

in the bowfin's intestinal tract) both in the structure and size of the scolex and in the structure and size of the proboscides. Since the agreement between the two forms is so striking and since no other tapeworm thus far reported from a fresh-water host possesses a scolex with four proboscides, the identity of the larvae from the bullhead and the tapeworm of the bowfin is evident.

The habitat of the bullhead and bowfin is the same; both are in quiet, shallow, muddy regions of lakes and rivers. Since both are nocturnal feeders there is ample opportunity for the bullhead to be captured by the bowfin. Although, as pointed out by Forbes and Richardson (1920),¹ catfishes prey on other species to a greater extent than other species prey on them, yet, in the stomachs of the large- and small-mouth bass and the sand pike, catfishes were found. Since the bowfin is as well equipped to ingest the bullhead as the forms just mentioned, and since about one third of the bowfin's food consists of fishes, it is not unreasonable to suppose that the bullhead forms a part of the bowfin's diet. Forbes and Richardson do not list catfishes as a source of food for the bowfin, but the number (twenty-one) examined by them is not sufficient to include all the forms utilized.

The egg of *Haplobothrium globuliforme* gives rise to a coracidium or ciliated larva which is probably eaten by a copepod, as is the case in all the known life-cycles of Bothriocephalids from fresh-water hosts. Definite information on the various phases of the developmental history of this interesting parasite can be obtained only by experimental methods. More complete knowledge of the development of *Haplobothrium globuliforme* will be of interest from a phylogenetic view-point, since this parasite closely resembles the Trypanorhynchids which are parasitic in Elasmobranch fishes.

Further work is now in progress and a more inclusive account of the development of this parasite will appear later.

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THIRTY-NINTH ANNUAL MEETING OF THE OHIO ACADEMY OF SCIENCE

THE Ohio Academy of Science, under the presidency of Professor James S. Hine, of Ohio State University, held its thirty-ninth annual meeting under very delightful auspices at Wittenberg College, Springfield, Ohio, on Friday and Saturday, April 26

¹ "The Fishes of Illinois." Ichthyology, Illinois State Laboratory of Natural History, Volume III.

and 27, 1929. The local committee under the fine leadership of its chairman, Dr. W. C. Beaver, was preeminently successful in anticipating the needs and comfort of the visiting scientists and won universal praise for the completeness and execution of its plans. The attendance was unusually large, the program well balanced and the lectures and papers uniformly good and well received, provoking some lively discussions.

The scientific program was made up of a number of lectures and papers of general interest, some ninety-six sectional papers and a few exhibits and demonstrations. As an indication of the character of the general papers one might mention the presidential address on "The Distribution of Ohio Mammals," by President Hine; "The Application of X-rays to the Study of the Structure of Crystals," by Dr. F. C. Blake, of Ohio State University; "Life Challenges Science," by David Dietz, science editor of the *Cleveland Press*; "The American Eagle in Action," by Dr. Francis H. Herrick, of Western Reserve University, and the showing of the Canti film with explanatory remarks by Dr. J. Paul Visser, of Western Reserve University.

Among the business items transacted by the academy may be mentioned the election of sixty-three new members, the restoration of three former members, the elevation of eleven members to fellowship and the election of one patron, namely, George T. Spahr, of Columbus, for "distinguished favors bestowed upon the academy." The president was authorized to appoint a committee of three "to consider the advisability and the ways and means of establishing facilities for encouraging junior scientific effort in Ohio" and report with recommendation at the next annual meeting; also a committee of six "to look into the matter of a more adequate publication of the proceedings of the academy, and of the academy's relation to the *Ohio Journal of Science*."

Upon the recommendation of the nominating committee, the following officers and committeemen were elected for the ensuing year:

President, Dr. F. C. Waite, Western Reserve University; *vice-presidents*—A. Zoology, Dwight M. DeLong; B. Botany, Lewis H. Tiffany; C. Geology, Paris B. Stockdale; D. Medical Sciences, Leonard B. Nice; E. Psychology, Martin L. Reymert; F. Physical Sciences, Frederick C. Blake; *secretary*, William H. Alexander; *treasurer*, A. E. Waller; *elective members of executive committee*, C. G. Shatzer and E. N. Transeau; *Trustees Research Fund*, Herbert Osborn; *publications committee*, E. L. Moseley, F. O. Grover, F. C. Blake; *library committee*, Mrs. Ethel M. Miller; *committee on state parks*, J. E. Carman, E. L. Wickliff, Roscoe W. Franks.

W. H. ALEXANDER,

Secretary