

THE University of the Philippines and the Bureau of Science will combine this year to inaugurate a marine biological survey of the Philippines. The party to take the field will be composed of Mr. Alvin Seale, chief of the division of fisheries, Bureau of Science, Dr. Lawrence E. Griffin, associate professor of zoology, University of the Philippines, Dr. Reinhart P. Cowles, assistant professor of zoology, Mr. Lawrence D. Wharton and Mr. S. F. Light, instructors in zoology, and three Filipino assistants. The station this year will be at Puerto Galera, a small harbor on the northern coast of Mindoro, where marine life is extremely abundant and the facilities for collecting observations are unusually fine. The party will be in the field about three months.

A STATION for instruction and research in biology will be maintained by the University of Michigan, for the fourth season, as a part of its regular summer session during the eight weeks from July 2 to August 23 inclusive, 1912. The station will be located near the Bogardus Engineering Camp of the university on a tract of about 1,666 acres of land owned by the university and stretching from Douglas Lake to Burt Lake in Cheboygan County, Michigan, 17 miles south of the Straits of Mackinac. This region, diversified by hills and valleys, was formerly covered by forests of hardwoods and conifers. Small tracts of the former still remain. It contains many lakes of clear water, unsurpassed in the state for size, depth and beauty of setting. The elevation of the camp, between one and two hundred feet above Lake Michigan, insures cool nights. The staff of instructors includes Professors Jacob Reighard, Frank Smith and Henry Allen Gleason, and Drs. A. F. Shull and R. M. Harper.

THE ninth annual session of the Puget Sound Marine Station will convene at Friday Harbor, Washington, on June 24, and will continue for a period of six weeks. The plant has been considerably augmented so as to provide facilities for an increase in attendance over the session of 1911, when nearly one

hundred persons were present at the station. The courses to be offered are as follows: Algology, H. B. Humphrey, Washington State College; Systematic botany, A. R. Sweetser, University of Oregon; Elementary zoology, W. A. Redenbaugh, Seattle High Schools; General ecology, H. S. Brode, Whitman College; Embryology of invertebrates, W. J. Baumgartner, University of Kansas; Ichthyology, E. V. Smith, University of Washington; Advanced ecology, Trevor Kincaid, University of Washington; Plankton, John F. Bovard, University of Oregon. Facilities will also be offered for research work along botanical and zoological lines. The systematic survey of the local fauna which has been in progress for several seasons will be continued by further deep water exploration. The director of the station, Professor Trevor Kincaid, of the University of Washington, will be glad to give more extended information to persons planning to visit the laboratory.

UNIVERSITY AND EDUCATIONAL NEWS

THE Maryland legislature has voted the sum of \$600,000, to be followed by an annual grant of \$50,000 to establish a school of technology in connection with the Johns Hopkins University.

A GIFT of \$300,000 to Princeton University from Mr. William Cooper Proctor, of Cincinnati, for the endowment of the Charlotte Elizabeth Proctor fellowships in the graduate school is announced. Mr. Proctor, who had previously given \$500,000 to the graduate school, was elected a life member of the board of trustees to succeed Mr. Cleveland H. Dodge, of New York, who resigned last autumn.

MR. E. C. CONVERSE, of New York City, has given \$125,000 to Harvard University for the establishment of an Edmund Cogswell Converse professorship of banking in the graduate school of business administration. The university has also received \$28,000 from Mrs. J. K. Paine, for the establishment of the John Knowles Paine fellowship in music.

THE University of Chicago has established a system of retiring allowances for professors

or their widows. A fund of \$2,500,000 taken from the \$10,000,000 Rockefeller gift of 1910 has been set aside for this purpose. This pension system will grant to men who have attained the rank of assistant professor or higher, and who have reached the age of 65 and have served 15 years or more in the institution, 40 per cent. of their salary and an additional 2 per cent. for each year's service over 15. The plan also provides that at the age of 70 a man shall be retired unless the board of trustees specially continues his services. The widow of any professor entitled to the retiring allowance shall receive one half the amount due him, provided she has been his wife for ten years.

MISS ROSA MORRISON, for nearly forty years superintendent of women students of University College, London, has bequeathed \$20,000 to the college to establish scholarships in English and German.

THE thirty-eighth annual commencement of the Colorado School of Mines will be held on May 24, when fifty-two graduates will receive their degrees. The address of the day will be given by Mr. William Lawrence Saunders, of New York, president of the Ingersoll-Rand Company.

DR. E. I. WERBER, assistant in anatomy at the Johns Hopkins University, has been appointed instructor in anatomy at the University of Wisconsin.

DR. DURANT DRAKE, of the University of Illinois, has been appointed associate professor of philosophy at Wesleyan University.

DR. JAMES A. BABBITT has been promoted to professor of hygiene and physical education at Haverford College.

MR. C. M. GILLESPIE, of Yorkshire College, has been appointed to a newly established professorship of philosophy at Leeds.

DISCUSSION AND CORRESPONDENCE

A DEFENCE OF THE "NEW PHRENOLOGY"

ALTHOUGH I am not a partisan of the traveling phrenologist, I am a believer in cerebral localization or, putting it in more general

form, in the localization of functions in the central nervous system. If we must make a choice between phrenology (supposing for the moment that phrenology is equivalent to localization of function), and the conception that mental processes are something transcending cerebral organization and cellular processes, then I am a phrenologist. It is evidently in this latter sense of localization that Professor Franz¹ uses the term "new phrenology."

It is true that Marie and von Monakow have shown that certain of the more or less current conceptions of focal or insular representation of cerebral function, particularly those concerning the speech center, are no longer tenable, but neither Marie nor von Monakow has denied that certain definite fibers arise from definite circumscribed areas of cells in the cerebral cortex and run to certain definite end stations. Indeed, no point of nervous anatomy or physiology seems better established than this. And stimulation of a definite, circumscribed area of the cerebral motor cortex of any one animal always elicits a response of a definite group of muscles, and never of any other groups. This definite, circumscribed cell area constitutes the focal or insular motor representation in the cerebral motor cortex of this particular group of muscles. Such a circumscribed area, frequently marked off from surrounding cells by a boundary of non-nervous tissue, is commonly known as a motor center.

It would however be an error to suppose that this group of cells is an isolated group. It has, through afferent association neurones, connections with practically every portion of the cerebral hemisphere of the same side; through commissural neurones, with practically every portion of the opposite side, and through afferent projection neurones, it is brought into relation, directly or indirectly, with the cerebellum, spinal cord and other structures. The circumscribed area of cells thus becomes a part of an extremely complex and extensive *motor system*, but in such participation it

¹ SCIENCE, 1912, N. S., XXXV., p. 321.