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DISTRIBUTION OF THE WATER SCORPION NEPA APICULATA (HEMIPTERA:NEPIDAE) IN WISCONSIN

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The water scorpion Nepa apiculata Uhler was considered rare in Wisconsin by Hilsenhoff (1984), who collected only 11 individuals during a 25-year period. All of his collections were from overwintering sites, especially debris in streams, during early spring or autumn (Hilsenhoff, pers. comm.). He concluded that the species was restricted to southern Wisconsin. Recent collections indicate that N. apiculata is more widely distributed. These records, summarized below, are documented with specimens in the University of Wisconsin-Madison insect collection.

On 25 September 1986 we collected a N. apiculata during a brief period of sampling in a small artificial pond near De Pere, Brown County, Wisconsin. An additional specimen from Brown County was provided by Doug Hartman, naturalist at the Barkhausen Waterfowl Preserve, who indicated that school children on class trips had collected approximately six individuals in as many vears in a small shallow pond that is fed and drained by a small creek. At both Brown County locations, N. apiculata were collected at the water's edge with dipnets. This is consistent with habitat descriptions provided by McPherson and Packauskas (1987). They described the breeding habitat as muddy margins of ponds or marshes where the water barely or only partially covers the insect. A third Brown County specimen, 16 mm long (exclusive of the apical abdominal respiratory appendages), was collected in somewhat different conditions by Andrew Cochran on 29 June 1992. It was found in Duck Creek at Brown County Park beneath a rock approximately 8 cm from shore. The rock was situated over a gravel bottom and the cavity beneath it was 10-13 cm deep.

On 12 July 1991, two N. apiculata were collected from debris in Hackett Branch approximately 0.3 km upstream from its confluence with the Grant River in Grant County. Additional records of N. apiculata in Wisconsin were provided to us by William Hilsenhoff and include specimens from the Black River in Taylor County (October 1987), a marsh in Sheboygan County (March 1986), and Rush Lake in Winnebago County (collected by G. Drecktrah). Together with our records from Brown and Grant counties, these indicate that the distribution of N. apiculata in Wisconsin is much more extensive than previously supposed (Figure 1). Indeed, we expect that this species is even more widely distributed in Wisconsin and perhaps occurs statewide; McPherson and Packauskas (1987) noted that it has been collected in Manitoba. The apparent rarity of N. apiculata in Wisconsin is likely due to inadequate collecting in its shallow, muddy breeding habitat. However, because N. apiculata apparently occurs in low densities in at least some localities (see above), new records may prove difficult to come by. A potentially useful strategy for obtaining new locality data would be to contact nature centers where pond or wetland studies are routinely conducted.

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Figure 1. Distribution of *Nepa apiculata* in Wisconsin. Dots are county records from Hilsenhoff (1984) plotted at the center of each county (more exact localities were not provided). Asterisks (*) mark new county records reported herein.

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