sical perfect fluids" and advanced research monographs. That a better title might have been "Fundamental Topics from the Dynamics of Viscous Fluids" is illustrated by the following abbreviated headings of the chapters: Navier-Stokes equations, steady and unsteady laminar boundary layers, instability, turbulence, and turbulent shear flows. Although the book is based on lectures originally presented at Georgia Institute of Technology and only thereafter at the author's own Imperial College, London, its manner of presentation reflects British rather than American pedagogy, emphasizes analysis rather than application, and is slanted toward aeronautics rather than toward oceanography (the author's field) or any of the many other professions that now use such material. Much of the subject matter necessarily stems from semiempirical findings that have subsequently been subjected to more formal analysis; however, although the physical aspects of the present derivations are usually discussed, not only are illustrations a rarity but, the reader is referred for substantiating experimental data to the source material. Because roughly half of the references cited are books (Schlichting, Townsend, Hinze, and so on), the volume under review is in large measure a digest of digests—as most educational material perforce is. When viewed solely in this light, the book does have its obvious merits. They become the more apparent as one ponders his own ability to select and present with comparable skill material of equal significance in as little space. The chapter on turbulence, for example, seems to be an especially effective condensation.

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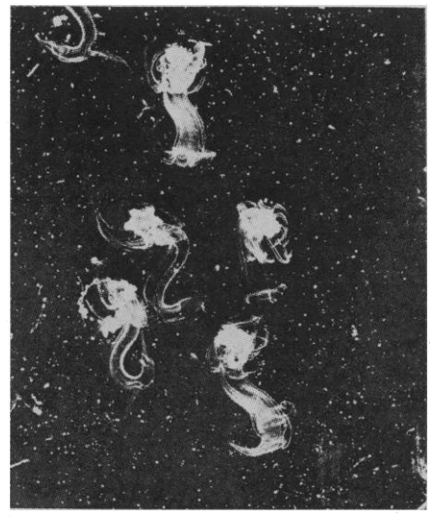
Plankton and Protozoa

Life in the Sea. Photography by Lennart Nilsson; text by Gösta Jägersten. Basic Books, New York, [1964]. 184 pp. Illus. $10.

There are many picture books about life in the sea, and there will be many more. Very few of them, however, have been prepared by zoologists of the highest competence, who can provide interesting and accurately written commentaries for the pictures. This book



Larvae of *Luidia*. [Basic Books]

is an ideal example of a happy union of photographer and zoologist. The competence of the photographer, who has taken all but one or two of the photographs from living material, is attested to by the quality of the illustrations. There are many unusual views of familiar subjects and some startling close-ups, at fairly high magnification, of subjects not usually found in books of this type. The attempt has been made to illustrate in a comprehensive and orderly manner the representatives of the invertebrate groups found in Swedish waters. Most of the subjects were photographed at the Biological Station at Fiskebäcksil, of which Gösta Jägersten is the director.

Although the book has no index, it can be consulted as a supplement to a standard zoology text since the arrangement is an orderly sequence from plankton and protozoa to fish. Among the unique or seldom photographed subjects are *Noctiluca* (enlarged), a Tintinnid, a tremotode infesting *Sagitta*, a myzostomid, *Tomopteris* (unfortunately somewhat obscured across the fold of the page), *Protodrilus* (Jägersten's favorite research animal), and a group of metamorphosing *Luidia* larvae. A number of photographs have been made with phase contrast, and while they make spectacular patterns, the bright halo around the subject conceals details or conveys an erroneous impression in some cases. There are eight color photos—but there should be more.

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Lipid Chemistry

Analysis and Characterization of Oils, Fats, and Fat Products. vol. 1. H. A. Boekenoogen, Ed. Interscience (Wiley), New York, 1964. xiv + 421 pp. Illus. $12.75.

The series, *Analysis and Characterization of Oils, Fats, and Fat Products*, is designed to publish from time to time, in collected form, a number of chapters on subjects of an analytical nature for the benefit of those research groups who are, in the widest possible sense, engaged in the investigation of lipids. This breadth of interest is fully borne out in the nine chapters of volume 1—"Classical chemical methods in fat analysis" by J. Baltes; "The assay of essential fatty acids" by R. Reiser and M. C. Williams; "The application of urea inclusion compounds in fat analysis" by J. M. M. Moreno and P. W. Hendrikse; "The analysis of butter and cheese" by J. G. Van Ginkel; "The analysis of monoglyceride and related emulsifiers" by G. F. Longman; "The determination of fats in oils, especially in linseed oils" by E. L. Delvaux and J. E. Bertrand; "Nuclear magnetic resonance spectroscopy in fat chemistry" by R. Keuning; and "The use of ion-exchangers for the analysis of detergents" by P. Voogt.

The first three chapters were of major interest to me, and they will perhaps be of widest interest to readers. Particularly timely is the one on methods of assaying the essential fatty acids, in view of the current interest in these compounds in relation to their importance in the diet in human health. The chapter on classical methods of analysis is decidedly European in its flavor and leaves out many advances based on the work of lipid chemists in America. The general discussion of the theory and practical applications of urea inclusion compounds is good, although I do not believe this analytical procedure has found wide usage. The chapters on dilatometry and nuclear magnetic resonance spectroscopy are high-level discussions of these physical procedures which are presently useful in relatively few laboratories. The remaining four chapters appear to be very limited in use, each to specific industries or control laboratories.

The format of the chapters is excellent, with a table of contents, an introduction, theoretical explanation of terms, and finally descriptions of meth-