

WILD LIFE AND THE CAMERA

People of the Forest

By Hans Lidman. Pp. 191 (plates). (Edinburgh: Oliver and Boyd, Ltd., 1963.) 42s.

THE camera has long proved its worth in the portrayal of wild life, in particular of bird life; indeed, bird photographers in Britain to-day are a large and for the most part a skilled body. But the book now before us is not concerned with British birds. It is by a Swedish naturalist, Mr. Hans Lidman, and is concerned with the wild life of a Scandinavian forest. Mr. Lidman has used his camera with uncommon skill to show us the birds and beasts of this beautiful but stern environment. His pictures are most impressive whether they are of mammals, birds, reptiles, insects, or the world in which they live. There is a landscape, wind-blown snow and tall pines, that suggests storm and winter cold more intensely than any picture I have seen; and there is a view of a few rushes and some sticks rising from the still misty waters of a forest-girt lake which conveys an impression of early morning stillness and peace hard to surpass.

But, of course, it is the studies of birds and beasts that are the great feature of this book. We may justly term it a picture book, though the text is by no means unimportant, consisting of charmingly written descriptions of the forest life and forest creatures under changing conditions, in mid-winter, spring, summer and autumn. It must be remembered that the letterpress is a translation from the Swedish and it is ever difficult to convey the spirit of the original in an alien tongue. So far as one can judge, the translation is successful, bringing before the reader vivid impressions of the vast forests, impressions made the more real, not to say intense, by the photographs.

Where practically all the illustrations are good it is invidious to pick out particular pictures for remark, but the stoat, transformed by its seasonal change of coat into a pure white ermine (p. 10), seems to me an outstanding snapshot. The two common cranes dancing in courtship-display, facing each other with spread wings and in elegant pose, will rouse the envy of all camera-minded ornithologists, and the portrait of a crane at its nest is a superb study.

But in dealing with the subjects of these magnificent pictures, in the matter describing them and their environment, it is regrettable so little use has been made of scientific names. A fine butterfly of swallowtail type is left unidentified, and a stoat, presumably *Mustela erminea*, is called a weasel, though this term is usually reserved for the tiny *Mustela nivalis*. It is true that in Ireland, where the weasel does not occur, the stoat is given this name; all the same, a stoat is generally a stoat and a weasel a weasel to most of us.

Where there is so much to admire we must not carp at such details, possibly due to translation difficulties, but turn back to the illustrations, such as that of a black-throated diver on her nest, lifting her sleek, almost reptile-like head aloft and looking disdainfully around. This volume would make a fine present for a boy or girl with leanings towards Nature.

FRANCES PITT

EARTHWORM PHYSIOLOGY

The Physiology of Earthworms

By M. S. Laverack. (International Series of Monographs on Pure and Applied Biology: Zoology, Vol. 15.) Pp. ix+206. (Oxford, London, New York and Paris: Pergamon Press, 1963.) 45s.

AS the author emphasizes in his preface, there has been no general account of earthworm physiology since Stephenson's monograph on the Oligochaeta was published more than thirty years ago. Dr. Laverack's book fulfils a need felt by both physiologists and zoologists for an

account of the work done since then, much of which is in obscure journals. Earthworms are almost ubiquitous and easily procured, so that it is perhaps not surprising that we know far more of their physiology and structure than we do of other oligochaetes. The subject of the book is, therefore, wisely limited to a review of work done on earthworms, and yet there are occasional digressions, for example, some information is given on respiration of the fresh-water *Tubifex*. There are chapters on digestion and metabolism, on the calciferous glands, the axial field, nitrogenous excretion, water relations, respiration, the physiology of regeneration, neurosecretion, the nervous system, and, lastly, behaviour. There are simple diagrams summarizing the course of digestion, excretion, water-relations and calcium-transport, which are useful in directing attention to what is established and what remains to be demonstrated. The first chapter is a biochemical potpourri; a frankly heterogeneous collation of such interesting topics as the composition of the cuticle, muscle structure, and pigments. In this last section, attention is directed to the presence of protoporphyrin in the skin, a subject mentioned again later (p. 134) in connexion with darkening in light; but the reader is left wondering what other pigments are present, and the reference to Kalmus and others' work (p. 11) without further explanation is annoying.

Such lapses are few. The author has no aversion for colloquialisms and these may be irksome to some readers. The constant use of Latin abbreviations strewn through some paragraphs I find irritating, though some chapters are almost free of them. The description of the chloragocytes and the present view of their function is most useful, but the contact that such cells have with blood vessels is an important point not emphasized. The sense in which the terms 'lipid' and 'fat' (p. 57) are used is not clear, and it may be pointed out that neither the periodic acid-Schiff nor the performic acid-Schiff is a specific test for phospholipids as the student might infer. Later in the book the two types of light-receptor are mentioned and figured (Figs. 57, 58), but there is no mention of the alleged difference in their spectral sensitivity or of the response of one to light increase, the other to decrease, reported by Unteutsch (*Zool. Jb., Abt. 3*, 58, 69; 1937). There are a few typographical errors of which only *Harmathoë* for *Harmothoë* may be mentioned as it may not be obvious to readers; while in Tables 5 and 6 the rate is presumably in hours, and oxygen-uptake is meant, and in Fig. 29 the oxygen-concentration is presumably in ml./l. The only other criticism is perhaps a personal one—the use of oxygen-tension—so prevalent among physiologists to-day.

These are all minor points and do not detract from the great usefulness of this book, which undoubtedly forms an essential addition to libraries of departments of zoology and comparative physiology. Dr. Laverack is to be congratulated on presenting such a concise review. It is well bound, clearly printed and is a worthy addition to this series from Pergamon.

R. PHILLIPS DALES

FLOWERS OF THE GARDEN

Garden Flowers

By R. D. Meikle (The Kew Series). Pp. 479+15 plates. (London: Eyre and Spottiswoode, 1963.) 30s.

IT is largely the effect of the black-and-white illustrations in this latest volume of the Kew Series that sends one's mind racing back to the early herbals, but the feeling soon begins to dawn that the text is very much in keeping. The illustrations are mostly insets into the text and within their rectangular areas plants defy many of the ordinary laws of growth: the slanting Christmas rose (p. 64) and cyclamen (p. 291), the enwreathed flame flower (p. 134), the almost horizontal tubers of *Roscoea* (p. 390) are merely examples. Then the text, with its