

A REPORT OF THE NEUROLOGICAL SEMINAR OF THE  
MARINE BIOLOGICAL LABORATORY, WOOD'S HOLL,  
MASS., FOR THE SEASON OF 1899.

By A. D. MORRILL.

A new and interesting feature of the fourth annual session of the seminar was the reports on experimental psychology of animals by Dr. Thorndike, who reported the results of his experiments with fishes, and by Mr. Yerkes, who reported on similar work with turtles. Both of these researches were undertaken to determine the associative power of animals and the investigation is to be extended to all the groups suitable for this method of study.

Dr. Locy reported the results obtained in his laboratory by Dr. Chas. Hill in the study of the metamerism of the head of living chick and trout embryos. The great care with which the work was done and the careful study of consecutive stages and repeated verification of the work were considered by Dr. Locy as important, as the conclusions strongly supported his own work.

Dr. Metcalf reported on that part of his work on the Tunicata bearing on the relation of the neural ganglion and the neural gland, in development. The evidence obtained tended to support the position that they arose from a common rudiment. Dr. Lefevre described the origin of the neural ganglion in budding *Perophora* and Mr. Hunter gave a demonstration of the ganglion cells in the neural gland of the adult *Molgula*, by means of methylene blue.

Dr. Lee summarized the evidence opposed to the existence of the sense of hearing in Fishes. Dr. Lyon gave some very interesting demonstrations of the compensatory movements of insects and some of the vertebrates. Mr. Prentiss described the development and adult structure of the auditory, olfactory and tactile hairs of *Palemonetes* and the innervation of the otocyst. The preparations of the otocyst demonstrated in the clearest manner the relation of the nerves to the sensory cells of the otocyst and to the brain.

The gold chloride preparations of the nerves of the earthworm by Professor Fling showed the relations of the main nerves of a segment to each other and to the nerves of the adjoining segments.

Dr. Clark reported that experimental study of the pressure sense in the human skin gave the same sensations for traction as for pressure. In hairless regions of the body these sensitive areas are often widely separated.

Professor Herrick in discussing the theory of nerve components pointed out the advances already made by this means of study and outlined the problems which may be solved by it in the future. The comparison of the lateral line systems of different fishes by Miss Clapp showed the common plan of distribution of the nerves and sense organs in widely different groups.

Since the papers presented were confined to original contributions, rather than reviews, only about half of those engaged in neurological work took an active part, except in the discussions, their work not being in shape to report.

*Program, Neurological Seminar for Season of 1899.*

- July 11. DR. WM. A. LOCY—(Report of unpublished work of Dr. Chas. Hill).  
Metamerism in head of living Teleost and Bird.
- July 20. DR. M. M. METCALF—Relations of the Neural Gland and Ganglia in Tunicata.  
DR. GEORGE LEFEVRE—The origin of the ganglia in budding Perophora.
- July 25. DR. F. S. LEE—Hearing in Fishes.  
DR. E. P. LYON—Compensatory Movements in Insects.
- July 27. MR. C. W. PRENTISS—The Innervation of the Otocyst in Crustacea.  
DR. O. S. STRONG—Some Modifications of Weigert's Method. With demonstrations.
- Aug. 1. PROFESSOR C. JUDSON HERRICK—Some Problems connected with the Theory of Nerve Components.  
DR. CORNELIA M. CLAPP—A Comparison of the Lateral Line system of the Toad-fish, *Amia* and the Cod.
- Aug. 8. DR. G. P. CLARK—Pressure Sensation in the Human Skin.  
MR. G. W. HUNTER, JR.—Ganglion Cells in the Neural Gland of *Molgula*.  
DR. E. L. THORNDIKE—Associative Processes in Teleosts.
- Aug. 15. MR. R. M. YERKES—Associative Processes in Turtles.  
PROFESSOR H. R. FLING—Demonstration of some Points in the Nervous System of the Earthworm.