheniaceae* (2 genera with 40 species), *Schizaeaceae* (2 genera with 21 species), and *Isoëtaceae* (1 genus with 3 species), the two first-named by Holttum, the last one by the late A. H. G. Alston of the British Museum (*Natural History*).

As is the case with Series I, the Pteridophytes will be published as revisions are available. This inevitable scheme entails that general considerations including keys cannot be drawn up in their final form but after all groups concerned have been fully

revised. As this will doubtless occupy a considerable period, it was considered necessary to provide the user with at least some sort of a guide. Accordingly, a concise but clear chapter on fern-morphology precedes the revision and lists have been given of the genera expected to be involved (Fern Allies 6, Ferns proper 162). Some of these (68) have been placed in their families which are considered final, but the remaining ones (Polypodiaceae except Polypodiaceae sensu stricto) have provisionally been placed in groups of relationships which have not yet been formally delimited or named. There are also two provisional alternative keys to families and groups and, in the revised families keys to genera and species. I must say that personally I do not admire the key type with indented lines, at least as far as long keys are concerned; they are typographically unbecoming and confusing in use.

In addition to all this a bibliography has been given of literature published subsequent to Christensen's Index Filicum, Suppl. 3 (1934). The line drawings — by Miss R. van Crevel — are, as always, admirable but the paper is not always up to allowing good prints of the photographs even if they may have been excellent ones originally.

H. J. LAM.