

# Pest Alert

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## Florida Department of Agriculture and Consumer Services Division of Plant Industry

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### *Aleurotrachelus* near *anonae* (Corbett), a New Continental Record Whitefly in Florida

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**INTRODUCTION:** On 10 October 2016, Division of Plant Industry inspector Laura Ureta-Cooper submitted whiteflies collected from *Annona* sp. (Annonaceae) plants in a nursery in Polk County. The whiteflies are in the genus *Aleurotrachelus* and a close match to *A. anonae* (Corbett), but the identification is tentative at this time because it may not be possible to verify that the specimens collected in Florida are conspecific with the type specimens, that were collected in 1935 in Kuala Lumpur and Selangor, Malaysia. Additional samples were collected on *Annona* sp. and avocado (*Persea americana* Mill.) during a subsequent visit to the nursery (12 October). As reported by inspector Ureta-Cooper and validated by examination of several leaves, the level of infestation was very high (Fig. 1). Most recently, *A. anonae* was reported in Taiwan, with all records from sugar apple, *Annona squamosa* L (Dubey and Ko 2010). Note that the specific epithet *anonae* is an erroneous rendering of the genus name of the primary host, *Annona*.

**IDENTIFICATION:** Although there are several *Aleurotrachelus* species in Florida, this is a very distinctive species that in some respects resembles woolly whitefly, *Aleurothrixus floccosus* Maskell, which is widespread in Florida, and *Asiothrixus antidesmae* (Takahashi), which was detected in St. Petersburg, Florida in January 2016 (Stocks 2016). *Aleurotrachelus trachoides*, common on solanaceous hosts (Kumar et al 2016), and *A. atratus*, associated with palms, both have a black, shiny puparium with a short fringe of white wax. However, *Aleurotrachelus* near *anonae* (Figs. 1–4) is light-colored, produces no wax discernible through a 10× hand lens, and no white flocculent wax that is characteristic of woolly whitefly. Somewhat atypically for whiteflies, the puparium of this species has a distinct pattern comprised of three dorsal brown patches which, when viewed at 10×, give the appearance of a mid-dorsal horizontal stripe on an otherwise light or nearly colorless (depending on developmental stage) body. The second of the three brown patches, visible even in vacant puparial skins (exuviae), is the most prominent, and a smaller patch is located at the posterior end near the vasiform orifice and medially near the anterior margin. Notably, there is no mention of a distinctive color pattern in either the original description or the subsequent report by Dubey and Ko (2010). Slide-mounted specimens (Fig. 5) are clearly referable to *A. anonae* based on the illustrations and descriptions in both Corbett (1935) and Dubey and Ko (2010). Although none of the white fibrous wax commonly seen in whiteflies is produced, very distinctive medial and submedial ‘columns’ of clear, glassy wax are produced by the puparium, but are not discernible without magnification.

**HOSTS:** Corbett (1935) listed *Anona* [sic] *squamosa* (Annonaceae), *Morus indica* (Moraceae) and *Zingiber* sp. (Zingiberaceae) as hosts, but Dubey and Ko (2010) reported only *Annona squamosa* as a host in Taiwan. Avocado is a previously unrecorded host.

**BENEFICIALS:** On the many thousands of specimens examined on infested plant material submitted, a single adult parasitoid, as yet undetermined, was noted; each of two puparia contained a parasitoid pupa.



Florida Department of Agriculture and Consumer Services  
Adam H. Putnam, Commissioner

**REFERENCES:**

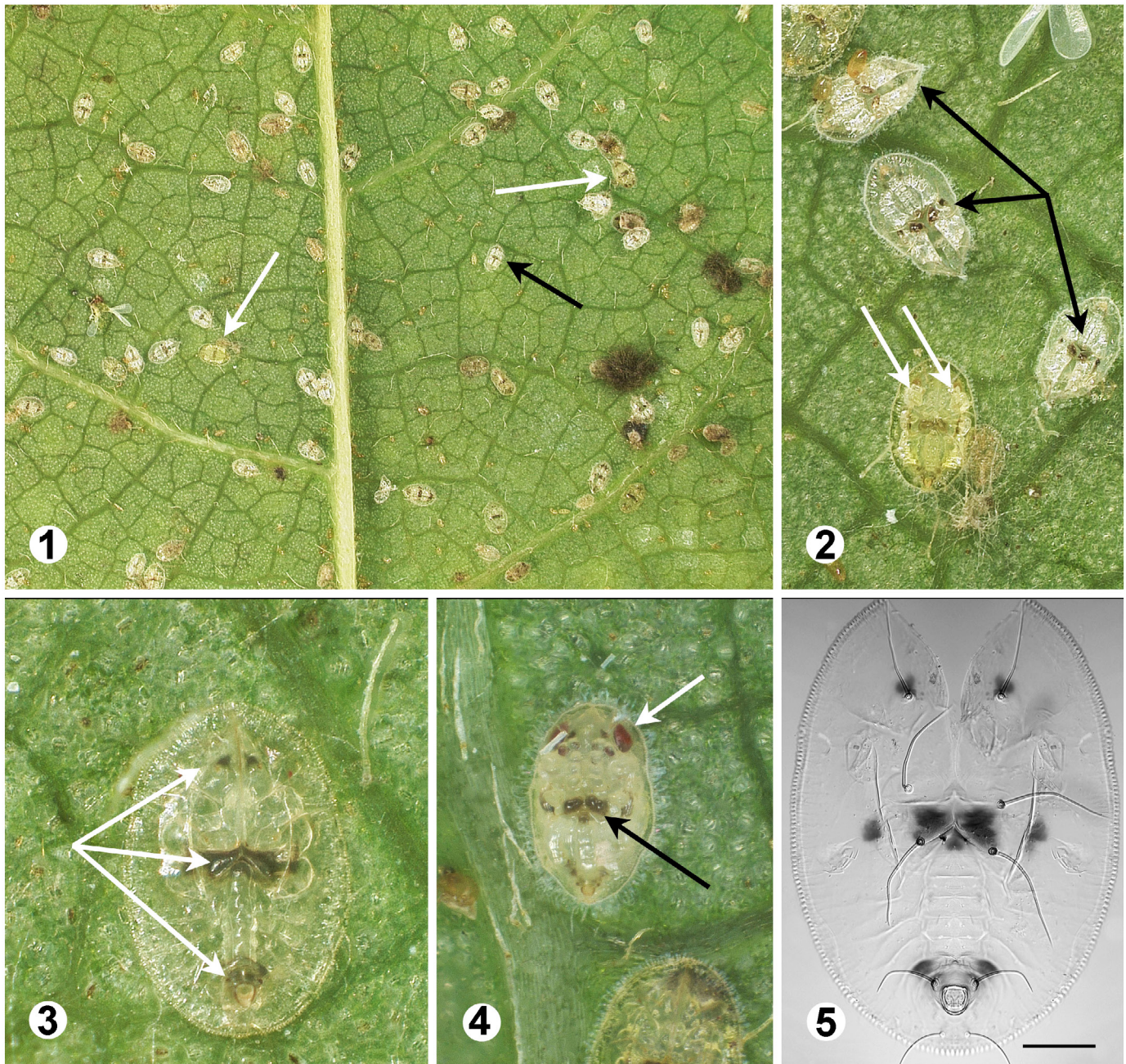
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Featured Creature: *Aleurotrachelus trachoides*. EDIS Publication EENY-662. Available at [http://entnemdept.ufl.edu/creatures/veg/Aleurotrachelus\\_trachoides.htm](http://entnemdept.ufl.edu/creatures/veg/Aleurotrachelus_trachoides.htm). Accessed 17 October 2016.

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**Figs. 1–5.** *Aleurotrachelus* near *anonae* (Corbett) on infested *Annona* sp. leaves. **Fig. 1.** Whiteflies of various stages, including late pupa (white arrows) and vacated puparial exuviae (black arrow). **Fig. 2.** Close-up of exuviae (black arrows) and developing pupa with wax 'columns' (white arrow). **Fig 3.** Mid-stage puparium with large median and smaller anterior and posterior brown patches. **Fig 4.** Adult whitefly immediately prior to emergence, showing red compound eyes (white arrow) and brown median patch on puparial cuticle (black arrow). **Fig 5.** Photomicrograph of a slide mounted specimen, modified in Adobe Photoshop for clarity. Scale bar = 100  $\mu$ m. Photo credit: Ian Stocks, FDACS-DPI.