BRIEF NOTE

DISCOVERY OF A RARE MAYFLY (*ANEPEORUS* SP.) IN THE OHIO RIVER[1]

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The genus *Anepeorus* has historically been one of the rarer genera within the Order Ephemeroptera (mayflies). This genus had been reported from only a few scattered locations; until fairly recently it was considered extinct by some authorities. D. M. Lehmkuhl (1970) however, located a sizeable population in the South Saskatchewan River, near Saskatoon, Saskatchewan, Canada.

Anepeorus sp. has now been found in the Ohio River. On June 1, 1976 four nymphs belonging to this genus were collected from the Ohio River near Aberdeen, Ohio (approximately 70 miles east of Cincinnati, Ohio). Two nymphs were collected on Hester Dendy plate samplers at river mile 404.0 and two more nymphs were collected on another Hester Dendy plate sampler at river mile 406.6. Both samplers were located one meter below the surface and the river was approximately ten meters deep at the sampler locations. The water quality of this portion of the Ohio is relatively good.

Anepeorus, in addition to being a rare find, is unusual in that it is one of the few predaceous mayfiies. Its carnivorous habits may help explain its rarity. Edmunds (1957) states that there are only four mayfly genera in North America which are carnivorous, and that all of these genera are uncommon in mayfly collections and are probably rare in nature. (See figs. 1–2).

Another factor contributing to its rarity (in terms of collection) is that this genus seems to be found only in medium to large-sized rivers. In addition to the South Saskatchewan River and Ohio River populations, *Anepeorus* has been reported from the Wabash River and Rock River (Illinois) (Burks 1953), the Chattahoochee River (Georgia) (Needham *et al* 1935), and the Missouri River (Jensen 1972, personal communication). This proclivity for a large river habitat results in an increased difficulty of collection, since large rivers are more difficult to sample than smaller lotic habitats.

Collection of samplers on June 30, 1976 did not yield *Anepeorus* sp. Since the nymphs collected on June 1st were quite mature, and the fall 1975, winter 1975–1976, and June 30, 1976 collections did not contain *Anepeorus* sp., it is probable that the *Anepeorus* sp. of the Ohio River follows a fast seasonal cycle (Hynes 1970) as does Lehmkuhl's *Anepeorus rusticus*. The eggs of these mayflies would have long diapause period, followed (after hatching) by rapid growth of the nymphs and emergence of the adults.

This Nearctic genus contains 2 known species, *Anepeorus rusticus* McDunnough and *Anepeorus simplex* Walsh. Since the nymphal forms of *Anepeorus* can be keyed only to genus, it is not possible to determine whether the Ohio River nymphs belong to *Anepeorus rusticus* or *Anepeorus simplex*, or possibly to a new species.

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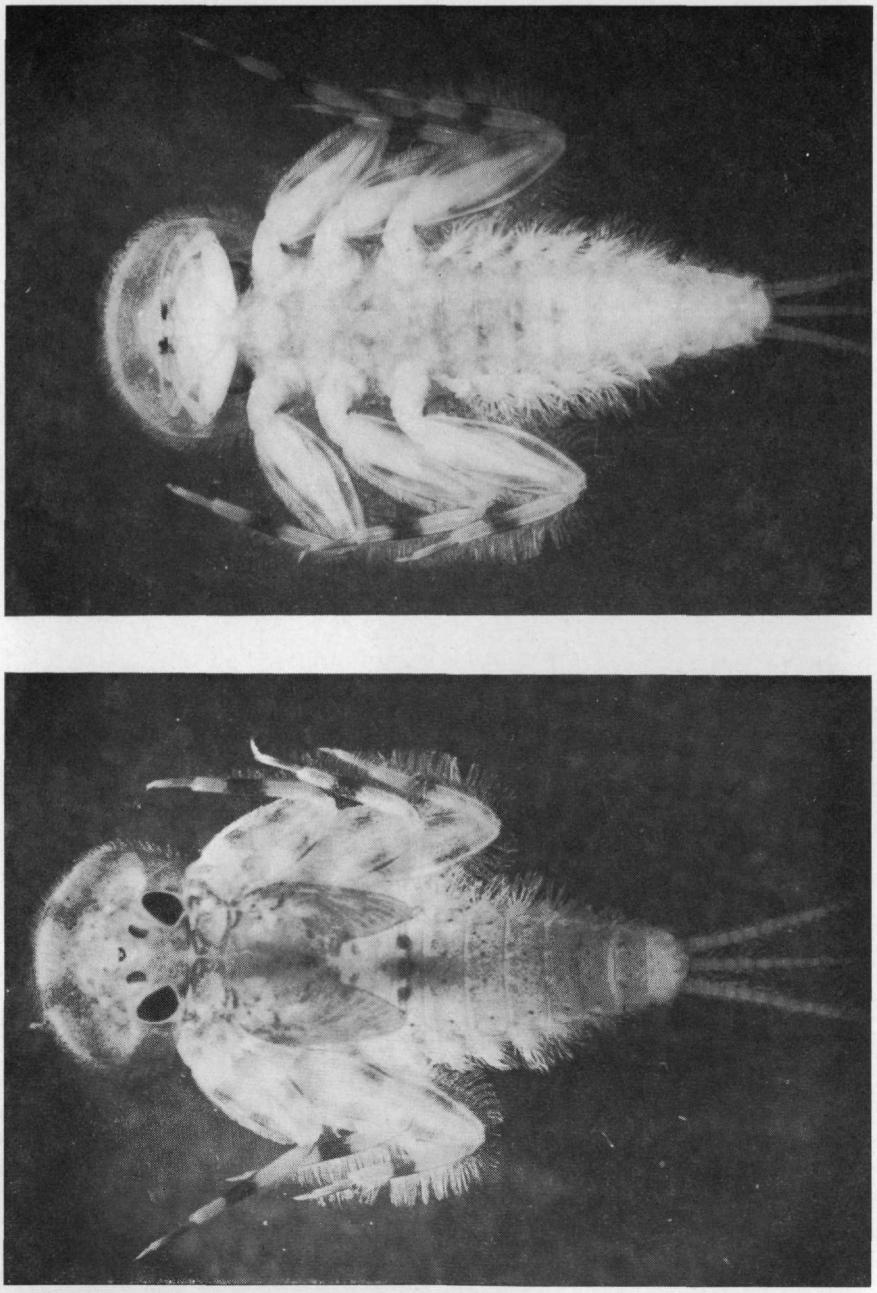

FIGURES 1–2. *Anepeorus* sp.—nymph; Ohio River. 1. (Left) Dorsal view. 2. (Right) Ventral view.

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