
“LOVE BITES” IN A LYCID BEETLE¹—(Note). While copulating and mate-guarding, male insects are sometimes dislodged from their mounts by sexual rivals. Various clamps, claspers, spines, and gin-traps occur in the genital region to grip the female and secure the male's position (Parker 1970, Biol. Rev. 45: 525-67). But the lycid beetle *Calopteran discrepans* (Newn.), forms an unusual sexual attachment. Coupled males pierce the female integument with their mandibles.

In a deciduous forest in Alachua Co., Florida, I watched 40 male and 4 female *C. discrepans*. Males were engaged in short 0.1 to 3.0 m flights among the shrubs and herbs. After alighting they would flick open their large black and yellow poster-like elytra. In 45 landings the number of wing flicks varied from 0 to 13, with a mean of 1.3. Flicks may be an advertisement to females or an aposematic display to tracking predators (Burke 1976, Ent. News 87: 229-32; females also flick when disturbed and female *C. terminale* appear to flick more regularly than do males; again Burke (1976). Females were found in the leaf litter. The highly biased sex ratio, 10:1, suggests that males remain in emergence areas to search for mates.

Males mount dorsally, between the females' slightly spread wings. Examination of coupled pairs showed the sickle-like male mandibles bite through the humeral angle (shoulder) of the female's right elytron. Up to 3 males were found upon a female's back. When such masses were picked up, they clung together and were separated only with some effort, leaving bleeding wounds in the female's elytra. Interloping males inserted their jaws into the mid regions of the elytra. These positions are similar to those of the Nigerian lycid *Metriorrhynchus semiflabellatus* Thoms., in which a copulating male was seen to grip the right tibia of his mate and competing males held the edge and corrugations of the female elytra in their mandibles (Poulton 1913, Proc. Roy. Ent. Soc. [in trans.] LXXVIII). Burke (ibid.) found a non-mating *C. terminalis* male puncturing the intersegmental membranes between a female's metathorax and first abdominal segment. He presumed the male to be feeding on her body fluids and does not mention bites by copulating males, though a mating male had his head pressed against the same region of his mate. When disturbed, mounted *C. discrepans* raise their meso- and metathoracic legs, presumably to prevent the positioning of an interloper (much like the leg lifts of another cantheroid, the firefly *Photuris hebes* (= SH), Lloyd 1977, Florida Ent. 60:63).

Single males engage in biting combats. In one case, a captive male pierced the ventral thorax of his opponent and held him for 24 hours. A victory this expensive in time seems Pyrrhic. It is questionable whether fights in nature are so prolonged (more energetic and mortal use of mandibles occurs in the related phengodids, e.g. Tiemann 1967, Proc. California Acad. Sci. 35: 235-64).

Love bites, with their potential damage to the female, illuminate the different reproductive interests of the sexes. The diminished reproductive value of an injured mate can be offset by the greater percent fertilization a male achieves if his ejaculate is not mixed with a rival's. Thanks to D. Wojcik for supplying references.—JOHN SIVINSKI, Dept. of Entomology and Nematology, University of Florida, Gainesville, FL 32611 USA.