

a reasonably clear discussion of the way a problem is broken up into digital and analog parts for such combinations. Numerous illustrations are given in the text, but, in view of the growing importance of the field, the space devoted to this topic seems rather small.

The book as a whole is remarkably complete and thorough, especially with respect to the error analysis of the various undesirable effects in particular circuits. More than 800 circuit diagrams and photographs give the book a pleasing aspect and convey a great deal of nonverbal information as well. Occasionally tables are used to display and complete a discussion. In a few instances the style of writing becomes a bit telegraphic, but most of the time it is remarkably clear and concise; thus, this is one of the best books of its kind available.

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Zoology

Arachnida. Theodore Savory. Academic Press, New York, 1964. xii + 291 pp. Illus. \$9.50.

Thirty years separate this book from its predecessor, *The Arachnida*. This is not, however, a revised edition but a new version, with much up-to-date material. The book is a marvel of selection and compression, covering all the Arachnid groups in a balanced treatment, including extinct groups as well as those obscure creatures "about which we are not learning very much." The illustrations are clear and precise, in keeping with the lucid style of writing. Obviously Savory enjoyed writing this book, and the reader will encounter a number of succinct, sometimes humorous, *obiter dicta* that a great specialist is privileged to offer.

If we agree that the primary purpose of this book is to stimulate interest in arachnids, the author has succeeded well. He also is aware of the difficulty of keeping up with the flood of papers, which has reached an incredible average of 950 papers a year during the decade 1950 to 1960. In view of his disclaimer that there is little that can help him cope with this material beyond his own industriousness and enthusiasm, it seems unfair to point out that he has touched

rather lightly on some of the recent work in arachnid embryology and that occasionally he has forgotten to include a reference to some topic discussed. It is unfortunate that he did not include a precise statement about the occurrence of hemocyanin in arachnid blood because a leading American invertebrate textbook categorically states that arachnids have no respiratory pigment. In so short a book on so large a subject, there is some repetition on the subject of venom, and the index has a number of omissions. Some things are given a passing mention without explanation—for example, the mention of *Paleoisopus* as a "significant fossil" (p. 147). In the treatment of the Pycnogonida, the two genera cited as "characteristic" lack some of the characterizing features, and the circumstance of multiple gonopores is not mentioned. It is debatable that "today nearly every zoologist subscribes to the belief that the origin of the Vertebrata is to be found among the Echinodermata," but it is true that the Arachnid theory is only an interesting memory. Other specialists will find similar small points to quibble about, but could anyone else have written such a book?

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Nature Library Series

The Land and Wildlife of Tropical Asia. S. Dillon Ripley and the Editors of *Life*. Time Inc., New York, 1964. 200 pp. Illus. \$3.95.

The editors of *Life's* Nature Library Series were indeed fortunate to have naturalist S. Dillon Ripley write the text for this book on the natural environment of Tropical Asia. His is a very readable narrative account, all the more interesting because much of it is based on his personal field observations. Maps, graphic drawings, and splendid photographs combine with Ripley's text essay to give an excellent natural history of this unique area.

The book gives one a vivid feeling of the rain forest with its damp cathedral-like gloom, "its background music of multi-layered life extending from the forest floor to the topmost branches 200 feet or more above, including the blended noises of countless unseen

forms of burrowing, creeping, walking, climbing, gliding, flying, leaping life that pervades this richest of all environments." Other chapters deal with "muddy margins of the sea," and with "island hopping" where Ripley describes evolutionary adaptations that have developed as the result of isolation in these natural laboratories. Nor is man left out, because there is a splendidly illustrated chapter dealing with the human landscape.

Although a wide variety of fauna and flora is represented in *Tropical Asia*, the author makes a plea for conservation throughout the book. The plight of such endangered species as the Argus pheasant, pink headed duck, giant panda, giant komodo lizard, and three species of rhino is dramatized.

What is being done to salvage illegally captured animals is well told in a splendid sequence of photographs showing experiments with ways of returning young orangs to their native wilds. The slaughter of helpless orangs to obtain scientific specimens and their capture for zoos has reduced the present wild population of orangs to an estimated 2500 individuals in the tropical forests of Borneo and Sumatra, where the remnants of the wild population can be saved only in national parks or natural areas embracing their natural habitats.

In discussing the problems of endangered species Ripley says that "man has the power to affect irrevocably the nature of his world" and that "we owe it to ourselves not to misuse this power and thereby diminish irreversibly our resources and the future of our planet."

This fine addition to the Nature Library series gives a new dimension to the popularization of the natural history of this truly fascinating and still little-known tropical area of the world, which for political and economic reasons is now demanding increasing world attention as the locale of military actions that affect the peace of the world. Such conditions can only increase the threat to the unique wildlife found in the area, unless strong conservation measures to protect the natural habitats are taken by national governments with the help of international organizations.

This book is of such educational value that it should be in every school and college library.

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