

SWARMING OF A REDUVIID.

[Hemiptera-Heteroptera.]

By FREDERICK KNAB.

The swarming of the males of nemocerous Diptera is a common and familiar phenomenon but I am not aware that such a habit has often been recorded for the Hemiptera. Late on the afternoon of January 4, 1908, when collecting in the outskirts of Córdoba, Mexico, I came upon a swarm of small insects, to all appearances *Nemocera*. It was at the intersection of two paths through the coffee groves, where the sun shone in obliquely. The insects were dancing in the sunlight in the open space in the manner of male *Nemocera*. They all faced in the same direction, just as do the *Nemocera*, in response to currents of air. The swarm consisted of several hundred individuals, weaving up and down among each other. When captured the insects proved to be a very small species of Reduviidae. Mr. Heidemann has determined the species as *Henicocephalus culicis* Uhler. A little later, at 4:30 p. m., at another intersection of paths, another swarm of the same insects was found, dancing in the sunlight. The swarm was larger than the first one and the insects moved more rapidly. When the sun disappeared behind some trees, a short time after, the swarm dispersed. I have not yet determined if the individuals in the swarm are all males, as is the case with the *Nemocera*.

Mr. Heidemann said that *Henicocephalus* (*Enicocephalus*) was erected by Westwood in 1837, but has been described by various other authors since then, under different names, on account of differences in the head and thorax which are now considered as only specific characters. The genus is cosmopolitan, but specimens are not common. Twenty-five species have been recorded. Six of these are from North America. The genus was based on the species *flavicollis* from St. Vincent, West Indies. He called attention to a note by Carlos Berg in the *Berliner Entomologische Zeitschrift*, Volume xxxviii, 1893, p. 362, entitled "Lebensweise von Henico-

cephalus," where the swarming of this reduviid is recorded both on the island of Ceylon and in the Argentine Republic.

Mr. Schwarz stated that many years ago he caught a number of specimens of *Henicocephalus* near Washington. These were flying at or above the tips of some tall grasses at sunset. The type specimens of *H. culicis* Uhler were found by him among the débris under the reeds along the shore of Utah Lake, Utah. Under the same conditions these insects were found by Mr. Barber and himself along the warm creek at Hot Springs, Yavapai County, Ariz.

Mr. Barber said that he found either the same or another species under the bark of a dead oak in Tennessee and also, under the same conditions, in Dorchester County, Maryland. In both cases there were a pair of adults and a number of various-sized larvæ.

—Mr. Hooker presented two short notes, as follows:

INJURY TO OAK FORESTS IN TEXAS BY *HETEROCAMPA* *MANTEO* DOUBLEDAY.

[Lepidoptera, Notodontidæ.]

By W. A. HOOKER.

In September and October, 1904, while in Lamar County, which borders upon the Red River in Texas, I observed a widespread injury to the oaks which make up a great part of the forest in this section. This injury was found to be due to what Professor Comstock has called the variable oak-leaf caterpillar, *Heterocampa manteo*. The injury was especially noticeable upon the post oaks, which appeared as if a fire had swept through them. It extended from Paris to the Red River some 15 miles to the North, and newspaper reports showed it to extend into Red River County to the East.

I have waited, hoping to visit that locality again, but as I have not had the opportunity, I wish to place this observation on record. In looking up the literature upon this insect I find that Professor Comstock in his report as Entomologist of the Department of Agriculture for 1880, page 259, states that during the season of 1880 a great amount of damage was done in at least two counties of Arkansas (Garland and Saline)