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NOTEWORTHY RANGE EXTENSIONS OF THREE EMESINE SPECIES (HETEROPTERA: REDUVIIDAE)

J. E. McPherson¹

ABSTRACT

The first records of *Empicoris culiciformis* and *E. winnemana* from Michigan and of *Pseudometapterus umbrosus* from Illinois are reported. All represent considerable extensions of their recorded ranges.

The emesine reduviids or thread-legged bugs (known in earlier literature as the Ploiariinae or Ploiariidae) are cosmopolitan in distribution (Wygodzinsky 1966). These secretive predaceous insects occur over much of North America but, generally, their biology here is poorly known. The primary exception to this is *Emesaya b. brevipennis* (Say) for which scattered notes on life history have been published (e.g., Uhler 1884, Weed 1889, Wickham 1909, 1910; McAtee 1911; Howes 1919; Readio 1926, 1927; Brown and Lollis 1963; Whitcomb and Bell 1964). Interestingly, both it and *E. brevicoxa* (Banks) are often associated with spider webs (Usinger 1941). For most other North American emesines, biological information consists primarily of data associated with their collection sites (e.g., Wygodzinsky 1966).

Most species in eastern North America are rarely collected, particularly those occurring in the northern states. This may be, in part, because individuals often occur at "considerable heights on bushes and trees" (Wygodzinsky 1966), are stick-like in appearance, and often are less than 12 mm long (the most notable exception being species of *Emesaya*, which often are more than 30 mm long (McAtee and Malloch 1925, Wygodzinsky 1966).

Empicoris and *Pseudometapterus* both occur in eastern North America; *Empicoris* is represented by 12 species and *Pseudometapterus* by one (Froeschner 1988). All of the *Empicoris* species average less than 8 mm long (Wygodzinsky 1966); *P. umbrosus* (Blatchley) averages about 15 mm long (Blatchley 1926).

Herein, *E. culiciformis* (De Geer) and *E. winnemana* McAtee and Malloch are reported from Michigan, and *P. umbrosus* is reported from Illinois. These new state records represent considerable extensions of their known ranges.

Empicoris culiciformis

This species has been reported from Connecticut, Maryland, Virginia, and Oregon, and from Africa, Europe, and South America (Froeschner 1988); it probably has been dispersed by man (Wygodzinsky 1966). It has been collected at light (McAtee and Malloch 1925, label information) and from the bark of a dead willow (Wygodzinsky 1966, label information); information on its biology in England is provided by Butler (1923). Prior to this paper, the possibility of man's influence

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could have explained its odd North American distribution. However, its discovery in Michigan strongly suggests it is more widely distributed in North America than previously thought.

Deposited in the Michigan State University Entomology Museum (MSU), East Lansing, is an adult specimen of *E. culiciformis* with the following label information: MI: Ingham Co., 7 Aug. 1949 (1♀) (No collector label).

Empicoris winnemana

This species, originally described in 1925 from specimens collected in Maryland and Virginia, is now also known from Connecticut (Froeschner 1988). It has been collected in October at light (McAtee and Malloch 1925, original label information). Its discovery in Michigan is a considerable westward extension of its known range. I would suspect that rather than representing expansion, this species simply has been overlooked in most of its range because of its small size (4–5 mm long).

Deposited in the MSU and University of Michigan Museum of Zoology (UMMZ), Ann Arbor, are one and two adult specimens, respectively, of *E. winnemana* with the following label information: MI: Livingston Co., E. S. George Reserve, 18 March 1950 (1♀, UMMZ), 15 Oct. 1950 (1♀, UMMZ), K. Bohnsack (Coll., both specimens; previously identified by R. F. Hussey); Midland Co., 5 Sept. 1959 (1♂, MSU), R. R. Dreisbach (Coll.).

Pseudometapterus umbrosus

This species is known only from Florida (Froeschner 1988). It has been collected from fallen dead leaves of royal palm in a dense hammock on Paradise Key (Blatchley 1926) and from Spanish moss (Wygodzinsky 1966).

Deposited in the Southern Illinois University Entomology Collection (SIUEC) are two adult specimens of *P. umbrosus*, both collected in the La Rue-Pine Hills Ecological Area, southern Illinois. Its presence there is more difficult to explain. Certainly it is possible that it occurs between Florida and southern Illinois but is rare and, as with *E. culiciformis* and *E. winnemana*, has been overlooked. However, discovery of species in Pine Hills that occur elsewhere only in the south and southeast is not unprecedented. Recently (1986), I coauthored a publication with T. E. Vogt on the Odonata occurring at Pine Hills. Included was a record of a population of *Telebasis byersi* Westfall, a damselfly that previously had been known only from North Carolina, South Carolina, Florida, and Alabama. Pine Hills is well known for its high biological diversity (McPherson and Mohlenbrock 1976). It may, in fact, represent a refugium for several species, based on their presently known distributions.

The label information for the two specimens is as follows: IL: Union Co., (La Rue) Pine Hills, 27 July 1972 (2♂♂, SIUEC), J. F. Walt, Coll. (both specimens).

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