

Amphibians of Malawi. *Margaret M. Stewart.* State University of New York Press, Albany. New York, 1967. ix+163 p., 20 colored plates, 18+67 figures, 1 map inside back cover. \$7.50 (bound).

This beautiful book joins a growing list of recent major works on the frogs of Africa. Other examples are: John C. Poynton, 1964, *The Amphibia of Southern Africa: a faunal study*, Annals of the Natal Museum, 17: 1-334, fig. 1-123, map 1-73, tab. 1-3; Walter Rose, 1962, *The Reptiles and Amphibians of Southern Africa*, Maskew Miller, Ltd., Cape Town, 494 p.; Arne Schiøtz, 1963, *The Amphibians of Nigeria*, Videnskabelige Meddelelser Dansk Naturhistorisk Forening, 125: 1-92; Arne Schiøtz, 1967, *The treefrogs (Rhacophoridae) of West Africa*, Spolia Zoologica Musei Hauniensis, 25: 1-346, fig. 1-227; Karl P. Schmidt and Robert F. Inger, 1959, *Amphibians*, Exploration du Parc National de l'Upemba, 56: 1-264; Vincent Wager, 1965, *The Frogs of South Africa*, Purnell and Sons, Ltd., Capetown and Johannesburg, 242 p. Of these, the reviewer has seen Poynton, 1964, and Schiøtz, 1967, two works which are monographic and intended for the professional herpetologist.

Dr. Stewart's book, on the other hand, is a guide to the identification and biology of Malawi (= Nyasaland) frogs and one caecilian, intended for the novice, layman, or student, and especially for those working in the field with live specimens. The professional herpetologist will, however, find much of value. Nineteen genera and fifty-five species are discussed and all are illustrated, some in color, some in excellent black-and-white stipple drawings by Dr. Stewart. The seventy-nine-couplet key is also illustrated with less detailed sketches. The species accounts include many subheadings: records, range, size, general appearance, similar species, color pattern, body features, sexual dimorphism, variation, call, breeding, eggs and development, size at metamorphosis, habits, and habitat. Pertinent literature (64 entries) is cited for each species. In addition, considerable new information is provided from Dr. Stewart's field experience, which extended from September, 1963, to July, 1964, during which time she resided in northern Malawi. Over 650 frogs were collected, and additional museum material was also examined. For the most part, only Malawi specimens are discussed.

The volume contains a glossary, index, and sections on collection, preservation, classification, history of Malawi amphibian studies, keeping amphibians in captivity, what an amphibian is, how to use a key, etc. As expected in a handbook, citation of original descriptions, synonymies, type specimens, type localities, and zoogeographic analyses are absent. Printing, proofreading, binding, and color reproduction are all of high quality; the book is a pleasure to handle.

The final value of this work will rest on its utility while studying Malawi amphibians; this is difficult to judge without specimens or familiarity with the fauna. However, I believe that Dr. Stewart has far exceeded her original intent. This volume is not just a handbook; it is a summary of our knowledge of the variation, life history, and habits of Malawi Amphibia.

BARRY D. VALENTINE

Dictionary of Applied Geology. *A. Nelson and K. D. Nelson.* Philosophical Library Inc., New York, 1967. vii+421 p. \$17.50.

This dictionary of geological terms, compiled and written by a British mining engineer and an Australian civil engineer, is intended for use by students and professional engineers who need to enlarge their geological vocabularies. It is a companion volume to A. Nelson's *Dictionary of mining*, published in 1965. There are over 5000 entries, about one-third of which are mineral and rock names. Many of the terms and examples are British, which the American engineer or engineering geologist will find a severe disadvantage. Most definitions appear to be adequate for the intended reader, but professional geologists will find much to question. Only twenty-six figures amplify all these explanations.

In view of the price and the content, a prospective buyer, especially an American one, would do well to consider as alternates: *Glossary of selected geologic terms, with special reference to their use in engineering* by William Lee Stokes and David J. Varnes (Colorado Scientific Society, 1955, 165 p., \$3.50), *Glossary of geology and related sciences, with supplement*, 2nd edition (American Geological Institute, 1960, 397 p., \$7.50), or *A dictionary of geology*, 3rd edition, by John Challinor (Oxford University Press, 1967, 235 p., \$6.75).

CHARLES E. CORBATÓ