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First record of the genus *Caenophanes* Foerster (Hymenoptera: Braconidae: Doryctinae) for America north of Mexico with a description of a new species from Wyoming USA

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Abstract

The first species of *Caenophanes* Foerster recorded from America north of Mexico is described: *Caenophanes harlowi* Haimowitz and Marsh, and a key to distinguish the two described New World species is provided. We discuss evidence that suggests that *Caenophanes* is likely to have cosmopolitan distribution and may be more common than might be anticipated from the current number of described species.

Key words: distribution, parasitoid wasps, taxonomy, New World, Nearctic

Introduction

Caenophanes Foerster, with 17 described species, is a little known genus of parasitoid wasps belonging to the family Braconidae, subfamily Doryctinae (Belokobylskij 1992a). Braconidae is one of the most diverse and abundant groups of insect parasitoids and plays an essential role in regulating other insect populations, with the subfamily Doryctinae attacking mostly bark- and wood-boring insects (Marsh 1997); the few known host records of *Caenophanes* species include only wood-boring insects (Nixon 1943; Austin, Quicke and Marsh 1994; Belokobylskij, Falco-Gari and Jimenez-Peydro 2011). An undescribed species of *Caenophanes*, described and named in this paper, was discovered among specimens from a 2012 survey of parasitoids associated with mountain pine beetle (*Dendroctonus ponderosae* Hopkins) in Grand Teton National Park in Wyoming, U.S.A. (Haimowitz and Shaw 2012).

Caenophanes is similar to genera in the doryctine tribe Heterospilini because of the absence or weakness of fore wing vein 2RS, but is distinguished by having the first subdiscal cell of the fore wing closed at its apex (Figs. 1 and 2). Belokobylskij (2006) presented a key to the World genera of Doryctinae which have an absent or weak fore wing vein 2RS, and a key to the described species of *Caenophanes* was presented by Belokobylskij and Maeto (2009).

The genus *Caenophanes* is seldom identified in collections because it has long been considered a junior synonym to the genus *Heterospilus* Haliday (Ashmead 1900; Shenefelt and Marsh 1976), and was not recognized as a valid genus until 1992 (Belokobylskij 1992a, 1992b). Since that time, only 16 species have been described (Austin, Quicke and Marsh 1994; Belokobylskij 1992a; Belokobylskij and Maeto 2006; Belokobylskij, Falco-Gari and Jimenez-Peydro 2011; Marsh 2014). Most, if not all, of the described species of *Caenophanes* were either previously described as *Heterospilus* and later transferred to *Caenophanes*, or found in existing collections as unidentified specimens of *Heterospilus*. This was the case for the undescribed Wyoming species, which had been identified as *Heterospilus* sp. by Haimowitz and Shaw during their 2012 Grand Teton National Park study, and was later recognized by Marsh while visiting the University of Wyoming to work on a study of Heterospilini (Marsh, Wild and Whitfield 2013).

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