

Reviews

The House Sparrow, by J. D. Summers-Smith. New Naturalist Special Volume published by Collins, Lond., March 1963. Cloth bound, 8" x 5½"; 19 chapters and 6 appendices; selected bibliography, index, coloured frontispiece, 32 photographs, and 36 text figures. Price: 41/6 Aust.

Summers-Smith chose what is probably the world's most common wild bird as the subject of close study, and after 12 years of work he has given ornithology a readable and biologically sound book which will set a new standard for publications of this kind. It is appropriate that of all birds the House Sparrow should be the subject of such a book. Its successful adaptation to life in close proximity to man, its familiarity to so many people of so many lands, and the fact that it is readily available to both the beginner and the advanced student of ornithology make it the ideal choice for a model study that is to be an example and an inspiration.

The book is divided into three sections: the life history of the sparrow, its origins and distribution, and its ecology.

Australian readers will be particularly interested in the final chapters of the book which deal with some ecological aspects, man and the House Sparrow, and the secret of its success. Summers-Smith considers that although the growth of a population of several millions cannot have been without some effect upon the populations of native birds in countries to which the House Sparrow has been imported, it must be borne in mind that the great biological upheaval resulting from European development of the countries concerned was in itself creating an environment more unsuitable for the indigenous species, none of which was anything like so well suited to the urbanized habitat that was being created. The sparrow exploited an ecological niche for which it was adapted and in which it met with little competition or resistance. Similarly, absence of competitors in associated niches allowed the bird to spread into rather different habitats such as scrub-country in New Zealand and Australia.—E. F. BOEHM.

Space Tracks: Bioelectronics Extends Its Frontiers, by D. W. Warner. *Natural History* 72: 8-15, 1963.

The development of transistors and the micro-miniaturization of electronic components has led to advances in studies of animal movements and the measurement, under natural conditions, of heart, respiratory, and metabolic rates. The use of radio signals in this field, however, is limited by their line-of-sight propagation, and large-scale movements of animals cannot be tracked, at least not using ground-based receivers. "How can we find out where the penguins of Antarctica go after the mating season; the routes of the wandering albatross or the Caribbean turtle; the forces governing caribou movements; the track of the Canada goose?"

The author outlines convincingly how the use of an artificial satellite could help to answer these questions, and how the practical difficulties of such a scheme could be overcome. A transmitter borne by an animal could send signals up to about 800 miles to the satellite, whose signals in turn would be received by a ground station some 1200 miles away. The coverage for one receiving station would thus be about 4000 miles across, and, for instance, "a few stations in the Pacific islands could cover the whole Pacific area". Analysis of the inevitably complex data supplied by the satellite could be done by computer.

Clearly such work lies some way in the future, requiring much expense and co-operation between nations as well as between different scientific disciplines. The importance of this article, however, is in its emphasis of the immense possibilities—no longer impossibilities—in this field. One study immediately in mind for investigation by this means is that of the environmental factors controlling the remarkable movements and breeding rhythm

of the Short-tailed Shearwater, *Puffinus tenuirostris*, following upon the great deal that has already been discovered, using conventional methods, by workers in Australia.—D. F. DORWARD.

Sea Birds of The South Pacific Ocean.—A Handbook for Passengers and Seafarers. Containing a description of all birds that may be encountered on a voyage from New Zealand to Panama, with notes, illustrations and a guide to their identification. By P. P. O. Harrison, Master Mariner. Published by the Royal Naval Bird Watching Society, 1962, 15/- (U.K.). 144 pages. 39 illustrations + map. Printed and obtainable from H. G. Walters Ltd., Narbeth, Pembrokeshire, Wales.

The R.N.B.W.S. has, over the years, been collecting records of sea birds and plotting their distribution over the oceans of the world. This production by Captain Harrison, one of its most energetic and competent observers, is largely the result of his own observations on some fifteen crossings of the N.Z./Panama route augmented by information from other sources. An introductory chapter includes notes on geographical and local distribution, hints on observing and noting characteristics, immature and seasonal plumages, etc. A very helpful section indicating the species likely to be observed is divided into four sections, N.Z. Harbours, N.Z. to Pitcairn Is., Pitcairn to Galapagos, Galapagos to Panama, and these are further subdivided seasonally where expedient. Each family of sea birds is considered in turn with specific descriptions, notes on special identification points and the range pertinent to the route. Several inaccuracies, mostly small ones, are evident in this section which it would be hypercritical to list here in full. The Royal Albatross, for instance, would be difficult to recognize from a description which reads (in part) "except for the primaries . . . an entirely white bird", etc., when in fact the entire upper wing is usually dark with a white elbow patch on some males (subsp. *epomophora*), nor could anyone who has seen the beautiful and distinctively coloured bill of an adult Buller's Mollymawk reconcile it with "grey". Some species omitted are perhaps not commonly seen but the fact of their possible occurrence should be recorded, e.g. Brown-winged Terns, *Sterna anaetheta*, and migrating Arctic Terns, *S. macrura*, could occur near Panama and we find no reference to the numerous brown phase of the Red-footed Booby. Type errors, particularly in scientific names, are a trifle too numerous even for a first edition. Of particular value to the voyager is the compact and informative tabular reference to the shearwaters and petrels, which is a real aid to identification as are also the five pages of drawings (illustrating 17 petrels) with the field points clearly indicated. A further key, using appearance, behaviour and locality, enables the subject to be placed in its family and reduces final identification to a minimum number of species. An appended systematic list serves also as an index.

Ornithologically this is a useful contribution toward elucidating distributional patterns of South Pacific sea birds. More important is its popular function in stimulating in the casual observer a genuine interest which grows with competence in recognition. To this end, as a companion volume to Alexander's *Birds of the Ocean*, it should accompany every traveller on the South Pacific passenger route and it is not without its application in other southern oceans.—J. D. GIBSON.

News and Notes

COLOUR-BANDED SWANS

As part of its long-term studies of the ecology of Australian waterfowl, the CSIRO Division of Wildlife Research has, during the last couple of years, intensified its studies on the Black Swan. The work is conducted by H. J. Frith and W. L. Braithwaite, and the field work is performed near Canberra and near Griffith, New South Wales.

In addition to breeding and food studies, the work also includes a marking and banding programme to learn something of the movements and longevity