

PEST ALERT

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Sinomegoura citricola (van der Goot) detected in Palmetto, FL on mangos

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INTRODUCTION

Sinomegoura citricola (Hemiptera: Aphididae) was found for the first time in Florida by Prem Kumar, Citrus Health Response Program inspector, on mango fruit in suburban Palmetto, FL (Fig 1). This is an Asian polyphagous pest on mango, citrus, avocado and other plants. It is known previously in North America only from a single collection on residential citrus in California (Blackman and Eastop 2021). Specimens from Florida matched those from Asia in the collections of the Florida State Collection of Arthropods and the U.S. National Museum, and also the ones from the earlier California find. The identification was confirmed officially by Dr. Gary L. Miller, USDA-ARS. COI barcode data from Florida specimens revealed a 100 percent match with *S. citricola* reported from China. In Florida, the aphids were found on mango fruit. A follow-up survey revealed colonies on mangos at several residences in the vicinity, but not on neighboring citrus or orange jasmine (*Murraya paniculata* (L.) Jack).

DESCRIPTION AND SCREENING

Sinomegoura citricola is a dark, medium-sized aphid. Adults have long, black caudas (tails) (Fig. 1-3). Other than the large, black cauda on adults, these aphids will look similar to other black aphid species that already occur in Florida. Colonies on mango superficially resemble those of *Aphis odinae* (van der Goot) (formerly *Toxoptera odinae*; mango aphid), which does not occur in the continental USA. Adult *S. citricola* have longer posterior appendages than *A. odinae*, especially the conspicuously large, black cauda. Currently, *S. citricola* is the only species in Florida known to infest mango fruit. It also is known to infest new growth of many tropical plants. Since *A. odinae*, the other aphid species known globally from mango fruit, is not known to occur in the continental USA, please submit any aphids found infesting mango fruit.

Positive identification of this species depends on examining the cauda of an adult specimen, so laboratory confirmation is needed. These aphids seem to be quite fragile, so collect the aphids gently. Use of a fine paint brush is the preferred method for catching them. Try to collect adults (winged or wingless) and send them to the DPI laboratory in a small vial of alcohol. Complete the form on our website and include it with the insect sample; for more information on how to submit a sample and for the form, see www.FDACS.gov/DPIsamples.

BIOLOGY AND HOSTS

Sinomegoura citricola is a highly polyphagous species. In California and Taiwan, colonies of this aphid were found on new growth of citrus and orange jasmine, respectively. Although it has been reported from mango trees, its presence on mango fruit in Florida was a surprise. The species is recorded from tropical shrubs in about 20 families. Some specific genera include *Bridelia* Willd. (Phyllanthaceae), *Camellia* L. (Theaceae), *Cinnamomum* Schaeff. (Lauraceae), *Citrus* L. (Rutaceae), *Eurya* Thunb. (Pentaphylacaceae), *Ficus* L. (Moraceae), *Mangifera* L. (Anacardiaceae), *Murraya* J. Koenig ex L. (Rutaceae), *Musa* L. (Musaceae) and *Persea* Mill. (Lauraceae) (Blackman and Eastop 2000; plant authorities from WFO 2021). A more comprehensive list of recorded hosts, which includes 80 species entries, can be found in Holman (2009).

Sinomegoura citricola is a tropical species. There are no sexual forms known. Populations appear to be entirely parthenogenetic, existing without males and giving birth to live young (no eggs). Reproduction is continuous, given suitable plant material.



POTENTIAL ECONOMIC IMPACT IN FLORIDA

Sinomegoura citricola is known as a minor pest where it occurs. It is not reported to transmit any plant pathogens (Blackman and Eastop 2000). There are some indications that it will not be a significant pest. First, it has not acquired any common name that we could find. Second, after the initial find in California, no subsequent colony was ever reported. However, nothing is known about its potential impact, ultimate geographic limits or host range in Florida.

REFERENCES

Blackman R. L. and Eastop, V. F. (2000). *Aphids on the world's crops. An identification and information guide.* Second Edition. John Wiley & Sons, Ltd. Chichester, UK. 466 p.

Blackman R. L. and Eastop, V. F. (2021). *Aphids on the world's plants: An online identification and information guide.* www.aphidsonworldsplants.info/d_APHIDS_S.htm#Sinomegoura (last accessed 8 July 2021).

Holman, J. (2009). *Host plant catalog of aphids. Palearctic region.* Springer. New York. 1216 p.

WFO (2021). World Flora Online. Published on the Internet; <http://www.worldfloraonline.org>. (last accessed 14 July 2021).



Figure 1. *Sinomegoura citricola* infestation on mango fruit.
Photo by Prem Kumar, USDA-APHIS-PPQ.



Figure 2. *Sinomegoura citricola* colony on mango fruit.
Photo by Susan Youngblood, FDACS-DPI.



Figure 3. Single adult *Sinomegoura citricola*.
Photo by Lyle Buss, University of Florida.