

#### DRAGONFLY PREDATION BY BATS

While predation on Odonata by birds, spiders, and other animals is fairly common (e.g. J. DORST, 1974, *The life of birds*, Vol. 1; Columbia Univ. Press, New York; A.T. HASSAN, 1977, *Odonatologica* 6: 1-5) no mention has been found of predation by mammals. For three consecutive evenings (Sept. 3-5, 1978) the little brown bat, *Myotis lucifugus* LeConte, was observed feeding on *Anax junius* Drury.

On Sept. 3, about 7:20 p.m. EDST, there was a swarm of approximately 200 *A. junius* flying above waist-high vegetation in two fields separated by a paved road on the Clemson University campus (Clemson, South Carolina, U.S.A.). The flight of the dragonflies ranged in height from 5-10 cm above the vegetation to about 9 m above ground level. The dragonflies were being preyed upon by approximately two dozen *M. lucifugus*.

The bats were feeding with such frenzy that they dropped many of the dragonflies they struck. Those dragonflies that the bats dropped were abandoned, with the bat simply striking another dragonfly in flight. Inspection of some of the abandoned specimens showed gaping holes in the thorax and abdomen of those specimens (Fig. 1). Feeding activity apparently ceased around 8:20 p.m. EDST, when *A. junius* disappeared with the onset of

darkness.

The evening of Sept. 4, *A. junius* appeared about 7:15 p.m. EDST, though only about 30 specimens were observed this time. The bats were present in slightly larger numbers than the previous night. The bats again were capturing *A. junius* but no bat was observed to drop a dragonfly. No activity was observed after 8:30 p.m. EDST (nightfall).

The third night, Sept. 5, a few *A. junius* appeared around 7:10 p.m. EDST, with approximately 35 bats appearing 10-15 min later. The few (no more than six) *A. junius* observed had altered their flight habits and were flying only 5-8 cm above the vegetation. No predation by the bats was observed.

During the early evening of Sept. 6, moderate rain fell and neither dragonflies nor bats appeared. Although no rain fell on Sept. 7 or 8, neither reappeared. All of the specimens of *A. junius* collected were males, and no specimens of any other odonate were collected or observed.

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T. R. White, R. C. Fox and J. A. Jordan, Department of Entomology and Economic Zoology, Clemson University, Clemson, South Carolina 29631, United States.

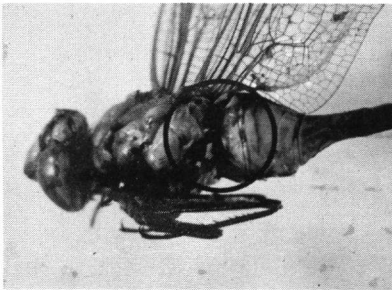


Fig. 1. Thoracic damage to Drury inflicted by little brown bats, LeConte.