

"Reversible and irreversible thermal effects on the thermoluminescence of limestone" (31 pp.), by E. J. Zeller and L. B. Ronca.

The primary purpose of this book is to honor Fritz Houtermans, and in that respect it succeeds admirably. For the research worker attempting to keep informed from the current literature, a book such as this has certain drawbacks; the individual papers are usually less readily accessible and receive more limited circulation than if they were published in a standard journal. I for one feel that science would be better served if a *Festband* such as this had appeared as a special issue of a serial publication.

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The Adriatic Seashore

Fauna und Flora der Adria. Ein Systematischer Meeresführer für Biologen und Naturfreunde. Rupert Riedl. Parey, Hamburg, Germany, 1963. 640 pp. Illus. DM. 58.

This is a guide to the marine biota of a local ocean which will gladden the heart of every marine biologist. Indeed, it is exemplary in every respect. Although we have some good introductions to the fauna of other coasts and oceans, they usually concentrate on a specific aspect—identification, habitat distribution, a complete list of names, or colorful illustrations. Riedl's book is more ambitious in that it attempts to give a real introduction to the biota of the Adriatic. It includes not only a description of some 1500 species, carefully chosen among the 6000 known species of the area, but a considerable amount of valuable biological information about these species. Their life histories and development are described, as is their geographical and habitat distribution. The user of the volume receives a first-rate course in marine zoology and botany, because the higher taxa, from phylum and class down, are succinctly characterized and much helpful information is given concerning the literature on specific taxa. This information will permit more detailed study of the respective groups and identification of species not included. Riedl even treats halophilous insects, spiders,

myriapods, and marine birds and mammals.

The volume is lavishly illustrated with 8 color plates and 221 black-and-white plates; the total number of figures (including text figures) is 2590, all of them of the highest quality. The line drawings are far superior to anything found in the average seashore guide. Every species mentioned in the volume is figured. Riedl was assisted by 14 other specialists, who were responsible for the treatment of particular classes or orders. Instructions are included for collecting and preserving the different groups, and by placing special stress on gaps in our knowledge the author attempts to encourage further research. German, Italian, and Serbo-Croatian names are given for all species for which vernacular names are known. With its glossaries, indexes, and other aids for the user, this is certainly an outstandingly helpful volume for the rank beginner as well as the advanced specialist. As a matter of fact, Riedl's handbook of the biota of the Adriatic will prove most helpful not only for other areas in the Mediterranean (most of the species are widespread), but even for visitors to seashores well beyond the Mediterranean.

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Johannes Kepler

An Account of the Astronomical Discoveries of Kepler. Robert Small.

A reprinting of the 1804 text, with a foreword by William D. Stahlman. University of Wisconsin Press, Madison, 1963. xvi + 386 pp. Illus. \$5.50.

Perhaps the most popular preoccupation among contemporary historians of science is the analysis and assessment of the work of Isaac Newton. The publication of his correspondence, a definitive variorum edition of the *Principia*, detailed studies of his work in optics, mathematics, and chemistry, as well as a new biography, all these and more, are well under way. Of course this is as it should be, yet the ancillary genius of Kepler, who not only contributed significantly to Newton's own accomplishment but who helped to mold so much of modern

science itself, remains relatively unexplored.

Exegetical texts on the prolix prose of Johannes Kepler are as rare as those on Newton are abundant, and yet the need is greater. Newton can be difficult and involved, but Kepler, by contrast, plunges the reader into Stygian darkness and then leaves him to seek out for himself (as one must, for example, in the *Astronomia Nova* for two of the famous three laws of planetary motion) the singular accomplishments of Kepler's genius.

Robert Small's book, which William Stahlman has rescued from oblivion with this reprinting, gives an account (the best in English) of Kepler's astronomical discoveries. But it does more than that, for as the subtitle of the original, 1804 edition indicates, it also includes "an Historical Review of the Systems Which Had Successively Prevailed before His Time." This properly sets the background for a decent discussion of Kepler's accomplishment, so that the value of this work goes beyond the boundaries of Kepler's career. While Stahlman has aided the modern reader by providing a useful index, the publisher has failed to match the caliber of his editor. Eighty detailed diagrams are crammed onto 11 pages at the end of the text, without even the old-fashioned device of a folded page to enable the reader to bring the textual discussion and the diagrams together. In every other aspect, however, this is a well-produced book.

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Note

Microbiology

Recent Progress in Microbiology (University of Toronto Press, Toronto, Canada, 1963. 735 pp. Illus. \$21.50), edited by N. E. Gibbons, is a collection of the invited papers presented at 13 symposia held at the 8th International Congress of Microbiology (Montreal, 1962). Its chief value is that it provides an up-to-date summary of developments in the fields of microbiology in which one is not working. The articles that consider fields with which one is familiar are well done and informative, but, of course, one is aware of the work, and the information

about it is available elsewhere. But in those areas where one has only a vague idea of the progress being made, these papers provide an excellent summary. Approximately five short papers, usually about 10 pages each, were presented at each symposium. The topics include membrane permeation, isolated cellular particles, insect microbiology, psychrophilic microorganisms, enzymes in soils, the effect of control measures on soil microorganisms, genetics in industrial microbiology, the production of amino acids, new operations in industry, immunity in infectious diseases, interferon, virus in neoplasia, PPLO, staphylococcus virulence, taxonomy, and the epidemiology of mycoses. The volume thus serves a useful purpose in providing the reader with a succinct summary of recent progress in several distinct but related fields.

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Miscellaneous Publications

Belgium, Royal Institute of Meteorology. *Contribution*, No. 81 (pp. 37-44), "Sur la détermination de la stabilité des séries climatologiques," R. Sneyers; *Publications*, vol. A, No. 39 (26 pp.), "Études microclimatiques," S. M. DeBacker; vol. B, No. 38 (58 pp.), "Le temps en 1962," R. Sneyers. The Institute, Brussels, 1963.

Colorado State University, Department of Atmospheric Science. *Technical Paper*, No. 32: "Jet streams of the atmosphere," Herbert Riehl. The University, Fort Collins, 1962. 117 pp. \$1.50.

New York Academy of Sciences. *Annals*, vol. 93, art. 6, pp. 207-276: "The effective modulus of elasticity," Abraham Slavin; vol. 99, art. 1, pp. 1-229: "The management of peptic ulcer," David C. H. Sun, Ed. The Academy, New York, 1962.

U.S. Coast and Geodetic Survey. *Technical Bulletin*, No. 17: "On the time interval between two consecutive earthquakes," Tokujii Utsu (5 pp. \$0.10); *Satellite Triangulation*. [A new satellite tracking system for use in satellite triangulation and related geodetic research (18 pp. illus.)]. Superintendent of Documents, GPO, Washington, D.C., 1962.

U.S. Federal Council on Aging. 1962 *Report to the President*: "How the government works for older people," Abraham Ribicoff, Chairman. Superintendent of Documents, GPO, Washington, D.C., 1962. 110 pp. \$0.40.

U.S. Geological Survey. *Bulletin*, No. 1047-B, pp. 25-55: "Geology and coal resources of the Saylorsville North quadrangle, Magoffin, Morgan, and Johnson counties, Kentucky," W. L. Adkison and J. E. Johnston (maps); No. 1063-D, pp. 85-126: "Geology of the Angostura Res-

ervoir quadrangle, Fall River County, South Dakota," Jon J. Connor (map); No. 1063-F, pp. 191-215: "Geology of the Burdock quadrangle, Fall River and Custer counties, South Dakota," Robert W. Schnabel (maps); No. 1089-C, pp. 141-253: "Geology of the Willow Springs and Rosamond quadrangles, California," T. W. Dibblee, Jr. (maps); No. 1103, pp. 1-171: "Geology and uranium-vanadium deposits of the Monument Valley area, Apache and Navaho counties, Arizona," Irving J. Witkind and Robert E. Thaden (maps); No. 1108-C, pp. 1-58: "Geology of the Freshwater Bay area, Chichagof Island, Alaska," Robert A. Loney, William H. Condon, and J. Thomas Dutro, Jr. (map); No. 1121-G, pp. 1-44: "Geology of the American Falls quadrangle, Idaho," Wilfred J. Carr and Donald E. Trimble (maps); No. 1121-M, pp. 1-63: "Geology of the Inyan Kara Mountain quadrangle, Crook and Weston counties Wyoming," W. J. Mapel and C. L. Pillmore (map); No. 1122-D, pp. 1-62: "Geology of the Anlauf and Drain quadrangles, Douglas and Lane counties, Oregon," Linn Hoover (maps); No. 1122-F, pp. 1-120: "Geology and refractory clay deposits of the Haldeman and Wrigley quadrangles, Kentucky," Sam H. Patterson and John W. Hosterman (maps); No. 1123-C, pp. 139-168: "Geology of the Dubuque North quadrangle, Iowa-Wisconsin-Illinois," Jesse W. Whitlow and C. Ervin Brown (maps); No. 1126, pp. 1-76: "Geology and thorium-bearing deposits of the Lemhi Pass area, Lemhi County, Idaho and Beaverhead County, Montana," William N. Sharp and Wayne S. Cavender (maps); No. 1127, pp. 1-91: "Geology and uranium deposits of the Strawberry Hill quadrangle, Crook County, Wyoming," Robert E. Davis and Glen A. Izett (map); No. 1128, pp. 1-82: "Economic geology of the Keysville quadrangle, Florida," James B. Cathcart (maps and plates); No. 1132, pp. 1-114: "Geology, ore deposits, and exploratory drilling in the Dear Flat area, White Canyon district, San Juan County, Utah," Tommy L. Fennell, Paul C. Franks, and Harold A. Hubbard (maps); No. 1141-B, pp. 1-50: "Surface geology of the Nash draw quadrangle, Eddy County, New Mexico," James D. Vine (maps); No. 1141-L, pp. 1-38: "Columbia River basalt in the Riggs quadrangle, western Idaho," Warren Hamilton (maps); No. 1142-A, pp. 1-33: "Geology and mineral deposits of the Twin Crags quadrangle, Idaho," Arthur B. Campbell and Stanley E. Good (maps); No. 1142-B, pp. 1-27: "Geology of the Ewing quadrangle, Kentucky and Virginia (maps); No. 1142-C, pp. 1-23: "A preliminary report on the Precambrian iron deposits near Atlantic City, Wyoming," Richard W. Bayley (maps); No. 1142-E, pp. 1-28: "Geology of the Calamity Peak area, Custer County, South Dakota," Donald H. Kupfer (map); No. 1142-M, pp. 1-36: "Geology of the beryllium deposits in the Thomas Range, Juab County, Utah," Mortimer H. Staatz (maps); No. 1152, pp. 1-104: "Analytical methods used in geochemical exploration by the U.S. Geological Survey," F. N. Ward, H. W. Lakin, F. C. Canney, and others;

No. 1162-C, pp. 1-33: "Selenium in some oxidized sandstone-type uranium deposits," D. F. Davidson; *Professional Paper*, No. 297-D, pp. 1-99, "Geology and pegmatites of the Fourmile quadrangle, Black Hills, South Dakota," Jack A. Redden (map); No. 372-H, pp. 1-26: "General summary of effects of the drought in the southwest," H. E. Thomas; No. 386-C, pp. 1-27: "Relation between dual acidity and structure of H-montmorillonite," Alfred M. Pommer; No. 414-G, pp. 1-26: "Redescription of three species of corals from the Lockport Dolomite in New York," William A. Oliver, Jr.; No. 430, pp. 1-53: "Silurian corals from Maine and Quebec," William A. Oliver, Jr.; No. 440-G, pp. 1-72: "Data of geochemistry" (ed. 6): chapter G, "Chemical composition of rivers and lakes," Daniel A. Livingstone. Superintendent of Documents, GPO, Washington, D.C., 1963.

U.S. Office of Education. OE-24006: "School dropout, selected and annotated references," Bettina Weary (11 pp.); OE-29032: "The leadership role of state supervisors of mathematics," Daniel W. Snader [report of a conference, held in Washington, D.C., 19-23 June 1961 (107 pp. \$0.35)]. Superintendent of Documents, GPO, Washington, D.C., 1962.

University of California. *Publications in Entomology*, vol. 21, pp. 1-175, "The Cerambycidae of North America," pt. 4, "Taxonomy and classification of the subfamily Cerambycinae, tribes Elaphidionini through Rhinotragini," E. Gorton Linsley (\$3.50); vol. 30, No. 1, pp. 1-90: "Taxonomy and bionomics of the genus *Tetraopes* (Cerambycidae: Coleoptera)," John A. Chemsak (\$2); *Publications in Geological Sciences*, vol. 42, No. 3, pp. 111-158: "Petrology and structural analysis of metamorphic rocks in the southwestern Sierra Nevada foothills, California," Myron G. Best; vol. 42, No. 4, pp. 159-198: "Structure of metamorphic rocks at Mineral King, California," M. N. Christensen (\$1.25); *Publications in Zoology*, vol. 64, No. 2, pp. 57-96: "The adaptations to arid environments in wood rats of the genus *Neotoma*," Anthony Kingston Lee (\$1). Univ. of California Press, Berkeley, 1963.

World Health Organization. *Official Records*, No. 122, "Second report on the world health situation 1957-1960" (330 pp. \$2.75); *Public Health Papers*, No. 17, "Paying for health services: A study of the costs and sources of finance in six countries," Brian Abel-Smith (86 pp. \$1); No. 19, "Health education in the U.S.S.R.," A. G. Ademola *et al.* (70 pp. \$1); No. 20, "Preparation of the physician for general practice," R. Berfenstam *et al.* (114 pp. \$1.25); *Technical Report*, No. 250, "Urban health services," (36 pp. 60¢); No. 251, "Cancer control" (28 pp. 30¢); No. 252, "Training of psychiatrists" (40 pp. 60¢); *Terminology of Malaria and of Malaria Eradication* (127 pp. Paper, \$4). WHO, Geneva, Switzerland, 1963 (order from Columbia University Press, New York).

A World Without War. Walter Millis. Center for the Study of Democratic Institutions, Santa Barbara, Calif., 1961. 71 pp. Single copy, free.