

ATTEMPTED COPULATION OF TWO
CALOPTERYX MACULATA (P. DE
BEAUV.) FEMALES BY A *STYLOGOM-
PHUS ALBISTYLUS* (HAG.) MALE (ZYGOP-
PTERA: CALOPTERYGIDAE; ANISO-
PTERA: GOMPHIDAE)

S. albistylus is present at low densities on the Palmer River in Rehoboth (Bristol Co.), Massachusetts where we have been engaged in a study of *C. maculata*. Male *S. albistylus* perch on the muddy banks while females apparently perch away from the stream. The operational sex ratio appears to be highly male-biased; we have observed females in copula only. The two species are similar in size, but *Calopteryx* is far more numerous than *Stylogomphus* at the study site.

On 7 July 1986, we observed an *S. albistylus* male fly from his perch toward a flying *C. maculata* female. He knocked the female into the stream and then perched on her head while attempting to grasp it with his anal appendages. We were able to observe this behavior quite closely since one of us was standing in the stream at the time. The interaction was clearly an attempt at tandem formation, not predation. The male was unsuccessful in his attempt to grasp the female and returned to his perch. A few minutes later, an *S. albistylus* male, presumably the same one, attempted to grasp another *C. maculata* female in the same manner and again failed.

This is, as far as we know, the first description of a copulation attempt between an anisopteran and a zygopteran. Heterospecific tandem formation and copulation are common in Odonata (G.H. BICK & J.C. BICK, 1981. *Odonatologica* 10: 259-270). Female *C. maculata* have been observed to copulate with *C. aequabilis* (J.K. WAAGE, 1975, *Syst. Zool.* 24: 24-36), *C. dimidiata* (Schoeling, pers. comm.) and *Hetaerina americana* (J.L. WEICHSEL, 1985, *Odonatologica* 14: 57-64). However, many unsuccessful copulation attempts probably go unreported. This may be because such interactions are not thought worthy of report, or are mistaken for predation attempts. It may prove interesting to examine interspecific interactions more closely in order to distinguish among aggression, predation attempts and copulation attempts.

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