standpoint if our medical schools and hospitals, our veterinary hospitals and even our cat and dog hospitals and other places for the care of sick animals could all be concentrated in one institution for the broad study of disease. This indeed is now being attempted in certain institutions and no doubt will result in a broader conception of pathology. DAVID JOHN DAVIS

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INVESTIGATIONS AT THE WOODS HOLE BIOLOGICAL STATION OF THE UNITED STATES BUREAU OF FISHERIES

THE laboratory of the Woods Hole Biological Station of the United States Bureau of Fisheries opened for the season's operations on June 19, under the directorship of Dr. P. H. Mitchell of Brown University. The various investigators are: Dr. W. W. Browne, of the College of the City of New York, who is studying various phases of bacteriology of fishes including bacterial changes during cold storage and the occurrence of pollution bacteria in food fishes; Dr. I. A. Field, of Clark University, who is completing a comprehensive report on the biology and economic value of the sea mussel and is conducting investigations on its embryology; Dr. C. W. Hahn, of the New York City High School of Commerce, who is studying sporozoan parasites of fishes with especial reference to modes of infection; Dr. Edwin Linton, of Washington and Jefferson College, who is studying fish parasites and the food of certain fishes; Dr. Sergius Morgulis, formerly of the College of Physicians and Surgeons, who is continuing researches on the metabolism of fishes; and Dr. G. G. Scott, of the College of the City of New York, who is studying the oxygen requirements of various marine forms and the oxygen consumption of developing fish embryos. The scientific assistants are: Mr. A. E. Barnard, of Brown University, who is working with the director on the nutrition of oysters; Mr. R. L. Barney, of Brown University, who is aiding the director in the study of diatoms of green gill oysters and the life history of sporozoan parasites; Mr. F. R. Dieuaide, of the College of the City of New York, who is assisting Dr. Scott and is making a collection of Woods Hole marine flora; Mr. E. W. Fuller, of Amherst College, who is assisting Dr. Morgulis; and Mr. K. S. Rice, of Brown University, who is assisting the director in the study of the food supply of oysters.

The facilities of the laboratory have also been extended to the following table applicants: Dr. N. A. Cobb, of the Department of Agriculture, and the Misses Cobb and Mr. Alfred Steinberg, who are assisting Dr. Cobb in the study of the physiology of nematodes: Dr. S. A. MacCallum, of New York City, who is investigating fish parasites, especially the helminthes; Dr. Albert Mann, of the Department of Agriculture, who is studying the diatom flora of the Woods Hole region; Dr. A. M. Reese, of West Virginia University, who is investigating light reactions of Diemyctylus; Mr. A. C. Redfield, of Harvard University, who is studying the melanophores of lower vertebrates especially in relation to adrenal glands of fishes; Mrs. A. C. Redfield, who is studying respiration in lamellibranchs; Dr. F. P. Reagan, of Princeton University, who is studying the development of Fundulus heteroclitus; and Mr. C. C. Speidel, of Princeton University, who is sharing a table with Dr. Reagan, and is investigating the function of certain peculiar cells of the spinal cord of The facilities of the laboratory the skate. will also be granted, during September, to Dr. F. C. Weber and assistants, from the Bureau of Chemistry, for investigations concerning copepods as food for sardines. The laboratory closes on September 15.

P. H. MITCHELL

Woods Hole, Mass., August 29, 1916

SCIENTIFIC NOTES AND NEWS

THE American Astronomical Society met in the Sproul Observatory, Swarthmore College,