

PROGRAM OF THE SECTION ON ZOOLOGY

Chairman: W. P. ALLYN, Indiana State Teachers College

1. Symposium—A practical wild animal conservation program for Indiana.
Possibilities for conservation in an agricultural state. Kenneth M. Kunkel, State Conservation Department.
2. The problem of migratory animals, particularly birds. Daniel H. Janzen, U. S. Biological Survey.
3. Conservation from the naturalist's point of view. Marcus W. Lyon, Jr., South Bend.
2. The accumulated sediment in Tippecanoe Lake and a comparison with Winona Lake. Ira T. Wilson, Heidelberg College, Tiffin, Ohio.
3. A method for the preparation of skeletal material. J. P. Scott, Wabash College.
4. Heldout, a recessive wing mutation in *Drosophila*. Edward Novitski and S. A. Rifenburgh, Purdue University.
5. *Ailanthus altissima* as a honey plant. Ben H. Smith, Indiana State Teachers College.
6. New Mexican gall wasps (Hymenoptera, Cynipidae)—III. Alfred C. Kinsey, Indiana University.
7. Notes on bionomics of roaches inhabiting homes. George E. Gould and Howard O. Deay, Purdue University.
8. Insects of Indiana for 1937. J. J. Davis, Purdue University.
9. Cercariae of Indiana—1. A preliminary note on larval trematodes from McCormick's Creek with descriptions of three new species. R. M. Cable, Purdue University.
10. A note on a phyllodistome trematode from the urinary bladder of the Miller's Thumb, *Cottus* sp. Edwin B. Steen, Purdue University.
11. The absorption of colloidal carbon from the body cavity of Ammocoetes. Theodore W. Torrey, Indiana University.
12. Zoology laboratory without drawings or written reports. S. A. Rifenburgh, Purdue University.
13. A cat with an "upside-down" stomach. S. A. Rifenburgh, William P. Lawson, and Ralph P. Ogden, Purdue University.
14. Respiration studies with fresh-water molluscs: I. Oxygen consumption in relation to oxygen tension. William A. Hiestand, Purdue University.
15. Respiration studies with fresh-water molluscs: II. Oxygen consumption in relation to H-ion concentration. William A. Hiestand and Doris M. Hale, Purdue University.
16. Some observations on the reproductive cycle of a common land snail, *Vallonia pulchella* Mull; influence of environmental factors. Margaret Esther Whitney, Central Normal College.
17. The neural scute row in Testudinata. Chapman Grant, San Diego, California.
18. *Lasiurus cinereus*. S. E. Perkins III, Indianapolis.

19. Preliminary survey of surviving Testudinata in Vigo County and immediate vicinity. William Hopp and W. P. Allyn, Indiana State Teachers College.
20. Preliminary survey of surviving species of Caudata of Vigo County and vicinity. Clarence Shockley and W. P. Allyn, Indiana State Teachers College.
21. Staining methods for protozoa. W. P. Allyn, Indiana State Teachers College.

H. G. Nester, Butler University, was elected chairman of the section for 1938.

ABSTRACTS

Ailanthus altissima as a honey plant. B. H. SMITH, Indiana State Teachers College.—Because of the prevalent opinion among beekeepers that the staminate flowers of Ailanthus, commonly known as "tree of heaven," are the source of much inferior honey, a controlled experiment was made to determine the facts. A hive of bees was placed in a greenhouse, which was well screened to limit their range, and allowed to use all the honey left in the hive. Fresh flowers of Ailanthus were then introduced for a few days, and a small amount of honey was produced. This probably came mostly from the flowers, but a few bees were found working the glands at the base of the leaflets. The pure Ailanthus honey did not have the objectionable taste, odor, or color usually attributed to it. A number of persons, including an experienced beekeeper, who were asked to pass judgment on several samples of honey, including this produced under experimental conditions, showed no consistent aversion to honey from Ailanthus. From this experiment it is concluded that Ailanthus is probably not responsible for the objectionable qualities that have been ascribed to it.

Cercariae of Indiana—1. A preliminary note on larval trematodes from McCormick's Creek with descriptions of three new species. R. M. CABLE, Purdue University.—A survey of the trematode parasites of aquatic gastropods from McCormick's Creek has yielded nine species of cercariae. From *Goniobasis* sp., the following are reported: *Cercaria Macravestibulum obtusicaudum* Mackin, 1930; *C. Proterometra macrostoma* (Faust, 1918); *C. megalura* Cort, 1914; *C. kentuckiensis* Cable, 1935; an unidentified xiphidiocercaria of the "Virgula" type; *C. spinosostoma* n. sp., *C. trichocephala* n. sp., and *C. abbrevistyla* n. sp. A large xiphidiocercaria from *Physa* sp. has not been identified. *C. spinosostoma* is the second freshwater species of pleurolophocercariae to be described from the United States. In addition to the characteristics of the group, *C. spinosostoma* is distinguished by the following specific characters: average body length 0.225 mm., measured from living material under light coverglass pressure; entire body spinose; tail 0.66 mm. long, provided with a fin-fold extending along dorsal side, around distal tip, and 2/5 the distance to the base on the ventral side; left eye-spot double;

oral sucker with three transverse rows of large spines on the anterior edge of the dorsal wall; acetabulum lacking; 14 penetration glands. *C. trichoccephala* and *C. abbrevistyla* make a total of five species of freshwater corylocercous cercariae reported from the United States. Both species have the general characteristics of the "Linearis" group, *C. trichoccephala* being distinguished by the following specific features: average body length 0.23 mm., body aspinose; average length of tail 0.041 mm.; numerous sensory hairs at anterior end of body, a single lateral pair at a level just posterior to the pharynx; stylet 0.019 mm. long, asymmetrical in lateral aspect; inner surfaces of oral sucker and acetabulum spinose; intestinal ceca present; excretory formula 2(2+2+2+2). *C. abbrevistyla* resembles closely *C. trihoderma* Cable, 1935, but with a very short stylet (0.0083 mm.), that of *C. trihoderma* being much longer (0.013 mm.) and very different in shape.

A note on a phyllodistome trematode from the urinary bladder of the Miller's Thum, *Cottus* sp. EDWIN B. STEEN, Purdue University.—Approximately 11% of the Miller's Thumbs collected in the vicinity of Lafayette, Indiana, were found to harbor a species of Phyllodistomum in the urinary bladder. A maximum of five worms was recovered from a single fish. The worm has the general characteristics of the genus and may be distinguished by the following specific characters: body length, 2.45-3.14 mm.; width of posterior portion, 1.39-1.97 mm.; diameter of oral sucker, .22-.29 mm.; diameter of acetabulum, 0.37-0.54 mm. Testes obliquely situated, 0.63-0.73 mm. in length and 0.29-0.44 mm., in width; ovary lobed, 0.31-0.34 mm. in length and 0.18-0.29 mm. in width. Vitellaria lobed, much reduced in size. Pharynx and cirrus pouch absent. Average egg size, 0.029x0.041 mm. Posterior portion of body discoidal in shape with its lateral margins thrown into seven folds, three lateral pairs and a single median dorsal fold at the extreme posterior end.

The absorption of colloidal carbon from the body cavity of the Ammocoetes. THEODORE W. TORREY, Indiana University.—Colloidal carbon injected into the coelom of the larval lamprey, Ammocoetes, is taken up directly by the pronephric tubules. Due to the absence of nephrostomes, the mesonephric tubules do not function in a similar way. The tubules of neither show any intracellular deposition of carbon. The reticular elements which support both these kidneys exhibit pronounced phagocytic and hemocytopoietic activity. Carbon in either a free or included form reaches all the other organs as a result of both direct invasion and secondary distribution by the vascular system. The liver is the only organ whose vascular endothelium exhibits cytopoietic properties. To the diffuse spleen as a site of blood cell formation should thus be added the reticular tissue of the pronephros and mesonephros and the vascular endothelium of the liver. Playing a minor role in a similar way are the intestinal mucosa in addition to that in the typhlosole and the spongy tissue dorsal to the neural tube.

Zoology laboratory without drawings or written reports. S. A. RIFENBURGH, Purdue University.—A method of teaching comparative anatomy is described in which drawings and written reports are replaced

by oral reports and demonstrations. The student studies the material as directed until he thinks that he has mastered the problem. Then he asks for opportunity to report on his work. The results obtained with the method thus far are attributed to the more economical use of time and the shifting of responsibility from the instructor to the student.

Lasiurus cinereus. S. E. PERKINS III, Indianapolis.—On August 30, 1937, at 11:30 a.m., at Lake Maxinkuckee in Marshall County, Indiana, there fell into the water a living male adult specimen of *Lasiurus cinereus*. It was a sunny day, and the temperature at noon was 90°. The bat lay stretched out on the water while approached and did not swim. It fell vertically, balancing in the manner of a chimney swift entering a chimney with wings partially extended, and where the bank of the lake was forested. It hit the water some fifty feet from shore and slightly beyond the extent of overhang of longest tree limbs over the lake.



The bat was captured and measured by me while alive showing: spread, 13½ inches; length, 4¾; tail, 2½ inches.

This species, the Hoary Bat, is the largest in Eastern United States. Identification was confirmed by Dr. Marcus Ward Lyon, Jr., author of "Mammals of Indiana." Dr. Lyon reports that this is the third Indiana specimen and the first from Marshall County.

It is the first Indiana specimen photographed while living. It died an hour after its experience in the water and a study skin was made of it. The body was not plump.