

## TENNESSEE RECORDS FOR ZORAPTERA<sup>1</sup>

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Until now, this order of insects has not been reported from Tennessee although its presence has been inferred because of its distribution in the southern and eastern United States. *Zorotypus hubbardi* Caudell<sup>2</sup> has been taken by the author from old sawdust piles in 11 East Tennessee counties, viz., Blount, Union, Claiborne, Washington, Grainger, Unicoi, Hawkins, Roane, Rhea, Sequatchie, and Monroe. All collections were made during July, 1953.

The total number of individuals taken was 258 which were as follows: 1 winged female, 2 deälate females, 29 nymphs with wing pads, and 226 wingless males and females. Although they were often present in abundance no attempt was made to secure large numbers of individuals. In all, 15 sawdust heaps in 12 counties were examined and Zoraptera obtained from 11 which leads the author to believe the order is common in East Tennessee and probably can be found in Middle and West Tennessee since they have been taken in the adjacent states of Alabama and Arkansas. I have found that an aspirator is the easiest and most convenient method of capturing these insects after they have been located although I have taken them from sawdust samples by means of the modified Berlese funnel.

### BIBLIOGRAPHY

- Gurney, Ashley B. 1938. A synopsis of the order Zoraptera, with notes on the biology of *Zorotypus hubbardi* Caudell. *Proc. Ent. Soc. Wash.*, 40 (3): 57-87.
- Gurney, Ashley B. 1942. The study and collecting of Zoraptera. *Ward's Nat. Sci. Bull.*, 15 (3):43-45; (4):69-71.
- V entine, B. D., and O. E. Wilson. 1949. Records of the order Zoraptera from Alabama. *Ent. News*, 60:180.

<sup>1</sup> Contribution No. 91 from the Department of Zoology and Entomology, University of Tennessee.

<sup>2</sup> Species determination made by Dr. Ashley B. Gurney, Division of Insect Detection and Identification, U. S. Department of Agriculture.

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- radiation on structure of the spleen. *Proc. Soc. Exper. Biol. & Med.*, 82:395-399.
- Gude, William D. (ORNL). 1953. Modified Martins-Mallory stain for mouse pituitary gland. *Stain Technol.*, 28:161-162.
- Hansard, Sam L., and C. L. Comar (U. T.-AEC Agr. Res. Prog.). 1953. Radio-isotope procedures with laboratory animals. *Nucleonics*, 11:44.
- Hurst, G. S., and R. H. Ritchie (ORNL). 1953. Fast neutron dosimetry. *Radiology*, 60:864.
- Jones, A. Russell (ORNL). 1953. A weighing pipette to hold liquid samples for dry combustion. *Rev. Sci. Instr.*, 24:230.
- Khym, Joseph X., and Waldo E. Cohn (ORNL). 1953. The separation of sugar phosphates by ion exchange with the use of borate complex. *Jour. Amer. Chem. Soc.*, 75:1153-1156.