

turbellarians from the Netherlands, including descriptions of six new species. N. W. Riser reports on Coelogynoporidae from New England, the majority of them also newly discovered.

Under Nutrition and Reproduction, papers by J. B. Jennings and by G. L. Shinn deal with the physiological adaptations and diets of entosymbiotic neorhabdocoels. M. Benazzi and G. Benazzi Lentati discuss the relations between asexual fission and sexual reproduction in freshwater triclads.

Turbellaria, specifically planarians, have long been classical objects in the study of regeneration. The papers presented under the heading Regeneration and Differentiation refer to the problems of cell types, cell totipotency, and transdifferentiation and to biochemical processes related to regeneration.

The final section, Ultrastructure, includes a valuable review by R. M. Rieger of ultrastructural investigations of Turbellaria and several papers dealing with the fine structure of cilia, epidermis, parenchyma, eyes, copulatory organs, and spermatozoa of various turbellarian representatives.

It is interesting to note how far the study of the Turbellaria has progressed beyond the description of their morphology, distribution, classification, and general ecology, which were the center of attention in the early classical stages of turbellarian investigations.

ROMAN KENK

*Department of Invertebrate Zoology,  
Smithsonian Institution,  
Washington, D.C. 20560*

## Ocean Imagery by Satellite

**Spaceborne Synthetic Aperture Radar for Oceanography.** Papers from a symposium, Laurel, Md., Mar. 1980. ROBERT C. BEAL, PAT S. DELEONIBUS, and ISADORE KATZ, Eds. Johns Hopkins University Press, Baltimore, 1981. 216 pp., illus. \$19.50. The Johns Hopkins Oceanographic Studies, No. 7.

This volume is an outgrowth of a symposium held to explore the potential of synthetic aperture radar (SAR) for oceanography. The book is built upon a specific set of experiments centered on a coastal region of North Carolina that was repeatedly observed by the Seasat satellite (August–October 1978). At one level the volume is self-contained, moving from an introduction to the relevant SAR technology through a review of the data base to a consideration of experimental results and conclusions. At another level it draws heavily on external

resources, appearing to be an extensive annotated bibliography to specialized aspects of the field. For this reviewer, the book is successful at both levels.

Following the introduction, there are five sections: Air-Sea Interactions and the SAR; Wind; Waves; Circulation; and Panel Discussion. Each of the first four sections is introduced by a concise summary by the editors of the principal results of each paper. The reader would be well advised to start with the introduction and then jump to the section on circulation, for it is very readable, provides a helpful perspective on the purpose and effectiveness of SAR oceanography, and introduces several of the more subtle considerations in qualitative fashion. The panel discussion is recommended next, for it outlines the conclusions and the problems discussed in the rest of the book. One should then progress section by section toward the beginning of the book, coming to grips finally with the theoretical material of the first section. The three papers in the section (Phillips, Kitaigorodskii, and Harger) are meant to provide a solid foundation for the work that follows; they could equally well serve as the basis for graduate-level courses in physical oceanography and SAR.

Several papers stand out. "Surface signs of internal ocean dynamics" (Mollo-Christensen) is an excellent description of phenomena observed by SAR imagery for which no theoretical model existed and which served as the impetus to outline and partially develop a suitable theoretical exploration of the internal waves in question. "Spatial evolution of ocean wave spectra" (Beal) is an overview of pioneering work at the Applied Physics Laboratory in wave-spectral analysis of SAR ocean data. It illustrates the potential of SAR to contribute to the solution of problems in wave dynamics, coastal bathymetry, and air-sea interaction. Striking color plates are used by Beal to present wave-directional spectral data.

There are many examples of SAR imagery in the book, together with a rather complete set of optically processed Seasat SAR data collected over the western North Atlantic. Identification of the location of images is concisely presented. The reader is left with the impression that digitally processed imagery is far superior to analog optically processed data. The editors have included a list of sources for Seasat SAR data products.

The book is unified but not neutered. Notation is not standardized, but symbol appendixes suffice. Several papers, notably those by Pierson, Ross, and Mollo-

Christensen, retain the distinct style of their authors, adding to the readability of the book. There is evidence of the editors' gentle hand in the introductions to the sections, in the organization of the papers, and in the understated tone of the conclusions. Typographical errors are nearly nonexistent.

In summary, the book provides an effective overview of the Seasat SAR experience. Portions of the book (for example the section on waves) could serve as an introduction to satellite oceanic observation as well as a concise description of some of the less well known circulation phenomena.

R. K. RANEY

*Microwave Section,  
Canada Centre for Remote Sensing,  
Ottawa, Ontario K1A 0Y7, Canada*

## Books Received

**Acquired Aphasia.** Martha Taylor Sarno, Ed. Academic Press, New York, 1981. xviii, 538 pp., illus. \$29.50.

**Actinides in Man and Animals.** Proceedings of a workshop, Oct. 1979. M. E. Wrenn, Ed. RD Press (University of Utah Radiobiology Division), Salt Lake City, 1981. xxiv, 636 pp., illus. \$35.

**Advances in Environmental Science and Engineering.** Vol. 4. James R. Pfaffin and Edward N. Ziegler, Eds. Gordon and Breach, New York, 1981. xiv, 174 pp., illus. \$68.

**Advances in Food Research.** Vol. 27. C. O. Chichester, E. M. Mrak, and G. F. Stewart, Eds. Academic Press, New York, 1981. xii, 366 pp., illus. \$39.

**Advances in Immunology.** Vol. 31. Henry G. Kunkel and Frank J. Dixon, Eds. Academic Press, New York, 1981. xii, 324 pp., illus. \$39.50.

**Advances in Librarianship.** Vol. 11. Michael H. Harris, Ed. Academic Press, New York, 1981. xviii, 210 pp. \$22.

**Advances in Lipid Research.** Vol. 18. Rodolfo Paoletti and David Kritchevsky, Eds. Academic Press, New York, 1981. xii, 320 pp., illus. \$36.

**Advances in Molten Salt Chemistry.** Vol. 4. Gleb Mamantov, J. Braunstein, and C. B. Mamantov, Eds. Plenum, New York, 1981. xii, 444 pp., illus. \$55.

**Advances in Veterinary Science and Comparative Medicine.** Vol. 25. Charles E. Cornelius and Charles F. Simpson, Eds. Academic Press, New York, 1981. xiv, 382 pp. \$49.

**American Literature and the Universe of Force.** Ronald E. Martin. Duke University Press, Durham, N.C., 1981. xviii, 284 pp. \$27.75.

**Cultural Perspectives on Child Development.** Daniel A. Wagner and Harold W. Stevenson, Eds. Freeman, San Francisco, 1981. xvi, 316 pp., illus. Cloth, \$19.95; paper, \$10.95. A Series of Books in Psychology.

**Current Topics in Cellular Regulation.** Vol. 19. Bernard L. Horecker and Earl R. Stadtman, Eds. Academic Press, New York, 1981. xii, 324 pp., illus. \$39.

**Current Topics in Membranes and Transport.** Felix Bronner and Arnost Kleinzeller, Eds. Vol. 15. Molecular Mechanisms of Photoreceptor Transduction. William H. Miller, Ed. Academic Press, New York, 1981. xxviii, 452 pp., illus. \$54.50.

**Deconvolution of Absorption Spectra.** William E. Blass and George W. Halsey. Academic Press, New York, 1981. xii, 158 pp., illus. \$23.

**Demyelinating Diseases.** Basic and Clinical Electrophysiology. Stephen G. Waxman and J. Murdoch Ritchie, Eds. Raven, New York, 1981. xii, 532 pp., illus. \$60. *Advances in Neurology*, vol. 31.

**Design Notes Log, G.O.D.** Robert W. Compton. Pi Rho Press, Palo Alto, Calif., 1981. xii, 328 pp., illus. Paper, \$9.95.

**The Development of Gas Turbine Materials.** G. W. Meetham, Ed. Applied Science Publishers, London, and Halsted (Wiley), New York, 1981. xii, 306 pp., illus. \$44.95.

**Developments in the Theory of Fundamental Interactions.** Proceedings of a school, Karpacz, Poland, (Continued on page 1426)