

THE BIRDS OF GREENLAND

GRØNLANDS FUGLE: THE BIRDS OF GREENLAND. By FINN SALOMONSEN, with illustrations by GITZ-JOHANSEN. *Copenhagen: Ejnar Munksgaard, 1950 and 1951. With parallel texts in Danish and English. 13 inches x 9 inches. Part I, pp. 1-158, 17 coloured plates, and line drawings; \$9.00. Part II, pp. 159-348, 19 coloured plates, and line drawings; \$9.00.*

Over fifty years have elapsed since the publication of H. Winge's 'Grønlands Fugle',¹ the last comprehensive work on the avifauna of Greenland. Much has been learned in those fifty years about the birdlife of the world's largest island—information gathered almost exclusively by Danish ornithologists and published in Danish journals. Since the avifauna of Greenland falls within the scope of the American Ornithologists' Union Check-list, it is gratifying that the new 'Grønlands Fugle' should be written in both English and Danish, and further that Dr. Finn Salomonsen, an ornithologist of repute on both sides of the Atlantic, should be the author.

The present work, to be completed in three volumes, the first two of which are to hand, will be printed in an edition of 1,850 copies and will be the sole impression. Published with the support of the Danish Government, 'Grønlands Fugle' is a beautiful example of the bookmaker's art. Although paper-bound, the format is large, and the fine heavy paper and artistic type-faces used throughout leave little to be desired. The coloured plates, which will number fifty-two in all, are well reproduced in six-colour offset process.

Judging from the contents of Parts I and II, it would be difficult to imagine a publication better suited to satisfy the requirements of the American ornithologist for a reference book on the birds of Greenland. A quotation from the introduction will serve to show the scope of the volumes and the scientific caution of the author: "In the present work it is intended to deal with the breeding-birds and regular visitors only. The large number of species occurring as casual visitors in Greenland will not be described; they are, however, enumerated in a nominal list at the back of the book, followed by a bibliography. I have endeavoured to give as full an account as possible of the occurrence of the various species in Greenland, their life-habits, and taxonomy. The notes refer exclusively to conditions in Greenland; if certain facts are unknown in Greenland they are not dealt with although they may be well-known in other countries." It is regrettable that this wise procedure is not always followed by zoologists when listing animals of a given area.

Part I begins with a brief preface by Hans Hedtoft, the Danish Prime Minister. This is followed by an introduction by the author, which deals, all too briefly with past ornithological history and the zoogeography of Greenland. My most serious criticism of the work is that this fascinating section was not greatly expanded and treated in fuller detail.

The systematic list of birds follows, and twenty-two species, embracing the loons, shearwaters, petrels, swans, ducks, geese, and cormorants are described. In concise yet readable style the author presents what is known of the taxonomy, migrations, habitat preferences, food, plumages, and behaviour of each species. Interesting data are given on the number of birds in the various colonies and percentages of birds killed as determined by banding returns. Authority for records is given in the text and there are numerous footnotes commenting on certain occurrences.

Part II continues the list of birds which constitute important elements of the Greenland fauna, and ptarmigan, plover, sandpipers, phalaropes, jaegers, gulls, and terns are dealt with.

¹*Medd. om Grønland*, Vol. 21 (1898).

The author's opinion on a number of taxonomic problems of interest to American systematists is valuable. He recognizes Løppenthin's proposed pale American race of the Long-tailed Jaeger, *Stercorarius longicauda pallescens*, as valid, a conclusion borne out by material in the Royal Ontario Museum of Zoology. The Spitsbergen form of the Red Phalarope, *Phalaropus fulicarius jourdaini* Iredale, is shown to be invalid. The specimens on which this form was based were birds collected after the natural processes of wear and fading had modified their appearance.

It is natural that, working with different collections, accumulated at different seasons and from different localities, there should be some conflict between European and American systematists with regard to certain species. It is my belief that few Canadian workers will agree with Salomonsen's treatment of the controversial problem of Thayer's and Kumlien's gulls. But it must be admitted that with the present rather skimpy knowledge of these forms it is difficult to offer a much more satisfactory explanation. Salomonsen considers both *thayeri* and *kumlieni* as very unstable forms and that both should be united with the Iceland Gull as one species. Thayer's is considered the high-arctic representative of that species and Kumlien's as a hybrid between Thayer's and the Iceland. Canadian collections would seem to indicate that, contrary to Salomonsen's opinion, Thayer's Gull is a very stable form, showing over its range as little variation as most other species of gulls. Speculation on Kumlien's Gull would be better reserved until a comprehensive study has been made on its breeding grounds. It is, however, difficult to consider it a hybrid population between the Iceland and Thayer's gulls when it has not been demonstrated to come in contact with either during the breeding season. The only gulls I have seen with Kumlien's Gull in summer have been Herring and Glaucous gulls.

The author proposes a provocative theory concerning several species of birds that show a cline in size that is contrary to "Bergman's law" which is, stated briefly, a zoological maxim that within a given species, size increases from south to north. A notable exception to this usually reliable law has been the case of the three forms of Ringed Plover, *Charadrius hiaticula*, in which the most southerly breeding form is the largest and the most northerly, the smallest. Salomonsen shows that the small, dark, northernmost form winters in the tropics, the intermediate race in the Mediterranean, while the large British form is resident. "Selection operates in the winter-quarters", he states, "where these birds spend the largest part of the year, with the result that they will be affected in accordance with the zoogeographical rules." Other examples are cited in support of this novel explanation.

The illustrations are reproductions of water-colour paintings made in Greenland by Gitz-Johansen. The artist has portrayed his birds against the colourful landscapes of Greenland in a free and interpretive style. The resulting illustrations are bright and decorative. Only adult birds are shown, in many cases only the adult male. One feels that a treatise of the calibre of 'Grønlands Fugle' might have had added value had there been included a series of photographs of the various habitats and illustrations of some of the more obscure plumages of Greenland birds.

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