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

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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. hakae 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).

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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 hostspecificity 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.