made. The prize for 1922 is awarded to Dr. Fritz Sarasin, of Basle, for his work on the anthropology of the New Caledonians, and to Dr. E. Pittard, of the University of Geneva, for his book on the peoples of the Balkans. The prize for 1924 was divided between Dr. Antoine Delattre for a thesis on the comparative anatomy of the axis in mammals; M. Chaine, of Bordeaux, for his work on the digastric muscle, and M. Cipriano Lidio, of Florence, on the human patella.

THE Wagner Free Institute of Science of Philadelphia is about to begin the publication of a quarterly bulletin to contain reports of research conducted under its auspices and also information in regard to its educational activities. Volume II of its Transactions is now in press containing a paper on "The Chemistry and Physiology of the American Pitcher Plants," by Dr. Joseph S. Hepburn.

THE University of Washington is to be an international center of the United States and Canadian fisheries research work on the Pacific Coast, according to announcement from Dean John N. Cobb, of the College of Fisheries. The International Fisheries Commission, composed of official state fisheries commissions of Pacific coast states, Alaska and British Columbia, together with the entire Canadian department of fisheries, will consolidate all work here. The university was selected especially because of its proximity to the halibut and salmon supply. Eight leading fisheries scientists will locate in Seattle, among them William S. Thompson, of the California state fisheries, and Dr. H. F. Rich, of Washington, D. C.

AN increase of the endowment of the American Museum of Natural History of New York City by $10,000,000 was urged by its president, Dr. Henry Fairfield Osborn, in his annual financial administrative report made to the board of trustees. While gifts for exploration and other special purposes reached the record amount of $400,000 in 1925, according to Dr. Osborn, additional funds are needed to enable the museum to resume work now suspended and carry on its normal expansion. Operating and administrative costs of the museum, he said, have risen 120 per cent. in the last decade without a corresponding increase in the endowment or the city's annual appropriation.

UNIVERSITY AND EDUCATIONAL NOTES

ABOUT $6,000,000 will ultimately be given to charitable and educational institutions under the will of the late Dr. Norman Bridge. The estate, on the death of the widow, is to be divided equally between the University of Chicago for medical education, the University of Southern California Medical Department, the Barlow Sanatorium Association of Los Angeles, the Southwest Museum Incorporated, Los Angeles, and La Vina, a sanatorium in Pasadena; each of the five institutions, it is reported, will receive about $1,200,000. There were ten $10,000 bequests also, among others to Northwestern University and the University of California.

PRINCETON UNIVERSITY has received a gift of $150,000 from Thomas D. Jones, of Chicago, to be used to endow a chair in the department of mathematics to be called the Henry Burchard Fine professorship of mathematics in honor of Professor Fine, dean of the department of science.

A RECENT gift to Yale University made by Mrs. Knight, widow of Dr. George H. Knight, completes the amount necessary for meeting the terms of the General Education Board contingent pledge of $1,000,000 endowment for the school of medicine.

DR. ALBERT W. GILES, professor of geology at the University of Virginia and former state geologist of Virginia, has been appointed head of the department of geology at the University of Arkansas.

DR. OAKES AMES, assistant professor of economic botany at Harvard University, has been promoted to professor of botany in the university.

DR. ALBERT O. HAYES, of Ottawa, Canada, has been appointed visiting professor for the second term at Lafayette College to fill the vacancy in the department of geology, created by the death of the late Professor Peck.

DR. PAUL B. MACCREADY, formerly a fellow in medicine of the National Research Council, has recently been appointed as clinical instructor of surgery at Yale University Medical School.

PROFESSOR A. V. HILL, who recently resigned from the Jodrell chair of physiology at University College, London, to accept an appointment by the Royal Society to a Foulerton chair, will continue his work at the University of London and will hold the title of professor of physiology.

ASSOCIATE PROFESSOR F. J. TEAGO, of the University of Liverpool, has been appointed to the Robert Rankin chair of electrical machinery in the university.

DISCUSSION AND CORRESPONDENCE

A NOTE ON THE HUMBOLDT CURRENT AND THE SARGASSO SEA

AS I have already reported unofficially, when I visited the Galapagos during the early months of 1925, in the New York Zoological Society's oceanographic vessel *Arcturus*, I found the Humboldt Cur-

rent so weakened in movement and negligible in temperature that it was practically absent for many miles in all directions about the Archipelago. When I returned to Panama I learned that similar reports had been made by masters of vessels coming up the western coast of South America, the defection of the current being detected as far south as Central Chili. I have just received a detailed account of the visit of an American cruiser to the Galapagos during September, 1925. The commander reports the Humboldt Current as apparently normal again, its effects being first noticeable as far west as the Marquesas, a remarkable extension of the recorded range of this current.

The volcano on Albemarle, whose eruption coincided with the visit of my *Arcturus,* was found at the time of the cruiser's visit to be still in full activity, and several aerial photographs were obtained of the lava flowing into the sea.

A Note concerning the Sargasso Sea: My sole object in visiting this interesting area was to carry on extensive trawling directly beneath any large masses of the weed which I might encounter. I have seen two to four acres of thickly matted weed in other years, and thought that beneath such an assemblage there might be an unusual abundance of mid-depth life—in two to five hundred fathoms—attracted and nourished by the continual supply of food in the shape of a host of individual organisms which are forever dying and dropping down from the weed. Owing to a steady series of severe storms throughout at least one half of the Sargasso Sea, I saw almost no lot of weed larger than a man's head, and hence was compelled to give up my primary object and steam for the Panama Canal.

WILLIAM BEEBE

DIRECTOR OF TROPICAL RESEARCH,
NEW YORK ZOOLOGICAL SOCIETY

AN INVESTIGATION OF THE PERIODIC FLUCTUATIONS IN THE NUMBERS OF THE RUFFED GROUSE

THE periodic cycles of scarcity and abundance in the ruffed grouse have been a source of much speculation among generations of American sportsmen, but in spite of the very great interest in the subject, especially of late years, there has been no serious scientific attempt to unravel the problem, which biologically is most interesting, perhaps even fundamental. We know of similar cycles in many northern mammals, especially among mice and the northern hare. We know, too, that these depression cycles of our grouse are more marked in the primitive backwoods of our northern states and Canada than they are in the settled or partly settled farm regions, but we do not know the reason for this. Various parasites, some at least of a harmless nature, have been described, and several diseases have recently been discovered,[1] but we know almost nothing of their relative significance or their interplay. Least of all do we know the life history and diseases of the young growing broods up to six or eight weeks of age.

A depression cycle which started very abruptly after an apparently successful breeding season in 1924 caused much comment and resulted in the formation of a grouse investigation committee at the annual meeting of the American Game Protective Association in New York in December of that year. This was stimulated by the work of Dr. A. A. Allen, of Cornell University, who had reported the presence of a minute worm called Dyspharynx in the proventriculus of many wild birds and also in captive specimens. In the meantime, Dr. A. O. Gross, of Bowdoin College, had planned a rather detailed study of the life history of the bird and had begun to assemble material.

October last saw the formation of a subsidiary committee, of which the writer is chairman, sponsored by the Massachusetts Fish and Game Protective Association, which is devoting itself more especially to the field of New England and hopes to raise a fund of $10,000 to carry on its work for at least several years. The Department of Comparative Pathology, of the Harvard Medical School, under Dr. E. E. Tyzzer, has agreed to take over the investigation of diseases, while Dr. Gross will devote himself to the more general problems and intimate studies of the life history of the species. Our New England committee will act in cooperation with the central committee in New York, who with Dr. A. A. Allen will operate especially in New York, Pennsylvania and bordering states.

Progress has already been made, especially in giving publicity to our need for specimens of both healthy and diseased birds. A most successful point of attack has been opened up through the use of the radio in securing cooperation of interested persons in widely scattered parts of New England and Canada. For this we have to thank Mr. Thornton W. Burgess, of Springfield, who, through the Westinghouse Station (WBZ) has appealed to the many thousand members of his Radio Nature League. So far as I am aware this is one of the first attempts to utilize the radio in a direct attack on a scientific problem. Mr. Austin H. Clark, of the Smithsonian Institution, deserves great credit in suggesting the possibilities of this new method of securing information. The great possibilities of the radio seem already proved if one may judge

[1] See *Auk,* 1925, p. 423, and SCIENCE, 1925, Vol. LXII, p. 55.