

I. EDITORIAL

Flora Malesiana series i volume 8 instalment 2, pages 31-300, came from the press in December 1977*. It contains the Ulmaceae by E. Soepadmo: 6 genera, 27 species; the Iridaceae by D.J.L. Geerinck: 6 genera, 7 species; the Cornaceae by K.M. Matthew: 1 genus Mastixia with 10 species; the Onagraceae by P.H. Raven: 2 genera, 14 species; the Bignoniaceae by C.G.G. J. van Steenis: 15 genera, 31 species + in concise treatment 23 ornamental species; the Crypteroniaceae by R.J. van Beusekom-Osinga: 3 genera, 8 species; the Symplocaceae by H.P. Nooteboom: 1 genus Symplocos, 58 species; the Lentibulariaceae by P. Taylor: 1 genus Utricularia, 22 species.

Volume 8 instalment 3 is in proof. It contains the Labiatae and Anacardiaceae, as well as some Addenda, the Dedication to F.A.W. Miquel, and the Index, since volume 8 will then be completed.

In Series ii, Ferns and Fern Allies, instalment 4 is in the press, containing the Lomariopsis Group.

Identification Lists of Malesian Specimens were also published: 53. Artocarpus (Moraceae) by F.M. Jarrett, 54. Bignoniaceae, by C.G.G.J. van Steenis, 55. Utricularia (Lentibulariaceae), by P. Taylor. These can be obtained free of charge from the Rijksherbarium, Leiden.

Is it worthwhile to continue the Flora Malesiana effort? people sometimes ask, in view of the massive destruction of vegetation that is going on in the region. The answer is yes, although this should not give rise to false optimism. Loss of vegetation should not be confused with loss of flora. Loss of (primary) vegetation is local; loss of half the vegetation in an area does not mean loss of half the flora. Destruction here does not exclude survival elsewhere; loss of flora always occurs in relation to an area of distribution. With regard to vegetation destruction, the question is: which part of the land remains reasonably protected and productive? In case of the flora, loss raises the question: which part of the genetic diversity of the taxa remains?

It is evident that loss of vegetation will precede loss of flora. The great ecological disaster that is in the making for those countries in Malesia whose authorities allow the primary forests to be depleted, the watersheds to be denuded, the population to multiply, in the first place amounts to a decrease of useful land area. Forest becomes alang alang, productive soil is washed away.

* Orders can be placed or renewed with Academic Book Service Holland, P.O. Box 66, Groningen, The Netherlands. Price of this instalment Dfl. 170.-.

While de-vegetation goes on, however also a network of reserves is growing. Indonesia aims at 100,000 sq.km. Such reserves are often selected for the number of plant species in them. True, the network is as yet very insufficient with regard to the primary forests in the lowlands. In Malaya, in the lowest zone, from sea-level to 300 m, no fewer than 9 types of Dipterocarp forest have been recognized (by R.G. Robbins & J. Wyatt-Smith, *Malayan Forester* 27: 188-216. 1964), and in the second zone from 300 to 750 m, no fewer than 6 types; it is clear that large tracts of a variety of lowland forest in all parts of Malesia will have to be protected from logging and shifting cultivation, before the network can be termed operational by any standard. But we may hope that a number of additions still can be made.*

All forests under whatever form of 'management' (even if carefully and expertly administered) are bound to impoverish, owing to the pressures deliberately imposed on the ecosystem, in order to promote the commercial species over the non-commercial. But this will go slowly, and many species can be expected to survive in less accessible places. If we accept Ashton's estimate (in his *Ecology of Brunei*, p. 4. 1964) that in that country of 5000 sq.km, 2000 species occur of trees 10 cm or thicker, and E.D. Merrill's rough estimate of 3000 tree species for the whole of Borneo, we may indeed suppose that a few reserves of the proper size (several hundreds of square kilometres at least) could harbour a substantial portion of the flora - if only with a fraction of the spectrum of diversity.

What fraction of the 'gene pool' this will be, depends on the intra-specific polymorphism which varies with the species, and on a number of local and regional conditions affecting the ecosystems. It seems possible that 'gene pools' of wild *Artocarpus*, *Citrus*, *Durio*, *Garcinia*, *Mangifera*, *Nephelium*, and *Palmae* will remain available for tapping and improvement of their cultivated relatives, but only in a few.

* Fascinating investigations into the zonation of the mountain flora have been made, but the altitudinal distribution of lowland taxa is still an area of neglect. The figures tabulated and considerations given in *Flora of Java 2*, pages (48)-(59) are not very revealing for conservation purposes, since they refer to the whole flora and hardly any primary lowland forest is left in Java. I do not know other studies having been made of this subject; while Robbins & Wyatt-Smith are no doubt on firm ground as for Malaya (where zonations, owing to telescope effects in this country without high mountains, may be somewhat lower than in Sumatra, but not lower than in Borneo), a quest for more data is highly needed.

(too few) places that some far-seeing authorities had the wisdom to protect. Such genera as a whole are then threatened not in their very existence, but in a wide availability of all their species and in their greatest possible polymorphism = adaptability.

What difference will this all make to the Flora Malesiana? For the amount of work involved in making the taxonomic revisions, not much difference is to be expected. It is the common, wide-spread, long-known species which give us most of the work, the ones which spread in the wake of man. The species most endangered, those confined to a small area in the lowlands, are as a rule represented by a mere handful of herbarium sheets, and these species, not being very polymorphic, do not cause the taxonomist much head-ache to deal with. In the consultation of the Flora, emphasis can be expected to shift somewhat from taxa of the primary habitats to taxa of the degraded habitats. But there will be no less consultation. Some soil cover will remain in most places, with some remnants of the local flora, in a more or less maltreated vegetation. The current sell-out of the vegetable treasure for a pittance (from every cubic meter of wood, valued \$ 40 free on board, the Indonesian government collects a mere \$ 8.20, so a hectare of forest can be laid waste for about one thousand dollars) will necessitate the grandchildren of the present-day generation and all future generations as well, to make do with less. For reasons of sheer survival, this less will have to be valued more, and utilization have to be intensive and very careful.

Foresters desperate to re-vegetate the raped earth will probably find the native flora the best reservoir to look for suitable species. But the Flora Malesiana, although made for people in the region in particular, is also widely consulted by expatriates. Even if the rural people in Malesia find themselves deprived of the innumerable benefits bestowed on them by the primary forest and its array of products, pharmaceutical firms will continue their search for medicinal plants, horticulturists from rich countries will roam the area to take fresh species or races into cultivation and all must turn to the Flora Malesiana for information.

While we hope, in the interest of the people in tropical countries, that botanical work will never be needed for reasons of survival, the possibility cannot be ruled out, and it is good to continue.

The cover of this issue we owe to Professor E.J.H. Corner of Cambridge, who drew it, and to Dr. Chang Kiaw Lan of Singapore, who edited Corner's forthcoming book, reviewed in the present issue. In that book, the same drawing is the end vignette.

Thanks are also due to Professor dr. C.G.G.J. van Steenis who kindly supplied the Bibliography (unless titles are signed otherwise), and to all others who gave text items and suggestions.

The editor is always happy to consider new names for the mailing list. It is apparently not known to everybody that the Flora Malesiana Bulletin is distributed free of charge. Wasn't number 30 in an international book sellers's catalogue offered for 40 Deutsche Mark? ("Again packed with an immense volume of information on the Malayan subject"). Of course, we expect recipients of the Bulletin not to sell their issue, but to regard it as we do: a gift to science, and to pass it on freely if they think the time has come.