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**REDISCOVERY OF *ACANTHAMETROPUS PECATONICA* IN THE  
WESTERN GREAT LAKES REGION (EPHEMEROPTERA:  
SIPHLONURIDAE)<sup>1</sup>**

Richard A. Lillie<sup>2</sup>, Kurt L. Schmude<sup>3</sup>, and William L. Hilsenhoff<sup>3</sup>

ABSTRACT

Two nearly mature nymphs of *Acanthametropus pecatonica* were collected in June 1986 from the shifting sand bottom of the lower Wisconsin River. This is the first known collection of this species in the western Great Lakes region since the original collections of two nymphs by R. E. Richardson in 1926 and 1927.

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In 1953 Burks described and illustrated the nymph of *Acanthametropus pecatonica* (as *Metreturus*) from two nymphs collected by R. E. Richardson from the Rock River system in extreme northern Illinois. Single specimens were collected 6 July 1926 from the Sugar River near Harrison and 8 May 1927 from the Pecatonica River near Rockton. The collections were from moderate-sized, fairly rapid streams with a rock and sand substrate. Burks (1953) reported that both collection sites had been dredged and that "intensive collecting in these rivers in recent years has failed to produce additional specimens," leading to speculation that the species may have been extirpated. More recently Edmunds et al. (1963) reported that nymphs of this or a similar species were collected from the Savannah River basin in South Carolina and Georgia, and additional nymphs have subsequently been collected in that area, but adults of this genus remain unknown. The only other record of *Acanthametropus* is a nymph from the Amur River basin in Siberia (Tshernova 1948), but it is possible that six adults of *Siphuriscus chinensis* Ulmer (1920) from China could belong to the same genus (Edmunds and Koss 1972).

On 7 June 1986, more than 59 years after the last collection of *A. pecatonica* in the midwest, Richard Lillie rediscovered the species when he collected a mature nymph from the Wisconsin River in southwestern Wisconsin above the Big Green River near Woodman. This is about 155 km west-northwest of Richardson's collection sites. The collection was made with a drag net from a side-channel with rapidly shifting sand in current of 0.4–0.6 m/sec at a depth of about 0.5 m. The river had been at least 1 m deeper at the collection site during April and May. An intensive collecting effort on 13 June resulted in the capture of only one more nymph. We attempted to rear the second nymph, which was also mature, but it died after two weeks and was preserved in 70% ethanol along with a nymphal exuvia. A black light trap was used to make several collections of insects from along the river in June and July, but it failed to capture any adults that could be this species.

The lower Wisconsin River is about 320 m wide and often deep, with primarily a shifting sand bottom and only a few areas with rock and gravel substrate. The water is warm, sometimes reaching 30°C, and eutrophic, but there is little pollution and dissolved

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oxygen levels remain high throughout the year (Hilsenhoff 1977). Deep rivers with shifting sand bottoms are difficult to sample and thus their fauna tends to remain poorly known. Nymphs of *Spinadis* Edmunds and Jensen were collected from the lower Wisconsin River in 1973. This mayfly genus was unknown until that year (Flowers and Hilsenhoff 1975), and subsequently we have found nymphs of other relatively rare mayflies such as *Pseudiron centralis* McDunnough and *Pentagenia vittigera* (Walsh) in this part of the Wisconsin River.

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