

NOTES AND NEWS

A meeting for presentation of scientific papers, sponsored by the Cooper Ornithological Society, will be held in conjunction with the forthcoming meetings of the Pacific Division of the American Association for the Advancement of Science at Santa Barbara, California, June 15 to 20. The Society's meeting will occur on Saturday morning, June 20, beginning at 9 a.m. on the campus of Santa Barbara College.

Organization of a program for this meeting is now in progress. Information concerning the program may be obtained from Dr. John Davis, Moore Laboratory of Zoology, Occidental College, Los Angeles 41, California. Persons wishing to participate should write to him.

Other sections of these general meetings of the AAAS will also be of interest to ornithologists and naturalists. Some field trips will be held. A preliminary announcement listing all participating organizations and the proposed programs may be obtained by writing to Dr. R. C. Miller, California Academy of Sciences, Golden Gate Park, San Francisco, California.

The forthcoming meetings of the American Ornithologists' Union to be held at Los Angeles, California, are scheduled to take place from Wednesday, October 21, through Sunday, October 25. Wednesday, the 21st, will be taken by business meetings. Thursday, Friday and Saturday will be devoted to papers and symposia. The annual banquet will occur on Saturday evening. A field trip is planned for Sunday.

PUBLICATIONS REVIEWED

THE STUDY OF INSTINCT. By N. Tinbergen. Oxford University Press, xii + 228 pp., 130 figs. 1951. \$7.00.

At this writing, Tinbergen's book on instinctive behavior has not yet received the attention due it in American ornithological journals. It seems as though semipopular and more or less anthropomorphic writings on birds, not particularly challenging to our abilities to assimilate new ideas and facts, get more space on review pages than fundamental contributions. Critical reviews of more or less popular works, certainly important in themselves, will reach their proper audience not in leading scientific journals but in less specialized journals and magazines with greater appeal and interest to the general public.

It is a pleasure to describe and discuss Tinbergen's book. Well written, with elegant development of ideas and arguments, courageous in challenging faulty views and procedures, calm and confident in style, yet stimulating, the book should be read by anyone interested in the behavior of birds. Tinbergen is the present-day spokesman of a school of animal behaviorists developed by Lorenz and arising primarily from the early work, from 1900 to 1920, of C. O. Whitman at the University of Chicago and of the German ornithologists, Oskar and Magdalena Heinroth. The objective is to study innate behavior rather than learned or conditioned behavior. Certainly the latter is unavoidable in the study of innate behavior, and the distinction of the Lorenz-Tinbergen school arises out of point-of-view and method rather than subject matter. The two men are primarily environmentalists and evolutionists; they are naturalists in the best modern sense. They want to know how an animal responds to stimuli arising in its normal habitat and what it can and does learn *there*. At once, then, they differ from the majority of psychologists who want to know what an animal (usually the rat, or mouse, or some other tractable mammal) is *capable* of learning (usually in a pen or cage) and what pathologies can be detected or induced in it.

The book is organized around six questions to be asked about any particular act or behaviorism. (1) What external factors stimulate it? (2) What internal factors can stimulate, modify, or control it? (3) What part does the behavior play in a total pattern integrated by the nervous and muscular systems? (4) When does it appear and what is its place in the development and maturing of behavior in the individual? (5) What is its functional or adaptive significance? And (6) what is its place in the evolution of behavior? A chapter is devoted to each of these basic questions except for a division into two chapters of the material on external factors, the more complicated aspects of which are taken up after discussion of internal factors and "spontaneous" behavior. An introductory chapter orients the reader well with regard to objectives, the relation of the book to other types of research on behavior, and the relation of the study of behavior, or ethology, to other biological disciplines.

The main conclusions of the book deal with

the interplay of external and internal causal factors underlying behavior patterns, such as nest-building and mating, each with subordinate components and each in turn part of a total of behavior patterns that function in satisfying a basic drive, as that of reproduction. There are important theoretical discussions of "innate releasing mechanisms" and of a "center theory" of instincts; but the parts of the text that will help the field worker right now in sharpening his thinking on behavior and in focussing attention on elusive points are the chapters dealing with internal and external factors and the one dealing with adaptiveness of behavior. There are excellent ink drawings scattered throughout the text, and the frontispiece photograph of a threatening stickle-back fish helps to open the text in an effective manner. Perhaps the only serious complaint about the book is its price, which for so small a book is unreasonably high.

There are two other recent books on behavior which should be mentioned here. The first is Lorenz's "King Solomon's Ring," a popular account of some of the author's researches on a variety of animals, but particularly birds. Humanistic, warm, and entertainingly written, this book appeals to a wide range of readers. It was a non-fiction choice of a book-club in England, where the book was published in 1952 by Methuen and sold for \$2.25. In the United States, it is distributed by Crowell Press and sold for \$3.50.

The second book is a symposium collection of papers entitled "Methodology and Techniques for the Study of Animal Societies" (Annals of the New York Academy of Sciences, 51:1001-1122, 1950). There are eleven papers dealing with various aspects of research procedure in the field of behavior. Included are papers by J. T. Emlen on techniques of observing bird behavior, one by N. E. Collias on social life, and one by John W. Scott on comparative studies of three species of grouse. The price is \$2.50. This group of papers provides a very useful guide for students of behavior.—FRANK A. PITELKA.

BETWEEN PACIFIC TIDES. By Edward F. Ricketts and Jack Calvin. Third edition; revised by Joel W. Hedgpeth. Stanford Univ. Press, xiv + 502 pp. 1952. \$6.00.

This excellent book on the invertebrate animals of the intertidal zone along the Pacific Coast, particularly the Californian coast, should be known to all ornithologists interested in the ecological settings in which they observe birds of beaches, rocky coasts, mudflats, bays, and inshore

waters. The latest edition of this book, well-known among marine zoologists, was prepared by Dr. Hedgpeth of the Scripps Institution of Oceanography at La Jolla, California. It retains all the good features of previous editions and also provides a new chapter on intertidal zonation and a thoroughly re-worked, and interestingly annotated bibliography. The latter is in effect a guide to literature on marine life of the Pacific Coast. There are about 200 illustrations, mostly of invertebrate animals and their habitats. About birds *per se* this book says very little, but it is an invaluable source of information on bird habitats of the coast proper, on the food resources and conditions in these habitats, and on the geography of the coast line generally.—F.A.P.

COOPER SOCIETY MEETINGS

NORTHERN DIVISION

NOVEMBER.—The monthly meeting of the Northern Division of the Cooper Ornithological Society was held on November 6 at the University of California, Berkeley.

The speaker of the evening, Mr. Merton N. Rosen, Parasitologist with the California Department of Fish and Game, presented a survey of Progress in Wildlife Disease Control.—ROBERT K. SELANDER, *Acting Secretary*.

DECEMBER.—The monthly meeting of the Northern Division of the Cooper Ornithological Society was held on December 4 at the University of California, Berkeley. Mr. Elmer E. Highley, Monterey Union High School, Larkin Street, Monterey, California, was proposed for membership by Mr. Laidlaw Williams.

A committee to nominate officers of the Northern Division was appointed consisting of Mrs. Harold C. Austin (chairman), Dr. A. Starker Leopold, and Mr. Paul F. Covel.

Oliver P. Pearson narrated a colored motion picture on The Animal Life of the Altiplano of Peru.—ROBERT K. SELANDER, *Acting Secretary*.

JANUARY.—The monthly meeting of the Northern Division of the Cooper Ornithological Society was held January 8, 1953, at the University of California, Berkeley. Mr. Donald W. Humphrey, Box 664, St. Maries, Idaho, was proposed for membership by Frank A. Pitelka.

The Nominating Committee presented the following slate of officers for 1953: Robert T. Orr, president, Charles G. Sibley, first vice-president, T. Eric Reynolds, second vice-president, and Robert K. Selander, secretary. There being no