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HOPLISTOSCELIS SORDIDUS
(HETEROPTERA: NABIDAE) IN CANADA

M.-C. Larivière¹

ABSTRACT

Hoplistoscelis sordidus is recorded for the first time from Canada. The distribution of the species, its establishment in Canada, and its bionomics are discussed. Characters are given that distinguish *Hoplistoscelis* from all other eastern Canadian genera of Nabinae. The potential role of the genus as a biological control agent is also briefly outlined.

The genus *Hoplistoscelis* Reuter is a North and Central American group; in America north of Mexico, six species are known, mainly from the southern half of the United States. Only *H. sordidus* (Reuter) is known to be well established and wide-ranging in northeastern North America. Its previously reported distribution includes the following records (Henry and Lattin 1988): Connecticut, District of Columbia, Florida, Iowa, Illinois, Indiana, Louisiana, Massachusetts, Maryland, Maine, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, Ohio, Pennsylvania, South Dakota, Texas, and Wisconsin.

The species is here reported for the first time from Canada, from 25 adults contained in the Canadian National Collection (CNC), Ottawa, and the Royal Ontario Museum (ROM), Toronto. Collection data for all 25 specimens are summarized below. The known range of *H. sordidus* in Canada is shown in Figure 1.

ONTARIO. Ojibway [Provincial Park]: 30.VIII.1961, 1 ♀ (CNC). Point Pelee [National Park]: 13.VI.1920, 2 ♀ (ROM); 30.V.1929, 6 ♀ (CNC); 10.VI.1929, 1 ♀ (CNC); 23.VI.1931, 1 ♂ (CNC); 11.IX.1961, 1 ♀ (CNC). Rondeau [Provincial Park]: 10.IX.1954, 2 ♂ and 4 ♀ (CNC); 18.VII.1955 on silver poplar, 1 ♀ (CNC); 15.VI.1977, understory and trees of deciduous forest, 2 ♀ and 1 ♂ (ROM). Tillsonburg: 20.VI.1962, 1 ♂ and 2 ♀ (CNC).

The specimens listed above are all short-winged, a condition apparently more common than the long-winged form (Blatchley 1926, Harris 1928, Froeschner 1944). The short-winged condition (no dispersion by flight) and the fact that the species has been collected repeatedly between 1920 and 1977 suggest that it is well established in the southern Ontario peninsula. Animals found nowhere else in Canada inhabit this part of the country (Anon. 1990). The distribution of *H. sordidus* in southern Canada apparently represents the northern distributional limit of a species whose range follows the Carolinian forest biogeographic zone. In Canada, this zone is restricted to the southern-

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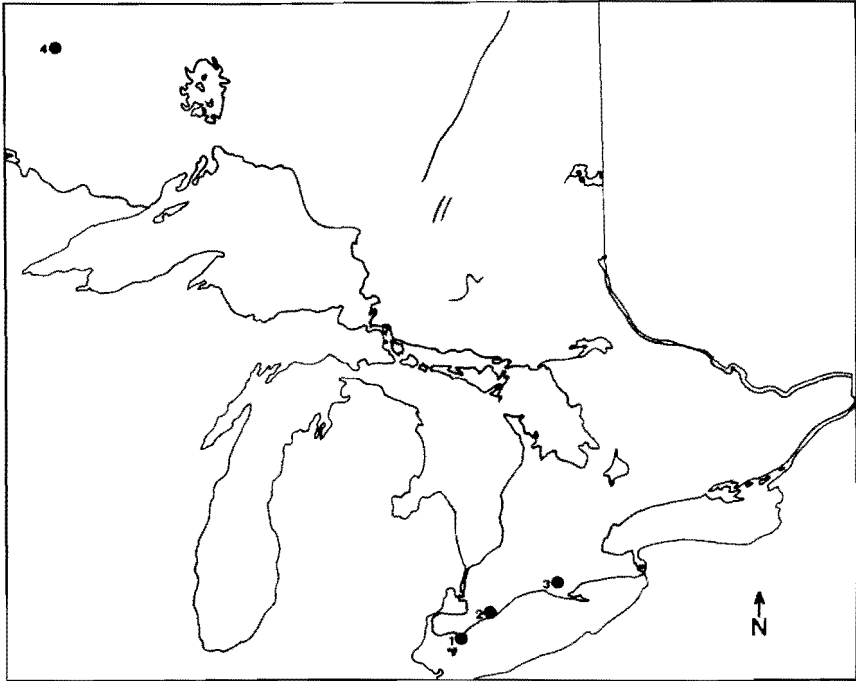


Figure 1. Distribution of *Hoplistoscelis sordidus* in Canada (Ontario): 1 = Point Pelee National Park, 2 = Rondeau Provincial Park, 3 = Tillsonburg, 4 = Ojibway Provincial Park.

most quarter of the Ontario peninsula (mostly south of 43°N) and is characterized by broadleaf forest, agricultural crops, and suburban habitats.

One specimen of *H. sordidus* was collected in western Ontario (Ojibway Provincial Park), in 1961. No other specimens from this area or further west were found in the Canadian National Collection, the University of Manitoba (Winnipeg) collection, or the Saskatchewan Museum of Natural History (Regina) collection. Thus, it is doubtful that this species has become established in western Ontario.

The following combination of characters distinguishes *Hoplistoscelis* from all other eastern Canadian genera of Nabinae: tibiae annulated throughout their length; front and middle femora (Fig. 2) annulated in their apical half, their underside provided with a series of small, rather blunt, dark teeth.

Hoplistoscelis sordidus varies in length from 6.5 to 8.5 mm and, in color, from light yellow to mottled dark brown; the connexivum is provided with a fuscous spot at each joint in both sexes, and is broadly exposed and strongly bent upward in the female.

As for most of our nabid species, very little is known about the bionomics of *H. sordidus*. According to Harris (1928), the species frequents shady moist situations where the undergrowth is of a rank nature. In Mississippi, it has been recorded on cotton and alfalfa (Hormchan et al. 1976). In Canada, it has

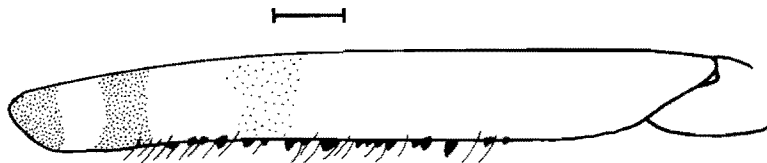


Figure 2. Inner lateral view of middle femur of *Hoplistoscelis sordidus*.

been collected on silver poplar (*Populus alba*) and other deciduous trees (see data above). Harris (1928) worked out its life history in Iowa: overwintering occurs in the adult stage, in litter or under grasses and logs; eggs are laid in the stems of plants in early spring; the species undergoes five nymphal stages.

Members of this genus of predaceous bugs are potentially useful in controlling certain agricultural pests. In the southeastern United States, *H. sericans* (Reuter) is among the most commonly recorded predators in row crops (Elvin and Sloderbeck 1984); in Mississippi, *H. sericans* and *H. sordidus* commonly occur in agroecosystems (Hormchan et al. 1976); and in Florida, *H. sericans* is a predator of velvetbean caterpillar eggs in soybeans (Buschman et al. 1977) and of soybean looper eggs and larvae (Richman et al. 1980).

Further collecting should prove the species to be more widely distributed in southern Ontario, especially because Nabinae are generalist predators and *H. sordidus* is apparently able to take advantage of man-altered habitats, including agroecosystems.

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