

THE SECOND BERMUDA OCEANOGRAPHIC EXPEDITION

THE thirteenth expedition of the Department of Tropical Research of the New York Zoological Society under the directorship of Dr. William Beebe will leave for Nonsuch Island, Bermuda, on April 9.

The work this season will be a continuation of that begun last year—a detailed study of the fishes of shallow water, mid-depths and down to a mile in the open ocean. The tug *Gladisfen* has been rechartered for the season, and the deep-sea work will be confined to the submarine, cylindrical area selected last year. This zone is five miles south of Nonsuch, eight miles in diameter, and extends from a half mile to a mile beneath the surface. Within this watery space five hundred and twenty-eight nets were drawn in 1929, and it is hoped to increase this to one thousand during the present season.

As an example of the unexpected wealth of deep-sea fish life, the family Myctophidae may be cited. In 1929 there were captured in this sharply delimited area fifty-one per cent. of all the species of Myctophids or Lantern Fishes known from the seven seas, and eighty-seven per cent. of those hitherto known from the north and south Atlantic Oceans. These were distributed among four thousand, one hundred and sixty-one individuals.

Besides the intensive trawling with meter nets as last year, some bottom dredging with the seven-ton *Arcturus* winch will be done. With the aid of the same winch and with the spherical, steel diving chamber planned and financed by himself, Mr. Otis Barton will attempt to descend to a depth of a quarter of a mile. One of the chief objects of the expedition is to determine the continuity of benthonic fish life which connects the mid-water zone of one hundred fathoms with that of the ocean's floor two miles down. It is hoped that Dr. Harvey will continue his studies of luminescence in fish and crustaceans, and that Dr. Conklin will work on the early development of *Amphioxus*. Dr. Gregory and Dr. Fish will both spend some time at the station. As last year, the present expedition is made possible by the generosity of two members of the board of managers of the Zoological Society, Mr. Harrison Williams and Mr. Mortimer L. Schiff.

Besides the regular staff of the department, Beebe, Tee-Van and Hollister, a number of young college men will be taken, who will help in general activities and carry on special lines of research. Among these are S. Thomas, J. Cannon, J. Guernsey, P. Crouch, J. H. Conneny, J. Potter, W. C. Buhlman and P. Jackson. Three artists who did most excellent work last year at the station—Helen Tee-Van, Elsa Bostelmann and Llewellyn Miller—will spend part of this season in the field.

THE MEDAL AWARDS OF THE AMERICAN GEOGRAPHICAL SOCIETY

AN announcement of the medal awards of the American Geographical Society for 1929 and 1930 appears in the April number of the *Geographical Review*. These awards have not been made for several years "in order that accumulated funds would make it possible to award them to distinguished persons of different nationality in a given year." The list of awards with citations follows.

Award of the Cullum geographical medal for 1929 has been made to Hugh Robert Mill, Jean Brunhes, Alfred Hettner, Jules de Schokalsky. The Cullum geographical medal is awarded from time to time to those "who distinguish themselves by geographical discoveries, or in the advancement of geographical science." The last awards were made in 1925.

HUGH ROBERT MILL. Geography is under a heavy debt to Dr. Mill for researches in his special field and writings on a wide range of geographical topics, all resting on a sound physical basis. As he himself has expressed it, his researches have been largely directed towards the discovery of the control exerted by the various forms of the earth's solid crust upon the fluid envelopes. Dr. Mill was director of the British Rainfall Organization and editor of *British Rainfall* and *Symons's Meteorological Magazine* for many years. He has filled various offices in the Royal Meteorological Society and the Royal Geographical Society and has served on the International Council for the Study of the Sea. Educational geography has profited from his writings; and he has always had a special interest in the polar regions, particularly the Antarctic. He is chairman of the board of directors of the Captain Scott Polar Research Institute.

JEAN BRUNHES. The name of Jean Brunhes, professor of geography at the Collège de France, is one with "La géographie humaine," one of the outstanding geographical works of our time. Translated into English it has had a profound effect upon American geographical teaching and point of view. Professor Brunhes is also known for his volume on the human geography of France contributed to the "Histoire de la nation française" and his collaboration with Camille Vallaux on the "Géographie de l'histoire." The government of France has sought his advice and assistance in studies and recommendations relating to the French colonies in the Far East and in Africa.

ALFRED HETTNER. As professor of geography in the University of Heidelberg, Dr. Hettner has exercised great influence on the development of geography in Germany, especially regional geography. In this he has been particularly aided by the *Geographische Zeitschrift*, one of the leading critical geographical journals, of which he is founder and editor. As a young man Hettner carried out important explorations in South America. "Russland" and the "Grundzüge der Ländeskunde," to mention two of his numerous writings, are model works of their kind, and a special word must be reserved for his book on methodology.

JULES DE SCHOKALSKY. Dr. Schokalsky is professor