

BIOLOGICAL SURVEY OF INDIANA.

At the last meeting of the Indiana Academy of Science, at Terre Haute, a Biological Survey was established for the State of Indiana, and Prof. Lucien M. Underwood, Greencastle, Ind., Division of Botany; Prof. Carl H. Eigenmann, Bloomington, Ind., Division of Zoölogy; Prof. Vernon F. Marsters, Bloomington, Ind., Division of Palæontology, were appointed Directors to organize the survey and outline the preliminary work ordered by the Academy.

It is the purpose of the survey: (1) To ascertain what has already been accomplished in the direction of making known the character and extent of the life of the State, and to this end to prepare a complete bibliography of materials bearing on the botany, zoölogy and palæontology of Indiana, to be published by the Academy. (2) To associate the various workers throughout the State, and so correlate their labors that all will work together towards a definite end, and ultimately accomplish the main purpose of the survey, namely,—the making known of the entire fauna and flora of Indiana, its extent, its distribution, its biological relations, and its economic importance. (3) To stimulate the teachers of biology throughout the State to encourage in their pupils the accumulation of material, which shall make known the local extent and distribution of life-forms, and thus contribute facts that will be useful in the survey and at the same time develop acute observers for continuing the study of the natural resources of the State. It is thus intended that the colleges and secondary schools will form with the survey a mutually helpful relation. (4) Ultimately to secure for the Academy a collection that will illustrate the biology of the State. Until such collection can be otherwise provided for, the Academy will designate certain public or private collections where accumulated material may be deposited temporarily. Material sent to the directors will be thus held for the future disposition of the Academy.

It is earnestly requested that all persons interested in any department of biological work will place themselves in relations with the Directors of the survey at once in order that their work may be made to contribute the most effectively to the public good, and in order that the Directors may know on whom they may depend for gaining information from various portions of the State. All contributions from persons interested will be properly credited in the reports of the survey. Correspondence is solicited with the director of the particular branch in which any one is interested, and such directions in regard to collecting and sending material will be given on application. By the assistance of the Smithsonian Institution, the directors are able to send printed directions for collecting to such as apply for them. In ordering these it will be necessary to specify in what particular branch information is desired.

It is the purpose of the Division of Botany during the present year to make such additions and corrections to the published "Catalogue of the Plants of Indiana" as are possible, and to secure definite information regarding the distribution of such rare forms as are there published.

Specimens illustrating the distribution or occurrence of any plant within the limits of the State must be deposited with the survey before any notice of their belonging to the state flora can be published. This will insure the ability to verify in future any fact published by the survey. In sending such material it is desirable that notes on the station, habitat, range and abundance of the plant be noted, together with any other information that will be of value. In addition to the flowering plants and ferns covered in the above, it is the intention of the Division to commence the study of the distribution of the lower cryptogams, concerning which almost nothing has been published from Indiana. While collections will be made of

all forms, special attention will be given at present to the study of (1) Mosses, (2) Hepaticæ, and (3) Parasitic Fungi. Specimens are earnestly desired of all species, even those that are most common, from all portions of the State. It is desirable to state with each species the data indicated above, with particular reference to the habitat. In the case of parasitic fungi, it is necessary to indicate the host and to include sufficient quantity of the host plant, that doubtful determinations may be verified. The Director has been promised the assistance of specialists in the study of material accumulated.

The leading aim of the Division of Zoölogy during the season will be the compilation of a complete bibliography of the vertebrates of Indiana and of as many invertebrates as can be provided for.

At the same time any material showing the distribution of animals in the State is especially desirable. To determine the distribution, complete collections of the vertebrates of as many localities as possible should be made. Collections should always accompany notes, so that the observations may be verified by some specialist.

No opportunity should be neglected to observe the breeding habits and seasons, and the animal with young should, whenever possible, be preserved and forwarded to the Director, who will transmit it to the proper authority for record.

Another subject which should receive attention is the migration, or seasonal appearance and disappearance of mammals, birds, reptiles and fishes.

The next meeting of the Australasian Association for the Advancement of Science will be held in Adelaide, South Australia, commencing on September 25. The Association has now been in existence since 1888. Four meetings have been held, viz.: In September, 1888, at Sydney—President, H. C. Russell, C. M. G., B. A., F. R. S., Government Astronomer, N. S. W.; in January, 1890, at Melbourne—President, Baron F. von Mueller, K. C. M. G., Ph. D., F. R. S.; in January, 1891, at Christchurch—President, Sir James Hector, K. C. M. G., M. D., F. R. S.; in January, 1892, Hobart—President, His Excellency Sir Robert Hamilton, K. C. B. The meeting in Adelaide will be presided over by Ralph Tate, F. L. S., F. G. S., Professor of Natural Science at the University of Adelaide. Since its commencement the Association has grown steadily and now numbers about 900 members. The work is divided into sections as in the British Association, whose rules on most points have been closely followed. The Presidents of sections for the Adelaide session are: Section A.—Astronomy, Mathematics and Physics: H. C. Russell, C. M. G., B. A., F. R. S., Government Astronomer of New South Wales; Section B.—Chemistry: C. N. Hake, Chief Inspector of Explosives, Victoria; Section C.—Geology and Mineralogy: Sir James Hector, K. C. M. G., M. D., F. R. S., Director of the Geological Survey of New Zealand; Section D.—Biology: C. W. De Vis, Curator of the Brisbane Museum; Section E.—Geography: A. C. Macdonald, F. R. G. S., Hon. Secretary of the Victorian Branch of the Royal Geographical Society of Australasia; Section F.—Ethnology and Anthropology: Rev. S. Ella, New South Wales; Section G.—Economic Science and Agriculture: H. C. L. Anderson, M. A., Director of Agriculture, New South Wales; Section H.—Engineering and Architecture: J. R. Scott, Lecturer-in-Charge of the School of Engineering, Canterbury College, Christchurch, New Zealand; Section I.—Sanitary Science and Hygiene: A. Mault, Secretary to the Central Board of Health, Tasmania; Section J.—Mental Science and Education: Henry Laurie, LL. D., Professor of Mental and Moral Philosophy at the University of Melbourne.