

Thus we have a third kind of fish and a fourth organism in which this interesting method of light production is evident, but important work remains to be done on one or more of them. The kinds of bacteria used, the nature of the gland secretion and its effects on the bacteria, whether the organ was originally auto-luminous and the possibility that the secretion is still a luciferin or not and many other interesting questions remain to be solved. The writer has more extensive studies on this organ in progress.

ULRIC DAHLGREN

### THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE THE SOUTHWESTERN DIVISION

THE ninth annual meeting of the Southwestern Division of the American Association for the Advancement of Science was held at Flagstaff, Arizona, from April 23 to 26, inclusive. The meeting opened with a general session in the auditorium of the Northern Arizona Teachers College. As both the president and vice-president of the division were unavoidably absent, Dr. O. C. Lester, a member of the executive committee, was selected as acting chairman for the meeting. American Forest Week was properly observed by a program presented at the first noon-day symposium, at which time short interesting and instructive talks were made by Mr. F. C. W. Pooler, district forester of the Southwestern District of the United States Forest Service, and by two other members of the Forest Service, Mr. Quincy Randles and Mr. Herman Krauch. A general dinner on Monday evening was followed by a lecture on the Boyce Thompson Southwestern Arboretum by the director, Mr. F. J. Crider. The talk was illustrated with three reels of motion pictures, showing the vegetation in the vicinity of the arboretum and the work being carried on there. Tuesday evening a picnic supper near Sunset Peak, an old volcanic crater, was followed by an open house at the Lowell Observatory. Here the members had an opportunity of viewing the moon through the large telescope and to examine many celestial photographs. On Wednesday noon at a luncheon symposium the future of the Southwestern Division and ways and means of securing new members were discussed. Wednesday evening, Mr. E. C. La Rue, who was for many years with the U. S. Geological Survey, studying the Colorado River, gave an illustrated talk on "The Colorado River and the Possible Damsites."

On Thursday, an excursion to Tuba City under the leadership of Dr. H. S. Colton was enjoyed by many members of the division. The features of the excursion were the various geological formations, dinosaur

tracks, the Painted Desert, the Moencopi Pueblo, ancient Indian ruins and a wide variety of vegetation.

The biological sciences section program had twenty-nine titles listed. Wednesday afternoon the members of the section visited the Southwestern Forest Experiment Station near Flagstaff, where the silvicultural and grazing research work underway was shown and explained by members of the staff. One session each was devoted to plant pathology and forestry, and two to general biological papers. The physical sciences section had an exceptionally strong program, with forty titles listed. The discussion of Meteor Crater by Mr. G. M. Colvocoresses excited considerable interest and many members of the section visited the crater Tuesday afternoon. One session each was devoted to geology, physics, chemistry and astronomy. The social science section had sixteen titles listed. Members of this section were able to study many ruins easily accessible to Flagstaff. The education section had a rather short program, but the papers presented made up in quality what was lacking in quantity.

Newly elected officers of the Southwestern Division are: Forrest Shreve, Carnegie Desert Laboratory, Tucson, *president*; Walter P. Taylor, U. S. Biological Survey, Tucson, *vice-president*; W. G. McGinnies, University of Arizona, Tucson, *secretary-treasurer*, and Francis Ramaley, University of Colorado, Boulder, *member of executive committee*.

Section officers for the coming year are: Biological Sciences, F. J. Crider, director, Boyce Thompson Southwestern Arboretum, Superior, Arizona, *chairman*, Quincy Randles, U. S. Forest Service, Albuquerque, New Mexico, *vice-chairman*, W. G. McGinnies, University of Arizona, *secretary*; Physical Sciences, T. F. Buehrer, University of Arizona, *chairman*, R. J. Leonard, University of Arizona, *vice-chairman*, R. S. Rockwood, University of New Mexico, *secretary*; Social Sciences, K. M. Chapman, School of American Research, Santa Fé, *chairman*, Mrs. Eileen E. Alves, El Paso, *vice-chairman*, O. S. Halseth, Arizona Museum, Phoenix, *secretary*; Education, Grady Gammage, Northern Arizona Teachers College, Flagstaff, *chairman*, Samuel Burkhard, Tempe Normal School, Tempe, *secretary*.

The local committee, under the leadership of Dr. Grady Gammage, was largely responsible for making this meeting an outstanding success. The program was an unusually full one, and the entertainment and attractions afforded will make this meeting one long to be remembered by all who attended.

The tenth annual meeting of the division will be held in Albuquerque, April 22 to 25, 1929.

W. G. MCGINNIES,  
*Secretary*