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First record of *Paratelenomus saccharalis* (Hymenoptera: Platygasteridae) on kudzu bug *Megacopta cribraria* (Heteroptera: Plataspidae) in Florida

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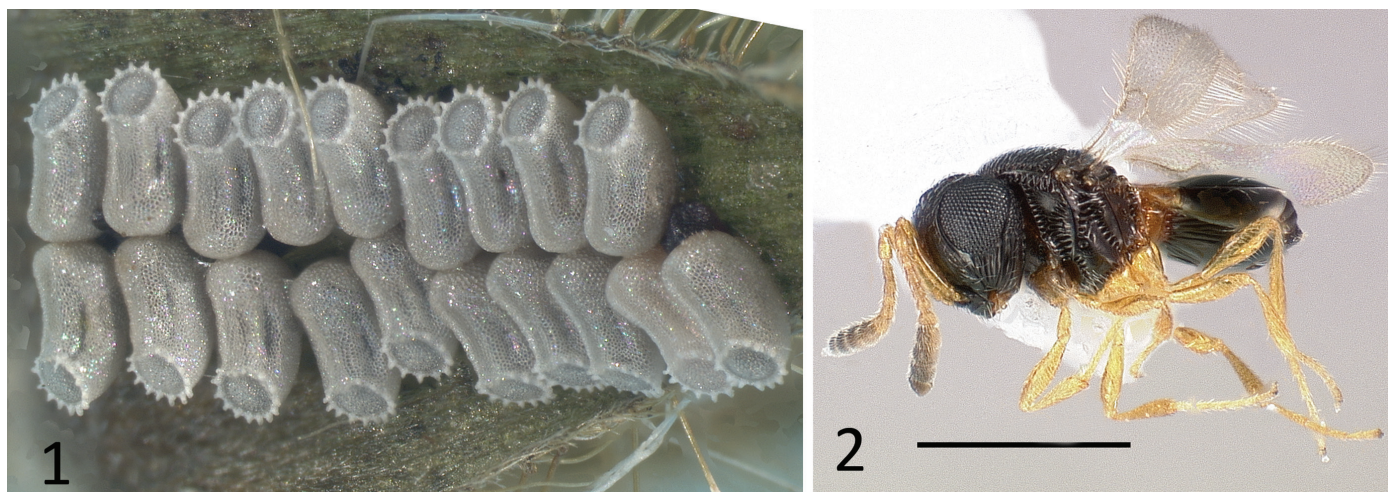
The kudzu bug *Megacopta cribraria* (F.) (Heteroptera: Plataspidae) was first documented in the United States in northeastern Georgia in October 2009 (Eger et al. 2010), and has subsequently spread throughout Georgia and into Alabama, Mississippi, North Carolina, South Carolina, Virginia, and Florida (Suiter et al. 2010a,b; Roberts 2011; Medal et al. 2013). The *Megacopta* Working Group maintains a web-based information exchange system for monitoring kudzu bug spread, and presents a regularly updated distribution map.

This plant-feeding insect is related to the stink bugs (Pentatomidae). Like other pentatomoids, the kudzu bug emits a strong defensive odor when disturbed. In its native Asia, one of the kudzu bug's preferred host is kudzu, *Pueraria montana* Lour (Merr.) variety *lobata* (Willd.) (Fabales: Fabaceae). The kudzu bug is also an agricultural pest of soybean, *Glycine max* (L.) Merrill (Fabales: Fabaceae), and other legume plants and various fruit trees (Li et al. 2001; Wang et al. 2004; Eger et al. 2010). In the infested areas of the continental United States, the kudzu bug is found feeding on the invasive kudzu plant (Zhang et al. 2012; Ruberson et al. 2013). Additionally, it was reported feeding on soybean in the southern U.S. (Greene et al. 2012; Gardner et al. 2013b; Seiter et al. 2013a,b; Roberts et al. 2014; Musser et al. 2015) and on caged fig trees, *Ficus carica* L. (Rosales: Moraceae), in a study in Auburn, Alabama (Hu & Carroll 2012). The host range of the kudzu bug

continues to increase as its distribution expands, due in part to hitchhiking on or in vehicles traveling to the northeastern and western USA. This new non-native invader has the potential to cause significant crop losses (Anonymous 2010).

A kudzu bug egg mass (19 eggs) (Fig. 1) was collected by Julio Medal on 19 Aug 2014 in a kudzu patch in Gainesville, Alachua County, Florida (29.639686°N, 82.399092°W), and a second egg mass (10 eggs) was collected by Andrew Santa Cruz on 20 Aug 2014 in a kudzu patch in Alachua, Alachua County, Florida (29.805715°N, 82.529999°W). The egg masses were maintained at the Florida Biological Control Laboratory (Florida Department of Agriculture and Consumer Services, Division of Plant Industry) in Gainesville, Florida, and monitored for the emergence of egg parasitoids. Clear plastic containers with the egg masses and moistened paper were maintained on a 16:8 h L:D photoperiod at $24 \pm 2^\circ\text{C}$ and 55 to 60% RH for several weeks and inspected daily for parasitoid emergence. The parasitoids that emerged were identified as *Paratelenomus saccharalis* (Dodd) (Hymenoptera: Platygasteridae; Fig. 2) by Kevin Williams. Voucher specimens were deposited in the Florida State Collection of Arthropods in Gainesville, Florida. This species was previously recorded only in Georgia and Alabama (Gardner et al. 2013a).

Field-collected egg masses from Alachua County in May 2015 confirmed that *P. saccharalis* had survived through the winter and is



Figs. 1 and 2. Kudzu bug eggs and parasitoid. 1. *Megacopta cribraria* eggs parasitized by *Paratelenomus saccharalis*. 2. *Paratelenomus saccharalis* adult female.

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established in Alachua County. A parasitized kudzu bug egg mass (16 eggs) was collected at the same Gainesville location on 26 May 2015 and maintained in a laboratory rearing container; *P. saccharalis* adults emerged from all 16 eggs. Additional kudzu field surveys in 2015 in North-Central Florida will further assess the distribution and efficacy of this species as a biocontrol agent of *M. cribraria*.

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Summary

The egg parasitoid *Paratelenomus saccharalis* (Dodd) (Hymenoptera: Platygasteridae) is reported for the first time on the eggs of the kudzu bug *Megacopta cribraria* (F.) (Heteroptera: Plataspidae) in Alachua County, Florida. This egg parasitoid was previously reported only in Georgia and Alabama.

Key Words: biological control; adventive species; agricultural pest; bean plataspid

Sumario

El parasitoide de huevos *Paratelenomus saccharalis* (Dodd) (Hymenoptera: Platygasteridae) es reportado por primera vez en huevos de la chinche del kudzu *Megacopta cribraria* (F.) (Heteroptera: Plataspidae) en el condado Alachua de la Florida. Este parasitoide de huevos había sido previamente reportado solamente en Georgia y Alabama.

Palabras Clave: control biológico; especies adventicias; plagas agrícolas; plataspid del frijol

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