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OCCURRENCE OF *HELOPHORUS GRANDIS* (COLEOPTERA: HYDROPHILIDAE) IN NORTH-CENTRAL WISCONSIN¹William L. Hilsenhoff²

ABSTRACT

Two males of the Palaearctic *Helophorus grandis* were collected in northern Wisconsin, constituting a significant westward extension of its previous range in eastern Ontario, eastern New York, and areas farther east.

On July 18, 1989, a male *Helophorus grandis* Illiger, 1798 was collected from a small wetland in north-central Wisconsin. This represents a significant range extension for this distinctive species, which previously was known only from New Brunswick, Nova Scotia, Quebec, Ontario (east of Lake Huron), Maine, New Hampshire, and eastern New York (Smetana 1985, 1988). *Helophorus grandis* is the largest *Helophorus* in North America and the only representative of the Palaearctic subgenus *Helophorus* that is known to occur here. It apparently was introduced to the Atlantic coast from Europe late in the nineteenth century, with early collections being confined to Quebec and Maine (Smetana 1985). Its occurrence in Taylor County, Wisconsin, 13 km east of the city of Medford, was unexpected, and suggests that this species should be looked for in northern areas of the western Great Lakes region.

The discovery of *H. grandis* in Wisconsin is probably due to a recent westward movement of the species rather than a lack of collecting. I have used nets and traps to sample various wetlands in all areas of Wisconsin, and have collected more than 54,000 Hydrophilidae, including 2,850 *Helophorus* (13 species). Additional efforts to collect *H. grandis* from the Taylor County site on September 20, 1989 and May 4, 1990 resulted in the collection of another male on May 4. Collection records published by Smetana (1985) suggest that this species is most abundant in the spring and almost completely absent after August. *Helophorus orientalis* Motschulsky and *H. sempervarians* Angus were also found at the Taylor County site in both 1989 and 1990; additionally *H. angusticollis* d'Orchymont was collected there June 22, 1983, the only other time this site was sampled. Other water beetles found at this site are all among the more common and widespread species found in Wisconsin, suggesting that there is little that is unique about this habitat.

Smetana (1988) describes the habitat for *H. grandis* as "temporary pools and the muddy or weedy margins of ponds and lakes". The wetland where *H. grandis* was collected is about 70 meters by 20 meters, heavily vegetated by cattails (*Typha latifolia*) and woolgrass bullrushes (*Scirpus cyperinus*), with a small area of open water in the center that contains some *Ranunculus* and *Lemna*. Maximum water

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depth in 1989 was about 0.5 m, but because of a severe drought in 1988 and below normal rainfall in 1989 this depth was probably about one-half meter below normal. It is quite possible that this habitat became dry in 1988 and was reflooded in 1989 by water from melting snow. The wetland is located along the edge of County Highway C, 1.4 km north of State Highway 64, and is surrounded by a mixed hardwood forest in an area of farmlands intermixed with forests.

LITERATURE CITED

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