

4. It is likewise necessary to reject the theories in which the male element is regarded as supplying the chromosomes subtracted in the formation of the polar globules. In giving up part of its nuclear matter the egg does not become *ipso facto* incapable of ulterior development, since an ovulatory cytoplasm provided with a number of chromosomes and a mass of chromatin equal to that which it had originally, but of paternal origin, is capable of forming an embryo.

5. Sexual attraction is not confined to the nucleus.

6. In fecundation there are two things to be considered: (a) The communication to the egg of a vital energy that permits it to segment and develop. (b) The communication to the product of advantages resulting from amphimixy and from the possession of hereditary characters.

On the second of these two questions no light is thrown by the experiments, but on the first there is, showing that the theories of fecundation reconcilable with it are those representing this phenomenon as the bearing by the male element of special energetic plasma (*kinoplasma*) contained in its sperm center.

7. There is no specific structure in the ovulatory cytoplasm, the conservation of which is a condition of development. If a structure exists it is conditioned by mutual reactions of the parts and is capable of re-establishing itself when it has been altered.

8. Boveri's celebrated experiments, so warmly contested by Seeliger, are confirmed by the removal of the most serious objection to their validity, namely, the impossibility of cytoplasmic development without a nucleus.

F. C. KENYON.

AMERICAN ORNITHOLOGISTS' UNION.

THE Sixteenth Congress of the American Ornithologists' Union convened in Washington, D. C., on Monday evening, Novem-

ber 14th. The business meeting was held at the Army Medical Museum. The public sessions, commencing Tuesday, November, 15th, and lasting three days, were held at the U. S. National Museum, the Central High School and the Cosmos Club.

Robert Ridgway, of Washington, D. C., was elected President; Dr. C. Hart Merriam, of Washington, D. C., and Charles B. Cory, of Boston, Vice-Presidents; John H. Sage, of Portland, Conn., Secretary; William Dutcher, of New York City, Treasurer; Charles F. Batchelder, Frank M. Chapman, Ruthven Deane, Drs. Jonathan Dwight, Jr., A. K. Fisher and L. Stejneger, and Mr. Witmer Stone, members of the Council. By a provision of the by-laws, the ex-Presidents of the Union, Drs. J. A. Allen and Elliott Coues, and Messrs. William Brewster and D. G. Elliot, are *ex-officio* members of the Council.

One active, one corresponding and one hundred and one associate members were elected—the largest number in any one year except one since the Union was founded. As in the previous year, a large percentage of the new associate members were women, a direct result of the Audubon Society movement, and of the present interest taken in the study of birds by the teachers in the public schools.

Mr. Witmer Stone's paper on 'Some early Philadelphia Collectors and Collections' was of special value from a historical point of view. New facts regarding Peale's Museum, Audubon, John Cassin and the early workers in ornithology in this country were given.

Wednesday afternoon and evening were devoted to papers illustrated with lantern slides. Through the kindness of Professor W. B. Powell, Superintendent of Schools of Washington, a hall at the Central High School was placed at the disposal of the Union and its friends for the afternoon. The first communication was by Mr. Frank

M. Chapman entitled 'The Bird Rocks of the Gulf of St. Lawrence.' He was followed by Dr. Thomas S. Roberts, who gave an exhibition of lantern slides of birds, birds' nests and nesting haunts from photographs taken by himself in Minnesota. Other slides were shown by Messrs. William Dutcher and William L. Baily.

In the evening the Union met in the Assembly Hall of the Cosmos Club, by courtesy of that Club. Here three papers were read, viz.: 'On the Nesting Habits of the Brown Pelican on Pelican Island, Florida,' by Frank M. Chapman; 'Chapter in the Life of the Canada Jay,' by Oscar Bird Warren; and 'Clarke's Crows and Oregon Jays on Mt. Hood,' by Florence A. Merriam. All of the slides exhibited were effective, showing care and patience in obtaining the negatives.

Mr. Witmer Stone, Chairman of the Committee on Protection of North American Birds, read a most interesting report on the work done during the past year. The report will be published in *The Auk*, and reprinted as a separate pamphlet, to be sold at a very low price.

The graphophone demonstration of a brown thrasher's song by Dr. Sylvester D. Judd was a new and unique feature of the Congress. Dr. Judd's experiments were made with a cage bird, but the results obtained were enough to show that great possibilities in this field may be looked for in the future.

Following is a list of the papers read at the session, in addition to those already mentioned:

'Among the Birds in Nevada,' Harry C. Oberholser.
'The Geographical Distribution of the Wrens of the *bewickii* Group,' Harry C. Oberholser.

'The Moults of Passerine Species in the vicinity of New York City,' Jonathan Dwight, Jr.

'The Nocturnal Flight of Migrating Birds,' O. G. Libby.

'The Distribution and Relationships of *Ammodramus maritimus* and its allies,' Frank M. Chapman.

'Chadbourne on Individual Dichromatism in *Megascops asio*, with some evidence on the question,' William Palmer.

'The Prothonotary Warbler, *Protonotaria citrea*, a common summer resident of Southeastern Minnesota,' Thomas S. Roberts.

'Polygamy among Oscines,' F. E. L. Beal.

'Crow Roosts in Eastern Pennsylvania and New Jersey,' Witmer Stone.

'Some Parasites of Birds,' by title, Vernon L. Kellogg.

'Some Characteristics of Neosoptiles,' William Palmer.

'The Generic Names *Pediocætes* and *Poocætes*,' Theo. Gill.

'The Blue Honey-creepers of Tropical America,' Harry C. Oberholser.

'The Water Ouzel on Mt. Shasta,' Florence A. Merriam.

The next meeting will be held in Philadelphia, commencing November 13, 1899.

JOHN H. SAGE,
Secretary.

CURRENT NOTES ON ANTHROPOLOGY.

THE MAP OF CUAUHTLANZINCO.

UNDER the above name Mexican archæologists have described a series of paintings about thirty-three in number, preserved in the native town bearing the appellation. They were drawn and colored some decades after the Conquest, in order to preserve the memory of that portion of it in which the town was engaged. In the present century a new copy was made, as the first canvasses were falling to pieces. Inscriptions in Nahuatl and Spanish were added, to explain the various scenes depicted by the native artists.

Professor Frederick Starr visited the hamlet in 1895 and again last January, and obtained photographs of all the pictures and a copy of the Spanish explanations. These he has published in an instructive monograph, issued from the press of the University of Chicago. It will be read with pleasure by those interested in the archæology of Mexico ('The Mapa de Cuauhtlantzinco or Códice Campos').