The Great Lakes Entomologist

Volume 50 Numbers 1 & 2 - Spring/Summer 2017 Numbers 1 & 2 -- Spring/Summer 2017

Article 8

September 2017

Confirmed Presence of the Ambush Bug Phymata vicina vicina (Heteroptera: Reduviidae: Phymatinae) in Michigan

Daniel R. Swanson University of Illinois at Urbana-Champaign, drswanny@gmail.com

Follow this and additional works at: https://scholar.valpo.edu/tgle



Part of the Entomology Commons

Recommended Citation

Swanson, Daniel R. 2017. "Confirmed Presence of the Ambush Bug Phymata vicina vicina (Heteroptera: Reduviidae: Phymatinae) in Michigan," The Great Lakes Entomologist, vol 50 (1) Available at: https://scholar.valpo.edu/tgle/vol50/iss1/8

This Scientific Note is brought to you for free and open access by the Department of Biology at ValpoScholar. It has been accepted for inclusion in The Great Lakes Entomologist by an authorized administrator of ValpoScholar. For more information, please contact a ValpoScholar staff member at scholar@valpo.edu.

Confirmed Presence of the Ambush Bug *Phymata vicina vicina* (Heteroptera: Reduviidae: Phymatinae) in Michigan

Daniel R. Swanson

Department of Entomology, University of Illinois at Urbana-Champaign, 320 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801 Illinois Natural History Survey, Prairie Research Institute, University of Illinois at Urbana-Champaign, 1816 South Oak Street, Champaign, IL 61820-6960

Thirty-two species of Reduviidae, in 20 genera, were previously known from Michigan (McPherson 1992, Swanson 2013). Of that diversity, the subfamily known as ambush bugs constitutes only a small portion. Recently, I provided a synopsis of the two species found in the state (i.e., Swanson 2013), while noting the potential presence of a single additional species, Phymata vicina vicina Handlirsch, 1897. In support of my prediction, a specimen of P. v. vicina was discovered among undetermined material during a visit to the C. A. Triplehorn Insect Collection of The Ohio State University (OSUC). The specimen (Fig. 1) bears the following label data: MICHIGAN: Macomb Co., Richmond, 25 June 1969, Brivio, det. D. R. Śwanson 2016, OSUC_651131 [1 male]. The specimen was collected in the southern part of the Lower Peninsula, which is unsurprising given the species' presence in adjacent Midwest states and the collecting bias for this region of Michigan. However, based on other state and provincial records in North America, latitude alone likely does not exclude this species from the northern extremes of Michigan, and it remains to be seen how widely this species is distributed in the state. Its unreported status appears to be attributable to lower abundance than other native ambush bugs, as P. v. vicina is relatively easy to distinguish from congeners.

This species is known from Alberta, Arizona, British Columbia, Colorado, Connecticut, Florida, Illinois, Indiana, Kansas, Manitoba, Massachusetts, Nebraska, New Jersey, New York, Pennsylvania, Rhode Island, Saskatchewan, South Dakota, Texas, Utah, and Virginia, as well as Washington, D.C. (Froeschner 1988, Maw et al. 2000). Additionally, records of *P. vicina* from California, Missouri, and North Carolina are archived in the Heteroptera Species Pages of the Plant Bug Planetary Biodiversity

(e-mail: drswanny@gmail.com).

Inventory (Schuh 2017), although the subspecific identities of these specimens are potentially confounded with *Phymata vicina parvula* Kormilev, 1957, known from Texas (Froeschner 1988). Blatchley (1926), Evans (1931), and Kormilev (1957, 1960) each contributed additional information about this species.

In Michigan, *P. v. vicina* is easily distinguished from all other congeners by its small size and distinctly toothed connexival margin (Fig. 1). The latter character is similar to that of *Phymata fasciata fasciata* (Gray 1832), although *P. f. fasciata*, despite not being limited to the Gulf States, appears to be latitudinally-excluded from Michigan (Swanson, unpublished). My previous key to species (i.e., Swanson 2013) should be amended by inserting the following couplet at the beginning of the key:

${\bf Acknowledgments}$

I thank Luciana Musetti, C. A. Triplehorn Insect Collection, The Ohio State University (OSUC) for the loan of material from the collection under her care, and Sam W. Heads (INHS) for his sponsorship regarding the loan. I also owe thanks to two anonymous reviewers for comments on the initial draft of the manuscript.



Figure 1. Phymata vicina vicina, adult male, dorsal habitus. Scale bar = 1 mm.

Literature Cited

Blatchley, W. S. 1926. Family XVII. Phymatidae Laporte, 1832, 14. The ambush bugs, pp. 503– 510. In Heteroptera or True Bugs of Eastern North America, with Especial Reference to the Faunas of Indiana and Florida. Nature Publishing Company, Indianapolis. 1116 pp.

Evans. J. H. 1931. A preliminary revision of the ambush bugs of North America, (Hemiptera, Phymatidae). Annals of the Entomological Society of America 24: 711–736. doi: 10.1093/aesa/24.4.711.

Froeschner, R. C. 1988. Family Phymatidae Laporte, 1832. The ambush bugs, pp. 598– 604. *In* T. J. Henry, and R. C. Froeschner (eds.), Catalog of the Heteroptera, or True Bugs, of Canada and the Continental United States. E. J. Brill, New York. 958 pp.

Gray, G. R. 1832. [Untitled. New genera and species]. In E. Griffith (ed.), The Animal Kingdom arranged in conformity with its organization, by the Baron Cuvier, Member of the Institue of France, &c. &c. &c. with supplementary additions to each order. Whittaker, Treacher, and Co., London. 796 pp.

Handlirsch, A. 1897. Monographie der Phymatiden. Annalen des Kaiserlich-Königlichen Naturhistorischen Hofsmuseums 12: 127–230, 6 pls.

- Kormilev, N. A. 1957. Notes on American "Phymatidae" (Hemiptera). Revista Brasileira de Biologia 17: 123–138.
- Kormilev, N. A. 1960. Revision of the Phymatinae (Hemiptera, Phymatidae). The Philippine Journal of Science 89: 287–486.
- Maw, H. E. L., R. G. Foottit, K. G. A. Hamilton, and G. G. E. Scudder. 2000. Checklist of the Hemiptera of Canada and Alaska. National Research Council of Canada, Ottawa. 220 pp.
- McPherson, J. E. 1992. The assassin bugs of Michigan (Heteroptera: Reduviidae). The Great Lakes Entomologist, 25(1): 25–31.
- Schuh, R. T. 2017. Online Species Pages of Heteroptera (Insecta). Plant Bug Planetary Biodiversity Inventory. Available from http:// research.amnh.org/pbi/species (accessed 31 January 2017).
- Swanson, D. R. 2013. A review of the ambush bugs (Heteroptera: Reduviidae: Phymatinae) of Michigan: identification and additional considerations for two common eastern species. The Great Lakes Entomologist 46(3–4): 154–164.