

THE CICADA *DICEROPROCTA DELICATA* (HOMOPTERA:
CICADIDAE) AS PREY FOR THE DRAGONFLY *ERYTHEMIS*
SIMPLICICOLLIS (ANISOPTERA: LIBELLULIDAE)

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While working on the coastal dunes at Holly Beach in Cameron Parish, Louisiana during the summer of 1995, I had the opportunity to observe predation by the dragonfly *Erythemis simplicicollis* (Say) on the cicada *Diceroprocta delicata* (Osborn). An individual *D. delicata* that had just flown from its perch was captured by an *E. simplicicollis* and was being consumed in the surrounding tall vegetation. The dragonfly appeared to have been drawn to the movement of the cicada as it flew from its perch. Under similar conditions I witnessed another cicada being attacked by two dragonflies: both dragonflies rose from their perches and collided with the cicada as it approached the edge of a dune. However, this attack was unsuccessful and the cicada escaped. The specific identity of these dragonflies was not determined. A colleague of mine counted at least 17 species of Odonata at Holly Beach that day, and we could not make a positive identification of the individuals that attacked the cicada.

I have been unable to locate other references to dragonflies using a non-periodical cicada species as prey in North America. Fitch (1855), Riley (1885), Marlatt (1907), Felt (1912), and McAtee (1921) have reported dragonflies feeding on periodical cicadas (*Magicicada* spp.). However, most carnivorous animal species (see list in Marlatt 1907) use the superabundant food source that periodical cicadas represent during an emergence where local population densities are often greater than three million cicadas per acre (Dybas & Davis 1962). *Diceroprocta delicata* is apparently the first non-periodical North American cicada species reported to be prey for dragonflies. Cicadas have also been reported as prey of dragonflies in New Zealand (Myers 1929), Afghanistan (Hay 1840), and South Africa (Distant 1897). The relatively low population numbers of non-periodical cicadas combined with their large body size (*D. delicata* body length is about 20.5 mm and length to wingtip is 29.8 mm; the captured *E. simplicicollis* was 50.8 mm long) may make cicadas difficult targets for capture and perhaps, therefore, influence the paucity of reports of dragonflies using cicadas as prey.

Sidney W. Dunkle identified the *E. simplicicollis* specimen, and Sr. John Karen Frei of Barry University provided financial support.

SUMMARY

This paper reports the dragonfly *Erythemis simplicicollis* capturing the cicada *Diceroprocta delicata* as prey. It is unusual in that it represents a non-periodical cicada being used as prey by a dragonfly.

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