

The chief object of the expedition was a detailed geological investigation of the island. This has been successfully carried out with valuable results. A large collection of fossil plants from the coal-bearing series has been made; numerous fossils have been collected from all the marine strata, especially from the Trias. A geological map of the whole island has been constructed. The stratigraphy and tectonic geology of the whole island has been worked out, and there have been discovered in the southern part of the island a series of dislocations of Carboniferous age, which explains the topography of the hilly regions and the varying development of the Carboniferous system at various points.

Mr. Gunnar Andersson and his companions are to be congratulated on the amount of solid work they have accomplished, and we look forward to the publication of the detailed results with much interest. It should be mentioned that the proprietor of Beeren Eiland, Mr. Lerner (who happens to be a German), has helped the expedition, and hopes to welcome it back in some future year.

THE STOCKHOLM FISHERIES CONFERENCE.*

It is too soon yet to say that the International Fisheries Conference, which met at Stockholm this summer, will have any practical outcome; but the report of its proceedings suggests a general plan of investigations as regards hydrographical and biological work which, if properly organized and supported, should certainly be productive of useful and valuable results. The object of her Majesty's Government in deciding to take part in the conference may be best summarized in the language of the instructions given to Sir John Murray, one of the British delegates:

"You should propose that the scientific investigations shall be accompanied by a practical *exposé* of the steps to be taken in order to bring the exercise of sea-fishing more in accord with the natural conditions regulating the growth and increase of the fish, and thus permanently increase the supply of fish in the markets of the countries adjoining the North Sea.

"In making this proposal, which you should do at the outset, you should make it clear that the prin-

cipal object which her Majesty's Government have in view, in directing you to take part in the conference, is to secure a careful inquiry into the effect of present methods of fishing in the North Sea, and you should give every assistance in promoting a scheme for determining whether protection against overfishing is needed, and, if so, where, when and how such protection should be given."

The countries taking part in the conference were Great Britain, Germany, Russia, Denmark, Norway, Sweden and Holland. The representatives of the United Kingdom were Sir John Murray, of the *Challenger* Expedition, Mr. W. Archer, Chief Inspector of Fisheries, and Professor W. D'Arcy Thompson, of Dundee University, while Dr. Nansen was one of the delegates from Norway.

Most persons who have given a thought to the subject must be convinced that a rational treatment of fishery questions should be based on scientific inquiry; and in the opinion of the conference the best way of arriving at satisfactory results in this direction is by international coöperation. The scheme of investigations, having for its ultimate object the promotion and improvement of fisheries through international agreements, which the conference resolved to recommend to the Governments of the countries concerned, embraces a program for hydrographical and biological work in the northern parts of the Atlantic Ocean, the North Sea, and the Baltic and adjoining seas. These investigations, it is added, should be carried out for a period of at least five years.

Among the hydrographical researches proposed are: The distinction of the different water-strata, according to their geographical distribution, their depths, their temperature, salinity, gas-contents, plankton, and currents, in order to find the fundamental principles not only for the determination of the external conditions of the useful marine animals, but also for weather forecasts for extended periods in the interests of agriculture. The biological work would include the determination of the topographical and bathymetrical distribution of eggs and larvæ of marine economic fishes; the continued investigation of the life, history and conditions of life of young fishes of economic species in their post-larval stages, with special reference to their local dis-

* From the London *Times*.

tribution ; the systematic observation of mature marketable fishes with reference to their local varieties and migrations, their conditions of life, nourishment and natural enemies ; observations on the occurrence and nature of fish food at the bottom, the surface, and intermediate waters down to the depths of at least 600 meters ; and determinations of periodic variations in the occurrence, abundance and average size of economic fishes and the causes of the same. These are briefly some of the principal points mentioned in the program of work recommended.

To carry out these investigations on a basis of international coöperation, and in order to ensure uniformity of method, it is proposed to create an international council with a central bureau and a central laboratory at an estimated annual cost, including salaries of staff, of £4,800, to be divided among the Governments concerned. No place is mentioned for this central bureau, which, however, should be conveniently situated for hydrographical and biological researches. It is considered desirable that the work should begin on May 1, 1901.

DEVONIAN FISHES FOR THE AMERICAN MUSEUM.

THROUGH a generous gift of a Trustee, Mr. William E. Dodge, the American Museum of Natural History has recently purchased the Jay Terrell collection of fossil fishes of Ohio—forms which from their great size and formidable dentition have long been known as among the most interesting as well as the rarest of fossil vertebrates. The present collection is the result of over six years' energetic and skillful field work. It is the fourth collection which Mr. Terrell has formed : the first was secured by the late Professor J. S. Newberry, and is now preserved at Columbia University ; the second is at Harvard, and the third is at Oberlin. Of popular interest in connection with the present purchase is the fact that material is now at hand for exhibiting as a single specimen the parts of the gigantic Placoderm *Dinichthys Terrelli*. The specimen is unusually complete and appears to be the largest hitherto secured—a jaw alone measuring nearly two feet in length. Much of the collection is of exceptional importance : it includes associated

head plates of *Titanichthys*, jaws of *Diplognathus*, and immature jaws of *Mylostoma*.

BASHFORD DEAN.

THE SPELLING OF 'PUERTO RICO.'

IF anything further were needed to determine the proper spelling of the name of our new West Indian Island possession, it has been supplied in a decision of the President of the United States himself. Through Secretary of State Hay, under date of December 16, 1899, the President declares in favor of the spelling *Puerto Rico*, basing his decision more especially on the fact that this is the spelling followed by the people of the island. He was doubtful mindful also, however, that *Puerto* is good Spanish for port just as *Rico* is Spanish for rich. He sustains the decision of the U. S. Board on Geographic Names, made some years ago and since followed by some of the Government departments but not by others.

W. F. MORSELL.

SCIENTIFIC NOTES AND NEWS.

AS SCIENCE goes to press a number of our most important scientific societies are holding meetings in New Haven, Washington, New York and Chicago. The American Society of Naturalists meets at New Haven, together with the societies more or less closely affiliated with it, namely, The American Morphological Society, The Association of American Anatomists, The American Physiological Society, The American Psychological Society, The Society for Plant Morphology and Physiology, The American Folk-lore Society, Section H, Anthropology, of the American Association. A Bacteriological Society will at the same time be organized. The American Chemical Society also meets at New Haven. Western naturalists are organizing a society at Chicago. The Geological Society of America is meeting at Washington and the American Mathematical and Physical Societies at New York. We hope to publish in subsequent numbers full accounts of the meetings of these societies.

PROFESSOR WILLIAM HARKNESS, astronomical director of the U. S. Naval Observatory,