

## LITERATURE

### COMMENTS ON RECENT LITERATURE

*“Swallows certainly sleep all the winter. A number of them conglobulate together, by flying round and round, and then all in a heap throw themselves under water, and lie in the bed of a river.”*

Dr. Samuel Johnson.

Accounts of hibernating birds, though circulated since the time of Pliny, have found little favor in scientific circles. Hence the recent discovery that the Poor-will, *Phalaenoptilus nuttallii*, sometimes does hibernate came as a great surprise. Culbertson (1946) found a torpid Poor-will half buried beneath a pine limb on the ground near Fresno, California. This was on February 6, following a month in which the temperature had dropped below freezing almost every night. Stressing the improbability that the bird had been able to feed during this period, Culbertson suggested that hibernation might be involved. A year or two later, Jaeger (1948, 1949) during a visit to the Chuckawalla Mountains in the Colorado Desert found a dormant Poor-will nestled within a niche in a canyon wall. This bird was banded, photographed, and periodically examined during 3 successive winters, which it spent in the same retreat. Its body temperature ranged from 18.0–19.8° C. (about 66° F.). This was about the same as the surrounding air temperature but far below the usual body temperature of birds. Since the basic feature of hibernation is the transformation of a normally warm-blooded animal into a cold-blooded one (Suomalainen, 1940), the winter dormancy of the Poor-will may be considered true hibernation.

Jaeger found the wintering Poor-will to be in a generally low state of metabolism. Usually it gave no response when handled or even when a flashlight was shined directly into its half-open eyes. No chest movements or heart beat could be detected with a stethoscope. Even a driving sleet storm did not cause the bird to move, although its plumage was considerably battered. During the only winter of complete observation (1947–1948) Jaeger is certain that this Poor-will was in “profound hibernation torpidity” from on or before November 26 until shortly after February 14. It survived and was back in its “hibernaculum” on November 24, 1948.

There is little good evidence of migration into Mexico by Poor-wills. Some winter records for the United States, however, are of normally active birds. Whether the birds of the Great Basin usually migrate or whether they hibernate is unknown, but there is some reason to believe that hibernation may occur there as it does in California (Jaeger, 1949).

McAtee (1947) recently published an annotated bibliography on torpidity in birds. No convincing evidence of hibernation is presented for any other species. There is, to be sure, a detailed account of hibernation by Chimney Swifts, *Chaetura pelagica*, quoted from a "recognized ornithologist," but unfortunately one recognized chiefly for his unreliability. Hanna (1917), however, found that inclement weather may induce White-throated Swifts, *Aëronautes saxatalis*, to remain in their rocky retreats for several days. After a cold snap some of these swifts were brought to him in a torpid condition. European Swifts *Micropus apus*, bunch together in large masses to conserve body heat when a prolonged spell of cold rainy weather prevents them from feeding (Kuhk, 1948), but under such conditions heavy mortality begins almost immediately. Temporary lethargy, usually as a result of chilling, has been reported in a number of other species, notably hummingbirds, but there is no reason to believe it does not lead to death in a few days at most if the birds are not revived. Nevertheless, such physiological tolerance of chilling probably made possible the development of longer periods of inactivity in the Poor-will.

Brief torpidity, though known from comparatively few species of birds, is perhaps possible in many others under certain conditions. The following incident, related to me by Dr. James P. Chapin, tends to confirm this: "In 1910 Herbert Lang and I were encamped in a remote part of the northeast Congo forest gathering material for an Okapi group. From time to time natives would bring us a supply of live chickens to be dispatched as needed for the table. On one such occasion the boys were caught in a torrential downpour accompanied by a sharp drop in temperature. When the party finally arrived in camp, the chickens were found piled up in the bottom of the carrying-basket, drenched and to all appearances dead. The natives, who obviously knew their chickens better than we did, placed them on their sides around the camp fire. After a few minutes they turned them over to warm the other side. Before long some signs of life appeared, and soon all but one of the chickens were running about normally."

#### REFERENCES

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DEAN AMADON

## BOOK REVIEWS

*Nature and Its Applications.* By JESSIE CROFT ELLIS. (F. W. Faxon Company: 1949) 7 x 10½ in., xii + 861 pages, \$17.00.

This large volume will serve as a valuable tool for ornithologists who must search through literature for references to particular species of birds. In brief, it is an index to illustrations (*i.e.*, reproductions of photographs, drawings, paintings, etc.) of various nature subjects ranging from Aardvarks to *Zygadenus elegans*. An attempt is made to include "not only subjects of nature in their natural setting and form but also nature as used in art, sculpture, advertising, paintings, toys, and every form of decorative design work." Persons using this index will find that it is possible to obtain much written information about the subjects included since illustrations are accompanied occasionally by explanatory legends and frequently by articles relating to them.

Over 125 books and periodicals have been indexed. These include *Audubon Magazine* (also its predecessor, *Bird-Lore*) and *Nature Magazine* which have regularly published extensive information on birds, as well as the following which have on numerous occasions carried information useful to persons interested in birds: *American Forests*, *Field and Stream*, *National Geographic Magazine*, and *Natural History*.

The present work is a new edition of "Nature Index" by the same author and is limited to 1,000 copies. Both the author and publishers are to be commended for having performed this great service to workers in the field of natural history.

OLIN SEWALL PETTINGILL, JR..

*The Birds of Concord.* By LUDLOW GRISCOM. (Harvard University Press: 1949) 340 pages 16 illus., 1 map. \$5.00.

In this book, the most expert field ornithologist of our generation compares his notes with those of William Brewster, the most expert of the preceding generation. The result is a treasure of data concerning changes in the avifauna of the region around Concord, Mass. The introduction describes the Concord area, summarizes the ornithological work and explains the study methods. Brewster in 1868 began recording observations of birds at Concord in voluminous diaries and notebooks. Griscom has abstracted these and added his own recent notes. Part I of the book, titled Population Trends, describes the basic ecological factors of the region and of the birds. Then follows a summary of fluctuations in animals and a description of the increases and decreases in populations. Part II describes the present bird life and gives in a systematic list the abstracted notes of Brewster and others.

For the general ornithologist by far the most important sections deal with the changes in abundance of a number of species (p. 97-132). For example, the Indigo Bunting was common from 1830-1879, declined from 1880-1930, and subsequently increased. The Nighthawk not only fluctuated in abundance but also changed from nesting on the ground to nesting on the roofs. The spectacular results of protection of Wood Ducks and Egrets are clearly shown by the records for 100 years. Perhaps the most significant parts are the discussion of Brewster's principle of population overflow and the estimates of populations at Hurd's Pond, Wayland.

While these histories of populations are fascinating, the critical ornithologist will be concerned at the superficiality of the discussion of results. Terms such as Gaussian curve, periodicity, capacity, etc. are loosely used. Furthermore, the author, who is also an expert botanist, could have given a more specific description of the vegetation, citing the numbers and kinds of plants. The discussion of cycles (p. 123) shows an amazing lack of understanding of cyclic phenomena. The words density (birds per unit) and population (total birds) are frequently confused. Lastly, the illustrations are excellent photographs (none by the author) but do not

illustrate the book; a picture of hundreds of Snow Geese is inappropriate as an illustration for an area reporting only 84 geese in a century! A Bald Eagle on its nest is similarly inappropriate. While the Concord ornithologists will find this book of immense value, its numerous deficiencies will tantalize the serious ornithologist.

DAVID E. DAVIS

*Birds of Prey of Northeastern North America.* By LEON AUGUSTUS HAUSMAN. (Rutgers University Press: New Brunswick, N. J.: 1948.) xxv + 164 pages, 31 ill., 1 col. plate. \$3.75.

In an attractive format and at a price which is, for these days, quite reasonable, the rather suddenly prolific Dr. Hausman gives us a book which is a pleasant introduction to the birds of prey. For each of 35 forms a short description is given of adults and young with measurements of body length and wingspread. This is followed by a discussion ranging in length from a few paragraphs to a few pages. For the falconiforms a list of common names other than the accepted ones is provided. Besides the specific or subspecific accounts there are general discussions of the vultures, the hawks, the eagles, the falcons and the owls. Illustration plays a prominent part in the book and consists of a colored frontispiece by Sutton and 31 full-page drawings by Abbott. There is a systematic appendix, a bibliography, and an index of names.

The book presents a pleasing appearance. There is good spacing, wide margins, and clean printing; the page-size is large (7 x 10 in.); the binding is tasteful. From the initial paragraph of the book, the author maintains a sympathetic attitude toward the birds of prey. He points out that many birds, including the most of our admired song birds, prey upon other forms of animal life. The appeal of hawks, eagles, and owls to the aesthetic sense is constantly brought brought before the reader, and the role of the predator in maintaining healthy populations of useful prey species is not neglected. The writing is lucid and adequate to the purpose.

In this book exhortation and reasoning take the place of documentation and numerical data; tables of figures are never allowed to mar the pages, though poetry finds a place. The only major typographical error is the misuse of the subspecific name of the Northern Bald Eagle. More serious is a curious confusion between species and subspecies (p. 86). The appendix giving the classification seems unnecessary padding in view of the systematic arrangement of the body of the book; it merely copies the names of the 1931 Checklist without regard to the supplements, and commits several errors in the copying. The illustrations are adequate, though the use of brown ink in reproducing them reduces the sharp contrast which is one of the chief glories of pen and ink work. In some instances the choice of prey shown in the illustrations seems unfortunate from the viewpoint of the author's emphasis. While the text stresses other prey, the Red-tailed Hawk is shown with a rabbit, the Swainson's Hawk with a squirrel, and the Rough-legged Hawk with a muskrat, all favorably regarded animals.

Subject to the limitations of its aim and scope, this book can be recommended to the general reader and seems particularly suitable for school libraries.

HAVEN KOLB

*Audubon's American Birds.* By SACHEVERELL SITWELL. (B. T. Botsford: 1949) 12 pages, 16 plates. \$2.00.

This volume is in the same series as *Tropical Birds* and reproduces excellently plates (9.5 x 7.5 inches) of the Wild Turkey, Baltimore Oriole, Carolina Paroquet, Florida Jay, Collie's Magpie-Jay, Pileated Woodpecker Meadowlark, White-Crowned Pigeon, Wood Duck, Wood Ibis, Mallard, American Eider, Roseate Spoonbill, Scarlet Ibis, Woodpeckers, Flamingo. One wonders why these particular plates were chosen. The 12 pages of comments are a horrible miscellany of irrelevant matter written in endless sentences which leave the reader thoroughly bewildered. For example, why include nearly 2 pages of names of races of fighting cocks. It

is a pity that the publishers did not ask one of the many capable English ornithologists to write the notes.

DAVID E. DAVIS

*Blackie and his Family.* By M. E. COOK. (Harcourt, Brace and Co.: 1949) 69 pages, illus. \$2.00.

This review of a book for children is included in the *Wilson Bulletin* because it is believed that ornithologists are probably teaching their children about birds. Your editor will appreciate comments from the members concerning the desirability of reviewing children's books.

Blackie (apparently a Brewer's Blackbird) and his wife Dusty lived in a garden and built a nest in a pomegranate. They successfully repelled Mr. Darting Hawk, Chucky Ground Squirrel, and Old Man Gopher Snake. After raising 4 young, the birds join a flock and eventually migrate. Ornithologically the book is satisfactory. There are no serious errors in life history data and the anthropomorphism is not excessive although (p. 4) the function of song has the erroneous poetic interpretation. Conservationists will regret the emphasis upon the hawk episode. From the viewpoint of a psychologist the book is satisfactory but not impressive. Children from 5-8 will enjoy a couple of readings. Unfortunately, the hawk and snake episodes are likely to make the greatest impression. Ornithologists have discovered a gold mine in adult books. Why shouldn't they invade the field of children's books and teach our children correct ornithology?

DAVID E. DAVIS

*W. E. Saunders, Naturalist.* Edited by R. J. RUTTER. (The Federation of Ontario Naturalists, Toronto: 1949) 6½ x 9 in., 66 pages, 5 photos, cloth.

This is a tribute to Saunders the man, by those who knew and loved him in his native Southern Ontario. His enthusiasm for and his interest in all about him, extended to music, horticulture, town planning, conservation, insects, mammals, birds and his fellow men. He taught practical chemistry at one time; carried on his vocation, pharmaceutical manufactory; for years wrote a weekly newspaper column; and delighted to talk and lecture about his interests. Included in this volume are samples of Saunders' writings, appreciations by P. A. Taverner, J. R. Dymond and J. L. Baillie, and Baillie has provided a 13 page bibliography of Saunders' writing.

A. L. RAND

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The following gifts have been recently received. From:

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Leon Kelso—1 pamphlet	J. Van Tyne—12 reprints
S. Charles Kendeigh—4 reprints	University of Wisconsin Department of Wild-
Haven Kolb—20 magazines	life Management—4 reprints
Margaret M. Nice—17 reprints, 2 magazines, 1 book	