



Cooperative Agricultural Pest Survey

A Program to Detect Plant Pests And Diseases of Regulatory Concern

Bradley A. Danner
State Survey Coordinator
FDACS-DPI-CAPS

Morgan A. Byron, D.P.M.
Pest Survey Specialist
FDACS-DPI-CAPS



Krystal Ashman
Identifier
FDACS-DPI-CAPS

Robert Leahy
Pest Survey Specialist
USDA-CAPS

Jake Farnum
Pest Survey Specialist
FDACS-DPI-CAPS

Glen Gardner
GIS/Mapping Specialist
FDACS-DPI-CAPS

Nursery settings



Photo Credits: Mike Weiss USDA/APHIS/ PPQ



Nursery practices can increase pest risk



Introduction via cut orchids



Photo Credit: B Saunders/ USDA



J Brambila USDA



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Nursery Survey

Target pests



☐ *Bagrada hilaris*

Bagrada Bug

☐ *Helicoverpa armigera*

Old World Bollworm

☐ *Lymantria dispar asiatica*

Asian Gypsy Moth

☐ *Lymantria mathura*

Rosy Gypsy Moth

☐ *Oxycarenus hyalinipennis*

Cotton Seed Bug

☐ *Spodoptera litura*

Cotton Cutworm

☐ *Thaumatotibia leucotreta*

False Codling Moth

High Risk Nursery Survey



Asian gypsy moth
Lymantria dispar asiatica



Bagrada bug
Bagrada hilaris



Rice cutworm
Spodoptera litura



Cotton seed bug
Oxycarenus hyalinipennis



Rose gypsy moth
Lymantria mathura

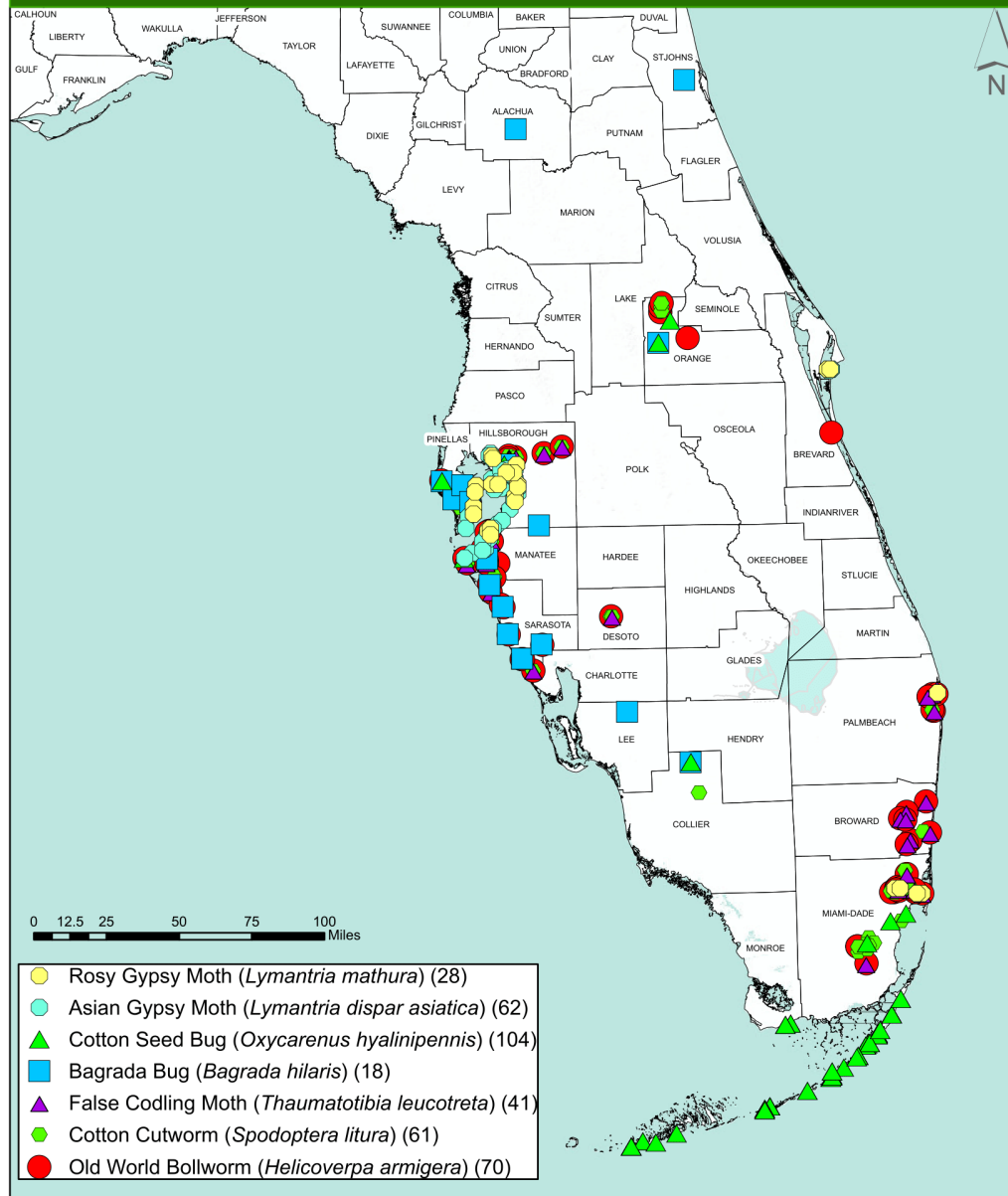


Old world bollworm
Helicoverpa armigera



False codling moth
Thaumatotibia leucotreta

Florida CAPS Nursery Survey 2018



FDACS, DPI, CAPS
G. Gardner, L. Whilby, B. Danner
Map for illustrative purposes only



Coordinate System: Florida Albers Equal Area Conic
Datum: North American 1983
Data Source: CAPS
Date: 2/26/2019

Helicoverpa armigera, *Spodoptera litura*, and *Thaumatotibia leucotreta*



Helicoverpa armigera
Old World Bollworm



Spodoptera litura
Cotton cutworm



Thaumatotibia leucotreta
False codling moth



Helicoverpa armigera, *Spodoptera litura*, and *Thaumatotibia leucotreta*



- ❑ Bucket traps with pheromone lures placed in high risk areas, checked every two weeks



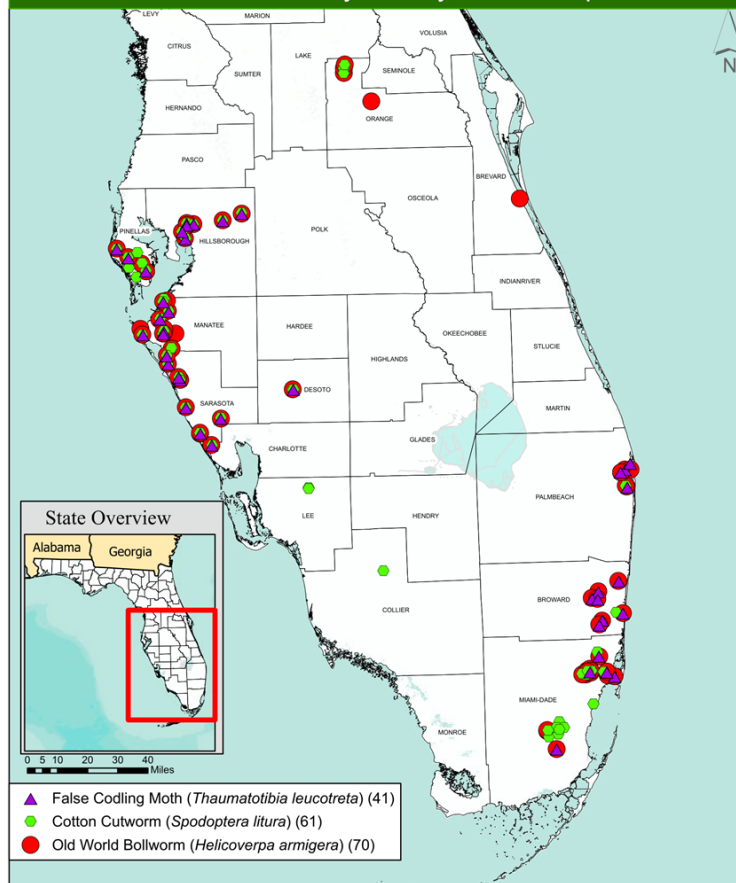
Photo Credit: B Saunders USDA/APHIS/PPQ



Helicoverpa armigera, *Spodoptera litura*, and *Thaumatotibia leucotreta*



Florida CAPS Nursery Survey 2018 - Trap Sites



FDACS, DPI, CAPS
G. Gardner, L. Whitby, B. Danner
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Oxycarenus hyalinipennis, *Bagrada hilaris*

❑ Cottonseed bug

- ❑ Serious pest of cotton and other Malvaceae; intercepted on other important crops (corn, grapes, avocado, etc.)
- ❑ Found in the Africa, Asia, and Europe, as well as The Caribbean Islands
- ❑ Found in the Florida Keys in 2010, eradicated in 2014



❑ Bagrada bug

- ❑ Pest of cruciferous crops, especially damaging on seedlings
- ❑ Will feed on other hosts
- ❑ Significant pest in AZ, southern CA

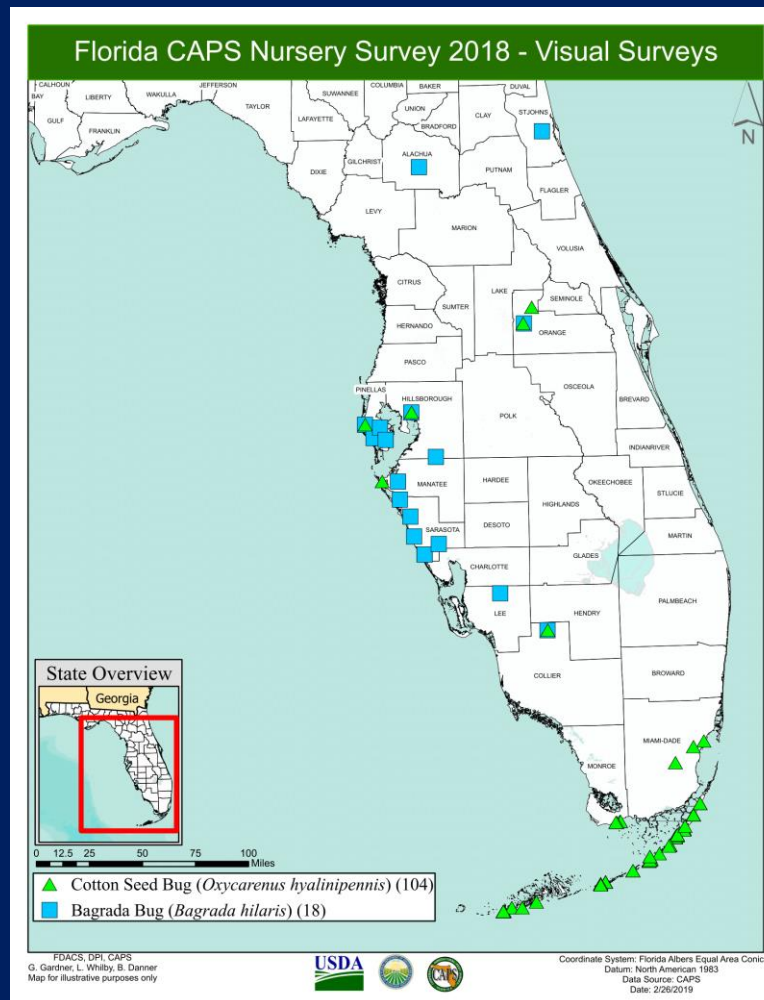


Oxycarenus hyalinipennis, *Bagrada hilaris*

- ❑ Visual survey in and around high-risk nurseries
- ❑ Sites include community gardens, farmers markets, agricultural fields, botanical gardens, etc.



Oxycarenus hyalinipennis, *Bagrada hilaris*



Lymantria dispar asiatica, L. mathura

- ❑ Both gypsy moths feed on a wide variety of tree species, such as oak, walnut, and elm
- ❑ Caterpillars are defoliators that can stress or kill the tree
- ❑ Could move into Florida as egg masses and negatively affect the nursery industry and forest ecosystems



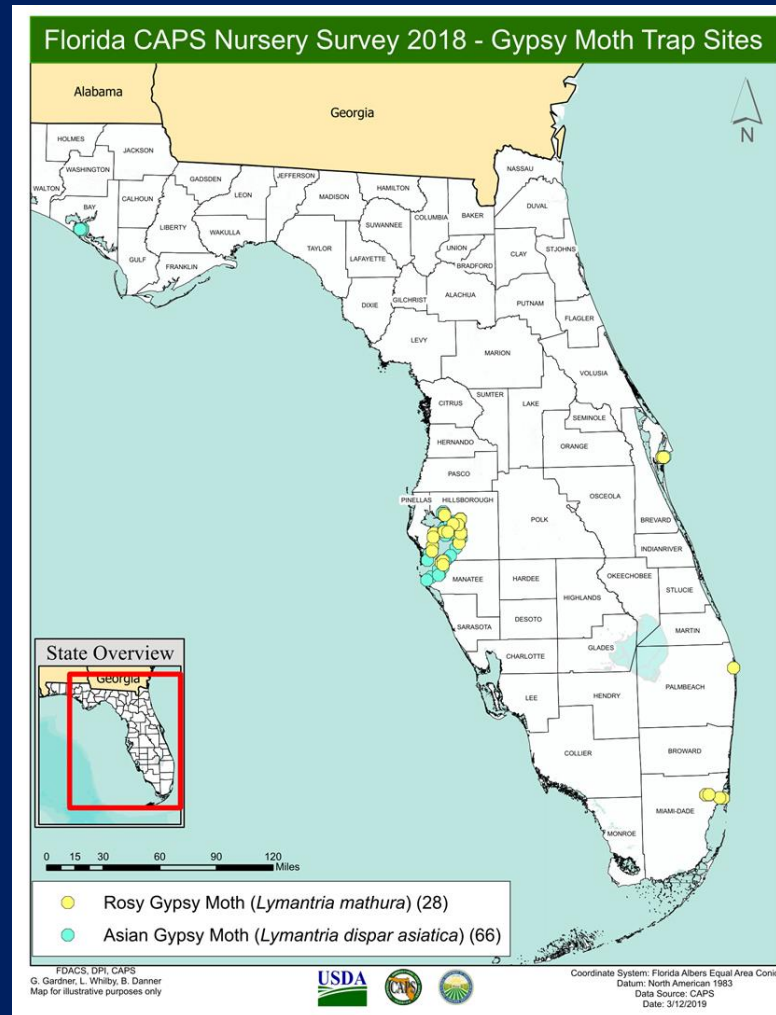
Lymantria dispar asiatica, L. mathura

- ❑ Delta traps (various colors) with pheromone lures
- ❑ Traps are placed in host trees near high-risk areas, like ports





Lymantria dispar asiatica, *L. mathura*





Nursery Survey 2018

- ☐ Number of traps and visual surveys: 470
- ☐ Number of specimens submitted: 960
- ☐ Records:
 - ☐ New County Records:
 - ☐ *Melanocinclis lineigera*
 - ☐ *Melanocinclis gnoma*
- ☐ No targets found

New Targets for 2019



Stenoma catenifer
Avocado seed moth



Lycorma delicatula
Spotted lanternfly



Conogethes punctiferalis
Yellow peach moth



Cooperative Agricultural Pest Survey



What are your thoughts?

What other pests use these pathways?

Are there resources not being utilized?

How do we improve?

Thank You!

