

## REVIEW

T. C. WHITMORE (Ed.): Biogeographical evolution of the Malay Archipelago. Oxford Monographs on Biogeography no. 4. Clarendon Press, Oxford, 1987. 147 pp. incl. Bibliography and Register. Bound. Price £ 30.00. ISBN 0-19-854185-6.

This book reports on one of the symposia of the Third ICSEB Congress at Brighton, 1985. It is published only six years after the first volume in the same series ("Wallace's Line and plate tectonics" also edited by Whitmore) treated the same problems for the same region. This is explained by the "important geological discoveries and new paleobotanical evidence" that have come available in the mean time. These discoveries are discussed in Audley-Charles's contribution where it is stated that present-day Burma, Thailand, Malaya and Sumatra contain fragments rifted northwards from the N. Australian–New Guinea content in the Mesozoic. Being above sea-level in late Mesozoic and later they may have transported early Angiosperms.

Although it may be said that the very complex geological history of the region between Asia and Australia gradually becomes clearer, this does not mean that biogeographical problems are now solved. It is still a matter of controversy where the 'cradle' of the Angiosperms is situated. Takhtajan in his paper considers the possibility that one of the above-mentioned rafts could be the early centre of diversification of the Angiosperms.

Truswell, Kershaw and Sluiter reconsider the paleobotanical record in order to find evidence for migration of floristic elements into Australia. Fossil pollen indicates that in other parts of the world the Angiosperms were present some 10 million years earlier than in Australia and in their opinion this does not support the hypothesis that early Angiosperms could be transported by the Noah's arks drifting northwards from Australia. The period covered by Morley & Flenley's paper is much later. They give tentative maps for the region in the early Miocene and during one of the Quaternary glacial maxima. Dransfield, Musser, Van Balgooy, and Holloway in their respective contributions use well-known statistical and numerical methods to obtain a picture of distributional events in the history of Palms, Mammals, Angiosperms, and Lepidoptera, respectively. Except Dransfield's more general paper, these contributions focus on Celebes, that enigmatic island between West and East. George summarizes these papers and other data in a paper on "complex origins", caused by migrations in different directions in different times, using different routes. The last sentence of George's paper reads "The story is unfolding but there are still questions to be answered before it is complete" and this summarizes the contents of the entire book in a neat understatement. Only Holloway makes modestly use of the phylogenetical-biogeographical method which has flourished in the wake of cladistic phylogeny of taxa. This method has as yet only rarely been applied to the region involved and it may be hoped that in another six years or so this approach has resulted in so much new light that another symposium can be held on the same topic. We need every method available to unravel the historical biogeography of this intriguing region.

This book is not, like many symposium volumes, a mixture of good and ugly word-processor print-outs, it is a bound book with golden lettering and everything in professional style, including the price.

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