

BOOK REVIEW

MACROLEPIDOPTERA OF FIJI AND ROTUMA: A TAXONOMIC AND BIOGEOGRAPHIC STUDY, by Gaden S. Robinson. 1975. E. W. Classey Ltd, Park Road, Faringdon, Oxon, Great Britain. vii + 362 p., 357 plate figures, 173 text figures, 15 maps. Price \$25.95 (U.S.).

The base data for the biogeographic study are 400 species of macrolepidoptera of Fiji and Rotuma. These are treated in an abbreviated manner with the citation of the original description, whether type specimen was examined (usually indicated), description of male and female, diagnosis, world distribution, Fijian distribution, biology (if known) and remarks for each species. Keys for some of the larger genera are given. Each species is illustrated by a half-tone of the adult and some by diagnostic line drawings of the genitalia. Two genera, 72 species and 10 subspecies are newly described. Most of the more than 1 million specimens were collected by G. and H. S. Robinson between 1966 and 1972. Additionally, material accumulated by nearly all earlier collectors was studied.

Robinson uses cluster analysis of the accumulated data to define groups of species with common distribution patterns for combinations of islands and then generalizes from them. To compare the faunas of many Pacific islands he subdivides the macrolepidoptera into: a) generally large, strong flying moths, b) generally smaller, weaker flying moths than in group a, and c) butterflies. Major conclusions are: 1. Fiji has an unusually high percentage of endemic species, 46% (182 species) and is second only to the Hawaiian Islands among the Pacific islands in species endemism. 2. The largest number of Fijian endemic species are associated with the rain forest. 3. Fiji has an island fauna that is derived mainly from the New Hebrides, Solomons and Papuaia. 4. Species common to Fiji and many Pacific islands are associated with secondary vegetation and are mainly those that can colonize "weedy" areas. 5. One gateway to Polynesia was from the southern Solomon Islands via Rotuma and several other islands to Samoa during periods of maximum glaciation. 6. The butterfly fauna of Fiji is relatively impoverished. 7. Rotuma has a low percentage, 8% (6 species), of endemic species.

This book is a major contribution to our knowledge of the biogeography of the Pacific islands and to the knowledge of the macrolepidoptera of Fiji and Rotuma. It is well documented. Some minor points of criticism are: I seriously doubt that those species for which the type specimens were not examined are unquestionably correctly identified; I presume that an editorial decision caused Hübner to be spelled "Hubner" and Guenée to be spelled "Guenee"; and for ease of reference, numbering each page throughout the work would have been helpful.

RONALD W. HODGES, *Systematic Entomology Laboratory, IIBIII, USDA, c/o U.S. National Museum, Washington, D. C. 20560.*