

BIOLOGICAL SOCIETY OF WASHINGTON—288TH MEETING, SATURDAY, FEBRUARY 26.

THE evening was devoted to a 'Symposium on the Teaching of Biology,' in which Messrs. E. L. Morris, W. H. Dall, Erwin F. Smith, Theo. N. Gill, H. J. Webber, B. W. Evermann, C. W. Stiles and E. L. Greene took part. The general consensus of opinion was that there should be more general zoology and botany taught than at present, and more work tending towards a knowledge of the principles of classification and the systematic arrangement of the various groups.

F. A. LUCAS,
Secretary.

TORREY BOTANICAL CLUB, FEBRUARY 8, 1898.

THE evening was devoted to the *Asclepias*, or Milkweed family.

The first paper was by Dr. H. H. Rusby, describing 'A New genus of *Asclepiadaceæ* from Bolivia.' Dr. Rusby discussed the tribal and generic characters of that family, and exhibited specimens of his new genus, which is a vine of vigorous growth and of pollinial position.

The second paper, by Miss Anna M. Vail, describe a new species of *Acerates*, or green-milkweed, with comparisons of the other species already known. Specimens and illustrations were exhibited, with remarks upon the history of the genus from its earliest species, *A. Floridana*, onward. As distinctive characters of *Acerates*, she mentioned its aspect, its form of hood and its lack of strong horn-like characters. The characteristics were further discussed by Dr. Edward L. Greene, who was present from Washington, and who emphasized the importance of its axillary sessile umbels and the green color present in its flowers. The varieties of *Acerates viridiflora* were then discussed, especially with reference to their great difference in leaf-form. Miss Vail finds their flowers to be identical. Mr. Rydberg reported finding all four of these forms within one county of central Nebraska on the sandhills, but to the east the broader-leaf only and in western Nebraska a narrow-leaf variety only.

General discussion on the *Asclepias* family followed, participated in by Professor Greene, Dr. Britton, Dr. Rusby and others. Miss Vail,

in answer to inquiries, indicated the difficulties in the way of regarding the horn in that genus as a midrib. It is very variable, often double, differs in character from the still-persistent midrib of the same hood, and in many Western species is replaced by a broad triangular lamina.

Miss Vail described her results when watching plants of *Asclepias Cornuti* last summer. Bees and many small insects directed themselves at at once to the glutinous top of the anther-column. They seemed to neglect the corona, and but little secretion was apparent in it, instead of the copious deposits of honey expected.

Professor Greene queried if the corona in this family might not prove to be the true corolla, and cited the *Malvaceæ* as similar in adhesion of the corolla to the stamen-tube. He said: "I would exclude from *Asclepias* every species which does not develop a terminal umbel. The only invariable character by which I would distinguish *Asclepias* and related genera is found in the anther-wing. The first index to a new genus is its aspect. It is the part of the systematic botanist to define, if possible, what the significant elements of this habit or aspect are. Habit is often strongly marked, even where clearly-accented characters are difficult to find. It is a nice genus which has both habit and clear characters."

Dr. Britton followed with description and exhibition of a new saltmarsh *Scirpus*, or bulrush, from Connecticut, related to *S. robustus* of Pursh, but with different inflorescence and achene. Dr. Britton also presented specimens of *Triosteum angustifolium* from Stratford, Ct., its previously-known stations northeast of Pennsylvania being only at New Brunswick, N. J., and Glen Cove, L. I. A large supply of roots from Stratford are now planted at the Botanic Garden to exhibit development.

EDWARD S. BURGESS,
Secretary.

SCIENTIFIC JOURNALS.

THE second number of the *American Journal of Physiology* opens with a demonstration by Professor W. T. Porter of the compression of the intramural vessels of the heart by the

squeeze of the contracting heart-muscle and an experimental analysis of the effect of this compression on the circulation through the walls of the heart. This is followed by an elaborate study of the influence of alcoholic drinks upon digestion by Professor Chittenden, Dr. Mendel and Mr. Jackson. The effect of distention of the ventricle on the flow of blood through the walls of the heart, the composition and nutritive value of edible fungi, the restoration of co-ordinated volitional movement after nerve 'crossing,' the digestive powers of papain, the gastric inversion of cane-sugar, and the structural changes in infusoria produced by lack of oxygen, are treated in investigations from the laboratories at Yale, Harvard, Columbia and Chicago. The contents of the first number are not less varied. The influence of borax on nutrition, the recovery of the heart from fibrillary contraction, the variations in daily activity produced by alcohol and by changes in barometric pressure and diet, the influence of high arterial pressure on the blood-flow through the brain, the elimination of strontium, the nutrition of the heart through the vessels of Thebesius and the coronary veins, the relation between the external stimulus applied to a nerve and the resulting nerve impulse as measured by the action current, the nature of the cardio-pneumatic movements, and the functions of the ear and the lateral line in fishes, is each the subject of a thorough experimental study by physiologists of the leading American universities. The excellence and the wide range of the seventeen contributions in the first two numbers of this journal, and the unanimous support that it receives from the physiologists of America, assure us that physiology now has in this country a special journal in the first rank. Much praise is due for the form in which these investigations are published. The quality of the paper, the design of the cover and the page, the press-work, and especially the beauty of the illustrations, are all most gratifying.

American Chemical Journal, March. 'On the Conversion of Methylpyromucic Acid into Aldehydopyromucic and Dehydromucic Acids:' By H. B. HILL and H. E. SAWYER. On the 3, 4, 5, 'Tribromaniline and some Derivatives of

Unsymmetrical Tribrombenzol:' By C. LORING JACKSON and F. B. GALLIVAN. 'A Convenient Gas Generator, and Device for Dissolving Solids:' By T. W. RICHARDS. The author has devised a simple form of apparatus in which the material can come in contact with the fresh liquid, while the heavy solution produced by the reaction is withdrawn by means of a tube reaching to the bottom. He also gives a description of an apparatus to be used to increase the rate of solution of crystallized substances. 'A Redetermination of the Atomic Weight of Zinc:' By H. N. MORSE and H. B. ARBUCKLE. By this work a correction has been made in the results obtained by Morse and Burton, as it has been shown that the oxide of zinc occludes both oxygen and nitrogen even at very high temperatures. This correction has raised the atomic weight to 65.46 from 65.33, the result obtained by Morse and Burton. 'Direct Nitration of the Paraffins:' By R. A. WORSTALL. 'On the Silver Salt of 4-Nitro 2-Aminobenzoic Acid and its Behavior with Alkyl and Acyl Halides:' By H. L. WHEELER and B. BARNES. 'Formamide and its Sodium and Silver Salts:' By P. C. FREER and P. L. SHERMAN, JR. 'A Study of the Reaction of the Diazophenols and of the Salts of Chlor- and Bromdiazobenzene with Ethyl and with Methyl Alcohol:' By F. K. CAMERON. The author studied the influence of the hydroxyl group and of chlorine and bromine upon the decomposition of diazo compounds. J. ELLIOTT GILPIN.

A SCIENTIFIC paper, the *Forward*, has recently been established in Denmark and is said to have already a circulation of 100,000 copies, while maintaining an excellent standard of popular science. We have not seen a copy of this journal, but if the facts are as represented the two and a-quarter million people of Denmark are to be congratulated on their scientific interests.

HERR GUSTAV FISCHER, Jena, has begun the publication of a *Centralblatt für die Grenzgebiete der Medizin und Chirurgie*.

M. BALLIÈRE, Paris, has begun the publication of an Atlas of Microbiologie, by M. E. Macé, the first part of which contains twenty colored plates.