



**FIRST RECORD OF ACIZZIA JAMATONICA
(HEMIPTERA: PSYLLIDAE) IN NORTH AMERICA:
FRIEND OR FOE?**

Authors: Ulyshen, Michael D., and Miller, Douglass R.

Source: Florida Entomologist, 90(3) : 573

Published By: Florida Entomological Society

URL: [https://doi.org/10.1653/0015-4040\(2007\)90\[573:FROAJH\]2.0.CO;2](https://doi.org/10.1653/0015-4040(2007)90[573:FROAJH]2.0.CO;2)

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

FIRST RECORD OF *ACIZZIA JAMATONICA* (HEMIPTERA: PSYLLIDAE) IN NORTH AMERICA: FRIEND OR FOE?

MICHAEL D. ULYSHEN¹ AND DOUGLASS R. MILLER²

¹USDA Forest Service, Southern Research Station, Athens, GA 30602

²USDA-ARS, Systematic Entomology Laboratory, Beltsville, MD 20705

Mimosa or silk tree (*Albizia julibrissin* Durazzini) was introduced from Asia to Europe and then from Europe to North America in the mid eighteenth century (Cothran 2004). While still widely prized for landscaping purposes, the tree has become naturalized and is considered to be an invasive species throughout much of the southeastern United States (Miller 2003).

In Sep 2006, one of us (MDU) noticed a group of *A. julibrissin* trees in Clarke County, Georgia (Athens, Lake Herrick, 33°55.853'N, 083°22.183'W) heavily infested with an unknown psyllid species. The insects were causing considerable stress to the trees with many leaves yellowed, wilted, or missing. Specimens were identified (by Debra Creel & DRM) as *Acizzia jamatonica* (Kuwayama), an Asian species that was recently found attacking the same tree species in Europe (Alma et al. 2002; EPPO Reporting Service 2002).

Acizzia jamatonica, like some other members of the genus (Palmer & Witt 2006), appears to be highly host specific and is thought to feed exclusively on species of *Albizia* (Alma et al. 2002; EPPO Reporting Service 2002). If it is indeed monophagous, the species is unlikely to pose much risk to native plant species (Van Klinken & Edwards 2002) and may benefit efforts to control *A. julibrissin* in the southeast. However, with respect to the economic and aesthetic values of *A. julibrissin* in both Europe and the United States, *A. jamatonica* might be viewed by many as a harmful pest species (EPPO Reporting Service 2004). Further investigation is needed to better predict the potential biological, economic, and aesthetic impacts of this recent arrival.

Acizzia jamatonica is the fourth species of *Acizzia* to be recorded in the United States. Other species include *A. acaciaebaileyanae* (Froggatt) first reported in 1987 from California on *Acacia*, *A. haekae* Tuthill first reported in 2003 from California on *Grevillea*, and *A. uncatoides* (Ferris & Klyver) first reported in 1954 from California on *Acacia*. The invasive species in California are native to Australia (Gill, personal communication 2006).

We thank Jim Hanula (USDA Forest Service, Southern Research Station, Athens, GA), Cecil Smith (University of Georgia, Athens, GA), and Debra Creel (Systematic Entomology Laboratory, Beltsville, MD) for their input and assistance. We

also thank Ray Gill (Plant Pest Diagnostic Center, California Department of Food and Agriculture, Sacramento, CA) for providing data on the invasive species of *Acizzia* in California. Voucher specimens have been deposited in the Georgia Museum of Natural History, Athens, Georgia.

SUMMARY

Acizzia jamatonica (Kuwayama) (Hemiptera: Sternorrhyncha: Psyllidae) is reported for the first time in North America. Because the species is thought to feed exclusively on *Albizia*, it may prove to be an effective biocontrol agent against the invasive *Albizia julibrissin* Durazzini in the southeastern United States. Because *A. julibrissin* is also an ornamental plant of some importance, the arrival of *A. jamatonica* may not be welcomed by many. This is the fourth invasive species of *Acizzia* to be found in the United States.

REFERENCES CITED

- ALMA, A., R. TEDESCHI, AND J. ROSSI. 2002. *Acizzia jamatonica* (Kuwayama) nuova psilla per l'Europa (Homoptera: Psyllidae). *Informatore Fitopatologico* 52: 64-65.
- COTHRAN, J. R. 2004. Treasured ornamentals of southern gardens—Michaux's lasting legacy, pp. 149-157. In M. J. Baranski [ed.], *The Proceedings of the André Michaux International Symposium*. *Castanea Occasional Papers* No. 2.
- EPPO REPORTING SERVICE. 2002/058. *Acizzia jamatonica*: a new pest of *Albizia* found in Italy.
- EPPO REPORTING SERVICE. 2004/153. First report of *Acizzia jamatonica* in France: addition to the EPPO alert list.
- VAN KLINKEN, R. D., AND O. R. EDWARDS. 2002. Is host-specificity of weed biological control agents likely to evolve rapidly following establishment? *Ecol. Letters* 5: 590-596.
- MILLER, J. H. 2003. *Nonnative Invasive Plants of Southern Forests: A Field Guide for Identification and Control*. Gen. Tech. Rep. SRS-62, U.S. Department of Agriculture Forest Service, Southern Research Station, Asheville, NC.
- PALMER, W. A., AND A. B. R. WITT. 2006. On the host range and biology of *Acizzia melanocephala* (Hemiptera: Psyllidae), an insect rejected for the biological control of *Acacia nilotica* subsp. *indica* (Mimosaceae) in Australia. *African Entomol.* 14: 387-390.