

thinking observer of *that*. Those who convict on hearsay evidence might well take a leaf out of this book.

Henry Tegner's many chapters range among subjects as diverse as Boxing Day meets, hares, pit-fall duck shooting, mackerel, "wild" goats, sea coal, as well as the more orthodox grouse, trout, and waders. In an excellent chapter entitled "The Corvine Menace", he records a year's total of over 10,000 corbies destroyed at roost shoots organized by the local A.E. Committee—"allowing for some being rooks, an encouraging total," and, a little later, adds characteristically that "jays are more of a menace in the garden than in covert". In another on "Black Grouse" he has much of absorbing interest and acute observation—are not the Borders the "Cradle of Blackgame"?—including the sight of a mass flight at between 300 and 400 feet in the air of *seventy* magnificent cocks, a red-letter day indeed. It is encouraging to learn that blackgame are, if anything, increasing, due, in part, to the belated realization by the Forestry Commission that the blackcock isn't as black as he's painted—one wonders who gave the Commission its mandate to destroy these fine birds in season and out in the first place—a timely gesture in view of the inevitable decline of red grouse as the new plantations invade the open moorland.

Those who know Henry Tegner will not be surprised that he has much to tell about the roe deer, where again the Forestry Commission permits unwarrantable slaughter. And not only the Commission: a man was "reported in the local Press as having slaughtered 550 in three years" in a comparatively limited woodland area—not, one would think, a record to blazon in print and be proud of, since such a total must include beasts butchered irrespective of age or sex. However, as the author remarks, this "sportsman" mentioned incidentally roe weighing up to *ninety* pounds! so his tally-keeping may have been as generous as his spring-balance. But in the long run afforestation favours the roe deer.

In his Foreword to the book the Duke of Northumberland writes that the author's vivid descriptions and the beautiful photographs will give real and lasting pleasure not only to Northumbrians but to all who cherish the wild life and sports of the English countryside. And he is right. E. A. R. E.

NORTH AMERICAN MOOSE. By RANDOLPH L. PETERSON.  
University of Toronto Press, 1955. \$12.50.

This is not the first large book about the moose (*Alces alces*). Sweden produced an excellent one recently (*Algen, studier, jakt*

*och vard*, by Folke Skuncke, 1949. P. A. Norstedt and Soners, Forlag, Stockholm) and there are older works in English. Peterson's book, however, is the first about moose in North America with the modern and critical approach of the relatively new profession, Wildlife Management.

Members of this society who have seen the film "Expedition Moose", available from the film library, will be interested to learn that the film and the book under review here are two products of the same study.

Peterson studied moose in the Ontario wilderness for several years. On foot, in canoes and in aircraft he did much travelling to gather his data. The results are in his book. In addition, the volume presents in orderly fashion all reliable information on the species in North America, with frequent references to Scandinavian knowledge as well. There are over eighteen pages of references to published material which has been incorporated into the text. Here, then, in one book, is the accumulated knowledge of the past concerning moose, with the results of the author's own researches added.

That this moose book will be much used is evident from the current Canadian scene. Prolonged and detailed studies of moose are being undertaken in British Columbia and Newfoundland, while less intensive studies are continuing in Manitoba, Ontario, New Brunswick and Nova Scotia. Dr. Peterson indicates repeatedly that there is still much of importance to be learned about moose. His book is a solid foundation upon which the new students of moose can build.

Some have called the moose a living fossil. This may be so. Those concerned about the world's vanishing fauna can be assured, however, that Canada is using adequate funds and trained biologists to ensure that moose will remain *living* fossils.

R. Y. E.

BIRD NAVIGATION (1955). By G. V. T. MATTHEWS. (Cambridge Monographs in Experimental Biology No. 3. Cambridge University Press, 12s. 6d.). 141 pages, line illustrations.

Those of us who have been following, in the years since the war, the revival of bird navigation studies, and in particular the observational and experimental work of D. R. Griffin in North America, Gustav Kramer in Germany and G. V. T. Matthews in England, must have realized that lately all that has stood between the scientific world and a satisfactory theory of bird navigation was something which, in itself, was nothing