omitted completely: the role of polyploidy in species formation and the part played by species hybridization in producing new species in a number of plant genera. Our knowledge of the course of evolution within such genera as *Nicotiana, Crepis, Oenothera, Quercus* and so forth, is important, and what we have learned from the study of such plants has added greatly to our understanding of evolution in general. But even with these omissions, the book contains more useful material than any other work on evolution published in this centennial year.

We may close on a triviality. In a footnote on the first page of each paper is a very brief vita of the author. This is very convenient for the reader and, as the authors are all distinguished scientists, the vitas are impressive, even if the tone of their composition reminds us unpleasantly of the blurbs that we have to tolerate on dust jackets. One of the contributors will probably be surprised (and annoyed) to discover that he has published "countless" papers.

CONWAY ZIRKLE
Division of Biology, Botanical Laboratory, University of Pennsylvania

Galathea Report. Scientific results of the Danish deep-sea expedition round the world, 1950–52. vols. 1–3. Danish Science Press, Copenhagen. Illus. vol. 1, 1957–59. 260 pp. Kr. 90; vol. 2, 1956. 253 pp. Kr. 75; vol. 3, 1959. 88 pp. + plates. Kr. 60.

Deep-sea exploration has never gone completely out of fashion since the days of the Challenger, but the reports of the expeditions have not always lived up to the style of the *Challenger Reports*. We do not know whether the *Galathea Reports* will go to 50 volumes (for one thing, material collected near the surface or in shallow water will be reported elsewhere); nevertheless, the printing and the content of the published parts of the series are in the great tradition. Volume 1 includes a list of stations, a report on primary oceanic production (Steeman Nielsen and Jensen), reports on bacteria (ZoBell and Morita), the bathymetry of the Philippine trench, and some shorter systematic papers. Volume 2 is devoted entirely to reports on various invertebrate groups, and volume 3 includes the long-awaited monograph on the anatomy of *Neopilina* (by Lemche and Wingstrand), followed a paper on its shell structure (by Schmidt) and a paper on the eyes of *Ipnops* (by O. Munk). The monograph on *Neopilina* (that fascinating irrelevancy, as C. M. Yonge calls it) is a model of thoroughness and precision of illustration, and it will be the mainstay of textbook compilers for years to come. The Danes are to be congratulated for making this volume, in particular, available at a modest price; the *Latimeria* monograph, published in France, was not so reasonably priced. In short, the *Galathea Reports* are off to a fine start.

J. W. HEDGPETH
Pacific Marine Station, Dillon Beach, California

Dictionary of the American Indian. John L. Stoutenburgh, Jr. Philosophical Library, New York, 1960. 462 pp. $10.

This 462-page dictionary averages about 6 or 7 entries per page. It is somewhat difficult for me to see what purpose it is intended to serve. Most of the entries are evidently abstracted from Bulletin 30 of the Bureau of American Ethnology, *The Handbook of American Indians North of Mexico*. While this is an authoritative source, it was published more than 50 years ago, and much of the information it contains is now obsolete. Apparently no effort has been made to bring this antiquated material up to date. For example, under *banner stones* it is stated that their use is unknown. This was the case in 1907.

Curiously enough, the other source most used by the author appears to have been Strachey's *Vocabulary of the Virginia Indian Language*, as published by J. P. Harrington. The dictionary is well larded with words from the extinct Powhatan language, such as *accoondews*, meaning "large blueberries" or *asapan*, the Powhatan word meaning "hasty pudding."

Terms in other languages seem mainly to have been taken from the *Handbook*. The majority of these are old place names of insignificant and long forgotten localities or the names of personages of no consequence in Indian history; still others are ethnic terms that mean little when detached from their general ethnic context. For example: *Ift*, a Karok village inhabited in 1860, *Xagua*, a Chumash village active in 1542; *Xinesi*, the name given a religious leader by the Hasinai; *Ye*, the former lizard clan of the Pueblos of San Ildefonso and San Juan; *Tetanauoica*, the name of an Indian who was buried at the San Francisco Solano Mission in Texas; *Gweundus*, a low social order of the Eagle clan of the Haida.

While we also find reference to *Milky Wash Ruins* in Arizona, no mention is made of the many important archeological sites excavated during the last 50 years but unknown a half century ago.

Under *Hopewell* we find "Hopewell, New York, an Indian site, see Onaghee." Under *Onaghee*, we see "A settlement of the Seneca which had been abandoned before the settlement."

Occasionally terms such as *caliche* and *calcium carbonate* are briefly defined, but without reference to any connection with Indians.

There are, of course, many terms of general interest, but these are buried in such a matrix of trivia that they are almost lost.

The professional anthropologist certainly will find no use for this book, and the selection of words is such that the layman will find little to interest him.

M. W. STIRLING
3311 Rowland Place, NW, Washington, D.C.

Strahlenbiologie. Grundlagen und Ergebnisse. Hedi Fritz-Niggli. Thieme, Stuttgart, 1959 (order from Intercontinental Medical Book Corp., New York). xvi + 379 pp. Illus. $15.50.

Written by an expert in radiation genetics, this book is a valuable contribution to the contemporary literature on radiation biology. An introduction to the fundamentals of the field (radiation physics, radiation chemistry, and radiation biochemistry) is followed by nine chapters on general and specific radiobiological problems and questions. The presentation is clear and leads systematically to well-established observations and facts. The generally accepted interpretations of the findings are discussed with emphasis on their primarily hypothetical character.

A. T. KREBS
Biology Department, University of Louisville, and U.S. Army Medical Research Laboratory