

labio inferiore ca. 4 mm. longo, breviter trilobo, patente; stamina 2, in parte superiore tubi inserta, filamentis brevibus, antheris paullo ultra 1 mm. longis, 2-ocularibus, loculis paullo inaequaliter insertis, basi subacutis et brevissime appendiculatis; capsula tota 1 cm. longa, 2.3 mm. crassa, dense minute scaberulo-hirtella, abrupte in stipitem crassam contracta, apice acuminato-rostrata, retinaculis crassiusculis, sursum curvatis; semina 4, suborbicularia, albida vel pallide ochracea, dense convoluto-corrugata.

HONDURAS: matorral húmedo, región de La Travesía, cerca de Suyapa, Dept. Morazán, alt. 1100 m., Sept. 18, 1948, *Paul C. Standley 12459* (TIPO en Herb. Chicago Nat. Hist. Mus.; DUPL. en Herb. Esc. Agr. Panamá.); vecindad de Suyapa, 1100-1200 m., *Standley 12453, 15394*; Río Yeguate, bosque o matorrales húmedos, 850 m., *Williams 15912, Standley 1090, 1102a*; cerca de San Francisco, *Standley 22988*. Río Caparrosa, arriba de El Zamorano, 900 m., en bosque de una pendiente rocosa, 900 m., *Standley 22620*; camino entre El Jicarito y El Pedregal, matorral húmedo y pedregoso, 900 m., *Standley 20845*; Río de la Orilla, Sudoeste de El Zamorano, 900 m., encinal pendiente y pedregoso, *Standley 22410*; DEPT. OLANCHO: Catacamas, matorral árido, 450 m., *Standley 18432, 18408, 18161*; DEPT. COMAYAGUA: El Banco, 640 m., Agto. 1945, *Valerio 2449, 2450*.

La única otra especie conocida de Centro-América es la *S. discolor* Blake, de Zacapa, Guatemala. Esta, a juzgar por la descripción, es diferente de la especie presente en su follaje y en los detalles de la inflorescencia.

## LITERATURE

EVERGREEN ORCHARDS. William H. Chandler. Lea & Febiger. Philadelphia. 1950.

Workers with fruits and other tree crops in tropical America do not often have access to libraries in which are to be found publications from all parts of the world containing the results of research. Professor Chandler's book therefore meets an urgent need, for in it he summarizes investigations of the past quarter century or more. It is gratifying to note the great increase of such investigations which has taken place during this period.

As pointed out in the preface, it is more a book for the student than for the horticulturist; nevertheless the latter will find it an invaluable work of reference, the only thing of its kind, in fact. The discussions of morphological and physiological factors, of climatological and soil influences, and of nutritional problems are excellent and fully up to date. So are the sections on propagation and pruning, both of which are subjects to which insufficient attention has been given in the tropics.

The chapters devoted to the citrus fruits reflect the great advances which have been made in the study of these crops in California and other regions. Chapter 9, on the avocado, contains much technical information which will be of value to workers in Latin America. The difficult problems connected with the cultivation of that popular fruit, the papaya, are fully discussed in chapter 10. Chapter 11, devoted to tea, coffee and cacao, is necessarily too brief to cover these subjects fully from the standpoint of the tropical planter. The annonas, myrtaceous fruits and several others are adequately treated in chapter 12; while chapter 13 is devoted to the litchi, regarding which far too little is known in the American tropics. The discussion of the mango (chapter 14) is extremely valuable because of the difficulty experienced in the successful cultivation of the finer varieties of this important species.

There are chapters devoted to evergreen nut-producing species such as the Macadamia, a tree scarcely known at all in Latin America; the olive, which has never been wholly successful in purely tropical regions, even when planted at high elevations; the date; the coconut and the African oil palm; and bananas. The book is fairly well illustrated and carries at the end an excellent bibliography.—*Wilson Popenoe*.

TAXONOMY OF VASCULAR PLANTS. Por George H. M. Lawrence. 823 págs., 322 figs. The Macmillan Company, New York, 1951. \$7.95.

Este tomo, que apareció el año pasado, no tiene competidores entre las obras colectivas antes publicadas en los Estados Unidos sobre la taxonomía botánica. Es uno que se puede recomendar sin reservas. De los modernos textos salidos de Europa, su único rival es el Tratado de Botánica Sistemática,

de Richard Wettstein, escrito en alemán, después traducido al castellano, e impreso en Barcelona en 1944. Esta obra, singularmente, nunca fué traducida al inglés.

El libro nuevo es una mina de informes sobre la taxonomía botánica. Trata de tales asuntos que: Historia de la clasificación; Principios de la taxonomía; Sistemas corrientes de clasificación; Geografía de las plantas vasculares; Biosistemática y citogenética; Nomenclatura de las plantas; Identificación; Técnica del campo y del herbario; Preparación de monografías; Florística; Literatura de la botánica sistemática y de muchos temas más.

Para el infrascrito, la parte más interesante del libro bajo consideración consiste en las descripciones detalladas de las familias, con enumeración de sus especies o géneros más importantes, y con ilustraciones bien hechas de sus especies o géneros más significantes. Esta parte profiera limitarse a los Estados Unidos, pero servirá bien para la botánica mexicana y centroamericana, especialmente porque incluye no sólo las plantas naturales de los Estados, sino también las muy numerosas naturalizadas, y además las cultivadas. Entre las últimas, hay muchas provenientes de América tropical, cultivadas en áreas como Florida y California sureña. Hay mención, también, de las plantas económicas importantes de cada grupo.

Un carácter saliente de la obra, encuéntrase en las numerosas bibliografías, que aparecen en todos sus capítulos, notablemente en el tratamiento sistemático, donde figuran todas las monografías importantes y útiles de las familias.

Este tomo no es un texto para alumnos de colegios y universidades, pero sí para estudiantes graduados. Como obra de referencia, se lo encontrará útil en todas las regiones del continente norteamericano y de las Antillas. No conozco otra publicación sobre la taxonomía que sea de tanto provecho para los botánicos de México y Centro América, o aún para los de América del Sur.—*P. C. Standley.*

EL PANORAMA DE LA BIOLOGÍA MEXICANA. Enrique Beltrán in *Rev. Soc. Hist. Nat.* 12: 69-99. 1951 [1952].

A paper delivered, on the occasion of the fourth centenary of the National University of Mexico, by one of Mexico's outstanding biologists.

Dr. Beltrán begins his paper by saying that the history of Mexican biology is still to be written and then goes on to outline, in a most readable manner, the history of biology in Mexico.

In his sequence of biological development in Mexico Dr. Beltrán treats the native legacy (of biology in Mexico); the Spanish contribution; the colony; the century of light (XIX, or post-colonial); the last fifty years; and last one which he chooses to call "Colophon".

The development of the thesis on biology in Mexico is logical and well presented. For the historian of biology either in Mexico or in the hemisphere the paper is essential reading.

In the short account of the "native legacy" Dr. Beltrán makes a very concise statement of the state of civilization of the inhabitants of Mexico in precolumbian times which well might be pondered by historians of the American scene.

"The vast territory which afterward was New Spain, and dismembered constitutes the Mexican Republic, was inhabited by a mosaic of differing tribes whose cultures were totally unlike. Some, especially in the north, lived a nomadic life and were in various stages of savagery. Certain tribes, the Nahuas, Tarascans, Mixtecas, Zapotecans and Mayans, who lived on the central highlands and in the southeast had attained a high degree of civilization. A civilization different from that of European peoples but one which doubtless equalled it in certain respects while in other aspects, it is safe to say, it was superior".

In his "Colophon" Dr. Beltrán demonstrates a basic understanding of the history of biology, its limitations, and the humans who are scientists that augurs well for Mexican natural science.—*L. Wms.*

ICONOGRAFIA DE ORCHIDACEAS DO BRASIL. F. C. Hoehne. Secretaria de Agricultura, São Paulo, Brasil. 1949 [1952?]

We have just received Dr. Hoehne's Iconography of the Orchidaceae of Brazil on which he has been working for some forty years. The volume contains three hundred plates, about 17 x 26 cm., in the systematic section. A part of the plates are colored but the most of them are black and white. Many of the plates show more than one species of orchids. The plates mostly

have appeared in the volumes on Orchidaceae in Dr. Hoehne's own *Flora Brasílica*. Some are from other sources but mostly Dr. Hoehne's works. The letter press, which contains many illustrations in color and black and white, is new and was written for the "Iconografía". In addition to a preface and acknowledgement there are three parts to the text, — generalities and explanations, systematic part, and industrial or economic part. The account of the morphology, anatomy and physiology of the Orchidaceae is perhaps the best which has been written in a modern Latin language. The account of the habitats and conditions under which orchids grow in Brazil, profusely illustrated, is excellent. There are sections devoted to collecting, packing, planting, shelters for protecting orchids, their place in decorative art (with ten plates of illustrations in color). The systematic section gives an account of the genera of Brazilian orchids. The last section is devoted primarily to commercial orchids and orchid culture.

Dr. Hoehne's "Iconografía" should be in the library of all those interested in American orchids but the excessive cost (apparently about eighty dollars) will limit its distribution.—*L. Wms.*

FLORA OF GUATEMALA. Paul C. Standley & Julian A. Steyermark. *Fieldiana Bot.* 24, pt. III: 1-432, 56 figs. 1952.

The present part of the flora of Guatemala is the fourth to appear. Previously parts 4, 5 and 6 of volume 24 have been published. This part contains the account of twenty-four families, Commelinaceae to Urticaceae of the Englerian series,—except the Orchidaceae. The Orchidaceae is apparently to be published in a separate part or parts. Unfortunately no indication is given in the proper place that the family is missing from the text.

The format is similar to that of previous parts issued except that many well executed and useful line drawings are added.—*L. Wms.*

ECONOMIC BOTANY. Albert F. Hill. McGraw-Hill Book Company, Inc. Second edition. 1952 (US\$7.00).

Dr. Hill's "Economic Botany" has been one of the basic references in the subject since it first appeared some fifteen years ago. The second edition is similar to the first in most ways and will appear as an old friend to users. Many new plants have been added, mostly plants of minor or of local importance. It is a pleasure to see production figures given in units larger than pounds and perhaps the next edition may see then all in the same unit. Bushels of wheat or oats may be correct but the importance of figures in tons is more easily grasped. Dr. Hill, in his account of the chayote states that "Both the fruits and tubers were among the principal foods of Aztecs and Mayas, and other primitive peoples of Central America". We do not wish to quarrel with the localization of the Aztecs but there are some people who have written favorably of the relatively high cultures of the groups mentioned, when compared to European cultures of that epoch.—*L. Wms.*

FLORA DE CUBA, Volumen 2. Hno. León & Hno. Alain (J. S. Sauget & E. E. Lioger). Museo de Historia Natural de la Salle. Habana. 1951.

The present volume of the Flora de Cuba contains the dicotyledenous families from Casuarinaceae through the Meliaceae. The work is an admirable continuation of that initiated by Brother León (vol. 1, Gymnosperms and monocotyledons, Habana, 1946). There are adequate descriptions, keys, 171 illustrations of plants. Some illustrations are drawings, some are photographs of living plants and others photographs of herbarium specimens and occasionally of type specimens from European herbaria.—*L. Wms.*

PALYNOLOGY IN SOUTHERN NORTH AMERICA. 1: ARCHEOLOGICAL HORIZONS IN THE BASINS OF MEXICO. Paul B. Sears in Bull. Geol. Soc. Am. 63: 241-254. 1952.

A study of the pollen profiles in sediments in the basin of Mexico, which seems to indicate change in vegetation and of climate. The climate and vegetation affected human occupation and in turn man affected vegetation and climate. A good account of the human occupation of the valley is given.—*L. Wms.*

SUBTROPICAL GARDENING IN FLORIDA. Nixon Smiley. University of Miami Press. i-x plus 182 pages. 1951. \$4.

A small volume by the garden editor of the *Miami Herald*. The volume, beautifully illustrated, is essentially one on the ornamental and some useful plants that may be used in gardens in subtropical Florida.—*L. Wms.*

EVOLUTION UNDER DOMESTICATION. Paul C. Mangelsdorf en *The American Naturalist* 86: 65-77. 1952.

El Dr. Mangelsdorf es uno de los genéticos modernos que más se ha ocupado con los problemas de las plantas cultivadas y la botánica económica. En su palestra como presidente de la American Society of Naturalists, ha dictado una conferencia de sumo interés para todos ellos que se interesan en la evolución de plantas y animales bajo domesticación.—*L. Wms.*

THE ECONOMIC DEVELOPMENT OF GUATEMALA. Report of a Mission Sponsored by the International Bank for Reconstruction and Development in collaboration with the Government of Guatemala. xviii plus 305 pages, 6 maps, 35 tables. Washington. 1951. US\$5.00.

There is perhaps more good information on the economy of Guatemala to be found in this volume than in any source book of which we know.

The report is divided into ten chapters, most of which are are redivided into lesser headings. The chapter titles, which will indicate much of the contents of the volume, are as follows: I. Outline of Guatemalan Economy. II. Agricultural and Rural Economy. III. Industry. IV. Mining and Petroleum. V. Transportation. VI. Telecommunications. VII. Power. VIII. Public Policies Affecting Development. IX. Financial Resources Available for Investment. X. The Recommended Investment Program.—*L. Wms.*

PLANTS FOR MAN. Por Robert W. Schery. 564 páginas. New York, Prentice-Hall, Inc., 1952. \$10.00.

El título de este libro, salido hace pocas semanas, no da indicaciones de su propio contenido. Actualmente, es más o menos una enciclopedia, en estilo discursivo, de las plantas más importantes, de todo el mundo, que dan productos utilizados por el hombre. Aunque hay obras semejantes, unas de años recientes, ésta tiene novedades, pues en estos días se está adelantando rápidamente el conocimiento de los usos y las