

Tropical Lepidoptera, 4(2): 122

BOOK REVIEW

BUTTERFLIES OF THE FLORIDA KEYS

by Marc C. Minno and Thomas C. Emmel

1993. Scientific Publishers, Gainesville, FL. 168 pp, 40 col. pl. and fig.; 10 line drawings, 5 halftones; end maps. 21 x 28 cm. Price: \$18.95 paper (ISBN 0-945417-88-8), 31.50 cloth (ISBN 0-945417-87-X), \$75.00 cloth (autographed edition). Available from Flora & Fauna Books, P. O. Box 15718, Gainesville, FL 32604 (plus \$2 shipping), or other dealers.

This is the first comprehensive book to specifically treat the butterfly fauna of the Florida Keys, home to a number of species entering the continental United States only that far north from the West Indies. Among the 106 species included in the book, about 65%, however, also occur further north in Florida and some of these even throughout the southeastern United States.

The authors together know the butterfly fauna of Florida very well, and have put together a masterful treatment of this unique and interesting fauna. The book is not only an identification guide with numerous color plates, but also has an extensive introductory section on the habitats and butterfly bionomics unique to the Florida Keys. Included within the introduction are numerous color plates and other illustrations. There are chapters on climate, history, vegetation and plant communities, the Keys butterfly community, conservation, and precautions about hazardous plants and other problems associated with field studies in the Keys.

The main text includes treatment of all species recorded for the Keys. This is preceded by the 21 color plates of set specimens and 8 color plates on the biology and immature stages of numerous species from skippers to nymphalids. The biology plates have excellent photographs of living adults, larvae and pupae. Species treatments follow a clear format, with a brief diagnosis of the main identification markings, distribution of the entire known range of each species, notes on its

natural history, notation of frequented nectar sources, and notes on current status or abundance of the species in the Keys. Some species noted as being strays. The text is followed by a checklist, glossary and index.

There are several tables in the introduction, noting endemic species diversity on various islands, on the monthly occurrence of each species, distribution of the species among the various major Keys, and a list of exotic species recorded.

The illustrations are mostly in color, along with the cover, which is more than found in most books of this kind. The plates of set specimens printed out slightly bluish due to the background used, but this does not detract to any extent except for the white pierids where the specimens do not show the true white usually seen in these species.

Anyone interested in this fauna, or even the butterflies of the southeastern United States, should not be without this book on their shelf, particularly when one considers the modest price of a book with so many color plates and figures. The special autographed edition is limited to 100 copies and includes a unique ink-drawing with the autographs of the authors.

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MOSQUITO CONTROL PESTICIDES: Ecological Impacts and Management Alternatives

edited by Thomas C. Emmel and John C. Tucker

1991. Scientific Publishers, Gainesville, FL. 105 pp, 21 x 28 cm. Price: \$8.95 paper (postpaid) (ISBN 1-945417-22-5). Available from Flora & Fauna Books, P. O. Box 15718, Gainesville, FL 32604.

A review of this book may seem odd in *Tropical Lepidoptera* but the title of this work does not fully convey the contents as far as Lepidoptera are concerned. The main articles involve studies on the impact to non-target organisms, such as butterflies, of pesticide use for mosquito control, particularly in Florida. This book is the result of a conference on the subject, held at the University of Florida, Gainesville, Florida, January 18, 1991. A number of persons of varying backgrounds participated in the conference, and 15 papers are presented along with panel discussions (2 papers only have summaries).

The papers cover a variety of subjects. A history of mosquito control is given by Thomas C. Emmel, emphasizing Florida and particularly the impact on such sensitive species as the Schaus swallowtail. This is discussed further in another paper, by Peter J. Eliazar and T. C. Emmel. Other papers note effects on vertebrates, aquatic and marine organisms, effects on species that are threatened or endangered in Florida, and such subjects as future control alternatives, current Federal pesticide regulations, and problems with spraying over public lands set aside for conservation, such as State Parks.

The conference results present a stimulating array of papers on this problem of widespread pesticide spraying. Similar problems are faced in northeastern North America, where extensive wholesale spraying is

conducted periodically to combat the European gypsy moth. Probably no where is this problem of more concern, however, than in the Florida Keys, where extensive mosquito spraying continues unabated, both on residential areas and natural woodlands on State and Federal conservation lands.

The modest price of this book should ensure easy access for information presented on the problems of mosquito spraying. Although not all the papers pertain to Lepidoptera, several have as their main theme the impact of mosquito pesticides on butterflies and other insects. It is highly recommended to anyone interested in this subject.

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