

PEST ALERT

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Florida Department of Agriculture and Consumer Services Division of Plant Industry

Aceria pongamiae Keifer, pongamia mite

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INTRODUCTION

This gall mite is host-specific to the pongame oil tree, *Millettia pinnata* (L.) (Fabaceae). The host tree is an invasive species in the United States (Daehler 2018), but it is also used as a crop for the production of biodiesel (Ruhul et al. 2017) among other potential uses (Degani et al. 2022).

BIOLOGY

This mite causes galls on the leaves of the host tree. Infestations can cover much of the leaf surface and cause enough damage to reduce the host tree's economic utility. A single study has shown the abundance of the mite is negatively impacted by high rainfall (Nasareen and Ramani 2014).

DISTRIBUTION

Within the Western Hemisphere, pongamia mite is currently only known to occur in Palm Beach and Broward counties in Florida, USA. Globally, pongamia mite is known to occur in Australia and Southeast Asia, including Pakistan (the first known location of the mite, Keifer 1966) and India. The host tree, *Millettia pinnata*, is native to Australia, the western Pacific Islands and Southeast Asia. Pongamia mite may have gone undetected in some places where the host is known to occur, including within the native range of the host.

IDENTIFICATION

This mite, which is too small to directly observe without a microscope (Figs. 1–2), causes galls, specifically on the leaves of pongame oil tree and no other known host (Figs. 3–5). The base of the gall is narrow and stem-like whereas the terminal part is swollen into a pouch-like structure (Fig. 5). These galls can occur individually or as profuse aggregations (Fig 4). Pongamia mite is relatively easy to recognize in the field because of its host specificity and the distinctive form of the galls.

SURVEY

Look for deformed leaves and galls on the host tree. Suspected mite galls may be sent to the Division of Plant Industry for identification. Forms and instructions for sample submission can be found at www.FDACS.gov/DPIsamples.

REFERENCES

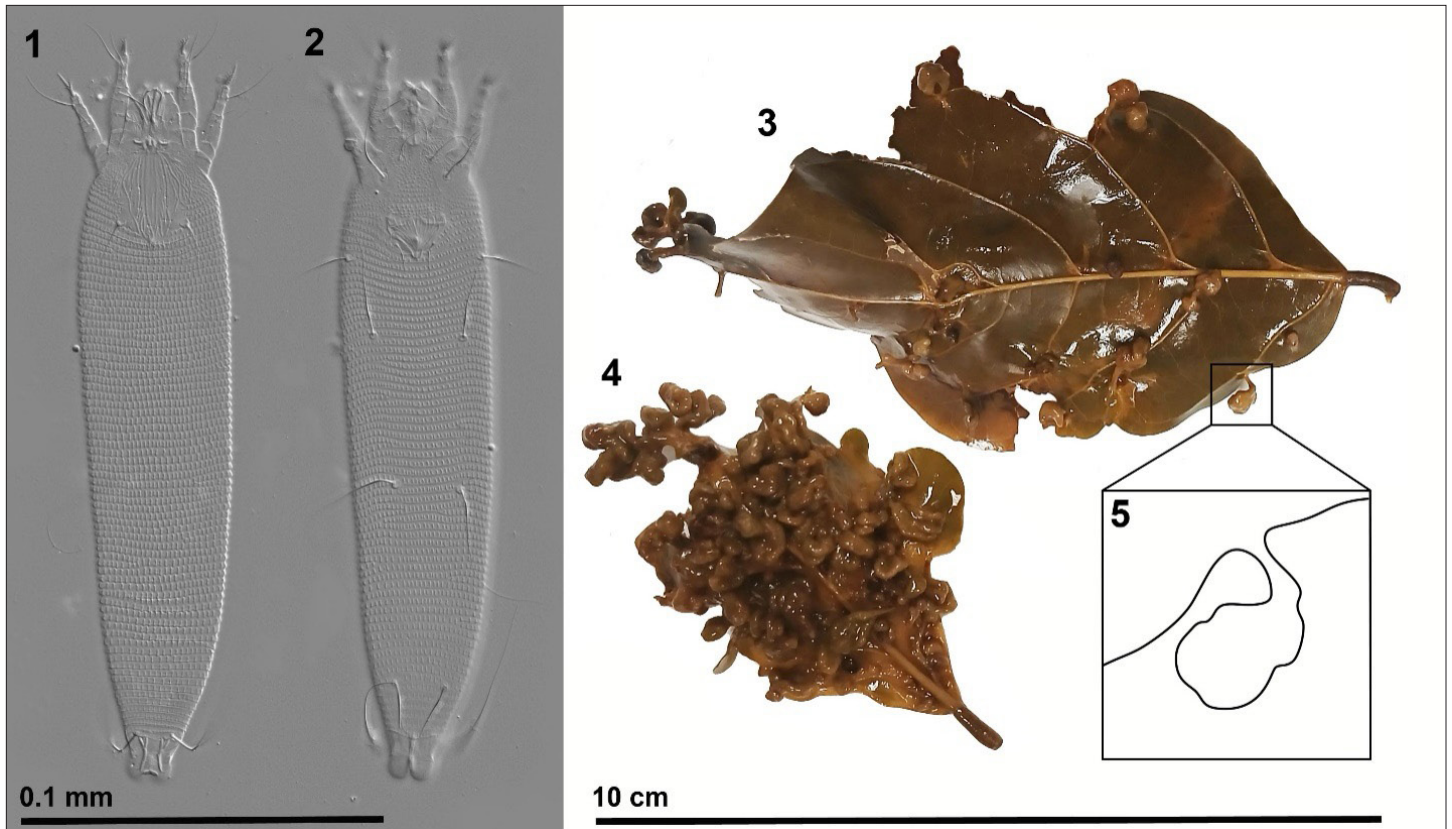
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Figures 1–5. Pongamia mite: 1) body dorsum; 2) body venter; 3) leaf with low density of galls; 4) leaf with aggregation of galls; 5) drawing showing close-up of gall. The 10 cm scale bar only pertains to Figs. 3 and 4 (not 5).
Photos by Samuel Bolton, FDACS-DPI