



THE NEW YORK BOTANICAL GARDEN



Springer

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Review: [untitled]

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Source: *Economic Botany*, Vol. 38, No. 3 (Jul. - Sep., 1984), pp. 369-370

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

Stable URL: <http://www.jstor.org/stable/4254660>

Accessed: 13/08/2010 09:22

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**North American Range Plants.** J. Stubbendieck, Stephan L. Hatch, and Kathie J. Kjar. 2nd ed. 464 pp. illus. University of Nebraska Press, Lincoln, 1983. \$13.95 (paperback); \$24.95 (hardbound).

The identification of plants is obviously of critical concern to those working with areas in which animals graze. Since the scientific name is the key to all information about any plant, one must be able to identify the plant to ascertain whether it will be of use or whether it poses a danger to animals. This book provides a means of identification and has a brief statement of use or problems. Two hundred species are included, each with a very good to excellent line drawing, critical description, range map, toxicity, forage value, scientific name, U.S. common name, Mexican common name, season of growth, type of growth, origin, and habitat.

Identification is entirely by drawings—no keys are included. This book can be used by both professionals and beginners. An illustrated glossary is at the front of the book. While the illustrations for the glossary are good, the print on the legends is quite small and very difficult to read. The illustrated glossary was left out of the table of contents, but the glossary of definitions at the back is noted. Also at the back of the book is a list of selected synonyms and a list of authorities.

Overall this is a well-done book that will be of value to anyone interested in range plants and will make an excellent teaching tool.

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**Physiology of Latex (Rubber) Production.** J. B. Gomez. 117 pp. illus. Malaysian Rubber Research and Development Board, Kuala Lumpur, Malaysia, 1983. M\$10.00.

This small but scientifically outstanding study offers the most up-to-date experimental information on the physiology of *Hevea brasiliensis* and on related material. It presents much of the recent research in the laboratories of the Malaysian Rubber Research Institute aimed towards greater productivity of the cultivated rubber tree. The volume's 26 sections cover a wide range of physiology and physiologically allied observations. Especially useful is the bibliography of 255 items.

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**Biological Nitrogen Fixation in Forest Ecosystems. Foundations and Applications.** Edited by J. C. Gordon and C. T. Wheeler. 342 pp. illus. Martinus Nijhoff, Dr. W. Junk Publishers, The Hague, Netherlands, 1983. \$65.00.

The implications to economic botany of nitrogen fixation, especially in the Leguminosae but also in other families, are well and widely recognized. Recently, several excellent books have appeared reviewing nitrogen fixation, but they have tended to confine their contents to the legumes. Here we have an up-to-date volume focused on forestry but offering a wide spectrum of chapters by 18 specialists. The book brings to the fore much new material and presents both well known and novel information in an easily manageable summary format. The contributors come from seven countries: four from Scotland, four from the United States, three from Finland, two from New Zealand, two from Holland, two from Australia, and one from the Philippines.

The volume contains 12 chapters, which cover the following topics: (1) N-fixation in silvicultures; (2) morphology of N-fixers in forest ecosystems; (3) non-legume N-fixers; (4) isolation and culture of N-fixers; (5) bio-chemical, physiological, and environmental aspects of symbiotic N-fixation; (6) analysis of N-fixation; (7) implications of agricultural and horticultural systems for forestry; (8) N-fixing plants in plantation management; (9)

N-fixation in North American forestry; (10) biological N-fixation in European silviculture; (11) N-fixation in southeast Asian forestry; and (12) biological N-fixation in Australia and New Zealand. Each chapter ends with a bibliography varying, according to the topic discussed, from 37 to 280 items. Several chapters include lists of research workers with their addresses, a most helpful aspect to researchers in general.

The book is oriented toward use by foresters and land managers, but its utility far transcends these limited specialists. Because of its summary type of presentation of broad topics, the book may be recommended to students in biochemistry and physiology and to agricultural researchers.

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**Paleoethnobotany of the Kameda Peninsula Jomon.** Gary W. Crawford. 200 pp. illus. Anthropological Papers No. 73, Museum of Anthropology, University of Michigan, Ann Arbor, 1983. Price not given.

This comprehensive book, a revised version of a doctoral dissertation prepared at the University of North Carolina, comprises an investigation of prehistoric resource utilization. Its aims are to collect, report, and interpret archaeological data on plant utilization by the Jomon people of southwestern Hokkaido, Japan; to study the adaptations from 8000 B.P. to 4000 B.P. in the context of human and plant interrelationships; to test problems derived from a study of recent plant remains; and to make inferences on the general success of Jomon adaptation in northwestern Japan.

The monograph has seven major sections: (1) introduction, (2) identification of plant remains and ecological data, (3) methodology, (4, 5, and 6) plant remains from several sites, and (7) interpretation and conclusions. There are four appendices: (1) vegetation of Minamikayabe, (2 and 3) flotation samples from two sites, and (4) plant remains from the Seizan site. The bibliography comprises 200 items. An abstract of this study, in Japanese, is at the beginning of the book.

This contribution is truly a major addition to the growing wealth of archaeoethnobotanical literature. The author is to be congratulated on his furtherance of analytical research in this field.

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**New Frontiers in Food Microstructure.** Edited by D. B. Bechtel. 400 pp. illus. American Association of Cereal Chemists, St. Paul, Minnesota, 1983. \$42.00 (members); \$48.00 (non-members).

A valuable volume containing much hard-to-obtain information, this book consists of papers presented at the 67th Annual Meeting of the American Association of Cereal Chemists and two invited papers. It comprises primarily procedures and techniques in great variety from the simplest to the most highly sophisticated, emphasizing how the use of microscopic techniques in studying food structure can lead to understanding of end-use properties, especially in recently developed techniques.

There are 12 chapters. The range will be clear from the titles: (1) "Historic Perspective of Food Structure," (2) "Microspectrophotometric Applications in Plant Science Research," (3) "Polarization Microscopy," (4) "Fluorescence Microscopy in Identification of Cereal Carbohydrates," (5) "Scanning Electron Microscopy and Histochemistry of Oil Seeds," (6) "Scanning Electron Microscopy of Cereal Grains," (7) "Freeze-fracture, Freeze-etch Tech-