

often takes place against the wind while it is limited to a comparatively small number of species. That wind may have something to do with its direction is admitted, but evidently it has little more influence than in the case of birds.

It is claimed that in the Monarch butterfly (*Danais plexippus*) there is a return flight in the spring after semi-hibernation in the south, but in the reviewer's experience if this return flight occurs at all it is in no way comparable with the enormous southward flights of late summer and early autumn, which some years traverse the Atlantic coast of New Jersey. In other species there seems to be no return flight and this is contrasted by the author with bird migration in which it is stated that there is always a return flight. It seems to us, however, that in the case of our Red-breasted Nuthatch (*Sitta canadensis*) we have, both in the irregularity of its migration and in the very limited return flight, an exact parallel to the case of the Monarch as we have found it in the eastern United States.

The author has scoured the literature for all references to butterfly migration and the items are arranged systematically, the compilation occupying most of the volume and forming a valuable record, but it is mainly the chapter discussing the general problem that appeals to the ornithologist, unless he be also something of a lepidopterist.—W. S.

The Biography of Thomas Say.—Harry B. Weiss and Grace M. Ziegler have written a most interesting historical narrative in their 'Thomas Say, Early American Naturalist.'¹ Not only have they portrayed the life of the naturalist but have presented contemporary pictures of life in Philadelphia and in New Harmony, Indiana, at the various periods of which they write, while the history of the Philadelphia Academy and of the Owen communistic experiment are closely interwoven in the story. Brief biographies of Say's most intimate friends and associates are also presented in supplementary chapters.

Say was primarily an entomologist and next to that a conchologist and to these activities the authors have very properly given most attention. As an ornithologist he is not so well known but according to the statements in this work he revised the text to the first volume of Bonaparte's 'American Ornithology' and also papers in the 'Journal' of the Philadelphia Academy, some of which were ornithological, but it should be mentioned that in his notes to the report of Long's Expedition he described for the first time a number of our western birds, nine of which still retain the specific names given by him, while the generic name of our Phoebe is *Sayornis* given in recognition of Say's contribution to American ornithology. The only mention of these matters we have been able to find in the Biography is a statement that he named "five" birds in Long's 'Narrative.' One interesting

¹ Thomas Say, Early American Naturalist. By Harry B. Weiss and Grace M. Ziegler. A Foreword by L. O. Howard. With twenty-seven illustrations. MCMXXXI, Charles C. Thomas, Publisher. Springfield, Illinois. Pp. i-xiv + 1-260. Price \$5.00.

statement that we do find but without mention of authority is that "in 1816, encouraged by his friend Alexander Wilson who promised to help him, he projected a work on American entomology." Any "encouragement" by the ornithologist at this date we are inclined to question since Wilson had died in 1813. However these matters do not in any way detract from the value or charm of the biography. Ornithologists know what Say contributed to their science and realize that ornithology was but a minor factor in his life, but they will be deeply interested in the history of this remarkable man and his associates and of the times in which they lived. The volume is admirably written, well gotten up, and illustrated by a number of portraits and historical scenes.—W. S.

Oliver's 'New Zealand Birds.'—Probably all of the members of the A. O. U. who listened to Mr. Cope's enthusiastic account of his sojourn in New Zealand, at the Salem meeting of the Union, were filled with a desire to visit this far off land, to share the hospitality which he described and to make the acquaintance of the unique avifauna of the islands.

To those who contemplate making the trip Mr. Oliver's admirable volume¹ on the birds of the Dominion will prove an invaluable companion while those who must forego the pleasure of a personal acquaintance with this fascinating land may still become familiar with its bird life through the same medium.

While there have been expensive illustrated works on New Zealand birds there has been no publication comparable with Mr. Oliver's. In it we have an up-to-date handbook giving us in readable form just the information that we desire. After the name of each bird there is a brief history of the discovery of the species and other general facts relating to it; then a description of adult and young, forms (subspecies) and mutants (phases or abnormalities); a paragraph on its eggs and another on distribution, both in New Zealand and elsewhere; and finally its habits and relation to man. A supplementary note contains references, beginning with the original description and type locality. Extinct species are considered along with the living and there are six color plates by L. A. Doff, apparently from mounted specimens, and numerous text figures largely from photographs.

We learn from the account of the interesting Kea Parrot that only some individuals attack sheep and that the habit apparently arose from the birds having tasted meat by feeding on dead sheep or on refuse meat thrown out on the ground. Where such meat is not available the birds return to their normal vegetable and insect diet and the desire for meat is lost, as is usual in a habit so recently acquired.

Of the Apteryx or Kiwi four species are recognized, three from the South Island and one from the North. The first Kiwi brought to Europe was obtained by Capt. Barclay about 1813 and was the South Island form known as the Tokoeka. The fourth species *A. haastii* was not discovered

¹ *New Zealand Birds*. By W. R. B. Oliver, Director Dominion Museum. Wellington. Fine Arts (N. Z.) Ltd., 1930. Pp. i-viii + 1-541. Price 30 shillings.