



Fig. 1. Position of chironomid and hydroptilid "hitchhikers" on (Sel.) nymph. (Drawn from nature).

CHIRONOMID (DIPTERA) LARVAE AND HYDROPTILID (TRICHOPTERA) PUPAE ATTACHED TO A MACROMIID NYMPH (ANISOPTERA)

Examination of a *Macromia georgina* (Sel.) nymph collected from a channelized stream on October 20, 1978 (South Carolina: Horry County, Buck Creek at S.C. Hwy 905) revealed that four mature caddisfly pupae and three chironomid larvae were attached to its dorsum (Fig. 1). The caddisflies were determined as *Oxyethira azteca* (Moseley) (Hydroptilidae) and the midges as *Rheotanytarsus exiguus* Johannsen. The relationship between the chironomid, hydroptilid, and the odonate was probably phoretic rather than nutritive.

This appears to be the first record of Trichoptera pupae in a phoretic relationship with an odonate nymph. A.W. STEFFAN (1967, in S.M. Henry, Ed., *Symbiosis*, chapter 4: Academic Press, New York - London) mentions no relationship between midges or caddisflies and odonates, although more recently D. ROSENBERG (1972, *Quaest. ent.* 8: 3-4) did report *Paratanytarsus* sp. attached

to *Sympetrum* sp., probably *S. internum*, in Canada.

Immatures of *Oxyethira* have been found attached to vegetation and rocks within the stream (H.H. ROSS, 1944, *Bull. Ill. nat. Hist. Surv.* 23 (1): 1-326; — G.B. WIGGINS, 1977, *Larvae of the North American caddisfly genera (Trichoptera)*; Univ. Toronto Press, Toronto - Buffalo). Since channelization removes the natural habitat of these pupae, they must utilize an alternate place of attachment. This appears to have been one of the choices.

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