

tions of the body which he considered to be the electric organs of *Eigenmannia* (*Sternopygus*). It is interesting to note that his description of the macroscopic appearance of the electric organs exactly fits that of *Gymnotus carapus* presented here.

From an evolutionary standpoint, the weak or pseudo-electric fishes form a subject of interesting speculation. The Gymnotids (except *Electrophorus electricus*, the electric eel) and certain of the Raiidæ possess these weak electric organs. Darwin, in his "Origin of Species"² has admitted that the electric organs of fishes present difficulties to his theory of natural selection. Are the weak electric organs rudimentary, or are they new organs in the process of progressive development? If they are rudimentary why have they been discarded; if they are new organs just beginning to appear, of what selection value can they be if they produce no perceptible electric current? Only a study of the development of these organs can throw light on these questions. In certain of the Raiidæ which have been investigated it seems quite evident that the electric organs have been recently acquired and are not, therefore, the rudiments of previously existing well-developed ones.

ELMER L. SHAFFER

PRINCETON UNIVERSITY,
December 14, 1916

THE AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

THE eighth annual session of the Pharmacological Society took place on December 28, 29 and 30, 1916, at Cornell Medical School, New York City. The other members of the Federation of American Societies for Experimental Biology met at the same time and place.

The sessions were opened and concluded by a joint meeting of all four societies. The papers read at these meetings will be found in the report of the General Secretary of the Federation. In addition to these joint meetings, the Pharmacological and Physiological Societies held a joint session devoted entirely to demonstrations on Friday afternoon, December 29.

² P. 167, sixth edition.

Officers for 1917.—The following officers were elected for the present year:

President: Reid Hunt.

Secretary: L. G. Rowntree.

Treasurer: Wm. deB. MacNider.

Additional Members of the Council: John Auer, Carl Voegtlin.

Membership Committee: Torald Sollmann (term expires 1919).

New Members: The following candidates were elected to membership upon recommendation by the membership committee and the council: Franklin C. McLean, Union Medical College, Peking, China; Harold B. Meyers, University of Oregon; Maurice I. Smith, University of Michigan; Julius M. Rogoff, Western Reserve University; James A. Waddell, University of Virginia.

Membership in the A. A. A. S.—The attention of new members is called to the following resolution of the council of the American Association for the Advancement of Science:

Resolved, that the entrance fee to this association shall be remitted for members of regularly affiliated societies who are elected to the A. A. A. S. within one year of their election to membership in the affiliated society.

The extension of this privilege (it was formerly limited to the year 1916 only) to all new members of affiliated societies for the year in which they join the affiliated society, is greatly to be welcomed, and all new members of the Pharmacological Society should avail themselves of this opportunity.

Amendment of the Constitution.—The mandatory provision of Article V., Section 1, that the annual meeting of the society be held between December 25 and January 1 at a place determined by the council was altered to read: "The annual meeting of the society shall be held at a time and place determined by the council in consultation with the executive committee of the Federation of American Societies for Experimental Biology." The federal executive committee, it may be added, is formed by the presidents and secretaries of the constituent societies of the federation.

The object of this amendment was to permit a tentative change of the meeting time, if a majority of the federated societies should deem this advisable. There are a number of reasons why the scientific sessions should be held at some other time of the year than Christmas week: the season is usually inclement and imposes hardships and dangers on all members, especially the elderly, who are compelled to travel considerable distances in order to attend; the time available for the preparation of papers from the beginning of the

school year to December 1 when the title usually must be in the hands of the secretaries, is too short; in addition the December meetings interfere with, and for many practically abolish, the Christmas holidays as a family festival.

Privileges of Discussion.—As a number of inquiries were received during the last two years concerning the privilege of discussing papers before the Pharmacological Society by members of the Federation who do not belong to the Pharmacological Society, it was moved, seconded and unanimously carried that this privilege be accorded to all members of the Federation. At the same time, the executive committee-members of the society were instructed to propose before the executive committee of the Federation that all the constituent societies grant the same privilege, so that any member of one society is entitled to join the discussion of any paper delivered before any other society.

It should be noted that this motion refers only to the privilege of the floor; it obviously does not confer the right to read a paper before a society of which the author is not a member. Such a transfer can only be made after the consent of the secretary of that society has been obtained before which the paper is to be read.

Meeting Place in 1917.—The next meeting of the Pharmacological Society, together with the other members of the Federation, will be held at the University of Minnesota in Minneapolis.

Dinners and Smokers.—Two informal dinners and smokers were given, the first at the Hotel McAlpin on December 28, and the second at the Chemists Club on December 29. At the first dinner, with Dr. Simon Flexner as toastmaster, speeches were delivered by Drs. Mendel, Pearce, Carlson, Cannon and Jones.

Scientific Program.—Before giving a list of the papers read and discussed, it may be mentioned with satisfaction that all papers announced by their authors for delivery were read with but one exception, and in this instance the title was changed.

DECEMBER 28, 2.00–4.30 P.M.

“Pharmacological Studies with Cocain and Novocain,” by G. B. Roth.

“The Fate of Iodin, Iodids and Iodates in the Body,” by T. Sollmann.

“The Fate of Strychnin in the Animal Body,” by R. A. Hatcher and Cary Eggleston.

“The Reduction of Toxicity of Strychnin by the Simultaneous Administration of Large Quantities of Fluid,” by I. S. Kleiner and S. J. Meltzer.

“The Action of Strychnin in Cardiac Arrhythmias,” by M. I. Smith (by invitation).

“Bio-Assay and Variability of Veratrum Preparations,” by J. D. Pilcher.

“The Pharmacological Activity of Digitalis Grown in America,” by J. H. Pratt and H. Morrison (by invitation).

“Digitalis in Cardiac Irritability,” by C. C. Guthrie.

“The Toxicity of Digitalis for Normal and Vagotomized Cats,” by D. I. Macht and H. Colson (by invitation).

“Responses of Fish Melanophores to Sympathetic and Para-Sympathetic Stimulants and Depressants,” by H. G. Barbour and R. A. Spaeth (by invitation).

“The Action of Fluorescein and its Derivatives on the Circulation,” by W. Salant and R. Bengis (by invitation).

“The Action of Succinate and its Derivatives on the Isolated Frog Heart,” by W. Salant and A. E. Livingston (by invitation).

DECEMBER 29, 9.00–12.30 P.M.

“The Effect of Unilateral Excision of the Adrenal, Section of the Splanchnic Nerve and Section of the Renal Nerves on the Secretion of the Kidney,” by E. K. Marshall, Jr., and A. C. Kolls (by invitation).

“The Effect of Nicotin on the Two Kidneys after Unilateral Section of the Splanchnic Nerves,” by A. C. Kolls (by invitation) and D. K. Marshall, Jr.

“The Protective Action of Diet against Renal Irritants,” by W. Salant and R. Bengis (by invitation).

“A Consideration of the Relative Toxicity of Uranium Nitrate for Animals of Different Ages,” by W. deB. MacNider.

“A Study of the Conditions affecting the Rate of Excretion of Phenosulphonephthalein,” by R. R. Snowden (by invitation), Clyde Brooks and T. S. Arbuthnot (by invitation).

“The Action of Distilled Water on the Isolated Uterus,” by C. Voegtlin and G. C. Lake (by invitation).

“A Study of Ethylhydrocuprein (Optochin) in Lobar Pneumonia,” by H. F. Moore (by invitation) and A. M. Chesney (by invitation).

“Further Observations on Albuminuria and Changes in Renal Function following Full Therapeutic Doses of Salicylate,” by R. W. Scott (by invitation), T. W. Thoburn (by invitation), and P. J. Hanzlik.

"The Excretion of Salicylate in Various Clinical Conditions," by R. W. Scott (by invitation), T. W. Thoburn (by invitation) and P. J. Hanzlik.

"Salicylate Oedema," by R. W. Scott (by invitation), J. L. Reyecraft (by invitation) and P. J. Hanzlik.

"The Favorable, Antagonistic Effect of Magnesium Sulphate against Poisonous Doses of Sodium Oxalate," by F. L. Gates and S. J. Meltzer.

"Further Observations on the Pathological Changes in the Tissues of the Rabbit, as a result of Reduced Oxidation," by G. H. Martin (by invitation), C. H. Bunting (by invitation) and A. S. Loevenhart.

DECEMBER 29, 2.00-5.00 P.M.

Joint Demonstrations by the Pharmacological and Physiological Societies

"A Signal Magnet which writes either upwards or downwards," by W. Hale.

"Some New Apparatus," by D. E. Jackson.

"An Improved Lever for Frog's Heart and Muscle Strips," by A. H. Ryan.

"The Inhibitory Effect of Stimulation of the Central End of the Vagus Nerve upon the Contractions of an Active Expiratory Muscle in the Chicken," by A. L. Meyer (by invitation).

"Demonstration of a Gas-Analysis Apparatus," by Yandell Henderson.

"The Motion Picture as an Aid in Teaching Physiology," by J. A. E. Eyser and W. J. Meek.

"Pathoscope Films used to illustrate Physiological Demonstrations to Students," by Alexander Forbes.

"Motor Phenomena of the Stomach and Cap as observed Roentgenographically," by Gregory Cole (by invitation).

"Photographs representing the Growth of Chickens Fed with Definite Mixtures of Food-stuffs under Laboratory Conditions which have heretofore not led to Success," by Thomas B. Osborne and Lafayette B. Mendel.

"Microscopic Demonstration of Absence of Chromatolytic Change in the Central Nervous System of the Woodchuck (*Marmota Monax*)," by A. T. Rasmussen (by invitation) and J. A. Myers (by invitation).

"Glycogen in the Blood Vessels of the Liver," by G. Carl Huber and J. J. R. Macleod.

"A Method of Recording Fundamental Heart Sounds Directly from the Heart," by Carl J. Wiggers and A. Dean, Jr. (by invitation).

"Exhibit of Photographically Recording Apparatus for studying the Dynamics of the Circulation," by Carl J. Wiggers.

DECEMBER 30, 9.30-12.00 M.

"Studies on Tolerance and Cumulation: Experiments with Tartrates, Citrates and Oxalates," by W. Salant and A. M. Swanson (by invitation).

"The Effect of Morphin and Opium on Psychological Reaction Time," by D. I. Macht and S. Isaacs (by invitation).

"On the Drug-fastness of Spirochætæ against Certain Arsenical, Mercurial and Iodid Compounds in Vitro," by H. Noguchi and S. Akatsu (by invitation).

"On the Relative Toxicity of Salvarsan and Neosalvarsan," by L. Pearce and W. H. Brown.

"The Action of Ethylenediamin," by H. G. Barbour and A. M. Hjort (by invitation). (Read by title.)

"The Influence of Eserin upon the Partially Excised Sphincter Pupillæ," by D. R. Joseph.

"The Mutually Antagonistic Actions of Adrenin and Eserin upon the Sphincter Pupillæ," by D. R. Joseph.

"The Effects of Pituitrin and of Adrenin of the Pupil of Gangliectomized Rabbits," by T. S. Githens and S. J. Meltzer.

"The Prolonged Reaction of the Blood Vessels of the Rabbit's Ear to the Local Injection of Adrenin," by J. Auer and S. J. Meltzer.

"The Effect of Ergotoxin on the Temperature of Rabbits," by T. S. Githens.

"A Respiratory Factor in the Production of Adrenin Pulmonary Oedema in Rabbits," by F. L. Gates and J. Auer.

At the second executive session of the society on Friday noon, December 29, a vote of thanks was unanimously tendered the authorities of Cornell Medical School for their hospitality and efficient arrangements and to the local committee for its efforts in behalf of the visiting members and guests.

JOHN AUER,
Secretary

ROCKEFELLER INSTITUTE

SOCIETIES AND ACADEMIES

THE TENNESSEE ACADEMY OF SCIENCE

THE seventh meeting (fifth annual meeting) of the Tennessee Academy of Science was held on December 1, 1916, at George Peabody College for Teachers, Nashville, Tenn. President Samuel M. Bain presided. The following papers were read and discussed:

"The Development of Transportation on the Great Lakes," by Professor A. E. Parkins, Peabody College, Nashville.

"An Apparatus for Moisture Determination,"