

Florida Department of Agriculture and Consumer Services Division of Plant Industry

First Report of the Pilea Aphid (Myzus fataunae Shinji) in the Western Hemisphere

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INTRODUCTION: On August 22, 2018, from Longwood, Seminole County, Florida, Jesse Krok (DPI) collected a sample of aluminum plant (*Pilea cadeirei* Gagnep. & Guill.) infested with all life stages of the aphid *Myzus fataunae* Shinji 1924 (after Takahashi 1965). *Myzus fataunae* is native to Japan and Korea; this represents the first record of the species in the Western Hemisphere.

HOSTS: The species was described originally from *Fatoua* (Moraceae) (Shinji 1924), though subsequent collections have been from members of the Urticaceae: aluminum plant, *Pilea cadierei* Gagnep. & Guill.; Canadian or Japanese clearweed, *Pilea pumila* (*hamaoi*) (L.) A. Gray; and other ornamental *Pilea, Boehmeria* and *Parietaria* species (Takahashi 1965, Miyazaki 1971, Blackman & Eastop 2018).

SURVEY: A hand lens is necessary to survey for *M. fataunae*. Other aphids may be present on the host and potential host plants, but the target will stand out by its small size and distinct bicoloration. *Myzus fataunae* appears to feed on all aboveground parts of the plant, but favors new growth and petioles. Cut potentially infested plant parts and place them in a vial of alcohol. Alternatively, separate foliage from roots (to prevent soil particles from obscuring aphids) and beat it against the side of a shallow white tray; then, tap the plant material over the tray using a pencil. Inspect dislodged debris on the tray using a hand lens and, with a brush, transfer the aphids into alcohol.

FIELD SCREENING: *Myzus fataunae* is a minute aphid (0.9-1.0 mm). The adult, wingless forms are two-toned, with a brown head and thorax and yellow abdomen. Young immatures are entirely greenish white, while older instars develop the bicoloration. Most diagnostic characters cannot be seen without high-powered optics. When surveying on the plant, look for small, bi-colored specks (Fig. 1-3).

REFERENCES:

- Blackman, R. L., and V. F. Eastop. 2018. Aphids on the World's Plants. Available at http://www.aphidsonworldsplants.info/index.htm (Last accessed September 2018).
- **Miyazaki, M. 1971.** A Revision of the Tribe Macrosiphini of Japan (Homoptera: Aphididae, Aphidinae). Insecta Matsumurana 31 (1): 1–247.
- Shinji, O. 1924. New Aphids from Morioka. Dobutsugaku Zasshi 36 (431): 343–372.

Takahashi, R. 1965. Myzus of Japan (Aphididae). Mushi 38 (9): 43–78.





Figure 1. Pilea aphids on a stem (greatly magnified). Photograph by Jeff Lotz, DPI.



Figure 2. Pilea aphids on *Pilea cadierei*. Photograph by Jeff Lotz, DPI



Figure 3. Pilea aphids on aluminum plant. Two aphids are circled in red. Leaf length is approximately 1 inch. Photograph by Jeff Lotz, DPI.