

Book Reviews

Die Binnengewässer. Bd. XVIII, *Verbreitungsgeschichte der Süßwassertierwelt Europas.* August Thienemann. Stuttgart: Verlag Schweizerbart, 1950. 809 pp., 249 fig. Paperbound, DM 92; clothbound, DM 95.

In this, the sixteenth volume of the well-known series, Thienemann, who began the series with one of the best existing statements of limnological principles, returns with an immense zoogeographical treatment of the fresh-water fauna of Europe. The book begins by considering the distribution of *Mysis relicta* as an example of ecological zoogeography. Two sections of just over 120 pages then give the principles of modern ecology and limnology as they appear relevant to zoogeographical studies. Valuable sections on archaic elements in the fresh-water fauna of the world and on the preglacial fresh-water fauna of Europe follow. An attempt is then made to identify preglacial elements in the existing European fauna. The interesting snails of the genus *Melanopsis* in the hot springs of Hungary and Italy provide one convincing group of examples, and part of the cave fauna, of obvious antiquity, another. The fascinating fauna of Lake Ochrid is also considered in this context and is followed by an all-too-brief excursion to the Caspian. Just over 100 pages are then devoted to the effects of the Pleistocene glaciation. The available paleontological material, largely from interglacial beds, is summarized, and the main types of distribution believed to be of glacial origin are described. Some of the stratigraphy may need slight correction in the light of recent work. The extraordinary disjunct distribution of genera such as *Hucho*, *Rhodeus*, and *Misgurnus*, which occur in eastern Asia and in Europe but not in Siberia, is emphasized and attributed to Siberian glaciation; the evidence for this is, however, hardly indicated, and the whole problem of the development of the desert areas which in part produce the disjunction is not considered. The postglacial re-invasion of glaciated regions is dealt with at length, special consideration being given to the Baltic types of distribution. The last 50 pages of the detailed discussion summarize in a masterly way the introduction into Europe accidentally or intentionally of 26 species of fresh-water organisms, ranging from the hydrozoan *Cordylophora caspia* to the muskrat.

Thienemann's book is an essential part of the library of anyone interested in zoogeography. It should be studied meticulously and critically by all students of North American fresh-water fauna. The author adopts a reasonably conservative view, which leads him to reject some absurdities but also, perhaps, makes him undercritical of many plausible and apparently well-established conclusions that actually rest on little enough evidence. One also misses the evolutionary point of view that is rejuvenating zoogeographic research in America. In spite of this feeling

that the work is in a certain rather vague sense a little old-fashioned, it is a veritable mine of information. One puts it down in gratitude to its distinguished author for so literally sharing with us the fruits of his immense learning. The prospective purchaser is advised that the outlay of three additional marks on the clothbound edition will prove a sound investment.

G. E. HUTCHINSON

Osborn Zoological Laboratory
Yale University

Patterns of Sexual Behavior. Clellan S. Ford and Frank A. Beach. New York: Harper, 1951. 307 pp. \$4.50.

Attitudes and outlook upon matters pertaining to sexuality, the reproductive system, and the function of reproduction have undergone a tremendous change in the United States within the past two decades. Emerging from a period when it was highly questionable for a scientist to study basic phenomena pertaining to sex, and conditions under which it was unlawful to send through the mails, or otherwise disseminate, information pertaining to birth control, the year 1932 saw the publication of the first edition of *Sex and Internal Secretions* (revised in 1939). Here, attention centered chiefly upon physiological processes, mainly in the lower animals, and a vast amount of information on basic biological processes, especially as they related to rapidly developing knowledge concerning the hormones, was introduced. Individuals could thus begin openly to give consideration to the workings of this system, as they could much earlier to the digestive, excretory, or nervous system. Although a guaranteed publication subsidy was required for this volume, it immediately came into wide use among scientists and medical experts, was widely commended, and both editions were rapidly exhausted.

Then, in 1948, the first of a projected series of studies on problems relating to sex, *Sexual Behavior in the Human Male*, appeared. Although replete with charts, tables of statistics, and carefully compiled data obtained by the interview method, the book rapidly became a nonfiction best seller, and additional studies are being eagerly awaited.

Patterns of Sexual Behavior marks another milestone in the elimination of provincialism and permits scientists, physicians, and intelligent laymen to bring into retrospect, from a wide cultural viewpoint, many problems on which dependable information has been lacking. It is now possible to view the problem from a background of differing cultures, since concrete information is utilized from data on 190 human cultures, from the Arctic Circle to Australia. One may also consider the problems from an evolutionary background owing to the abundance of information pertaining to subhuman primates, as well as to all classes