
Cannibalism by a "herbivore", *Microcylloepus pusillus* (Coleoptera: Elmidae)

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Although little is really known concerning the food habits of elmid beetles, it is generally assumed that the normal food of both larvae and adults consists of such things as algae and bacteria which grow upon the submerged wood or stones upon which the beetles occur. A few, such as *Ancyronyx*, eat decaying wood. We have encountered no records of carnivorous or predatory behavior in this or other related families of dryopoid beetles, though the behavior described below may actually be common.

On 22 June 1963 a number of dryopoid beetles were collected from a submerged log in the Kiamichi River near Big Cedar, LeFlore Co., Okla. Of 74 adult and 30 larval specimens of *Microcylloepus pusillus*, some were kept alive in finger bowls at the University of Oklahoma Biological Station. There, two days later, the following observations were made.

At 10:30 AM a larva was observed feeding upon a feeble, but still living adult. First it fed at the posterior end of the beetle, attacking from the ventral surface and pulling the genitalia out bit by bit, eating the soft tissues until the sclerotized portions were completely detached. This left an exposed cavity at the rear end of the victim from which the larva could feed easily. Occasionally the larva left this site and moved anteriorly along the dorsal surface of the adult. At the joint between the head and pronotum, the larva exposed the membrane and vulnerable underlying tissues by pushing the head of the victim down. After feeding here, it used the same tactics to feed at the joint between the elytral bases and pronotum, pushing the pronotum down. The larva moved back and forth from site to site, feeding first at one, then at another. No record was made of the last struggles of the moribund victim.

At 1:15 PM a second larva was placed upon the corpse with the first larva. The newcomer exhibited no interest in dining upon the adult. Soon, however, it was attacked by the aggressive cannibal, which, though smaller, dislodged No. 2 from the beetle and attempted to feed upon the larva, employing tactics like those used upon the adult victim.

RESULTS AND DISCUSSION

A third larva, placed upon the corpse, did not feed. The cannibal, however, when removed from larva No. 2 and replaced upon the corpse, proceeded with its meal. Replacement of larva No. 2 upon the corpse along with the cannibal produced the same results as before. Plucked from the hapless No. 2 and returned to the corpse, the cannibal again resumed feeding. When sated, it moved to a nearby piece of wood and exhibited no further interest in feeding. If transferred to the corpse, it would promptly abandon it, returning to the wood. Observations ended at 2:30 PM. Unfortunately, we have no further records concerning this larva. It was preserved with all the rest of the collection.