ENGUINS ASHORE

POPULATION STUDY OF PENGUINS, by L. E. Richdale; Clarendon Press: Oxford University Press, English price 42/-.

(Reviewed by K.R.A.)

N a previous book, Dr Richdale described the mating and other behaviour of the Yelloweyed Penguin; in the present work he gives an account of other aspects of their biology, especially those which regulate the number of birds in the penguin colonies.

The beginnings of biology as a branch of modern science can be found in the work of the early naturalists, men who were, above all, patient and accurate observers of the world of living things around them. In its growth from these beginnings biology has branched out in many directions, and it has developed methods, and drawn on other scientific disciplines, in ways far beyond the vision of its founders. Progress in some of these new directions has come from men whose interests and abilities are very different from those of their predecessors, but there are still many fields of biology which spring more directly from the ideas and methods of the earlier natural historians, and which require the same attributes in those who

follow them. The growth of knowledge and the consequent increasing specialisation have meant, however, that to achieve significant results the naturalist of today has to concentrate his observations on some smaller aspect of nature, and to record his observations in a more precise form than his predecessors.

Dr Richcale is such a present-day naturalist, and his book tells something of the results achieved by 18 years of patient observation of the Yellow-eyed Penguins of the Otago Peninsula. The thorough nature of his work is indicated by the fact that during this time he visited the nesting areas he was studying over 1300 times, and that practically every penguin in the area which nested or was hatched and survived to the fledgling stage, was marked in such a way that it could be recognised when it was met again later. In this way Dr Richdale was able to follow a large number of birds through all the main events of their lives, and thus to build up a picture of their breeding and migratory habits, and their chances of survival at each stage of their lives, which is one of the most complete we possess for any bird or other animal.

The Yellow-eyed Penguin, which is largely confined to the south-eastern area of New Zealand and some of the

near-by islands, differs in several aspects from the more widely publicised Antarctic penguins. Its colonies are neither so large nor so densely crowded, but consist of a few dozen pairs, scattered through an area of forest close to the coast. Although individual birds may wander throughout the range of the species, it is comparatively sedentary and does not undertake the wholesale migrations of its southern relatives; the nesting areas are never completely de-

YELLOW-EYED penguin on nest

serted. The fledglings take to the water and leave the nesting area when about 18 weeks old, and apparently do not come ashore again for another four months. Some of them return to the area where they were hatched, but the remainder join other colonies, at least temporarily. Similar winter wanderings



