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Source: Florida Entomologist, 96(1) : 258-260

Published By: Florida Entomological Society

URL: <https://doi.org/10.1653/024.096.0140>

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THE BEAN PLATASPID, *MEGACOPTA CRIBRARIA* (HEMIPTERA: PLATASPIDAE), A NEW INVADER IN FLORIDA

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A pdf file with supplementary material for this article in Florida Entomologist 96(1) (2013) is online at <http://purl.fcla.edu/fcla/entomologist/browse>

Megacopta cribraria (F.) (Hemiptera: Plataspidae), known by the common names: bean plataspid, kudzu bug, lablag bug and globular stink bug, was found in North Florida in Mar 2012, the first report of this insect in Florida. On Mar 27, 2012, one *M. cribraria* adult was found in a Lingdgren funnel trap at the Port of Jacksonville, Duval County, Florida (N 30.34617° W -81.62191°); however, it was not known if there was an established population in this area or if this was simply an interception. On 15 Apr 2012, three *M. cribraria* adults were hand collected in a kudzu (*Pueraria montana* Lour (Merr.) variety 'lobata' (Willd.) (Fabales: Fabaceae) patch in McAlpin, Suwannee County, Florida (N 30.10925° W -82.88408°). In early May 2012, personnel from the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry (DPI) and the Cooperative Agricultural Pest Survey (CAPS), conducted surveys of kudzu patches in Jefferson, Leon and Madison Counties, Florida. Sweep-netting and hand-catches yielded several dozen *M. cribraria* adults. An additional find occurred in Jun 2012 in Alachua County. In this case, a single adult *M. cribraria* was found in kudzu plant material collected in Gainesville, Florida. Subsequently, 2 more adult specimens were collected on kudzu plants at the same location, confirming this new county record. *Megacopta cribraria* adults were reported on 15 Aug 2012 in a soybean field in Gadsden County, Florida. (Russ Mizell III, personal communication). In Sep 2012, *M. cribraria* was found in Pasco and Hillsborough Counties and in Oct it was found in Columbia, Hamilton and Gilchrist Counties. Voucher specimens were deposited in the Florida State Collection of Arthropods, Gainesville, Florida. In total, *M. cribraria* was recorded in the following locations: N 30.25563° W -82.16611°; N 30.31766° W -81.75049°; N 30.53099° W -83.63109°; N 30.60597° W -83.8717°; N 30.53583° W -84.01837°; N 30.66415° W -83.87859°; N 30.64562° W -81.87074°; N 29.94169° W -82.10981°; N 29.639705° W -82.39892°; N 29.30659° W -82.15203°; N 28.42612° W -82.19043°; N 27.98159° W -82.29661°; N 29.95232° W -82.59689°; and N 30.5244° W -83.09296° in 16 Florida counties (Alachua, Baker, Bradford, Columbia, Duval, Gadsden, Gilchrist, Hamilton, Hillsborough, Jefferson, Leon, Madison, Marion, Nassau, Pasco, Suwan-

nee) (Figs. 1 and 2); these figures are reproduced in color in the online supplementary document at <http://purl.fcla.edu/fcla/entomologist/browse>.

The first USA find of *M. cribraria* was in northeastern Georgia in the fall of 2009, and since then it has spread through South Carolina, North Carolina, Alabama and Virginia (www.cbsatlanta.com; Roberts 2011; Suiter et al. 2010a, 2010b). This piercing sucking insect is closely related to stink bugs in the family Pentatomidae. It is native to Asia where it is an agricultural pest of soybean, *Glycine max* Merrill (Fabales: Fabaceae), other species of legumes and fruit trees (Li et al. 2001; Wang et al. 2004; Eger et al. 2010). In the infested areas of the USA, *M. cribraria* seems to prefer feeding on the invasive kudzu plant (Zhang et al. 2012). Additionally, it was reported feeding on caged fig trees, *Ficus carica* L. (Rosales: Moaceae), in Auburn, Alabama (Hu & Carroll 2012). It is expected that this insect will continue to expand its host range, and that its geographical range will expand into the northeastern USA. This new invader has the potential to cause significant agricultural losses (USDA-APHIS 2010).

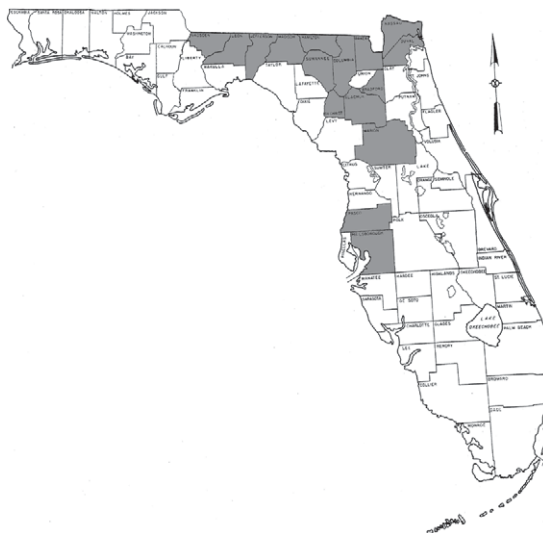


Fig. 1. Distribution (green) of *Megacopta Cribraria* in north Florida.

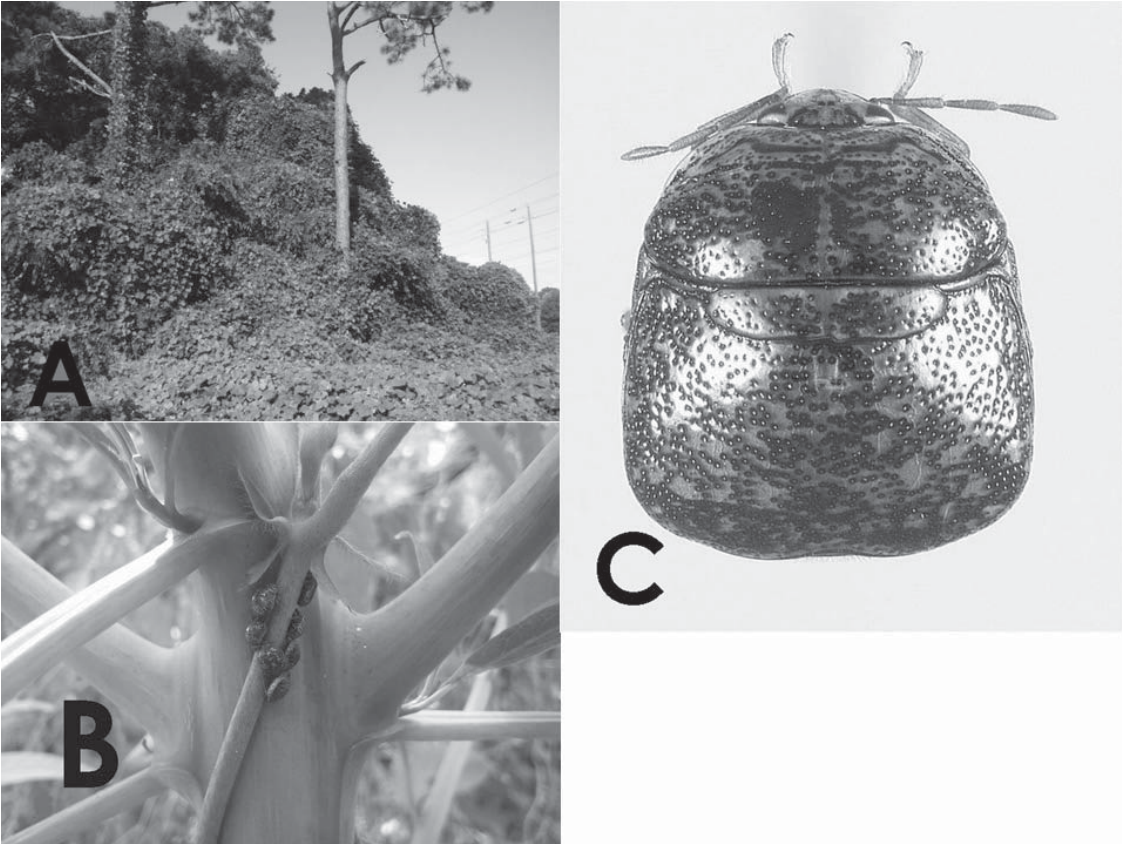


Fig. 2. Kudzu and *Megacopta cribraria* in Florida. A. Kudzu patch in Alachua County, Florida. B. *Megacopta cribraria* on kudzu in Jefferson County, Florida. C. Dorsal view of a male *Megacopta cribraria*. Photographs courtesy of the following: A: Julio Medal, Florida Department of Agriculture and Consumer Services, Division of Plant Industry; B: Bradley A. Danner, Department of Agriculture and Consumer Services, Division of Plant Industry, CAPS; C: Joseph E. Eger, Dow AgroSciences LLC.

SUMMARY

The bean plataspid, *Megacopta cribraria* (F.) (Hemiptera: Plataspidae), is reported in Florida for the first time. It was found during Mar-Oct 2012 in kudzu patches (*Pueraria montana* Lour (Merr.) (Fabales: Fabaceae) in 16 Florida counties. Its host range includes kudzu, soybean (*Glycine max* Merrill; Fabales: Fabaceae), and other legume crops (Medal et al. unpublished data).

Key Words: kudzu bug, invasive pest, soybean, southeastern USA

RESUMEN

El chinche asiático conocido como 'Bean Plataspid', *Megacopta cribraria* (F.) (Hemiptera: Plataspidae), es reportado por primera vez en la Florida. Fue encontrado durante marzo a octubre del 2012 en campos de kudzu (*Pueraria montana* Lour (Merr.) (Fabales: Fabaceae) en 16 condados de Florida, El rango de plantas hospederas inclu-

ye soya (*Glycine max* Merrill; Fabales: Fabaceae), y otros cultivos de leguminosas (Medal et al., datos no publicados).

Palabras Clave: chinche del kudzu, plaga invasora, soya, sureste de los Estados Unidos

ACKNOWLEDGMENTS

We thank Drs. Trevor Smith, Leroy Whilby, Michael Thomas and Paul Skelley for reviews of the manuscript. We are grateful to all of the members and contributors of the CAPS survey effort. Such work has provided illuminating data on the distribution of a previously little-known species. This research was approved by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry for publication as contribution # 1217.

REFERENCES CITED

- EGER JR, J. E., AMES, M., SUITER, D. R., JENKINS, T. M., RIDER, D. A., AND HALBERT, S. E. 2010. Occurrence of the old world bug *Megacopta cribraria* (Fabricius)

- (Heteroptera: Plataspidae) in Georgia: a serious home invader and potential legume pest. *Insecta Mundi* 0121: 1-11.
- HU, X. P., AND CARROLL, D. 2012. Alabama soybean: kudzu bug life cycle diversified in terms of hosts. <http://agfax.com>.
- LI, Y. H., PAN, Z. S., ZHANG, J. P., AND LI, W. S. 2001. Observation of biology and behavior of *Megacopta cribraria* (Fabricius). *Plant Prot. Tech. Ext.* 21: 11-12. (In Chinese.)
- ROBERTS, P. 2011. Agent update: kudzu bug, *Megacopta cribraria*. Univ. Georgia, Ext. Circ., August 1. 3 pp.
- SUITER, D. R., AMES, L. M., EGER JR, J. E., AND GARDNER, A. 2010a. *Megacopta cribraria* as a nuisance pest. Univ. Georgia, Coop. Ext. Circ. No. 991. 2 pp.
- SUITER, D. R., EGER JR., J. E., GARDNER, W. A., KEMERAIT, R. C., ALL, J. N., ROBERTS, P. M., GREENE, J. K., AMES, L., M. BUNTIN, G. D., JENKINS, T. M., AND DOUCE, G. K. 2010b. Discovery and distribution of *Megacopta cribraria* (Hemiptera: Heteroptera: Plataspidae) in northeast Georgia. *J. Integ. Pest Mgt.* 1(1): pp. F1-F4(4).
- UNITED STATES DEPARTMENT OF AGRICULTURE, ANIMAL AND PLANT HEALTH INSPECTION SERVICE. 2010. Invasive insect (bean plataspid) poses risk to soybean crops and infests homes in southeastern States. Factsheet, Oct. 2 pp.
- WANG, H. S., ZHANG, C., S., AND YU, D. P. 2004. Preliminary studies on occurrence and control technology of *Megacopta cribraria* (Fabricius). *China Plant Prot.* 22: 7-9.
- ZHANG, Y., HANULA, J. L., AND HORN, S. 2012. The biology and preliminary host range of *Megacopta cribraria* (Heteroptera: Plataspidae) and its impact on kudzu growth. *Environ. Entomol.* 41: 40-50.