

trated. Mr. Ditmars records the reception of a toad, *Scaphiopus hammondi*, said to have been exhumed from limestone, at a depth of 150 feet, at Butte, Montana. As limestone is notable for caves and fissures there is nothing impossible in the specimen having lived out of sight long enough for the color pattern to have faded. It has now lived in a porcelain jar for eight months without feeding. But a rattlesnake has been known to exist seventeen months without eating and snails from three to eleven years. We trust that the future record of this toad will be carefully kept.

The American Museum Journal for January is a paleontological number. W. D. Matthew describes the recently mounted skeleton of "Allosaurus, a Carnivorous Dinosaur," and "The New Ichthyosaurus," this last one of the rare instances in which the shape of the paddles, tail and dorsal fin of this marine reptile are clearly shown. Walter Granger gives "A Preliminary Notice of the Fayûm Collection," which secured some 600 specimens of fossil vertebrates, and there are notes on ethnological material from the Congo, and the Bismarck Archipelago.

The Museum News of the Brooklyn Institute for January has articles on "Zuni Basketry," "Arctic Foxes" and the "Tree Frog and Protective Coloration."

The Bulletin of the Charleston Museum for December is mainly devoted to the "History of the Museum" subsequent to 1850, although it notes the preparation of the first loan, or traveling exhibit, devoted to illustrating the iron and steel industry.

SOCIETIES AND ACADEMIES

THE BIOLOGICAL SOCIETY OF WASHINGTON

THE 437th meeting was held January 11, 1908, President Stejneger in the chair.

The first paper, by Mr. E. W. Nelson, of the Biological Survey, on the "Distribution of Plant and Animal Life in Lower California," was in the form of a lecture illustrated by many lantern slides during which he gave a brief resumé of his recent expedition to the Peninsula of Lower California.

The peninsula, which is about 800 miles long and from 30 to 100 miles wide, was traversed its entire length and crossed eight times from one side to the other. The country proved to be mainly a mountainous desert subject to prolonged periods of drought during which no rain falls for several successive seasons. As a result surface water is very scarce.

The most interesting feature of this region is its plant life, as it has probably developed the most remarkable desert flora of the world. On the other hand, the bird and mammal life is very closely related to that of southern California. The birds and mammals in most cases are either the same as, or merely geographic races of, the Californian species. As would be expected, the greatest amount of differentiation has taken place in the mountains near the extreme southern end of the peninsula. Only about half a dozen birds and a single mammal, a species of mouse (*Oryzomys*), are derived from the opposite mainland of Mexico. These species all live near the southern end of the peninsula.

The second paper, by Dr. D. T. MacDougal, was a lantern slide lecture devoted in large part to "Changes in the Delta of the Colorado River."

During a visit to the lower part of the delta of the Colorado River in March, 1905, a great volume of flood water was seen to be leaving the main channel and making its way south-eastwardly to the gulf through the Santa Clara Slough, and the prediction was hazarded that a shift of the cutting action of the water might send the principal current to the sea in this way (*Bull. Amer. Geog. Society*, January, 1906).

Shortly after that observation was made, the entire stream was diverted into the Salton Basin for a time, leaving the bed of the river bare for more than a hundred miles. With the restoration of recent conditions the Colorado resumed its way to the Gulf, but in the meantime, such erosion and formation of bars had taken place in the section affected by the tides below the "Colony mesa," that the main current flowed through the Santa Clara Slough, if reports from three different sources are to be credited.

The consequences of this change are somewhat momentous. The main mouth of the river was formerly twenty or thirty miles farther north of the new débouchure, and with the converging shores of the gulf, gave conditions which with the spring tides at thirty to forty feet, produced a marked bore, being felt many miles upstream, both in the Colorado and Hardy. The new channel reaches sea-level by a much more gradual descent and hence without the strong current favorable to developing the bore.

The new mouth will become the center of a new series of mud flats which fringe the shores already for a distance of fifty miles. The deposition of silt will operate to close the eastern channel between Montague Island and the mainland, which has long since ceased to be navigable and will soon afford material which will be piled by the tides in the deeper channel to the westward with the final result of filling it more or less completely.

The new eastern channel is one probably not previously occupied by the river in its present condition, and the change adds to the delta the triangular area enclosed by the old channel below the "Colony mesa" to the gulf, and the new channel, inclusive of expanses of mud flats and a range of gravel dunes or hillocks which find their culmination at the extreme northern end of the triangle immediately below where the new channel takes off from the old one.

In addition to increasing the area of the delta, serious disturbance of the plants and animals over an area of several hundred square miles may ensue. In a large part of it the composition of the flora will be totally altered.

M. C. MARSH,

Recording Secretary

THE TORREY BOTANICAL CLUB

THE first stated meeting for 1908 was held on January 14, 1908, at the American Museum of Natural History at 8:15 P.M. Vice-president Edward S. Burgess presided. The attendance was fourteen.

This being the annual business meeting of the club, the chairman called for the reports of officers for 1907. Reports of the secretary,

treasurer, editor and corresponding secretary were read, accepted and placed on file.

The secretary reported that fourteen regular meetings had been held during the year, with a total attendance of 306, as against 219 in 1906, and an average attendance of 21.8, as against 16.8 last year. A total of 37 formal papers was presented before the club, distributed according to subject-matter as follows: taxonomy, 5; physiology, 6; morphology, 4; ecology, 7; regional botany, 5; exploration, 2; lantern lectures, 4; miscellaneous, 4. In addition to these were numerous informal notes and exhibitions of specimens.

The editor reported the publication of one number of the *Memoirs*, of 47 pages, and the issuance of the *Bulletin* and of *Torrey* as usual. The need of an adequate index to the *Bulletin* from volume one to thirty, inclusive, was strongly emphasized.

On behalf of the committee on the local flora, the chairman, Dr. Britton, urged the need of increased activity, and emphasized the desirability of preparing a special work on the flora of New York City and vicinity. At present no such work exists.

Election of officers for the year 1908 resulted in the election of the following ticket:

President—Henry Hurd Rusby.

Vice-presidents—Edward Sandford Burgess and John Hendley Barnhart.

Secretary—C. Stuart Gager.

Treasurer—William Mansfield.

Editor—Marshall Avery Howe.

Associate Editors—John Hendley Barnhart, Jean Broadhurst, Philip Dowell, Alexander William Evans, Tracy Eliot Hazen, William Alphonso Murrill, Charles Louis Pollard and Herbert Maule Richards.

C. STUART GAGER,

Secretary

DISCUSSION AND CORRESPONDENCE

THE TEMPERATURE OF THE SUN

PROFESSOR SCHAEFERLE's measurement of the effect of concentrated solar radiation in the melting of platinum and other metals¹ is a valuable addition to previous experiments of this sort. Indeed, it may be doubted whether the measurement has ever been made before.

¹ SCIENCE, December 20, 1907, p. 877.