

## RECENT LITERATURE

**Kirkman's 'Bird Behaviour.'**<sup>1</sup>—The Black-headed Gull (*Larus ridibundus*) forms the basis of this charming and intimate study of a social bird. It is well known as one of the most abundant of British Gulls, nesting in colonies inland as well as along the seacoast and wintering in flocks along the coast, streams and open fields. The author, in the course of some thirty years of close observation of this gull has become alive to many of the smaller details of its actions that would readily have escaped the notice of a less seasoned observer. This presentation of results has to do with the habits of the species during the nesting season only, in Great Britain. About the middle of March the birds assemble in a flock daily at the gullery, gradually increasing the time spent there until about mid-April when active nesting commences. The general flock of one or two hundred birds (the winter unit) then breaks up into small groups, each of up to eight or nine pairs, forming separate clans, which build their nests in close proximity to one another about some center such as a clump of nettles or a stump. The individual pair is the ultimate unit. The birds of each group develop a sort of clannishness, reacting differently to one of their particular group than to one of a near-by group. The life within the nesting colony as observed at close range from a tent blind is well described and illustrated by a wealth of remarkably beautiful as well as illuminating photographs. The birds having once selected the site of the nest show a great tenacity for that particular spot. Nest material is brought there to hedge about the eggs, a necessity, since otherwise it was found that the eggs tend to roll apart and are less easily covered. Additional material may be brought at various times, either collected in the vicinity or pilfered from adjacent nests, and its gathering is often a substitute reaction when for any reason the bird is frustrated in its desire to brood, or in other attempted actions. Various experiments were carried out to test the birds' mentality. For example, when the eggs are removed to a distance of eighteen inches from the nest, it was found in thirteen cases out of twenty-six, the birds rolled them back in again; in one case a bird sat on the eggs and built a new nest around them; in eight cases the birds did no more than attempt these two reactions; while in four cases they ignored the eggs altogether. In another series, the eggs were removed a short distance from the original site, while the nest material was moved to another equidistant corner of a triangle, so that three factors, site, nest, and eggs were to be taken into account. Here, in twelve out of twenty cases, the bird sat on the eggs and built a new lining around them, in one case the eggs were rolled to the old lining, in two cases the eggs were rolled to the original site, while in five cases there was failure to complete the sitting or the rolling reaction. All these and other experiments indicate great individual variation in mentality, or in circumstances conditioning the responses, or both combined. The behavior of the adults toward their chicks is remarkable and is paralleled somewhat in terns and Herring Gulls. When the chicks are still small, they will, if the adult birds rise up at an alarm, leave their nests and run a short distance to hide, returning when the alarm is over. At such times, chicks are pecked severely by adults other than their own parents in attempting to return to their nests. The sight of a chick running about seems to act as a stimulus to persecute it,

<sup>1</sup> Kirkman, F. B. *Bird Behaviour* | a contribution based chiefly on a study of | the Black-headed Gull | Illustrated from the author's photographs. 8vo, pp. i-xvi, 17-232, pl. 1-30, 1937; T. Nelson & Sons, Ltd., 35 Paternoster Row, London, E. C. 4, and T. C. & E. C. Jack, Ltd., Parkside, Edinburgh. Price 7s. 6d.

with a resulting high mortality that certainly must work to the disadvantage of the species. Fear, anger and sex reactions in the adults are treated with especial fullness.

In his discussion of the conclusions to be reached as to the gull's mental processes, the author is wisely restrained, and refrains from answering many of the questions he propounds. He concludes, however, that even though the bird's mental limitations often turn out to its disadvantage, it may nevertheless attain its goal by other means than through planning. Part of its failures seem due to a lack of perception of the relation between parts of a whole so that if the usual stereotyped forms of reaction fail, the bird has no further resource. One is impressed by the value of attitude and aspect as a means of communicating mental states.

The author has endeavored with much success to present an account of these matters that shall be untechnical and interesting to the general reader; he has even gathered on a separate page the Latin names of birds mentioned in the book, curiously omitting that of the Black-headed Gull itself! A useful bibliography of relevant literature on bird behavior is added, which perhaps justifies the somewhat inclusive major title of the book, and there is a good index. In the author's own words, "At the end of the account we are not much more advanced than at the beginning towards the answer to the main question why the birds acted as they did"; nevertheless he has presented much new matter of intrinsic value.—G. M. A.

**Butler's 'Birds around the year.'**—Characteristic of the changing seasons in our eastern States are the varying aspects of bird life, which form the theme of this readable little volume.<sup>1</sup> Beginning appropriately with the spring and the coming of the Bluebirds, the author carries her readers through the rush of the migration season, the busy period of nesting, the heyday of summer, the mellowness of autumn and the waning of the year with the advent of winter. For each of these periods a brief sketch of bird activities is presented. The author writes from the standpoint of the middle Atlantic States with occasional digressions farther afield and evidently draws from a considerable field experience as well as from some knowledge of ornithological literature. The book is of the 'popular' type, designed to arouse and enliven a general interest in birds and in its easy conversational style should readily accomplish its purpose. Such writing, however, too easily lends itself to slight inexactnesses of expression while the sympathetic attitude tends to bestow our own emotions and reactions upon birds to an unwarranted extent. One would disagree with the author that migration had its inception with the Ice Age; that the Golden Plover makes its long over-seas flight from "a pure spirit of adventure"; that the Gannet feeds its young by placing food in its bill; or that feathers have developed from reptilian scales. The wings of the Great Auk and the Penguin are specialized rather than "rudimentary"; and it is no longer true that "there is no record of a bird banded in Europe being recovered in America." The division of paragraphs is often faulty and interrupts the flow of the thought. But these are trivial defects and the book is in general an attractive picture of the outward aspects of bird life from season to season. Eight full-page illustrations, selected from artistic sketches by various well-known illustrators to whom due acknowledgment is made, convey the spirit of the book better perhaps than photographs could have done. What a thrill one gets from Brandreth's sketch of a great eagle launching in flight from its lookout in the dead top of a lofty pine! It seems a pity that the colored figure of Redstarts on the jacket of the book could not have been included among the plates.—G. M. A.

**Pearson's 'Adventures in Bird Protection.'**—This is the record of a great

<sup>1</sup> Butler, Lorine Letcher. *Birds around the year*. Small 8vo, xi + 242 pp., 8 pls., 1937, D. Appleton-Century Co., New York and London.