



THE NEW YORK BOTANICAL GARDEN



Springer

Review: [untitled]

Author(s): Richard Evans Schultes

Source: *Economic Botany*, Vol. 35, No. 1 (Jan. - Mar., 1981), pp. 139-140

Published by: Springer on behalf of New York Botanical Garden Press

Stable URL: <http://www.jstor.org/stable/4254262>

Accessed: 13/08/2010 09:33

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=nybg>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



New York Botanical Garden Press and Springer are collaborating with JSTOR to digitize, preserve and extend access to *Economic Botany*.

<http://www.jstor.org>

phology and morphogenesis" (branching patterns, growth regulator interactions, culture of potato protoplasts, and meristem culture of *S. curtilobum*). VII—"Floral Biology, Incompatibility and Haploidy" (sex forms and pollen-collecting insects; floral biology of *Capsicum* and *Solanum melongena*; incompatibility in *Nicotiana*, *Lycopersicon*, and *Solanum*; and haploidy in *Capsicum annuum*). VIII—"Biosystematics of Genera and Sections" (*Brunfelsia*; the physaloid genera; *Mandragora*; *Solanum nigrum* complex; and *Solanum* sections *Maurella*, *Basarthurum*, *Brevantherum*, *Acanthophora*, and *Androceras*). IX—"Biosystematics of Domesticates" (crossability between species of *Solanum*, *Lycopersicon*, and *Capsicum* in Nigeria; barriers to hybridization in *Solanum*; chemotaxonomy and history of *Solanum melongena*; evolution and polyploidy in potato species; genome relationships and evolution of the potato; biosystematic studies in *Lycopersicon* and *Solanum*; and numerical taxonomy and a preliminary systematic study of *Capsicum*).

These contributions, however important, are mostly free-standing chunks of knowledge of the family or of a few genera, or even certain species, and by no means add up to the comprehensive coverage of the Solanaceae implied in the title of the volume. How much better it would be if symposium organizers were less ambitious and more practical! This huge subject should have been divided into several symposia, one devoted to taxonomy and distribution, with all continents represented (combining, say, sections I, VIII, and IX of this volume); another restricted to chemistry (combining sections III and IV, with much more); another on anatomy, morphology, and floral biology (combining sections V, VI, and VII, with much more); another really covering ethnobotany; and perhaps another on breeding, improvement, and economic status of the Solanaceae. Then the proceedings would be homogeneous units (of wieldable size and affordable price) in an encyclopedic view of this vast family.

This grand miscellany weighs nearly 2 kilos and is beautifully printed and bound. It will be a necessity to some but frustrating to those who anticipate a comprehensive study of the Solanaceae in "logical progression."

JULIA F. MORTON, MORTON COLLECTANEA, UNIVERSITY OF MIAMI, CORAL GABLES, FLORIDA 33124

Science and Colonial Expansion: the Role of the British Royal Botanic Gardens. Lucile H. Brockway. 215 pp. illus. Academic Press, New York, 1979. \$30.00.

Deep and wide research underlies Brockway's contribution. Its outlining of the extraordinary feats of introduction and domestication of economic plants to tropical parts of the British Empire in the 19th Century is based on historically accurate data.

It is true that the success of these feats was possible only because the British had set up a chain of royal botanic gardens throughout the colonies. It is equally true that the introduction and domestication of new crops were sparked and maintained primarily by commercial interests and profit-making motivations. Brockway continually suggests this theme in her book. Although she never really states it in specific terms, this theme—quite à la mode in today's sociology as a result of our preoccupation with "third world nations" and their material progress—is unfortunate. It totally ignores the dedication to science and disinterested vision of scores of great botanists, horticulturists, plant explorers, planters, and many other specialists who were dynamos of this revolution.

How much, for example, did the domestication of *Hevea* do to improve the lot of poorer parts of the Empire—and, for that matter, of the whole world? At the same time that it made money for commercial interests, it made modern transportation possible with a steady supply of high quality rubber at inexpensive rates. And how many millions of helpless Amazon natives—whole tribes—were saved from misery, disease, starvation,

maltreatment, torture, murder, and annihilation when these plantations put an end to the nefarious forest industry of South America?

One would search long to find in the annals of economic botany an accomplishment representing a greater boon to man in the tropics—and to man in general—than the domestication of *Cinchona* and the ensuing supply of low-cost quinine. How many millions of African, American, and Asiatic poor have been saved from the ravages and eventual death caused by malaria because of the imperialistic domestication of the source of quinine?

Yet *The Role of the British Royal Botanic Gardens* is valuable and can be recommended as an historical source book. If the botanists, agricultural scientists, or others using it realize that it is slanted towards the modern faddism that everything commercial, colonial, and imperialistic is “bad,” Brockway’s book can serve many useful ends and will be of interest to the numerous fields upon which the great story of the domestication of new crop plants and the critical role of the botanic gardens impinges.

RICHARD EVANS SCHULTES, BOTANICAL MUSEUM, HARVARD UNIVERSITY, CAMBRIDGE,
MASSACHUSETTS 02138

Systematik des Pflanzenreichs, unter Besonderer Berücksichtigung Chemischer Merkmale und Pflanzlicher Drogen. Dietrich Frohne and Uwe Jensen. 2nd ed., revised and enlarged. 308 pp. illus. Gustav Fischer Verlag, New York, 1979. \$23.80 (paper).

The authors of this textbook are professors at the Institut für Pharmazeutische Biologie der Universität Kiel and Botanisches Institut der Universität Köln, respectively. They have combined their talents in graphically summarizing and portraying the plant kingdom and its chemical aspects in concise text and 123 line drawings, 30 morphological diagrams, 242 chemical structures, and 5 tables.

There are a final systematic list of pharmaceutical, flavoring, and otherwise useful plants, a chemical glossary, and a subject index. The artwork is exquisite, and the printing and paper are of especially fine quality. The book should be appealing and very useful to those economic botanists and pharmacognists versed in German, and it has much to offer those who haven’t even a German dictionary.

JULIE F. MORTON, MORTON COLLECTANEA, UNIVERSITY OF MIAMI, CORAL GABLES,
FLORIDA 33124

Tropical Botany. Edited by Kai Larsen and Lauritz B. Holm-Nielsen. 453 pp. illus. Academic Press, New York, 1979. \$66.50.

Book titles must be succinct and therefore are not always sufficiently informative. This is not a textbook in tropical botany, as one might suppose, but the proceedings of a symposium celebrating the 50th anniversary of the University of Aarhus, Denmark. The symposium was organized by the Botanical Institute of the University and substantially supported by the Danish Ministry of Education, the Danish National Science Research Council, and the University of Aarhus Research Foundation.

The book includes two papers scheduled but not presented and all but three of those presented. The 30 contributors from 14 countries are among the world’s leaders in floristic field work with special concern for tropical vegetation. They provide a broad, graphic view of past and present research activities in tropical botany and envision the path of the future.

F. R. Fosberg eloquently expresses the magnitude of the challenge: “The impressions of even a botanically trained person, on first visiting the tropics are those of overwhelmed