

ALOHA ARBORIST ASSOCIATION
MEETING MINUTES – 05/18/2016 – Approved
Location: The Old Spaghetti Factory, Ward Warehouse

Members in Attendance: Andrew Kendall, Desiree Page, Kevin Eckert, Carol Kwan, J Zambo, Walt Warriner, Angela Liu, Steve Nimz, Lance Bookless, Dudley Hulbert, Steve Connolly
Guests: Diane Eckert

1) Call to Order & Approval of Minutes

Meeting called to order by President J Zambo at 6:48pm. The 04/20/2016 Minutes were approved without changes.

2) Old Business

a) Training

- i) WCISA/AAA Tree Fungi in Hawaii workshop – The workshop was well received, at the end of May or early June AAA will have a report regarding the finances.
- ii) Hands On Training at Lyon Arboretum (Jamilee Kempton/Steve Connolly) – this topic was tabled.
- iii) Tree Appraisals Workshop – The event is confirmed for 09/01/16, and will take place at Ho’omaluhia Botanical Gardens. It will be based on the Guide for Plant Appraisal 9th Edition.
- iv) Urban Garden Center Outreach, regular month – This event typically attracts an audience of about 150 attendees. Dudley Hulbert announced that Jayme Grzebik confirmed the event for 08/13/2016. (second Saturday of the month). Steve Nagano will be filling in for Jayme on the day of the event.
 - Small tree pruning and fertilizing talk – to be delivered by Desiree Page and Steve Nimz).
 - Outdoors pruning talk – Carol Kwan, J Zambo and Andrew Kendall.
 - Ask an arborist booth – Lance Bookless and Angela Liu.
 - Brian of the Master Gardener program.

b) Legislation –

- i) Resolution for State DOT and City Department of Transportation Services to plant more trees in their rights-of-way. Purposes: Beautification of our roadways; supporting Green Clean and Beautiful Brand and Image as key economic driver of Hawaii’s economy.
 - The resolution passed through LICH’s Legislative Committee. It has missed the timeframe for introduction to the state legislature during the last legislative session, and will be introduced next legislative session. The senator previously introducing the bill has retired and a new sponsor will be identified.

3) New Business

- a) Pest of the Month – Tea scale of camellia (*Fiorinia phantasma*), a polyphagous armored scale – Mussel-shaped scale on the underside of leaves, to 0.67mm in length, often but not always with horizontal red stripes. Large eggs found under the females’ scale covering can reach more than 1/5 the female’s body size. Predators and parasites of this scale also have been identified.
 - i) Distribution: Oahu (since 2004), Maui (since 2011). Garrett Webb observed this scale on Hawaii island.
 - ii) Symptoms and Damage: *F. phantasma* is a generalist, and hosts include species of palms (coconut, foxtail, areca, and others), kamani, *Cassia* sp., *Ficus benjamina*, *Ligustrum*, *Myoporum*, and a number of others. Feeding on the underside of leaves results in yellow blotches on the upper leaf surfaces, often with red-brown dead tissue in the most damaged areas. High populations can cause leaf drop.
 - iii) Control: Predators and parasites may not be providing good levels of control. If using chemical control, insecticidal soap, oil spray or other pesticides should be applied when crawlers are found. Adequate plant spacing, as well as pruning to reduce density, can help improve coverage when spraying. Thorough wetting of the undersides of leaves is critical for effective treatment. Once the

insect matures and develops its protective covering, soap and oil spray are ineffective. Garrett Webb reported that Distance, Ultra Pure (horticultural oil), and Safari are effective.

- iv) Members discussed resources for finding out more information about pests encountered in the field, including entomologists and online forums.
- v) References:
“New Pest Advisory: *Fiorinia phantasma* Cockerell & Robinson,” State of Hawaii Department of Agriculture (November 2011), No. 11-01. (Retrieved 5/16/16). URL: <http://hdoa.hawaii.gov/pi/files/2013/01/Fiorinia-phantasma-NPA.pdf>

“*Fiorinia phantasma* Cockerell and Robinson (Hemiptera: Diaspididae), an Armored Scale Pest New to Hawaii”, Proceedings of the Hawaiian Entomological Society (2011), 43:59–61. Janis N. Garcia Hawaii Department of Agriculture, Plant Pest Control Branch (Accessed 5/16/16). URL: http://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/21682/43_59-61.pdf?sequence=1

http://ucfnfanews.ucanr.edu/Articles/Insect_Hot_Topics/INSECT_HOT_TOPICS_New_scale_insect_in_Hawaii/

- b) Use of AAA Logo by members – Members discussed an incident involving unsanctioned use of AAA’s logo where AAA was unable to conduct enforcement. There was discussion of using annual stickers marked with the current year, however this was viewed as too costly. The motion was made and passed to limit use of the logo to those for official AAA business by authorized individuals acting in an official capacity.

c) Other Business – None

3) Announcements

- a) Carol Kwan encouraged everyone to vote in the International Society of Arboriculture Board elections.
- b) WCISA Annual Conference – “Magic in our Urban Forests”, 5/2-5/2016, Anaheim, CA (Disneyland)
 - Dudley Hulbert, Carol Kwan, Lucas Brower, Walt Warriner, Mark Leon, and others from Hawaii attended the event. Dudley and Carol reported highlights from the conference.
 - AAA member, Philippe Visintainer, won a prize of just under \$1,000 at the Western Chapter ISA annual conference and donated it back to WCISA for the purchase of a new trailer for WCISA’s Tree Climbing Championship.
- c) ISA Annual Conference – 8/13-17, 2016, Fort Worth, TX
- d) Tree Worker/Climber Apprentice ISA Certification Program – There was no discussion on this topic.
- e) WC ISA Aerial Lift and Climbing Exams – Steve Nimz is helping to coordinate staffing for this event in July. Judges for both parts of the program are needed. Interested parties should contact Steve to become certified as judges.

The meeting was adjourned at 7:35pm.

The next meeting is scheduled for June 15th, 2016, 6:30pm, Location TBA.

Attachments:

Plant Pest Control Branch, Hawaii Department of Agriculture. “*Fiorinia phantasma* Cockerell & Robinson,” *New Pest Advisory*, No.11-01 (Nov 2011). <http://hdoa.hawaii.gov/pi/files/2013/01/Fiorinia-phantasma-NPA.pdf>
Accessed May 2016.



Fiorinia phantasma Cockerell & Robinson (Hemiptera: Diaspididae)

An armored scale, *Fiorinia phantasma* Cockerell & Robinson (Hemiptera: Diaspididae), was first collected from *Ligustrum japonicum* (wax leaf privet) leaves on O'ahu, in December 2004. The second infestation was found in November 2008, on *Pittosporum tobira* (pittosporum). Subsequently, *F. phantasma* has become a significant new pest to ornamental plants in Hawai'i.

Hosts

F. phantasma has been found infesting a wide range of host plants throughout O'ahu, most commonly in the family Arecaceae (coconut, manila, areca, foxtail, and bottle palms). In addition to the aforementioned hosts, *F. phantasma* has been collected from the following ornamental plant species in Hawai'i: kamani (*Calophyllum inophyllum*, Clusiaceae); shower tree (*Cassia* sp., Fabaceae); lobster claw (*Heliconia caribaea*, Heliconiaceae); weeping fig (*Ficus benjamina*, Moraceae); naio (*Myoporum sandwicense*, Myoporaceae); Madagascar olive (*Noronhia emarginata*, Oleaceae); hala (*Pandanus tectorius*, Pandanaceae); mock orange (*Murraya paniculata*, Rutaceae); traveler's palm (*Ravenala madagascariensis*, Strelitziaceae). Robinson in Veilleux et al. (2010) notes that *Machilus* sp. (Lauraceae) is also a host plant of this species.

Description

Adult females (Figure 3 inset) inconsistently show red stripes, running the width of the scale covering. Some populations have a variation of clear, red-striped, and full red scale coverings. *F. phantasma* is closely related to *F. fioriniae*, a similar looking scale that has been a pest of palms and protea in Hawai'i for many years. Species in the genus *Fiorinia* are unique in that females shrink in size, encased in their second shed skin (Miller & Davidson, 2005).

Damage & Control

Damage caused by *F. phantasma* is recognizable by the yellow blotches on the upper leaf surfaces of host plants. As the scale population increases, intense feeding damage to the leaf causes leaf drop.



Figure 1. Damage to upper leaf surface of areca palm.



Figure 2. Infestation on the underside of areca palm leaf.

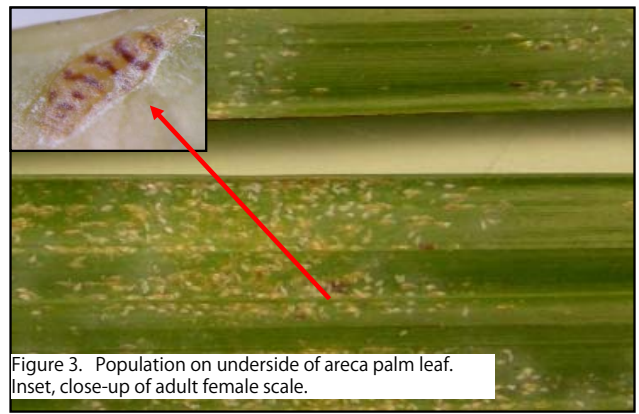


Figure 3. Population on underside of areca palm leaf.
Inset, close-up of adult female scale.



***Fiorinia phantasma* Cockerell & Robinson**
(Hemiptera: Diaspididae)
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Several predatory ladybeetles, green lacewing larvae, and one tiny species of parasitic wasp, were found associated with *F. phantasma*, however, the percentage of scales preyed upon or parasitized were extremely low. Horticultural oil has been used with closely related scale species, and should be effective against the crawler stage of *F. phantasma*. Systemic insecticides, including dinotefuran, and insect growth regulators, such as pyriproxyfen and/or buprofezin has also been proven to work with other similar scale pests, and may be effective against *F. phantasma*.

Distribution

Previously, this species has only been recorded in the Philippines (Veilleux et al., 2010). The discovery of *F. phantasma* in Hawai'i represents the first Western Hemisphere record (D. Miller, pers. comm.). It is now distributed throughout the island of O'ahu, and has been found infesting landscape area palms in the Kihei/Wailea area, Maui, in September 2011.

F. phantasma is not only a major pest to ornamental and landscape plants, it also impacts the local nursery and landscape industry. It poses an additional quarantine problem for exporters, because this species is not recorded anywhere other than Hawai'i and the Philippines.

Acknowledgments

We thank Mohsen Ramadan and Walter Nagamine for their collections and new host records. We also thank Douglass R. Miller (Sternorrhyncha), Systematic Entomology Laboratory, Agricultural Research Service, US Department of Agriculture for species confirmation, and to Gillian Watson, California Department of Food and Agriculture, for her information on *F. phantasma*.

Reference

Garcia, J.N. (In-press) *Fiorinia phantasma* Cockerell & Robinson (Hemiptera: Diaspididae), an armored scale pest new to Hawai'i. Proceedings of the Hawaiian Entomological Society.

Miller, D.R. and Davidson, J.A. 2008. *Armored scale insect pests of trees and shrubs*. Ithaca: Cornell University Press. 442pp.

Veilleux, K., Miller, D.R. and Gimpel, M.E. 2010. ScaleNet, *Fiorinia phantasma*. 8 December 2010. http://www.sel.barc.usda.gov/catalogs/diaspidi/Fioriniaphantasma.htm#Fioriniaphantasma_distrib.



Figure 4. Upper leaf surface of *P. tobira* leaves showing *F. phantasma* damage.



Figure 5. Infestation on underside of *P. tobira* leaf.