

pages of description of macroscopic appearances.

It is to be regretted that in a work of this character there should appear several slips due to lack of care in revision. On p. 21 it is stated quite rightly that "in birds with more marked binocular vision—hawks, for example—the *temporal* fovea has the greater depth and the eye becomes more asymmetrical"; and further on, on the same page: "Stereoscopic, binocular, single vision in birds with double foveæ . . . is probably accomplished by the two *temporal* foveæ acting in cerebral unison." Yet on p. 56, speaking of the birds of prey in general and the sparrowhawk in particular, the author states that "the *nasal* fovea is invariably the deeper and sharper of the two, and probably is used when distinct sight and binocular vision are required." On pp. 12 and 44 the author uses the term *neurilemma* where obviously he is referring to the *myelin sheath* of the nerve-fibre, and on p. 22 he uses the same term *neurilemma* for the *pial sheath* of the optic nerve. We believe that some physiological writers of past ages did call the perineurium *neurilemma*, but from the time of Schwann onwards the word has had a definite restriction to the outer sheath of the nerve-fibre, and to that alone.

It is only the interest with which we have read Dr. Wood's book that has led us to note these minor faults, and we must conclude with a note of admiration for the beautifully coloured reproductions of Mr. Head's drawings of the fundi of many different species of birds.

A NATURALIST IN COSTA RICA.

A Year of Costa Rican Natural History. By Amelia S. Calvert and Prof. P. P. Calvert. Pp. xix+577. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1917.) Price 12s. 6d. net.

PROF. CALVERT, after several prolonged journeys to Mexico and other countries, has extended his entomological studies to Costa Rica, in which State he has spent a whole year, from May, 1909 to 1910, accompanied by Mrs. Calvert, likewise a keen naturalist. Their chief purpose was a study of the dragonflies with reference to their seasonal distribution, which necessitated visits to the same localities at different times throughout the year. These special investigations having not yet been completed (Appendix iii. contains a long list of papers based on the collections, written by the authors and other specialists), their results are deferred, and the present book, embellished with some 150 illustrations, mainly of plants and insects, is devoted to the thousands of observations of all kinds of animals and plants as the travellers came across them. Here lies the drawback of the book; although so full of information, there are but few chapters to be enjoyed by the general reader, who taking the detail, much of which is unavoidably technical, for

granted, would relish some more comprehensive generalised descriptions as characteristic of the country.

Most of their time, about nine months, was spent, off and on, at Cartago, near the capital, San José, situated in the centre of the State, 10° N., at an altitude of some 4700 ft. Cartago is a very important place; there was to have been inaugurated in June, 1910, the "Central American Court of Justice," *i.e.* Carnegie's Peace Palace. From the naturalist's point of view the district was eminently well selected to serve as headquarters, situated as it is on the backbone of the country, at an altitude delightful for a country in the tropics, well watered by numerous streams, well wooded and very fertile, and last, not least, connected by the railway with the Atlantic and the Pacific. Thus they were enabled to make excursions through and into the most diverse kinds of country.

Irazu, the highest volcano, 11,300 ft., now extinct, or rather dormant, like so many Central American volcanoes, is only some ten miles from Cartago. It was visited several times, and on one occasion our naturalists spent a night in the crater with a tent. This chapter, well illustrated with photographs, contains a lively, graphic description of the altitudinal and other charmingly interesting changes.

The Costa Rican Government obliged them by numerous acts of courteous assistance. On several occasions Prof. Calvert was invited to join some Government commission—for instance, to the north-west province—so that he acquired a very satisfactory general knowledge of the middle belt of the country, from the Atlantic to the Pacific.

Costa Rica is a well-to-do farming country; the aboriginal natives give no trouble, and the other mixed and white people have the good sense to keep themselves and their country out of politics. Greatly helped by not a few of the scientific and other residents, everything went smoothly, and there were no stirring incidents of travel to relate until the halcyon year of the con-joint authors was brought to a sudden, catastrophic end.

Earthquakes are endemic in Central America, and more or less disagreeable shocks had been not uncommon at Cartago. Within the last 250 years the town had been destroyed several times. On April 13, 1910, there occurred a few severe shocks, increasing to three dozen by the next day and badly damaging the town; but the disturbance was so local that Prof. Calvert, who happened to be only thirty miles away, did not think it worth while to return to his partner, who was at Cartago. They made the best of the ensuing confusion until May 4, when some sudden, terrific shocks laid the town in ruins, including the Peace Palace, and two days later our lucky travellers, themselves unharmed and without any damage to their numerous collections, left for home.