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ATLAS OF THE JAPANESE BUTTERFLIES, edited by Toshio Inomata. Color photographs by Katsuji Iwao. 1986. Take Shobo Co. Ltd., 7-3, Iidabashi 2, Chiyoda, Tokyo, 102 Japan. 500 pp., numerous text figs., 86 color plates. Hard cover, 21.5 × 35 cm, no ISBN number, £440 (about \$704.00).

This authoritative and beautiful work surely must be the ultimate regional butterfly book. The authors, editor, and publisher have combined the best features one could dream up, and even a few that you would likely never have envisioned yourself, in creating this masterpiece on the Japanese butterfly fauna. Under the editorship of Toshio Inomata, five authors have joined with Katsuji Iwao's photographic talents to produce this intellectual and visual feast.

The book opens with 86 outstanding color plates of greatly reduced adult figures illustrating all of the species, subspecies, and forms of the butterflies of Japan. What is extraordinarily innovative in this work is the lavish use of these color plates to illustrate the total known range of minute variations within each species. For example, variation in the first papilionid alone, Leuhdorfia japonica, is illustrated across three and a half plates, utilizing some 368 (!!) adult specimens of this single species. Male and female, dorsal and ventral surfaces, are illustrated for all species and subspecies. Lest one feel that these figures may be too small to depict all essential details, this reviewer may assure you that he has never seen finer studio photography and photographic reproduction of adult butterfly figures. All details can be seen accurately. Additionally, the publishers have reprinted each plate in a huge oversized poster print of approximately 51 × 71 cm, with the same immaculate care of reproduction shown in the original plates! These 86 poster-size plates come included with the case-bound volume of the book, and are placed in a special protective clothbound wooden case with its own lock and appropriate fasteners! To top all of this, an acrylic and aluminum frame is provided (stored inside this large plate case) to mount your "print of the month" on the wall of your office or living room to admire and enjoy! Perhaps the reader of this review is now beginning to realize why this book costs over \$700 U.S.

The text of the *Atlas* is presented in four principal parts. Part I consists of a synonymic catalogue of the butterflies of Japan by Toshio Inomata and Yuji Itagaki. This excellent section of 72 pages is in English and includes all names that have been applied to genera, species, and subspecies. It also includes a line or two on the distribution of each species and subspecies throughout Japan and the rest of the world. From all indications, the coverage is complete and without any obvious errors.

Part II is a detailed discussion of the species of Japanese butterflies, authored by Toshio Inomata, Masumi Ikeda, Yasunori Kishida, and Yoshitaka Kanada. This section is almost entirely in Japanese; only the scientific names and authors' names and dates, along with plate and figure numbers, are given in English. The authors include synonyms and present a detailed discussion of distribution, including excellent distribution maps for all the

islands of Japan.

Part III, by Toshio Inomata and Yuji Itagaki, consists of one of the most innovative features in any general work on butterflies: namely, a treatment of the type specimens of the Japanese butterflies and their institutional depositories, with monochromatic plates of the types and of aberrant forms. Besides illustrating both dorsal and ventral surfaces of 257 type specimens, with most specimens enlarged beyond life size, the authors provide an exhaustive table, mostly in English, listing the number of types, kind of types (holotype, syntype, lectotype, neotype), number of males and females, type locality, date of types, and location of types. This invaluable section will be of use to all museums and systematists working on Asian butterflies.

Part IV, entitled "Butterflies and International Code of Zoological Nomenclature," is in Japanese and is written by Toshio Inomata. It not only discusses the I.C.Z.N., but shows how our nomenclature has changed from the time of Linnaeus to today's detailed nomenclatural descriptions, construction of synonymies, and other useful tools of the modern

systematist.

At the end of the book is a list of new names and other nomenclatural changes in the work. The new genus described here is *Sibatinozephyrus* Inomata, of which the type species is *Zephyrus fujisanus* Matsumura, 1910 (Lycaenidae: Theclinae). Its distribution is confined to Japan. Finally, an extensive section in Japanese presents locality data for the specimens in the 86 color plates. A complete index to Latin scientific names and to Japanese names is also included.

As treated in this book, the Japanese butterfly fauna includes 19 species of Papilionidae, 30 Pieridae, 77 Lycaenidae, 2 Libytheidae, 22 Danaidae, 63 Nymphalidae, 29 Satyridae, and 37 Hesperiidae. The rich Japanese fauna of 279 species of butterflies is therefore comparable to what occurs in large mountainous temperate-zone sections of western North America, such as the states of California or Colorado. The remarkable richness of the Lycaenidae and the Satyridae in Japan is especially notable. The Atlas authors and illustrators have made it possible for workers in the Palearctic and the Nearctic to learn much about their favorite groups by the study of this incredibly complete and magnificently wrought volume and its accompanying plates.

Even for the marvelous books on butterflies now being published around the world, this volume from Japan sets a new standard to which publishers may aspire. While the extremely high price puts the volume out of reach of most individual lepidopterists, the work definitely should be purchased by institutional libraries and museums around the world to make its uniquely complete coverage of the Japanese butterfly fauna generally available to researchers and students of Lepidoptera.

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BUTTERFLIES OF LAOS, by Akira Motono and Noriko Negishi (supervised by Tadahiro Takakura). 1989. Kirihara Shoten, 2-44-5, Koenj-minami, Suginami-ku, Tokyo 166, Japan. 215 pp., numerous text figs., 6 color plates, 118 half-tone plates. Hard cover, in slip case, 20×27 cm. No ISBN number. \$50.00 (seamail), \$60.00 (airmail) from publisher.

In recent years, a number of books and other publications have appeared on the butterflies of various countries in Southeast Asia. Several good books are available on butterfly faunas of Taiwan, India, Malaysia, Thailand, and most recently Nepal. Additionally, Karal Spitzer and his colleagues in Czechoslovakia have been publishing notable papers on butterfly communities in southern Vietnam from 1983 to date. The accumulating data on faunistic composition and habitat preferences in the tropical habitats of these areas are providing important information on the evolution and ecology of tropical Lepidoptera, in particular pointing out the importance of contiguous undisturbed forest tracts for some species, and the role of fragments of forests (or natural clumps of trees and shrubs) as the main and constant sources of species diversity in some of the Southeast Asian biomes, including even open savanna (Spitzer, K., J. Leps & T. Soldan, 1987, Acta. Entomol. Bohemoskov. 84:200–207). Thus, besides providing richly illustrated catalogs of these highly diverse tropical butterfly faunas, these publications are beginning to play an important role in conservation biology.

Now Japanese lepidopterists once again have proven that their intensive field work throughout Southeast Asia in pursuit of Lepidoptera, combined with the outstanding quality of printing offered by a number of Japanese publishers, can produce superb references on Southeast Asian butterflies. This book by Motono and Negishi is the first significant work on Laotian butterflies, supplementing the substantial work already published on the butterfly faunas of adjacent Thailand and Vietnam. The Butterflies of Laos illustrates and describes very briefly 512 species, including color plates of some of the larger and more common butterflies of Laos. The text and monochrome plates include