

trusted members of the staff of the Smithsonian Institution, with which he had been connected in various capacities since 1877. He was born at Waukegan, Illinois, August 24, 1853, educated in the Waukegan public schools, the University of Chicago, and at the Northwestern University, where he was graduated in 1877 with the degree of B. S. He entered the service of the Fish Commission, under Prof. Baird, as a fish culturist; in 1878 was transferred to the scientific staff, and from 1879 to 1882 was engaged in the Fisheries Division of the Tenth Census.

From 1885 to 1888 he was Chief of the Division of Statistics in the Fish Commission. He was sent, in 1883, to the International Fisheries Exhibition in London, as a member of the staff of the United States Commissioner, and rendered very efficient service as executive officer and deputy representative. His aptitude for exposition work was so fully demonstrated on this occasion that he has been designated chief executive officer, at all the expositions which have since been held, for the exhibits of the Smithsonian Institution and the National Museum; at Louisville and New Orleans in 1884 and 1895, Cincinnati in 1888, Chicago 1893 and Atlanta in 1895. At the time of his death he had just completed the unpacking of the exhibits returned from the South.

Since 1888 he had been connected with the National Museum, with the grade of Curator, and for three years had been Editor of the Proceedings and Bulletins of the Museum.

He was recognized by his associates as man of fine administrative ability, which, combined with great force of character, had brought him into the position of one of the most efficient exposition experts living. His unselfish devotion to his work, and his absolute trustworthiness were appreciated by all who knew him, and he was exceedingly popular among his associates.

Notwithstanding his constant occupation in executive work, he produced and published a considerable number of important papers in regard to the methods of the Fisheries and the habits of fishes. He was one of the best authorities upon the natural history of the Shad and Herring, and made exhaustive studies of the fishery statistics of the Atlantic and Gulf coasts and of the Great Lakes. Several new fishes were discovered by him, one of which, an important food species of the Southern coast, obtained by him at Charleston in 1881, is called in his honor Earll's Hake, *Phycis Earllii*. He was also a skilful fish culturist and had much experience in the early experimental work in the propagation of the Shad and in the establishment of the Cod-hatching station at Gloucester.

He was a man of the purest personal character. His loss will be deeply felt by many in Washington. By reason of his peculiar abilities and his great experience, his death creates a void which it will be practically impossible to fill.

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CURRENT NOTES ON PHYSIOGRAPHY.

THE STUDY OF HOME GEOGRAPHY IN ITALY.

At the Second Italian Geographical Congress, held in Rome last September, the president, Marquis Doria, included in his opening address an earnest recommendation for the cultivation of home geography. Recognizing the glory of foreign exploration, he nevertheless said that the patient study of the fatherland is a scientific duty, and that the culture of a nation may be measured by its advance. The Congress adopted votes urging the establishment of better courses in geography in various stages of education; and advising the Italian Geographical Society to offer a prize for the best plan of primary instruction in local geography, and afterwards to secure the best geographical writers of Italy to prepare text-

books according to the approved plan for local use. The latter suggestion is one that may be commended to the councils of our American and National Geographical Societies.

THE DANUBE.

A COMPENDIOUS volume on the Danube, by Schweiger-Lerchenfeld (*Die Donau als Völkerweg, Schifffahrtstrasse und Reise-route*, Vienna, Hartleben, 1896, 950 p, with many and excellent illustrations and maps) contains much material for the physiographer; truly not the result of original investigation now first published, but well summarized from many sources and acceptable for those who have to study this great international river at a distance. Most serviceable is the description of the various features of the great Hungarian plain, the *Alföld*, as it is locally called, through which the Danube and its chief tributary, the *Theiss*, wind their courses. Sand dunes make deserts of large areas; other parts are wet and marshy beyond redemption, and a third division includes the *Puszta*, or fertile grassy plains. Many districts have been subject to overflow; but these are now reduced by the 'regulation' of the larger rivers, as well as by the construction of dikes. Below the 'Iron gate' in the Carpathians, the course of the Danube has been changed at several points by sand blown into its channel by the south-east storm wind, the '*Koschava*,' from an extensive area of ridged dunes. The various narrows of the great river and their improvement for navigation are fully described.

THE LOCATION OF SETTLEMENTS.

DR. A. HETTNER, Privatdocent in geography in the University of Leipzig and editor of a new geographical journal, contributes to it an essay on the geographical controls of human settlements, reviewing the previous literature of the subject and laying down lines along which further re-

search should be conducted (Hettner's *Geogr. Zeitschr.*, i., 1895, 361-375). Some-what as plants and animals are affected in their distribution by geographical environment, so man himself responds to his surroundings; his personal will having a much less influence than would appear at first sight, although complicating the reaction in a manner not apparent in the case of lower organisms. Just as the features of the land are now best explained by an appropriate historical method of study, based on their geological evolution, so the location of settlements should be studied in relation to their development from their beginnings, and not only in relation to their actual surroundings. The article as a whole is an abstract consideration of the subject, without illustration by specific examples.

MIDDENDORFF'S PERU.

A RESIDENCE of twenty-five years in Peru affords Middendorff an extended experience for record in his work on that country, of which the third volume, *Das Hochland von Peru* (Berlin, 1895), now follows the second, *Das Küstenland* (1894). The coastal desert belt, with its irrigable valleys, rises into the highland through dull slopes of rock waste, seldom varied with ledge or cliff, but sometimes trenched by great ravines. Ascending this western slope, the traveler finds himself on lofty barren plateaus, of rather cool climate, holding lakes in their depressions; a special account being given of *Titicaca* and its surroundings. Very different from the barren ravines of the dry western slope are the deep warm valleys of the rainy and forested eastern slope, in which many streams that head west of the eastern range cut their path on the way to the Amazon.

As in so many books of travel, this one, although the work of an interested observer, loses greatly in geographical value from an insufficient understanding of physi-

ography on the part of the author. The control of topographic form by climate, for example, is sketched rather than described, although the Peruvian Andes exemplify it with an emphasis hardly paralleled elsewhere.

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SCIENTIFIC NOTES AND NEWS.

ZOOLOGICAL NOMENCLATURE.

THE meeting of the Zoölogical Society of London, March 3d, was devoted to a discussion of Zoölogical nomenclature, under the leadership of the veteran ornithologist, P. L. Sclater, who presented the claims of the Stricklandian code in comparison with that of the German Zoölogical Society. Strickland's code, that formulated for the British Association in 1842, differs from the later one chiefly in the following points:

1. The German rules disclaim any relation to botany, so that, according to them, the same generic names may be used for a plant and for an animal. This is contrary to the Stricklandian code, which, however, is practically a dead letter, in this particular, after fifty-four years of trial.

2. Under the German rules the same term is to be used for the generic and specific name of a species if these names have priority.

This is contrary to the Stricklandian code, and also to the usage of many American zoölogists, though practiced by those who accept fully the rules of the American Ornithologists' Union.

The German rules adopt the 10th edition of Linnæus's *Systema Naturæ* as the starting point of zoölogical nomenclature, whereas the other adopts the 12th. The 10th is universally accepted on this side of the Atlantic.

These differences are but trifling, and it is probable that they will all be reconciled through the agency of the nomenclature committee appointed at the Leyden meeting of the International Zoölogical Congress.

THE TORONTO MEETING OF THE BRITISH ASSOCIATION.

Nature states that the Toronto Local Committee are assiduously engaged in preliminary

work for the meeting of the British Association for the Advancement of Science in 1897. Meetings of the executive committee are held every fortnight. Besides the executive committee, a number of sub-committees are at work, including those on finance, conveyances, publication and printing, rooms for offices, meetings of the association and committees, hotels and lodgings, press, hospitality, reception and for securing coöperation of other institutes, associations and corporations, postal, telegraph and telephone facilities. The attention of the committee on conveyance has already been called to the desirability of securing from the Canadian Pacific Railroad transportation for such members of the Association as may desire to extend their travels to the Pacific coast, with special reference to the suggestion that a meeting of the American Association for the Advancement of Science may follow the Toronto meeting, if adequate facilities for transportation are assured. This suggestion is based upon the fact that the American Association have already once voted in favor of such a meeting if satisfactory rates could be obtained; and the hope is still entertained that delegates from both British and Australasian Associations might find San Francisco a convenient point at which to meet the American Association. Mr. Griffith, the general secretary of the British Association, is expected to be in Toronto about May 22d, to make arrangements for the meeting, and set out the proper lines of work. The chairman of the local committee is Dr. A. B. Macallum.

ENTOMOLOGY.

It has always been assumed that flowers attracted insects, in large measure at least, by the splendor of their inflorescence. Some recent experiments by Plateau, recorded in the Bulletin of the Belgian Academy, throw doubt upon this assumption. In a considerable bed of showy dahlias Plateau concealed from sight the highly colored rays of some of the flowers exposing only the disk, and in a second series of experiments the disk also but independently, either by means of colored papers or by green leaves secured in place by pins. Butterflies and bees sought these flowers with the same avidity and apparently the same frequency as the fully ex-