NEW OCCURRENCE AND HOST FOR TACHINAEPHAGUS ZEA-LANDICUS ASHMEAD (HYMENOPTERA: ENCYRTIDAE). Tachinaephagus zealandicus Ashmead was found as a parasite of Tritoxa (Diptera: Otitidae) in Cincinnati, Ohio. This is a new record for both host and occurrence for T. zealandicus. This occurrence suggests a possible means for the spread of T. zealandicus in North America.

In the course of work with the genus Tritoxa several larvae were obtained by leaving onions in high grass where breeding pairs of Tritoxa flexa (Wied.) were seen. Third instar Tritoxa larvae were collected from the onions and allowed to pupate in the laboratory. One Tritoxa pupa of a group obtained in this manner yielded seven hymenoptera of family Encyrtidae and the other pupae of the group yielded Tritoxa flexa imago. Examination of the puparia of this group showed all but one had split on the anterior end in the manner characteristic of Diptera of suborder Cyclorrhapha. The puparium which was not split had a small round hole in the ventral surface of the anterior end, which presumably served as an exit for the parasites.

The Encyrtid parasites were determined by K. S. Hagen, of the Division of Biological Control at the University of California, to be Tachinaephagus zealandicus Ashmead.

Tachinaephagus zealandicus normally occurs in Australia and New Zealand (Legner and Olton, 1968). This species has previously been known only from the East and West coasts of the United States and was first found here in California. In addition T. zealandicus has not been known to parasitize Otitid flies (B. D. Burks, Personal communication, October 1973).

Tritoxa flexa is sometimes a pest of onions in storage and in the field (Manis, 1941). The range of T. flexa has been given as follows: Manitoba and North Dakota to Connecticut and south to Illinois and Georgia, (Stone, 1965). However, T. flexa has also been reported in California (Cole and Schlinger, 1969).

The range of Tritoxa flexa and occurrences to date of Tachinaephagus zealandicus, along with the present host record, indicate that the spread of Tachinaephagus zealandicus in North America could be the result of commercial transportation of onions infested with parasitized Tritoxa flexa.—WILLIAM DOWNING. 173 Ireland Avenue, Cincinnati, Ohio 45218.

LITERATURE CITED