

the four months February, May, August and November, and also mean monthly charts of the North Atlantic for each month, showing the pressures for every five-degree square.

Not only do the charts give information on the numerous meteorological elements such as temperature, wind tracks of storms, rain, &c., but they refer to the depths, temperature at different depths, specific gravity, currents, &c., of the water in this ocean, the magnetic elements for the year 1902, mean ship routes for two seasons of the year, and the distribution and chief hunting grounds of the most important species of whales.

A word further may be said in praise of the reproduction of the maps, which are all neatly and distinctly coloured, and on scales which are sufficiently large for the purposes for which they are intended.

Both the distinguished director of the Deutsche Seewarte and his co-workers are to be congratulated on the completion of this important work, and for their successful efforts in bringing before the world in such a concise form the results of so many observations. British meteorologists and sailors will certainly find this work of great utility, and they, like the present writer, will no doubt appreciate the service that has been rendered by their German confrères at the Seewarte.

W. J. S. L.

#### THE WANDERINGS OF A NATURALIST.

*Aus den Wanderjahren eines Naturforschers, Reisen und Forschungen in Afrika, Asien und Amerika, nebst daran anknüpfenden meist ornithologischen Studien.*  
Von Ernst Hartert. Pp. xiii + 329. (Berlin: Friedländer und Sohn; London: Porter, 1901-2.)

A SHORT time ago (*NATURE*, vol. lxiv. p. 249, July 11, 1901), we called attention to the scientific work carried on at the Tring Museum and to its excellent results as regards the advancement of zoology. In *Novitates Zoologicae*, the organ of that institution, has been lately published a series of articles written by Mr. Ernst Hartert (one of Mr. Rothschild's staff of naturalists, whose name is well known to all zoologists), containing an account of the various expeditions which he has made, in the intervals of a very busy life, to the tropics of three continents. These articles are reprinted in the volume now before us, and are accompanied by some excellent illustrations.

Before noticing this work, we may express some regret that Mr. Hartert did not write it in English, with which language, we believe, he is quite as familiar as with his native tongue. All educated Germans can read English; but it is a fact, we regret to say, that many highly educated Englishmen do not read German with facility, although they may be able to comprehend its general meaning. By writing in English, we believe, Mr. Hartert would have secured a much larger number of readers for his interesting narrative.

Mr. Hartert is so fortunate as to have visited the tropics of Africa, Asia and America in the course of his wanderings—a feat which we suppose few other naturalists have achieved. In April, 1885, he left Hamburg as a volunteer zoologist in company with Flegel's Niger-

Benué Expedition, to an account of which the first section of this work is devoted. From Loko, on the Benué, a successful journey to Sokoto and Kano was made across Hausaland, but the talented leader of the expedition lost his life on the way back and others were very sick. Various zoological notes will be found in the text of the narrative of this excursion, and special chapters on the birds of the Canary Islands and of Hausaland are added.

In August, 1887, our author turned his face to a very different part of the earth's surface, and started for Penang and Sumatra, with the object of making entomological collections for the late Dr. Richter's cabinets. The journey was subsequently extended to the attractive island of Salanga, on the coast of the Malay Peninsula, and to the British Protectorate of Perak, where both fauna and flora seem to be of the richest and most varied character. An account of these journeyings, interspersed with zoological notes, and of the return home through British India occupies the second section of our "Naturalist's Wanderings." Special chapters are devoted to an annotated list of the birds of Deli, in Sumatra, where examples of 212 species were met with. In this exuberant avifauna, the hornbills, of which no less than nine species are enumerated, must form an attractive feature.

In the third section of his journal, Mr. Hartert takes us across the Atlantic, and tells us of Venezuela and its islands, which he visited in 1892, accompanied by his wife, who, we have been informed, is an accomplished collector of birds and insects. The principal exploit of the journey was the complete ornithological exploration of the three Dutch Caribbee Islands of Curaçao, Aruba and Bonaire off the coast of Venezuela, of which very little was previously known. Mr. Hartert published his account of this excellent piece of work in the *Ibis* for 1893. He now adds many details about his adventures and experiences of all kinds. He has come to the conclusion—no doubt correct—that, though many West Indian forms are represented in Curaçao and "its satellites," the greater part of their fauna has been acquired from the neighbouring continent.

In the fourth and concluding section of his volume, the author takes us back to Africa, not, however, to the fever-stricken banks of the Niger, but to the wholesome and charming sea-board of Morocco, which, according to Hooker and Ball, will ultimately become one of the finest winter-resorts of the Eastern Hemisphere. It is remarkable that a fresh and wild land so easily accessible to Europeans is not more frequented. Mr. Hartert descants fully upon the birds met with in the vicinity of Mazagan, whence he crossed the sea to Teneriffe and returned home by Madeira.

#### AN ASPIRING GLACIALIST.

*The Cause of the Glacial Period.* By H. L. True, M.D.  
Pp. 162. (Cincinnati: Robert Clarke Company, 1902.)

GEOLOGISTS and physicists have been at their wits' end to discover the cause of the Glacial period. They may now cease from cudgelling their brains—Dr. True, of McConnelsville, O., has finally solved the mystery. The explanation is so simple that all who have meddled