

REVIEWS

Écologie du Manchot Adélie.—J. Sapin-Jaloustre. 1960. Publication des Expéditions Polaires Françaises No. 208. Hermann, Paris. 211 pp. In French with English and German summaries, illustrated with 70 photographs and 35 figures.—The author was medical officer to Expéditions Polaires Françaises from 1948 to 1951. During the first year the expedition ship was unable to reach the Antarctic Continent, so observations on the Adélie Penguins covered a period in the pack-ice from 12 February to 10 March 1949 with a visit to the Adélie rookery on Sabrina Islet (Balleny Islands) on 3 March. The ship was again in the pack-ice on 29 December 1949, and three weeks later Dr. Sapin-Jaloustre was able to start a year-long study (lasting until 5 February 1951) of the Port-Martin Adélie rookeries of some 20,000 penguins. This monograph is an excellent summary of the author's previous six papers on the Adélie published between 1951 and 1955. It incorporates, and further analyzes, the results of British biologists working on the same species banded in Palmer Peninsular (Graham Land) rookeries during the breeding seasons from 1946 to 1951. A detailed account of the habitat, methods of study, displays, annual cycle, age-group composition, growth of chicks, and mortality is given. New data presented of particular interest are (1) his studies of the microclimate, which demonstrate that the Adélie is living in thermic conditions much less severe than might be expected from the usual meteorological data; (2) his work on thermoregulation in the chick—thermoregulation is efficient under summer conditions at age 12 days and very good at 15 days, about one week before they form into creches; (3) the annual molt of the adult, rarely observed in this species because it usually molts in the pack-ice—adults lose 40 per cent of their body weight, a similar loss as found in the male during his six-week fast (not 2 months as stated in the English summary) at the pre-egg and incubation period.—WILLIAM J. L. SLADEN.

An Analysis of the Displays of the European Eider *Somateria mollissima mollissima* (Linnaeus) and the Pacific Eider *Somateria mollissima v-nigra* Bonaparte.—F. McKinney. 1961. Behaviour Supplement No. 7. vi + 124 pp., many text figures and photographs.—This especially significant contribution to our knowledge of anatid behavior is divided into two parts. The first deals with an analysis of displays for the European Eider, and the second deals with an analysis of the displays for the Pacific Eider plus a comparison of the two forms. The displays of these two subspecies are described in detail, named, and then analyzed from the standpoint of motivation, function, and evolutionary origin. Displays associated with pair formation, copulation, and agonistic situations are treated. Subspecific differences in behavior include the absence of certain of the Cooing-movements in the Pacific Eider, differences in the form of the Cooing-movement 1 and of the Neck-stretch (associated with the presence of the black V on the throat of *v-nigra*), and sequences of precopulatory displays are shorter in *v-nigra*. There is evidence that some displays change in frequency during the course of precopulatory sequences. Many displays tend to be linked and occur in definite associations that seem similar in both subspecies. The absolute frequencies of displays varied between the subspecies, and these are discussed. Displays associated with reproductive activities are more similar in form, frequency, and context between the two subspecies than are displays associated with aggression. Evolutionary changes in motivation are discussed, and differences between homologous displays can be attributed either to changes in motivation underlying postures or to changes in responsiveness to situ-

ations. The black V on the throat of *v-nigra* is thought to be primitive. It is also thought that the divergences between these two subspecies are not the result of selection toward divergence as such. This paper certainly provides a model for future similar investigations of anatids and other animals, and furnishes a striking example of how thorough ethological investigations may increase our understanding of the biology of a species.—WILLIAM C. DILGER.

New Mexico Birds and Where to Find Them.—J. Stokley Ligon. 1961. University of New Mexico Press in cooperation with the New Mexico Department of Fish and Game, Albuquerque. 360 pp., 34 colored plates (149 different birds in color, 139 in black and white drawings and photographs). \$8.50.—The principal aim of this book, as stated by the author, is “. . . to provide a simplified and practical guide which will serve the greatest number in the observation and study of birds.” Since the majority of people interested in birds are amateurs and hobbyists, this book should be judged on the basis of popular, rather than scientific, content. With this in mind I find it possible to overlook the excessively broad and “flowery” sentences, and the lack of scientific details that characterize this book.

The introductory chapters are designed to introduce the reader to New Mexican ornithology and to bird study in general. They cover the history of ornithology within the state, and give a general introduction to the study of birds, including classification, identification, economic and esthetic values, life history, and conservation. This section should make interesting reading for those who have little acquaintance with birds.

The species accounts are simplified in that no attempt is made to describe each bird in detail. A few prominent characters of each bird are given, and each bird is compared with others with which it might be confused. The distribution of each is included as well as a short discussion on nesting habits for all breeding birds. This section is a collection of the author's many years of good field observations, added to the published and unpublished observations of other workers in the state. Unfortunately, many of the more unusual records are unsubstantiated by specimens. There are also many errors, in basic fact (in the Pyrrhuloxia “Color pattern of sexes similar”), or in generalizations (the Warbling Vireo “. . . is equally numerous in the wild, uncultivated districts where man has not yet penetrated”), or in the lack of scientific understanding (in the general flycatcher discussion “ALTHOUGH the Flycatchers . . . are classified as Passeriformes, they are normally regarded as songless perching birds”).

The most practical information for the amateur and bird watcher is found in the appendices. Using an expanded version of Pettingill's format (*Bird Finding West of the Mississippi*), many area lists and discussions give a wealth of information as to where to find birds within the state. Even here we find inconsistencies that may trap the unwary reader. For example, the chapter on rare and stray birds lists those birds that are not known to nest and have not been found in “sufficient numbers to justify inclusion.” Nevertheless, Ligon includes such birds as the Worthen's Sparrow (one record), Green Kingfisher (no records), and Great Crested Flycatcher (only sight records), in the species accounts rather than in this list.

Probably the most glaring fault, as well as the greatest source of confusion to the beginner, is found in the plates. A few by such well-known artists as Brooks, Weber, and Rice are good, but a majority are badly proportioned and often inaccurate in detail. Since this book will be used most by the bird watcher, attention will be drawn to some of the most misleading errors.

Plate I. The Gambel Sparrow is shown rather than the distinctive breeding form of that area. The nonzonal Horned Lark is shown as characteristic of the Upper Sonoran Zone. The Bridled Titmouse, as can be seen from the account by Ligon, is not a typical Lower Sonoran bird. This plate almost completely destroys the life zone concept that Ligon tries to encourage in the introductory chapters.

Owls, p. 145. The top row appears to represent the Elf, Screech, and Flammulated owls rather than the Elf, Great Horned, and Screech owls. It is also hard to believe that the Pygmy, Burrowing, and Saw-whet owls could look so similar.

Plate XVIII. The Red-shafted Flicker has the head colors (except for the mustache) of the Yellow-shafted Flicker.

Plate XXIII. The Black-throated Gray Warbler is lacking the yellow lore.

Plate XXIX. The female Cassin Finch is missing the distinctive light facial markings.

Plate XXXIV. The rump of the Chipping Sparrow is brown instead of the characteristic gray. The Song Sparrow looks more like a Fox Sparrow, and the Lincoln Sparrow is anybody's guess.

Most of the other plates show a lack of acquaintance with birds in the field, and are exceedingly confusing from the standpoint of field identification where proportions are important recognition features.

As a definitive state list, this book is almost useless since it is based almost entirely on sight records. It certainly cannot be considered as a replacement of Bailey's great work, as stated in the preface. This book is most useful in acquainting the bird watcher with an over-all picture of the bird life of New Mexico, but contains many errors and inconsistencies that can only lead to confusion and remorse on the part of the bird watcher.—PATRICK J. GOULD.

The Birds of Trinidad and Tobago.—G. A. C. Herklots. 1961. Collins Publishers, London. 287 pp., 16 color plates, 4 black and white plates, 14 line drawings. 42s.—This book was designed to complement Bond's *Birds of the West Indies* for the islands of Trinidad and Tobago. The avifauna of these islands is mostly continental and not antillean and thus not covered by Bond. Herklots feels that this book may be of use in northeastern South America even though the continental avifauna is much more diverse than that of Trinidad and Tobago. Four hundred and sixteen species and subspecies are considered, with information provided under the headings: description, nidification, habitat, voice, range, and field identification. Common and local names are presented in addition to scientific names. An index to vernacular and scientific names, bibliography, and extensive glossary are also included.

The author clearly states that this book is not designed for the professional ornithologist but belies this by presenting trinomial scientific names for all species considered, and by treating Trinidad and Tobago races of the same species separately in the text. Common names of tropical birds are confusing at best, and it is a shame that the author has not made more of an effort to use, when possible, those that are generally accepted, such as Fork-tailed Flycatcher, and not "Scissors-tail Flycatcher," for *Muscivora tyrannus*. The descriptions are often wordy and overly concerned with presenting details of plumage useful only to the taxonomist and often observable only in a bird in the hand. The "habitat" portion of the species accounts at times includes a variety of topics in addition to the ecology of the bird; behavior, historical records, unusual dates or localities, food habits as well as trivial personal incidents and evaluations—"the smell of guano is very evident" (p. 132) and "The men said

that the birds were good to eat when curried" (p. 26). The range and field identification sections are on the other hand brief and useful.

The colored plates, by the author, leave much to be desired. They are amateurish, and the poses stilted; they seem to assume that the important identifying characters are on the anterior third of the bird, the only portion figured. The birds in the colored plates are supposedly drawn to an exact scale (0.4, pl. 3; 0.5, pl. 4; 0.57, pl. 6), which seems to have been ignored in a majority of cases (see Scarlet Ibis, pl. 2, and Ruby-topaz Hummingbird, pl. 6). The black and white plates and line drawings by J. M. Abbot are realistic and quite usable.

This book would certainly be useful to the casual visitor to this region but possibly misleading to the serious student. Its many faults should not be obscured by its utility. As a field guide it suffers from a comparison with any of several such guides for other regions. All in all this book's chief asset seems to be the lack of a competitor.—CHARLES T. COLLINS.