and an up-to-date discussion of the ocean bottom. The following 13 chapters are arranged to cover instrumentation and the statics and dynamics of the sea, and a final chapter on probability statistics and time series is included in order to provide the working knowledge necessary for full understanding of the mathematics of ocean waves as presented by the authors.

In the preface the authors write that the book is intended to meet the needs of three different groups: senior undergraduate students, beginning graduate students, and geophysicists requiring a reference text in physical oceanography. They are correct in noting that certain portions of the book will require abridgement for use in college. Unfortunately this would require considerable reworking on the parts of the instructor and students in the cases of the chapters on hydrodynamic equations, on wind waves, swell, and so forth, on turbulence and mixing, and on probability, time series, and statistics.

Since most of the oceanographic dynamics is included in these chapters, the book would be suitable as it stands for graduate students and geophysicists with advanced training. For the most part, serious oceanographic training is at present a graduate program; if the book is evaluated primarily from this viewpoint, it is outstanding among existing works, in the balance between complete coverage of physical oceanography and the necessary omission of reference data.

Chapters 10 and 12, on wave motion, will be considered either very useful or very useless depending on the skill and training of the reader. Since this is the subject of the authors' special study in recent years, it is understandable that these chapters might be the most penetrating and specialized. Neumann and Pierson appear to have realized this, but their attempt in chapter 10 to develop waves from the most elementary principles does not diminish the weightiness of the treatment as a whole.

In summary, Neumann and Pierson's book is a very good professional textbook on physical oceanography, which becomes rather difficult in the sections on dynamics, but which will probably become a standard graduate text in the subject.

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Séminaire Bourbaki

Research workers in mathematics will be pleased with the announcement of a hardbound edition of **Séminaire Bourbaki, 1948–1965** (Twelve volumes. Benjamin, New York, 1966. Individual volumes, $12.25; set, $129).

Mathematical research in the past 25 years has been greatly enriched by the publications of the international group of mathematicians who have written under the pseudonym of Nicholas Bourbaki. In addition to their universally respected series of monographs on advanced mathematics, this group has conducted a series of three seminars each year. Initially the seminars were held at the Ecole Normale Supérieure in Paris; more recently they have taken place at the Institut Henri Poincaré. At each seminar six mathematicians are invited to report on a particular paper or papers from the literature, or, in some cases, on their own work. These lectures stress the main ideas in the papers rather than the technical details. Since 1948 mimeographed notes containing a bibliography of related work have been prepared in advance and distributed at each seminar.

Copies of these notes (which are almost entirely in French) have been available for limited distribution in 17 paperbound volumes. The Benjamin edition reprints these in 12 clothbound volumes (*1*). The reprinting is by photo-offset from the second edition of the original notes. The table of contents has been enlarged to show both the name of the speaker and the name of the author of the paper under discussion. Each volume contains an index of persons referred to in the bibliographies of the exposés.

These exposés are introductions to much of the most important mathematical research of the past 20 years and are indispensable reference materials for an active research worker. Since copies of the original version were limited in their distribution and fragile in their format, they have not been generally available to mathematicians outside of major centers. The publisher is to be congratulated for his enterprise in reprinting these in permanent bindings at a reasonable price. Every institution that fosters mathematical research should have a complete copy of these in its library.

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Bibliographic Note

1. Vol. 1948/49–1949/50, exposés 1–32; vol. 1950/51–1951/52, exposés 33–67; vol. 1952/53–1953/54, exposés 68–100; vol. 1954/55–1955/56, exposés 101–136; vol. 1956/57–1957/58, exposés 137–168; vol. 1958/59, exposés 169–186; vol. 1959/60, exposés 187–204; vol. 1960/61, exposés 205–222; vol. 1961/62, exposés 223–240; vol. 1962/63, exposés 241–258; vol. 1963/64, exposés 259–276; vol. 1964/65, exposés 277–294. Benjamin plans to continue publication of annual volumes.

The Nyssoninae

In **The Comparative Ethology and Evolution of the Sand Wasps**, by Howard E. Evans (Harvard University Press, Cambridge, Mass., 1966. 544 pp., illus. $15), we have a comprehensive synthesis of widely scattered, often fragmented information. By necessity the treatment is limited to one subfamily, the Nyssoninae, which contains nearly 1000 species, but the coverage is worldwide and extends in time from the Eocene to the present. According to the author, only about 5 percent of the species have been studied in the field in any detail and for another 10 percent there are only fragmentary records. In spite of this difficulty a great deal of information, both old and new, from representative sections of the entire subfamily, has been assimilated to form a total ethological picture. This information is presented in detail for selected species. These in turn are summarized for each genus and finally into a chapter on the comparative ethology of the subfamily.

Within the relatively broad confines of ethology, Evans discusses and compares the habitats, population densities, aggression among females, feeding, sleeping, reproductive behavior, nesting behavior, orientation, hunting and provisioning, oviposition, cleptoparasitism, cocoon spinning, and natural enemies. In each chapter that deals with the specifics of one or more genera the ethological information is preceded by a brief morphological description. This in turn is summarized and assimilated for the reader in chapter 13, which includes the fossil history, distribution, and comparative morphology of the Nyssoninae. Within this chapter is a discussion of the major trends in structural modification, including a tentative phylogenetic arrangement based on morphology. When this information was correlated with ethology it was found that the morphological classification required no major revision. Chapter 15, on the evolution of the behavior of sand