

BOOK REVIEWS

H. HOLLMANN: *Verbreitung und Soziologie der Schachblume, Fritillaria meleagris L.* (Abh. und Verh. des Naturwiss. Ver. in Hamburg (NF) 15, Suppl.). 82 S., 7 Abb., 17 Tab., 16 Karten. Verlag Paul Parey, Hamburg und Berlin, 1972 (ISBN 3 490 11896 0). Preis 18.– DM.

Die vorliegende Arbeit über *Fritillaria meleagris* hat nicht nur wissenschaftlichen Wert, sondern ist auch wichtig für den Schutz der Schachblume. Der Verfasser bezeichnet die genaue Kenntnis der Pflanzengesellschaften, in denen *Fritillaria* vorkommt, als Ausgangspunkt für ihren Schutz; denn diese Pflanzengesellschaften sind gute Indikatoren für die optimale Umwelt von *Fritillaria*, und ihre Erhaltung garantiert in gewissem Sinne die Erhaltung der Schachblume.

Es werden drei Themen behandelt: die Verbreitung, die Soziologie und die Ursprünglichkeit von *Fritillaria meleagris*. Unter Berücksichtigung der Literatur wurde eine Verbreitungskarte, präzisiert durch einige Teilkarten, zusammengestellt. Es ergibt sich, dass die Schachblume im Vergleich zu anderen Arten ein einzigartiges Areal hat. Ihre pflanzensoziologische Stellung ist mit Hilfe von eigenen und aus der Literatur zur Verfügung stehenden Aufnahmen untersucht worden. Hierzu lieferten besonders die Aufnahmen von W. Bokma, der in 1967 eine Untersuchung über die Ökologie der Schachblume anstellte, einen Beitrag. Ausführlich wird eingegangen auf die Einordnung, auch von anderen Autoren, in die verschiedenen syntaxonomischen Einheiten (Molinio-Arrhenatheretea, in Südosteuropa auch Querco-Fagetea). Als Heimatgebiet von *Fritillaria meleagris* ist dem Verfasser zufolge Südosteuropa anzusehen; ihre Ausbreitung in nordwestlicher Richtung wäre indirekt anthropogen bedingt.

Die Arbeit bietet viele Angaben über *Fritillaria meleagris* in einer übersichtlichen Form. Nur das Fehlen von genauen Angaben über die Umweltfaktoren (Boden, Wasser, landwirtschaftliche Massnahmen) könnte man als Mangel ansehen, jedoch ist dies kein Fehler; es war nicht die Absicht des Verfassers, diesen Aspekt ausführlich zu behandeln. Die Interpretation der Aufnahmen aus der Literatur ist nicht immer richtig, wie sich an einigen niederländischen Aufnahmen von Bokma nachprüfen liess; dies tut dem Wert des Buches aber kaum Abbruch.

A. J. DEN HELD

D. BURGER HZN.: *Seedlings of some tropical trees and shrubs mainly of South East Asia*, 399 pp., 155 figs. 1972. Pudoc, Wageningen. Price Dfl. 62.40.

The time seems long gone that knowledge of plants was nearly exclusively descriptive, and based upon hardly more than the flora of Europe and the Mediterranean region. Botany is now supposed to study the whole life-cycle of the plant morphologically, anatomically, cytologically, genetically, physiologically, ecologically, taxonomically, etc. etc., including all plants from all parts of the world. The simple description of some stage of a number of unrelated plants from some part of the world, that primitive stock-taking, seems a little bit out of date by now. However, there is at least one field in botany that has been neglected to such a degree that it is still some centuries behind, still in that primitive phase, viz. blastogeny, the knowledge of germination and seedling development. This is the more surprising as practical knowledge in this field must be enormous in view of the very many kinds of plants grown for centuries in gardens all over the world. Still, there are only very few comprehensive works in this field, and these are nearly all exclusively descriptive, usually intended for identification, and are restricted to the temperate regions of the world. The very important part that blastogeny may play especially in morphology, hence systematics, and in ecology, is still nearly

completely neglected, and of only a very small fraction of the tropical flora the germination and/or seedling have been described or depicted.

It is for this reason that the present book, written in 1921–24, in 1972 was still worth publishing. It is purely descriptive as it aims at a practical goal: recognition at an early stage of a number of species of importance to silviculture, mainly in Java. The main part of the book consists of careful, rather lengthy descriptions of the seedlings of 188 woody plants, illustrated by 155 beautiful drawings, each depicting the seedling of a species at two different stages and, separately, the cotyledons. Some of these species had been described and were depicted before in Troup, *The silviculture of Indian trees* (1921), the magnificent classic in this field for that part of the world, but all Burger's descriptions and figures are original and for most species it is the first time that they have been published.

Of course, some critical remarks can be made on a book, the manuscripts of which has been forgotten for some 45 years. Some modern literature is cited, but just as studies on tropical blastogeny are rare it is a pity that the few special studies on some families or genera published have not been mentioned, the more so as (or because?) they are scattered in literature. Voucher herbarium specimens of the mother tree have always been collected, but are not cited; this means that the identification can be checked, but not easily. In all cases where more than one genus of a family, or more than one species of a genus is included, keys are given. As in most cases only a small part of the genera or species known from the area concerned are treated, these keys seem hardly of any value and may be misleading if they are actually used. At most they may point to the kind of characters apparently useful in a certain group. The second chapter, giving a scheme for the description of a seedling, would have been an important addition if it had been more methodical and clearer; now the characters and the terms are mentioned in a rather haphazard sequence. The terms are supposed to be defined in the first chapter, the Glossary. It is regrettable that a book of good quality opens with this weakest part of all. This chapter could be a rich hunting ground for every reviewer: terms unnecessarily defined (prickly = with prickles), cross-references finally leading you back to your start (bundle = fascicle; fascicle = bundle), clumsy definitions that only can lead to confusion (see under alternating whorls), etc. It had been better to leave out most of the terms, referring to a special glossary like Jackson's, and to define only, clearly, the few terms specially referring to germination or seedling.

The nomenclature is reasonably up to date as it is mainly based upon the recent 'Flora of Java'. The few names under *Lithocarpus* (Fagaceae) cited as new have in the meantime been published. In *Pometia* (Sapindaceae) the specific epithet *pinnata* Forst. got lost.

Among the many acknowledgements I miss the name of Mr. C. L. Marks, draughtsman and photographer at the Rijksherbarium, Leiden, to whom we owe much of the perfection of the reproduction of the figures. He spent many hours in the careful restoration of the often badly damaged original drawings and in remounting them.

Summarizing, this nicely produced book is a valuable addition to a regrettably neglected field in botany.

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