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New Wisconsin Record for *Pterostichus punctatissimus* (Coleoptera: Carabidae)

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Abstract

A single specimen of *Pterostichus punctatissimus* (Randall) (Coleoptera: Carabidae) was recovered from an unbaited pitfall trap in northern Wisconsin in late May, 2013. This is the first recorded extant specimen of the species collected in Wisconsin.

Pterostichus punctatissimus (Randall) with elytral furrows and ridges forming sinuate patterns may be one of the most attractive species of the genus in North America (Bousquet 2012). This species is characteristic of northern boreal forests, found usually under the bark or moss of tree stumps (Lindroth 1966, Bousquet 2012). The fifth largest genus of Carabidae in Wisconsin, *Pterostichus* has 23 recorded species (Messer 2009). An extant specimen of *P. punctatissimus* has not been previously recorded from Wisconsin. This species has been documented from Newfoundland throughout southeastern Yukon Territory, Maine, northeastern Minnesota, Michigan, New York, and "Massachusetts" with confirmation needed for a record in northern Ohio (Bousquet and Larochelle 1993, Gandhi et al. 2008, Bousquet 2012). A single specimen of *P. punctatissimus* was collected for the first time in Wisconsin in May, 2013.

Unbaited pitfall traps were placed in five sites in northern Wisconsin from late May to late June, 2013 as part of a study examining possible relationships of ground dwelling arthropod communities to deer tick (*Ixodes scapularis* Say) abundance. A single female specimen of *P. punctatissimus* was recovered from the 20-24 May 2013 sample in northeastern Langlade County. The collection site is approximately 160 m southwest of McCaslin Brook in the Diamond Roof State Natural Area, and nestled in the Chequamegon-Nicolet National Forest. Lowland coniferous swamps surrounding the brook consist mainly of black spruce (*Picea mariana* (Mill.), balsam fir (*Abies balsamea* (L.) Mill.), white cedar (*Chamaecyparis thyoides* (L.) BSP) and yellow birch (*Betula lutea* Michx. f.). Sugar maple (*Acer saccharum* Marsh.), basswood (*Tilia spp*.) and white ash (*Fraxinus americana* L.) dominate the stream canopy. The specimen is housed in the University of Wisconsin-Madison Insect Research Collection (WIRC), Madison, Wisconsin labeled USA: WI: Langlade Co. Diamond Roof SNA approx. 160 m SW of McCaslin brook 45.344889°, -88.694333° WGS 84; 20-24 V 2013 Xia Lee.

Fossil remnants of this species have been recorded from Kewaunee, Wisconsin (Schwert 1992). The only recent discovery of an extant specimen in Wisconsin may be due to environmental changes facilitating a downward range expansion of this species or more likely the infrequency of pitfall trapping in northern Wisconsin.

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