

one traces the development of radar, and in another the problems of drift and dispersal are considered.

Migration apart, the phenomenon of starling roosts is described, and their dispersal is discussed. Species in which migration at present seems to be a minor phenomenon receive consideration and ecological examination, while changes in the habitat of certain thrushes are traced. Before the concluding chapter are three in which owls, falcons and hawks, together with their connexion with pigeons, wild birds and keepers, are examined.

The book is not aimed particularly at the specialist. General readers to whom I have lent my copy have found fascination among its chapters, while the amateur naturalist of many types will read it from cover to cover.

H. DUNNICLIFF

## DEVELOPMENT AND LEARNING

### Education and Physical Growth

Implications of the Study of Children's Growth for Educational Theory and Practice. By Dr. J. M. Tanner. Pp. 144. (London: University of London Press, Ltd., 1961.) 12s. 6d. net.

ALTHOUGH the frequency of educational theories bears some similarity to the number of educationists and changes with bewildering rapidity, the number of substantiated facts on which the theories are based is still lamentably small. It was a happy thought, therefore, of the University of Leeds Institute of Education to invite a leading authority on human growth to present a series of lectures in which his work could be related to present-day educational theory and practice.

These lectures have been brought together in a valuable book which provides much useful information about the development of children. Tanner's own work on the growth curves of physical characteristics, such as height, weight, muscle and skeletal structure, is examined along with existing knowledge about the way in which growth gradients emerge. Even more significant for educationists are his descriptions of critical periods of growth in animals which, depending on the stimulus (or lack of it) from the environment at the right time, may lead to the emergence (or repression) of certain qualities or characteristics. If such critical periods were confirmed in children, the need for educationists to bring out the appropriate environmental stimulus at the critical time would become all too evident. Yet, as Tanner demonstrates, the lack of substantive facts about the growth of children enables him to provide few answers but many questions; the solution to these will only be provided when the amount of fundamental research on child growth is increased considerably.

To one pressing problem, however, enough information is available to provide a solution which seems clear and unquestionable. The different way in which different abilities emerge in young adolescents at differing times indicates that the raising of the school-leaving age for all children to sixteen years of age runs counter to all the demands and requirements of some of these children. To carry out such a doubtful policy is a striking example of how misguided humanitarianism supported by tidy administration can fly in the face of all known facts. Tanner's book may well cause such zealots to think again. It

should be read not only by professional educationists but also by members of national and local education committees. The day may even come when such a work is made obligatory reading for all who have the charge of young people in industry.

KATHLEEN M. HAWKINS

## PLACE-NAMES IN THE WEST RIDING OF YORKSHIRE

The Place-Names of the West Riding of Yorkshire By A. H. Smith. Part 4: Barkston Ash, Skyrack and Ainsty Wapentakes. Pp. xii+262. Part 5: Upper and Lower Claro Wapentakes. Pp. xii+222. Part 6: East and West Staincliffe and Eweross Wapentakes. Pp. xii+274. (English Place-name Society, Volumes 33, 34 and 35.) (Cambridge: At the University Press, 1961.) 35s. net.; 6.50 dollars each volume.

THE present three volumes form the second instalment of a total of eight concerned with the West Riding, and it is good to see them follow so quickly on the earlier three which were reviewed in *Nature* (191, 208; 1961). The seventh volume will be concerned with the interpretation of the material now completely assembled, and the eighth will consist of a general index to the place-names of Yorkshire as a whole. The present three volumes cover the county to the north of the Aire. They follow the earlier three volumes in including a large number of minor names and field names. Street-names of the large settlements are also given space, and the whole constitutes a most impressive array of detailed evidence.

We must wait until Volume 7 for a comprehensive assessment of this mass of material. In the meantime, anyone who turns over the pages of the present volumes is left with at least two broad impressions. One is the intermingling of English and Scandinavian elements, not perhaps so frequently as in some other parts of northern England, but certainly very noticeably. Scandinavian elements occur not only in names of adjacent townships and in juxtaposition within the same township but also sometimes combined within a single name; and there are also many examples of Scandinavianized forms of English names. A second impression is that of the large number of names that indicate the former presence of wood. We must picture the West Riding as being very largely covered by tracts of wood extending up the valleys below the bleak moorlands which offered pasture for sheep.

Our impressions of these distributions will come more clearly into focus when Volume 7 is available. The implications of this great harvest of evidence will then be made clear in the form of analyses of the types of names together with notes on their distribution, illustrated by maps. The interpretation of this material in the light of the wide variations in the geography of the county and in relation to the general history of England will constitute a major contribution, far transcending its philological importance; that in itself may well be considerable, for through the West Riding ran the boundary between Mercians and Northumbrians. In the meantime, we can but salute the meticulous scholarship of the present volumes, and congratulate the English Place-Name Society on its continuing contributions to English scholarship.

H. C. DARBY