

arguments are advanced against Merriam's second law while it is claimed that daily maximum temperatures are more important than daily mean temperatures in controlling southerly distribution of birds.

While Mr. Kendeigh concerns himself with the actual influence of temperature, as the result of experiments, Dr. Shelford attacks the whole question of life zones based on temperature.¹ He quotes Dice, Pilsbry and others who consider that Merriam's life zones emphasize secondary and not primary facts of distribution. While he admits that in the mountainous regions, especially of California, there is considerable agreement between plant-animal communities and life zones, he claims that there is little in common between the fauna and flora of the eastern, middle, and western sections of the transcontinental zones as drawn by Merriam. "The two systems [faunas and zones]" he writes, "are so completely out of harmony as to viewpoint that it is best to leave the life zones to the field of zoogeography, having for its aim the explanation of evolutionary phenomena, but with no ideas of modern community analysis or experimental work. The American life zone viewpoint has been carried so far in the United States Biological Survey that it has faced modern problems of biotic balance, relation to weather and other relations of agriculture and grazing without suitable scientific foundation."

Dr. Shelford's claims, as shown by his quotations are by no means new and as he points out there are two quite different viewpoints involved, the "zoogeographic" and the "ecologic." There is much more in ecologic areas than some would admit, doubtless due to the criticism that ecologic extremists (or incompetents) have brought upon the subject by their ridiculous contributions, and for practical purposes "life areas" based on other factors as well as temperature will prove more satisfactory and logical. The presence of two quite different viewpoints in this problem as well as in discussing the origin of faunas must, however, be kept clearly in mind—one dealing with present day distribution and the other with the past.

While Dr. Shelford's bibliography includes many important contributions to the subject some of the most important are omitted, notably Dr. J. A. Allen's on life zones and distribution of North American mammals and birds published forty years ago (*Bull. Amer. Mus. Nat. Hist.*, LV, pp. 199-244, 1892; and *Auk*, April, 1893) where the same ideas that are advanced by Dr. Shelford as to the distinction of "faunas" and "zones" are in great measure set forth. The subject is always an attractive one for discussion and we welcome any presentation of constructive data.—W. S.

Lowe's 'Trail that is Always New.'—This well written book with its title from Kipling¹ will be read with much interest by those who have studied the more technical literature based upon the collections made by

¹ The Trail that is Always New | By | Willoughby P. Lowe, M.B.O.U., F.Z.S. | Collector for the British Museum (Natural History) | Illustrated by | H. Grönvold and J. P. W. Lowe | Gurney and Jackson, London, 33 Paternoster Row, E. C. Edinburgh; Tweedale Court 1932. Pp. i-xviii + 1-271. Price 16 shillings net.

Mr. Lowe on the expeditions to various parts of the world which he here describes, and with even more enthusiasm by those who delight in entertaining and accurate accounts of travel and adventure.

Speaking of his youth in England and his deep interest in natural history he alludes to an interview with Sir William Flower, who, he writes, "impressed upon me that work in Natural History was very poorly paid; in this he was right." He also "thought I would, like most boys as they grow older, forget all about birds. Here he was wrong!" How many other similar interviews have taken place in America and how many, many, times have *both* of Sir William's predictions come true and how seldom has the enthusiastic boy really proved to be a naturalist.

Having settled this point Mr. Lowe takes us to Colorado where he spent several years of his early manhood assisting his brother on his sheep ranch but devoting every spare minute to collecting birds. Thence we follow him to the Philippines; later, as naturalist on H. M. S. Mutine, along the African coasts and inland to Uganda, Sudan, Nigeria, Gambia, and other parts of the Dark Continent; then to Siam and finally to Madagascar—always as collector for the British Museum.

The pages of his book teem with interesting bits of ornithology as well as with experiences with natives and incidents of travel in remote lands. It is well written, well illustrated with photographs as well as some sketches by the author's son, the late J. P. W. Lowe, whose portrait forms the frontispiece. In closing the introduction Mr. David A. Bannerman writes: "Now we have the narrative of these expeditions before us, and shortly after the book is in the hands of the public the narrator will be off once more on his beloved Trail—this time to the Gold Coast."—W. S.

Cayley's 'Australian Finches in Bush and Aviary.'—The purpose of this attractive volume,¹ the author tells us, "is two-fold: (a) to supply a much-needed manual for the use of lovers of these beautiful birds, who keep and breed them; (b) to offer to those who take a more scientific interest in them information concerning them in their natural haunts." In carrying out his plan he seems to have succeeded admirably.

Weaver-finches have always been popular as cage birds and the Australian species have been among the most desirable. There are some nineteen species of these gay little birds and each is described at length with paragraphs on references, descriptions, distribution, historical, field notes, aviary notes, and hybrids. There is also an outline map showing the distribution of each species and colored plates, from paintings by the author, depicting the several plumages, as well as a number of half-tones illustrating nests and aviary appurtenances.

Many of our readers have doubtless kept one or more of the Australian

¹ Australian Finches | in Bush and Aviary | By | Neville W. Cayley, F.R.Z.S. | etc. | Illustrated by the Author | Australia Angus & Robertson Limited, 89 Castlereagh Street, Sydney, 1932. Pp. i-xix + 1-256, colored plates 10, half-tone plates 16.