

A few criticisms may be made. There is no mention of the recent work on direction of magnetization in rocks, with its implications of changes in the position of the poles. It is a pity that Spitsbergen is not discussed as the best example of a high Arctic island, or Iceland as possessing avifauna as transitional between the Palearctic and the Nearctic. The rabbit is not indigenous in Britain. Too much weight is given to Sewall Wright's "drift" as an agency of evolution.

Darlington does not refer to that beautiful example of convergent adaptation, the possession of a brush-tongue by the nectar-feeding Australian marsupial *Tarsipes*, as well as by the Lories. While giving an admirable treatment of migration, he omits all reference to hibernation as a factor in the distribution of mammals (and other groups). He does not mention E. B. Worthington's valuable studies on the fish fauna of the great lakes of Africa, nor the fact that the lion extended into Europe in proto-historic times. He might have used the Old World wren as a striking example of the wide diffusion of a single species of an abundant group which happens to have high cold-tolerance. When he speaks of the complex dispersion of "Man" in the mid-Tertiary (p. 346), this is clearly a slip for early hominids (p. 626). He mentions the suggestion that Monotremes may be descended from Marsupials without pointing out the zoological absurdity of this idea—unless one enlarges the concept of a marsupial to include forms laying large shelled eggs. More serious, he asserts that Marsupials and Placentals were "parallel groups" with equally wide distribution before the end of the Cretaceous (p. 322); but if this were so, how could the Placentals have failed to reach Australia? Assuredly the dominance of the two groups must have been successive in evolution, with the major rise and spread of the Placentals occurring somewhat later than that of the Marsupials.

But these are minor points: they do not detract from the general value of the work, which will be indispensable not only to zoogeographers but to all serious students of animal evolution.

J. S. H.

CHARLES DARWIN. By RUTH MOORE. London: Hutchinson, 1957. Price 12s. 6d.

The author starts her book appropriately enough with an account of the "eminently curious Galapagos", those remote mid-Pacific Islands, which made such a lasting impression on

Charles Darwin when he visited them in 1835, during the voyage of H.M.S. *Beagle* round the world. The importance of travel in the training of naturalists was fully recognized in the nineteenth century and many of the leading zoologists and botanists visited foreign parts in the course of their education. The study of nature in unfamiliar surroundings and different climates with varying fauna and flora certainly had a profound influence in the development of Darwin's ideas on evolution. His short stay in the Galapagos group is generally regarded as the turning point in his thought which led, in 1859, to the publication of *The Origin of Species by Means of Natural Selection*.

The author gives an interesting account of Darwin's life, starting with his beginnings, followed by a summary of his voyage in the *Beagle*. Then follow the intervening years, Darwin's marriage to Emma Wedgwood in 1839, their setting up house in Gower Street, London, for about three years, and then the movement to Down, where they lived for the remainder of their lives. During this period Darwin completed his *Zoology of the Voyage of the Beagle*, his *Geological Observations, including the Structure and Distribution of Coral Reefs and Volcanic Islands*, and two volumes of his monograph on *Cirripedes*.

Then in 1858 an essay arrived from Alfred Russel Wallace entitled "On the Tendency of Varieties to depart indefinitely from the Original Type", which contained the same startling new conclusions as to the Origin of Species on which Darwin had been engaged for twenty years. Lyell and Hooker arranged for a joint presentation of both Darwin's and Wallace's sketches at a meeting of the Linnean Society on 1st July, 1858, and the centenary of this meeting is being celebrated in London during the present year.

The events leading to the publication of the *Origin of Species* occupy a large part of the book and the remaining chapters deal with Darwin's many other activities and especially the production of his second greatest book *The Descent of Man and Selection in Relation to Sex*.

Miss Moore has written an excellent summary of the story of Charles Darwin's life extracted from his own books, letters and autobiography, and has built up a rich picture of how he arrived at his ideas, the way in which he worked, and the quiet retired life he led. Her book can be thoroughly recommended to those wishing to acquire a general impression of the life of one of the world's greatest scientists.

E. H.