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TRI-OLOGY

A PUBLICATION FROM THE DIVISION OF PLANT INDUSTRY, BUREAU OF ENTOMOLOGY, NEMATOTOLOGY, AND PLANT PATHOLOGY

Division Director, Trevor R. Smith, Ph.D.



BOTANY

Providing information about plants:
native, exotic, protected and weedy



ENTOMOLOGY

Identifying arthropods, taxonomic
research and curating collections



NEMATOTOLOGY

Providing certification programs and
diagnoses of plant problems



PLANT PATHOLOGY

Offering plant disease diagnoses
and information



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



Pronotacanth annulata Uhler.
Photo by Solomon V. Hendrix, University of Arizona

ABOUT TRI-LOGY

The Florida Department of Agriculture and Consumer Services-Division of Plant Industry's (FDACS-DPI) Bureau of Entomology, Nematology, and Plant Pathology (ENPP), including the Botany Section, produces TRI-LOGY four times a year, covering three months of activity in each issue.

The report includes detection activities from nursery plant inspections, routine and emergency program surveys, and requests for identification of plants and pests from the public. Samples are also occasionally sent from other states or countries for identification or diagnosis.

HOW TO CITE TRI-LOGY

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For example: S.E. Halbert. 2015. Entomology Section. A.D. Grinage and G.S. Hodges (Editors). TRI-LOGY 54(4): 9. [Accessed 5 June 2016.]

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The editors would like to acknowledge the work of all those who contributed information and explanations by providing data, photographs or text, and by carefully reading early drafts.

We welcome your suggestions for improvement of TRI-LOGY. Please feel free to contact the [helpline](#) with your comments at 1-888-397-1517.

Thank you,

Gregory Hodges, Ph.D.

Editor

Assistant Director, Division of Plant Industry

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Managing Editor

Botanist, Division of Plant Industry

TABLE OF CONTENTS

	HIGHLIGHTS	03
Noteworthy examples from the diagnostic groups throughout the ENPP Bureau.		
	BOTANY	04
Quarterly activity reports from Botany and selected plant identification samples.		
	ENTOMOLOGY	08
Quarterly activity reports from Entomology and samples reported as new introductions or interceptions.		
	NEMATOLOGY	16
Quarterly activity reports from Nematology and descriptions of nematodes of special interest.		
	PLANT PATHOLOGY	18
Quarterly activity reports from Plant Pathology and selected identified plant pest and disease samples.		

Cover Photo

Rhododendron canescens, in flower.
Photo by Alexander de la Paz, FDACS-DPI



HIGHLIGHTS



1 *Rhododendron canescens* (Michx.) Sweet (sweet pinxter azalea) is a *Rhododendron* native to Florida commonly cultivated for its showy flowers. To prevent overharvesting, it is regulated as a commercially exploited plant species. It was documented for the first time in Levy County this quarter.



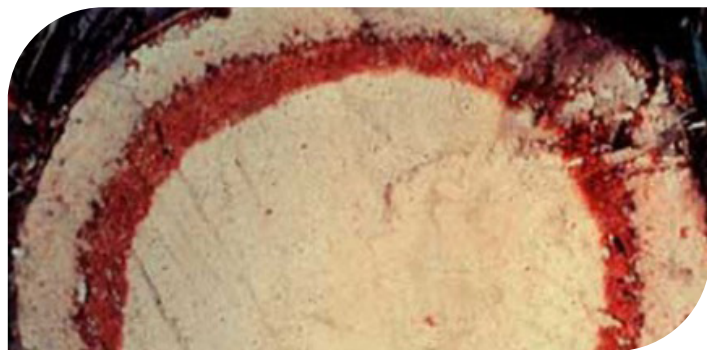
1 - *Rhododendron canescens*, in flower.
Photo by Alexander de la Paz, FDACS-DPI

2 *Pronotacantha annulata* Uhler, a stilt bug, an unusual interception. A stilt bug was intercepted in Florida in much greater numbers than usual on produce, mostly lettuce, from western states.



2 - *Pronotacantha annulata* Uhler.
Photo by Solomon V. Hendrix, University of Arizona

3 *Bursaphelenchus cocophilus* (Cobb, 1919) Baujard, 1989, the red ring nematode, is the causal agent of the lethal red ring disease of palms (Palmae). This disease is of regulatory concern in Florida and warrants a targeted statewide survey to detect either *B. cocophilus* or its vectors.



3 - Cross section of coconut palm stem showing the classical red ring symptom induced by *Bursaphelenchus cocophilus*.
Photo adapted from Brammer and Crow, 2019

4 *Cladosporium subuliforme* Bensch, Crous & U. Braun, a new Florida state record, was isolated from *Citrus reticulata* cv. Shiranui collected from an orange grove in Jefferson County.



4 - *Cladosporium subuliforme* (postharvest disease) progression of symptoms observed on Shiranui fruit.
Photo by Hector Urbina, FDACS-DPI





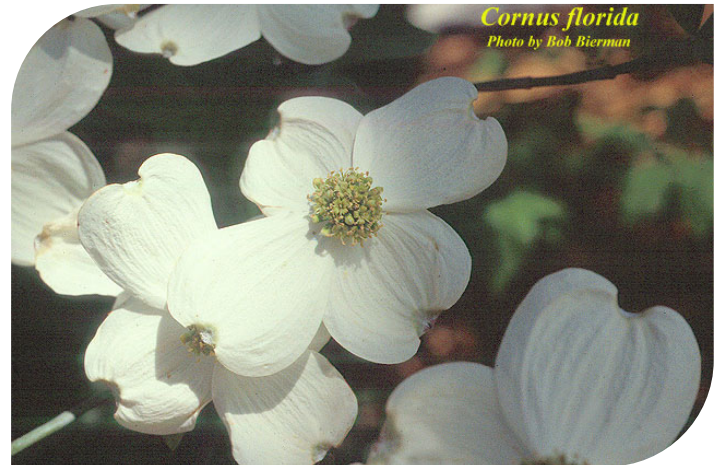
BOTANY

Compiled by Ayress D. Grinage, Ph.D. and Alex de la Paz, B.S.

This section identifies plants for the Division of Plant Industry, as well as for other governmental agencies and private individuals. The Botany section maintains a reference herbarium with nearly 20,000 plants and 1,500 vials of seeds.

QUARTERLY ACTIVITY REPORT

	JANUARY - MARCH	2026 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1192	1192
Samples Submitted for Botanical Identification Only	278	278
Total Samples Submitted	1470	1470
Specimens Added to the Herbarium	215	215



1 - *Cornus florida*, in flower, displaying the showy, creamy white petaloid bracts. Photo by Bob Bierman, [Atlas of Florida Plants](#)

Some of the samples submitted recently are described below.

1 *Cornus florida* L. (flowering dogwood) is one of the five native species of *Cornus* in Florida. Flowering dogwood is commonly planted in gardens and landscapes in the U.S., as it is used for shade and for its colorful petaloid bracts that are creamy white to pink. *Cornus florida* is so highly regarded for its spring-blooming flowers that it is the official state tree for both Virginia and Missouri, as well as the state flower of North Carolina. *Cornus* is one of five to six genera that make up the dogwood family (Weakley, A.S., and Southeastern Flora Team, 2026). Members of the dogwood family are mostly native to temperate regions in the Northern Hemisphere. Species of *Cornus* in Florida are identified by their simple leaves that are typically opposite and pinnately veined, with secondary veins curving to run parallel to the leaf margin. Additionally, flowers consist of four sepals, petals and stamens. The native species of *Cornus* in Florida can be readily distinguished from one another by leaf arrangement, floral presentation and leaf pubescence. *Cornus alternifolia* is the only species in Florida with alternate leaves and notably is also a state-endangered plant. *Cornus amomum*, *C. asperifolia* and *C. foemina* have a less conspicuous floral presentation than *C. florida* but are identified from one another by trichome presence and type on the leaf surfaces. This quarter, *C. florida* was found growing in a wooded area off U.S. 19 in Levy County. With this new county record of *C. florida*, this species is now officially recorded in 40 counties across northern and central Florida. (Levy County; 03042026-01807; Logan Cutts; 4 March 2026.) (Gilman et al., 2018; Simpson, 2006; Weakley and Southeastern Flora Team, 2026; Wunderlin and Hansen, 2011).



2 *Rhododendron canescens* (Michx.) Sweet (sweet pinxter azalea), is from a genus of about 1,000 species of mostly north temperate regions, in the plant family Ericaceae. There are five species of *Rhododendron* native to Florida and a few non-native ornamentals that are cultivated for their showy flowers. *Rhododendron canescens* is native to the southeastern United States from North Carolina, Tennessee, Kentucky, Illinois and Oklahoma, south to Florida and Texas. In Florida, it is found in the panhandle and peninsula, south to Levy and Marion counties, where it grows in mesic to wet flatwoods, hammocks and swamps, often along streams in acidic soils. It was originally described as *Azalea canescens* by André Michaux in 1803 from material collected in South Carolina but was later transferred to the genus *Rhododendron* by Robert Sweet in 1830. Plants are shrubs or trees up to 6 m tall, often with several erect, branching stems that can form dense thickets. The leaves are deciduous and typically emerge after or with the flowers. They are ovate to obovate with entire to minutely serrulate margins, 2-10 cm long, 1-4 cm wide, with pubescent surfaces. The inflorescences are terminal, clustered, rounded racemes of six to 19 showy flowers. Flowers are pink to white and funnel-shaped, with a long corolla tube that gradually expands into five lobes and five stamens that are exserted from the corolla. They are very fragrant and attract a number of pollinators such as butterflies, hummingbirds and bees. The fruits are five-valved woody capsules that open and release numerous small, flattened seeds. Rhododendrons contain toxic compounds and should not be ingested by humans or animals. This species is listed as commercially exploited by FDACS due to being overharvested historically for its beautiful flowers. *Rhododendron canescens* was documented for the first time in Levy County this quarter. (Levy County; 03252026-02488; Logan Cutts; 24 March 2026.) (Judd and Kron, 2009; Weakley and Southeastern Flora Team, 2026; Wunderlin and Hansen, 2011).



2 - *Rhododendron canescens*, in flower.
Photo by Alexander de la Paz, FDACS-DPI

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- Weakley, A.S. and Southeastern Flora Team (2026).** *Flora of the southeastern United States*. University of North Carolina Herbarium, North Carolina Botanical Garden. Chapel Hill, North Carolina.
- Wunderlin, R.P. and Hansen, B.F. (2011).** *Guide to the vascular plants of Florida* (3rd edition). University Press of Florida. Gainesville, Florida.



🔍 BOTANY IDENTIFICATION TABLE

The following table provides information about new county records submitted in the reported quarter. The table is organized alphabetically by species name. The full version with more complete data is downloadable as a [PDF](#) or an [Excel](#) spreadsheet, also organized by species name, except new county records are listed first.

SPECIES NAME	COUNTY	LIST NUMBER	COLLECTOR
<i>Ardisia crenata</i>	Union	567	Logan Cutts
<i>Astragalus villosus</i>	Union	2666	Logan Cutts
<i>Asystasia gangetica</i> ssp. <i>micrantha</i>	Seminole	2025	Jennifer McKeever
<i>Berlandiera subacaulis</i>	Union	2664	Logan Cutts
<i>Bignonia capreolata</i>	St. Johns	2491	Mark Laurint
<i>Butia odorata</i>	Gilchrist	2160	Logan Cutts
<i>Calyptocarpus vialis</i>	Baker	2157	Logan Cutts
<i>Cardamine hirsuta</i>	Dixie	996	Logan Cutts
<i>Castilleja indivisa</i>	Gilchrist	2555	Logan Cutts
<i>Casuarina cunninghamiana</i>	Hendry	1727	Mary Graham
<i>Cerastium semidecandrum</i>	Union	576	Logan Cutts
<i>Cercis canadensis</i>	Union	563	Logan Cutts
<i>Cercis canadensis</i>	Baker	2155	Logan Cutts
<i>Clematis terniflora</i>	Santa Rosa	158	Kayla Walker
<i>Coreopsis basalis</i>	Dixie	2551	Logan Cutts
<i>Cornus florida</i>	Levy	1807	Logan Cutts
<i>Crocanthemum carolinianum</i>	Gilchrist	1944	Logan Cutts
<i>Crotalaria retusa</i>	Charlotte	130	Emily Safran
<i>Dichondra micrantha</i>	Indian River	989	Caroline Pride
<i>Drosera brevifolia</i>	Indian River	229	Caroline Pride
<i>Eriobotrya japonica</i>	Columbia	1782	Sam Hart
<i>Eriobotrya japonica</i>	Baker	2158	Logan Cutts
<i>Fumaria officinalis</i>	Gilchrist	993	Logan Cutts
<i>Fumaria officinalis</i>	Columbia	1783	Sam Hart
<i>Gaillardia pulchella</i>	Dixie	2627	Logan Cutts
<i>Galium aparine</i>	Sumter	83	William Hangen
<i>Galium aparine</i>	Lake	1258	William Hangen
<i>Gamochaeta pensylvanica</i>	Union	570	Logan Cutts
<i>Gelsemium sempervirens</i>	Okeechobee	1670	Samuel Smith
<i>Geranium carolinianum</i>	Hendry	2221	Mary Graham
<i>Hedera helix</i>	Gilchrist	1385	Logan Cutts
<i>Hypericum brachyphyllum</i>	Glades	1734	Patricia McGill
<i>Jasminum mesnyi</i>	Suwannee	580	Logan Cutts
<i>Lagerstroemia indica</i>	Broward	1277	Mark Zenoble
<i>Lamium amplexicaule</i>	Sumter	581	William Hangen
<i>Lamium amplexicaule</i>	Dixie	1564	Logan Cutts
<i>Limnophila sessiliflora</i>	Osceola	407	Samuel Smith
<i>Linaria texana</i>	Union	2665	Logan Cutts
<i>Lithospermum incisum</i>	Gilchrist	2668	Logan Cutts
<i>Lonicera sempervirens</i>	Gilchrist	2297	Logan Cutts
<i>Medicago lupulina</i>	Hendry	1721	Mary Graham
<i>Morus alba</i>	Columbia	2439	Sam Hart
<i>Nephrolepis cordifolia</i>	Clay	2497	Lisa Tyler
<i>Persea borbonia</i>	Baker	2153	Logan Cutts
<i>Pinus clausa</i>	Gilchrist	1766	Logan Cutts
<i>Prunus umbellata</i>	Union	1691	Logan Cutts
<i>Pseudelephantopus spicatus</i>	Pinellas	218	Hannah Topel



SPECIES NAME	COUNTY	LIST NUMBER	COLLECTOR
<i>Pyrus calleryana</i>	Baker	1821	Sam Hart
<i>Pyrus calleryana</i>	Levy	2059	Logan Cutts
<i>Raphanus raphanistrum</i>	Broward	1851	Mark Zenoble
<i>Rhododendron canescens</i>	Levy	2488	Logan Cutts
<i>Ricinus communis</i>	Charlotte	131	Emily Safran
<i>Roystonea regia</i>	Broward	1282	Mark Zenoble
<i>Roystonea regia</i>	Broward	1855	Mark Zenoble
<i>Rubus cuneifolius</i>	Union	568	Logan Cutts
<i>Taraxacum officinale</i>	Dixie	995	Logan Cutts
<i>Thymophylla tenuiloba</i>	Clay	2485	Mark Laurint
<i>Toxicodendron radicans</i>	Gilchrist	1769	Logan Cutts
<i>Tradescantia ohiensis</i>	Baker	2622	Logan Cutts
<i>Trifolium incarnatum</i>	Gilchrist	2554	Logan Cutts
<i>Trifolium repens</i>	Dixie	1565	Logan Cutts
<i>Vaccinium corymbosum</i>	Union	2086	Sam Hart
<i>Vaccinium elliotii</i>	Union	2088	Sam Hart
<i>Wisteria floribunda</i>	Columbia	2440	Sam Hart
<i>Wisteria sinensis</i>	Lake	2376	Nora Marquez
<i>Wisteria sinensis</i>	Volusia	2456	Diane McColl
<i>Youngia japonica</i>	Hendry	1206	Mary Graham
<i>Youngia japonica</i>	Gilchrist	1227	Logan Cutts
<i>Zamia integrifolia</i>	Columbia	672	Logan Cutts





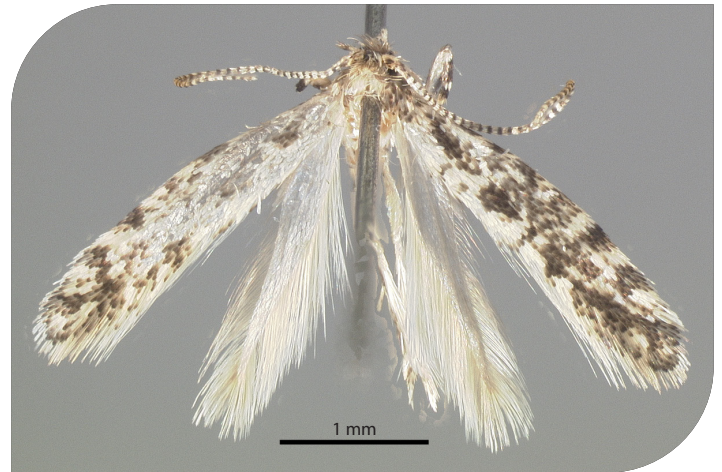
ENTOMOLOGY

Compiled by Susan E. Halbert, Ph.D.

This section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. The Entomology section also builds and maintains the arthropod reference and research collection (the Florida State Collection of Arthropods with over 12.5 million specimens), and investigates the biology, biological control and taxonomy of arthropods.

	JANUARY - MARCH	2026 - YEAR TO DATE
Samples Submitted	1,236	1,236
Lots Identified	2,420	2,420

1 *Eudarcia* sp. 9, a meessiid moth, a new U.S. Continental record. DNA COI barcoding places this species in a cluster that is globally distributed on continents and oceanic islands, including Hawaii, St. Helena, the Galapagos, the Philippines, northern South America, tropical West Africa and southern Mexico. It is the first meessiid known to us with such a "globetrotter" distribution. The larvae probably feed on lichens. The larval cases, as photographed in Hawaii, are flattened, fusiform and expanded at both ends. It was first collected in the Florida Keys in 2020, and later in Alachua County in 2024. Now, it is known in three Florida counties. Thus far, only females have been collected in Florida and the oceanic islands. Specimens on Big Pine Key were caught in a Malaise trap and the others in ultraviolet light traps. (Collier County; E-5357-01-10072024-10216; Isabelle Atchia and Carly Dodgen; 17 September 2024. Monroe County; E2020-396; Jake Farnum; 27 January 2020. Alachua County; E1515-01-04102026-02983; Sidney Bennett; 14 November 2024.) (Dr. James E. Hayden and Matthew R. Moore.)



1 - *Eudarcia* sp. 9, a meessiid moth collected in Collier County, Florida.
Photo by James E. Hayden, FDACS-DPI

2 *Mixorthezia reynei* (Laing, 1925), an ensign scale, a new U.S. Continental record. A single adult female scale insect in the family Ortheziidae was collected on the roots of a rotten stump in Fort Lauderdale, Florida. The genus was identified as *Mixorthezia* Morrison and the species *M. reynei*. This specimen serves as the first record of the genus *Mixorthezia* in the continental U.S. The distribution of this species is strictly New World: Brazil, Chile, Costa Rica, El Salvador, Guadeloupe, Mexico, Suriname, Trinidad and Tobago and the United States (Florida). This species is unlikely to be of economic importance. (Broward County; E1165-03232026-02344; Erin Powell; 3 March 2026.) (Dr. Zachary J. Lahey.)



2 - Adult female *Mixorthezia reynei* (Laing, 1925).
Found on the roots of *Sideroxylon salicifolium* (L.) Lam. (Sapotaceae).
Photo by Erin C. Powell, FDACS-DPI



3 *Pauroaspis scirrosus* (Russell, 1941), a pit scale, a new U.S. Continental record. Members of *Pauroaspis* Tang are naturally distributed throughout Southeast Asia and are associated exclusively with various bamboos. *Pauroaspis scirrosus* is the only species in the genus found outside of Asia, having a distribution that includes Angola, Brazil, China, Cuba, Guatemala, Philippines, Taiwan and the United States (Hawaii). Live females of this species were found initially on *Bambusa vulgaris* Schrad. ex J.C. Wendl. planted in a parking lot in St. Petersburg, Florida. Shortly thereafter, this species was discovered in a botanical garden in Miami, Florida. This species is unlikely to become a pest of concern. (Pinellas County; E0886-03042026-01801; Hannah Topel and Grayson Grume; 4 March 2026. Miami-Dade County; E1186-03232026-02369; Erin Powell; 7 March 2026.) (Dr. Zachary J. Lahey.)



3 - *Pauroaspis scirrosus* (Russell, 1941) adult female. Collected on *Bambusa vulgaris* Schrad. ex J.C. Wendl. (Poaceae) in St. Petersburg, Florida. Photo by Erin C. Powell, FDACS-DPI.

4 *Bactrocera dorsalis* (Hendel), Oriental fruit fly, a regulatory incident. A single male specimen was captured in a Jackson trap baited with methyl eugenol, hung in a carrotwood tree hosting a strangler fig, in West Palm Beach. Increased trap densities in a 76-square-mile area around the detection site were established. Traps in the delimitation area were monitored closely for two life cycles. No additional flies were found and the delimitation program ended on June 6, 2026. (Palm Beach County; E1326-01-03302026-02623; Thomas Wilson, USDA-APHIS; 25 March 2026.) (Drs. Craig H. Welch and Erick J. Rodriguez.)



4 - *Bactrocera dorsalis* (Hendel) collected in West Palm Beach. Photo by Erick J. Rodriguez, FDACS-DPI.

5 *Pronotacantha annulata* Uhler, a stilt bug, an unusual interception. This season, a spectacular stilt bug was intercepted in Florida, in much greater numbers than usual, on produce from western states. It is *Pronotacantha annulata* Uhler, 1893, a spiny stilt bug. From the beginning of the interdiction station program in 2009 through 2025, only 11 *P. annulata* in a total of seven samples were intercepted. Interceptions of *P. annulata* occurred in only four of the 16 years prior to 2026. This year, however, from January to March 2026, 40 specimens in 16 samples were intercepted. Thirteen of the 16 samples were from Arizona, with the remaining three from California. Most of the interceptions this season occurred in March (36 of 40 specimens).

All but one of the intercepted stilt bugs were found on produce, mostly lettuce, on trucks inspected at Florida's Interdiction Stations. However, a single live specimen was taken from lettuce at a produce distribution center in Manatee County, showing that at least one of the bugs made it past the border into the state. (Manatee County; E1185-01-03232026-02368; James E. "Eddie" Anderson; 23 March 2026.) (Dr. Susan E. Halbert and Catherine E. Nance.)



5 - *Pronotacantha annulata* Uhler. Photo by Solomon V. Hendrix, University of Arizona

ENTOMOLOGY SPECIMEN REPORT

The following are tables with entries for records of new hosts or new geographical areas for samples identified in the current volume's reporting period as well as samples of special interest. An abbreviated table, with all the new records, but less detail about them, is presented in the body of this web page and another version with more complete data is downloadable as a [PDF](#) or an [Excel](#) spreadsheet.

The tables are organized alphabetically by plant host if the specimen has a plant host. Some arthropod specimens are not collected on plants and are not necessarily plant pests. In the table below, those entries with no plant information included are organized by arthropod name.

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Abutilon pictum</i>	Chinese lantern	<i>Amrasca biguttula</i>	two-spot cotton leafhopper	Emily Safran	New Florida host record; regulatory significance
<i>Acer</i> sp.	maple tree	<i>Pterourus palamedes</i>	palamedes swallowtail	Logan Cutts, Sage Cutts	First in county
<i>Amaranthus cruentus</i>	red amaranth	<i>Amrasca biguttula</i>	two-spot cotton leafhopper	Amy Roda	New Florida host record; regulatory significance
<i>Apium graveolens</i>	celery	<i>Caviarella aegopodii</i>	carrot aphid	Alexis Thompson	Regulatory significance
<i>Apium graveolens</i>	celery	<i>Liriomyza langei</i>	California pea leafminer	Alexis Thompson	Regulatory significance
<i>Apium graveolens</i>	wild celery	<i>Lygus elisus</i>	pale legume bug	Justin Anto	Regulatory significance
<i>Apium graveolens</i>	celery	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Arundinaria gigantea</i>	canebrake bamboo, switchcane	<i>Haplothrips graminis</i>	a thrips	Riccardo Tordi	First in county
<i>Bambusa multiplex</i>	hedge bamboo	<i>Bambusaspis minuta</i>	minute bamboo scale	Mark Zenoble	First in county
<i>Bambusa oldhamii</i>	Oldham's bamboo	<i>Bambusaspis minuta</i>	minute bamboo pit scale	George 'Shack' Blanton	First in county, regulatory significance
<i>Bambusa</i> sp.	bamboo	<i>Bambusaspis coronata</i>	a bamboo scale	Cameron Suiters, Erin Powell, Vincent Barrios	Regulatory significance
<i>Bambusa vulgaris</i>	common bamboo	<i>Bambusaspis minuta</i>	bamboo pit scale	Ethan Gamble	First in county
<i>Bambusa vulgaris</i>	common bamboo	<i>Pauroaspis scirrosis</i>	scirrosis pit scale	Hannah Topel, Grayson Grume	New Continental USA Record
<i>Bambusa vulgaris</i>	bamboo	<i>Pauroaspis scirrosis</i>	scirrosis pit scale	Erin Powell	First in county
<i>Brassica juncea</i>	organic mustard greens	<i>Autographa californica</i>	alfalfa looper	Alexis Thompson	Regulatory significance
<i>Buxus vahlii</i>	Vahl's boxwood	<i>Aphis aurantii</i>	black citrus aphid	Susan Halbert, Erin Powell	New Florida host record
<i>Camellia japonica</i>	common camellia	<i>Fiorinia proboscidea</i>	snout scale	Riccardo Tordi	New Florida host record
<i>Capsicum annuum</i>	serrano pepper	<i>Bactericera cockerelli</i>	potato psyllid	Alexis Thompson, Logan Cutts	Regulatory significance
<i>Capsicum annuum</i>	poblano pepper	<i>Bactericera cockerelli</i>	potato psyllid	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Cercis canadensis</i>	eastern redbud	<i>Adaina ambrosiae</i>	ragweed plume moth	Logan Cutts	First in county
<i>Cercis canadensis</i>	eastern redbud	<i>Flatormenis proxima</i>	a flatid planthopper	Logan Cutts	First in county
<i>Cichorium endivia</i>	escarole	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Cinnamomum verum</i>	cinnamon	<i>Lindingaspis floridana</i>	floridana scale	Mary Graham	New Florida host record
<i>Cinnamomum verum</i>	cinnamon	<i>Parlatoria proteus</i>	proteus scale	Mary Graham	New Florida host record
<i>Cnidoscolus aconitifolius</i>	spinach tree, chaya, copapayo, chichicaste	<i>Paraleyrodes pseudonaranjiae</i>	a whitefly	Jennifer McKeever	New Florida host record
<i>Coccoloba uvifera</i>	seagrape	<i>Neoclytus senilis</i>	a longhorn beetle	Jamie Deshazo	First in county
<i>Cocos nucifera</i>	coconut	<i>Fiorinia phantasma</i>	phantasma scale	Stefan Hartz	First in county
<i>Cupaniopsis anacardioides</i>	carrotwood tree	<i>Bactrocera dorsalis</i>	oriental fruit fly	Thomas Wilson	Regulatory significance
<i>Diospyros digyna</i>	black sapote	<i>Coccus hesperidum</i>	brown soft scale	Brandon Di Lella and K-9 Berta	New Florida host record
<i>Dracaena sanderiana</i>	Belgian evergreen, lucky bamboo	<i>Lepidosaphes chinensis</i>	an armored scale	Caroline Pride	New Florida host record, Regulatory significance
<i>Emilia sonchifolia</i>	lilac tasselflower	<i>Phenacoccus madeirensis</i>	Madeira mealybug	Mark Zenoble	New Florida host record



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Emilia sonchifolia</i>	lilac tasselflower	<i>Planchonia stentae</i>	euphorbia pit scale	Mark Zenoble	New Florida host record
<i>Eriobotrya japonica</i>	loquat	<i>Spodoptera pulchella</i>	Caribbean armyworm	Jason Rivera	First in county
<i>Eucalyptus</i> sp.	eucalyptus	<i>Ctenarytaina</i> sp.	a psyllid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Eucalyptus</i> sp.	eucalyptus	<i>Ctenarytaina spatulata</i>	rose gum aphid	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Eustachys distichophylla</i>	weeping fingergrass	<i>Dysmicoccus brevipes</i>	pineapple mealybug	Zachary Lahey	New Florida host record
<i>Eustachys</i> sp.	fingergrass	<i>Dysmicoccus brevipes</i>	pineapple mealybug	Ethan Gamble	New Florida host record
<i>Fragaria x ananassa</i>	strawberry	<i>Amphorophora</i> sp.	a berry aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Fragaria x ananassa</i>	garden strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Jakira Davis	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Lygus hesperus</i>	a western lygus bug	Justin Anto	Regulatory significance
<i>Guilandina bonduc</i>	gray nicker	<i>Pinnaspis strachani</i>	lesser snow scale	Donald Bracey	New Florida host record
<i>Hedera helix</i>	english ivy	<i>Phyciodes tharos</i>	pearl crescent	Logan Cutts	First in county
<i>Ilex opaca</i>	American holly	<i>Lepidosaphes beckii</i>	purple scale	Riccardo Tordi	New Florida host record
<i>Ilex opaca</i>	American holly	<i>Oceanaspidiotus spinosus</i>	spinose scale	Riccardo Tordi	New Florida host record
<i>Inga</i> sp.	ice cream bean	<i>Planococcus citri</i>	citrus mealybug	Christopher Taylor	New Florida host record
<i>Lactuca sativa</i>	lettuce	<i>Acyrtosiphon malvae</i>	an aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Caliothrips fasciatus</i>	bean thrips	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	a leafhopper	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Ceratagallia californica</i>	a leafhopper	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	a leafhopper	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia lobata</i>	a leafhopper	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Ceratagallia lobata</i>	a leafhopper	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia</i> sp.	a cicadellid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia</i> sp.	a cicadellid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Circulifer tenellus</i>	beet leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Coniatus splendulus</i>	a weevil	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Creontiades</i> sp.	a mirid plant bug	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Empoasca mexara</i>	Mexican leafhopper	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Eucarazzia elegans</i>	mediterranean mint aphid	Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus elisus</i>	pale legume bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	Romaine hearts	<i>Lygus elisus</i>	pale legume bug	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus hesperus</i>	a western lygus bug	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus hesperus</i>	a western lygus bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus hesperus</i>	a western lygus bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Megalopsallus sparsus</i>	a plant bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	red leaf lettuce	<i>Megalopsallus sparsus</i>	a mirid plant bug	Logan Cutts, Alexis Thompson	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Monoxia</i> sp.	a leaf beetle	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Monoxia</i> sp.	a leaf skeletonizing beetle	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	Artisan lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Dyrana Russell, Alexis Thompson, Twylah Morelli, Jakira Davis, Justin Anto, Renee Shiska, Logan Cutts	Regulatory significance



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Paula Precanico	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Samuel Smith	Regulatory significance
<i>Lactuca sativa</i>	red leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts, Alexis Thompson	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Alexis Thompson	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	Romaine hearts	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Jennifer Henry	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant lettuce aphid	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce, Romaine lettuce, leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	artisan romaine lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Neohydatothrips gracilipes</i>	a thrips	Dyrana Russell and Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Twylah Morelli and Alexis Thompson	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Pronotacantha annulata</i>	a stilt bug	James Anderson	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Pronotacantha annulata</i>	a stilt bug	Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Rhinacloa forticornis</i>	Western plant bug	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Rhopalosiphum nigrum</i>	an aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Sitobion fragariae</i>	blackberry-cereal aphid	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Xyphon triguttatum</i>	a leafhopper	Justin Anto	Regulatory significance
<i>Litchi chinensis</i>	lychee	<i>Lindinagaspis floridana</i>	floridana scale	Grayson Grume, Philayrack Khouasakoun	New Florida host record
<i>Mentha</i> sp.	mint	<i>Listroderes costirostris</i>	a weevil	Logan Cutts	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Logan Cutts, Alexis Thompson	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Musa</i> sp.	banana	<i>Cosmopolites sordidus</i>	a weevil	Lyle Buss	First in county
<i>Musa</i> sp.	banana	<i>Polytus mellerborgii</i>	the little banana weevil	Lyle Buss	First in county
<i>Palmae</i>	palm	<i>Fiorinia phantasma</i>	phantasma scale	Grayson Grume, Kristin Doebelin, Bobbe Rose, Donald Bracey, Cameron Suiters	First in county, regulatory significance
<i>Persea americana</i>	avocado	<i>Acutaspis albopicta</i>	an armored scale	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	Regulatory significance
<i>Persea americana</i>	avocado	<i>Aleruotrachelus anonae</i>	annona whitefly	Ronald Cheshire	First in county, regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Justin Anto, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	an armored scale	Logan Cutts, Alexis Thompson	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Justin Anto, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Justin Anto, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Justin Anto, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Logan Cutts	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Logan Cutts	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Logan Cutts	Regulatory significance
<i>Physalis philadelphica</i>	tomatillo	<i>Bactericera cockerelli</i>	potato psyllid	Justin Anto, Jakira Davis, Renee Shiska	Regulatory significance
<i>Physalis philadelphica</i>	tomatillo	<i>Bactericera cockerelli</i>	potato psyllid	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Pilea microphylla</i>	rockweed, artillery plant	<i>Anaphothrips sudanensis</i>	a thrips	Mark Zenoble	First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Pilea microphylla</i>	rockweed, artillery plant	<i>Arorathrips mexicanus</i>	a thrips	Mark Zenoble	First in county
<i>Pinus</i> sp.	pine tree	<i>Cinara (Schizolachnus) parva</i>	a conifer aphid	Jakira Davis, Dyrana Russell, Logan Cutts, Renee Shiska, Twylah Morelli, Alexis Thompson, Justin Anto	First in county
<i>Pinus</i> sp.	pine tree	<i>Estigmene acrea</i>	saltmarsh caterpillar	Logan Cutts, Sage Cutts	First in county
<i>Pinus</i> sp.	pine tree	<i>Knulliana cincta</i>	a longhorn beetle	Logan Cutts, Sage Cutts	First in county
<i>Pinus</i> sp.	pine tree	<i>Loxa flavicollis</i>	stinkbug	Logan Cutts, Sage Cutts	First in county
<i>Pinus taeda</i>	loblolly pine	<i>Cinara (Schizolachnus) parva</i>	a conifer aphid	Vincent Barrios	First in county
<i>Piper auritum</i>	Vera cruz pepper	<i>Hyalochloria unicolor</i>	a mirid plant bug	Mark Zenoble	New Florida host record
<i>Prunus persica</i>	peach	<i>Hylephila phyleus</i>	fiery skipper	Logan Cutts, Sage Cutts	First in county
<i>Prunus persica</i>	peach	<i>Junonia coenia</i>	common buckeye	Logan Cutts, Sage Cutts	First in county
<i>Pyrus</i> sp.		<i>Acmaeodera tubulus</i>	buprestid beetle	Logan Cutts, Sage Cutts	First in County
<i>Pyrus</i> sp.		<i>Althos obscurator</i>	coreid bug	Logan Cutts, Sage Cutts	First in County
<i>Pyrus</i> sp.		<i>Blapstinus metallicus</i>	tenebrionid beetle	Logan Cutts, Sage Cutts	First in County
<i>Pyrus</i> sp.		<i>Chalcophora georgiana</i>	buprestid beetle	Logan Cutts, Sage Cutts	First in County
<i>Rhododendron</i> sp.	rhododendron	<i>Stephanitis pyrioides</i>	azalea lace bug	Riccardo Tordi	First in county
<i>Rubus</i> sp.	raspberry	<i>Aphis ruborum</i>	permanent blackberry aphid	Justin Anto	Regulatory significance
<i>Senna surattensis</i>	glossy shower	<i>Crypticerya genistae</i>	a scale insect	Hannah Topel	New Florida host record
<i>Serenoa repens</i>	saw palmetto	<i>Fiorinia phantasma</i>	phantasma scale	Kristin Doeblin	First in county, regulatory significance
<i>Sideroxylon salicifolium</i>	willow bastic	<i>Mixorthexia reynei</i>	an ensign scale	Erin Powell	New Continental USA Record, New Florida Host
<i>Smilax smallii</i>	lanceleaf greenbrier	<i>Tetraleurodes mori</i>	mulberry whitefly	Ethan Gamble	New Florida host record
<i>Spinacia oleracea</i>	spinach	<i>Circulifer tenellus</i>	beet leafhopper	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Spinacia oleracea</i>	spinach	<i>Lygus elisus</i>	pale legume bug	Dyrana Russell, Logan Cutts	Regulatory significance
<i>Thalia geniculata</i>	bent alligatorflag	<i>Ischnodemus sallei</i>	a seed bug	Cameron Suiters	First in county
<i>Vaccinium</i> sp.	blueberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Justin Anto	Regulatory significance
<i>Yucca filamentosa</i>	Adam's needle	<i>Pseudaulacaspis cockerelli</i>	magnolia white scale	Ruby Long	New Florida host record
		<i>Agallia deleta</i>	a leafhopper	Chase Groninger	First in county
		<i>Blaptica dubia</i>	dubia roach	Brandon Di Lella and K-9 Berta	Regulatory significance
		<i>Chilocorus cacti</i>	a ladybird beetle	Logan Cutts, Sage Cutts	First in county
		<i>Chionomus quadrispinosus</i>	a delphacid planthopper	Carly Dodgen	First in county
		<i>Cymatodera inornata</i>	a clerid	Scott Weihman	First in county
		<i>Cyrtinus pygmaeus</i>	a longhorn beetle	Logan Cutts, Dyrana Russell, Alexis Thompson, Renee Shiska	First in county
		<i>Dendrocranulus carbonarius</i>	a bark beetle	Douglas Restom-Gaskill	First in county
		<i>Donacia assimilis</i>	a leaf rolling beetle	Logan Cutts, Alexis Thompson, Dyrana Russell, Renee Shiska	First in county
		<i>Drapetes plagiatus</i>	a click beetle	Douglas Restom-Gaskill	First in county
		<i>Eudarcia</i> sp. 9	a meessiid moth	Isabelle Atchia, Carly Dodgen	New Continental USA record
		<i>Forficula auricularia</i>	European earwig	Lisa Tyler	Regulatory significance
		<i>Ischnodemus robustus</i>	a seed bug	Monica Triana	First in county
		<i>Knulliana cincta</i>	a longhorn beetle	Robert Leahy, Sara Furgeson	First in County
		<i>Knulliana cincta</i>	a longhorn beetle	Robert Cahal	First in county
		<i>Mastogenius crenulatus</i>	a metallic woodboring beetle	Douglas Restom-Gaskill	First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
		<i>Melasis pectinicornis</i>	a false click beetle	Alexis Thompson, Logan Cutts, Dyrana Russell, Renee Shiska	First in county
		<i>Microtheca ochroloma</i>	a leaf beetle	Logan Cutts, Sage Cutts	First in county
		<i>Ozophora divaricata</i>	a seed bug	Douglas Restom-Gaskill	First in county
		<i>Ozophora divaricata</i>	a seed bug	Monica Triana	First in county
		<i>Pandeleteius hiliaris</i>	broad-nosed weevil	Logan Cutts	First in county
		<i>Parandrita permixtus</i>	a lined flat bark beetle	Douglas Restom-Gaskill	First in county
		<i>Phoebis sennae</i>	cloudless sulfur	Logan Cutts, Sage Cutts	First in county
		<i>Placosternus difficilis</i>	a longhorn beetle	Scott Weihman	First in county
		<i>Sophonia orientalis</i>	two-spotted leafhopper	Hannah Topel	First in county
		<i>Stenocranus acutus</i>	a delphacid planthopper	Mary Yong Cong	First in county
		<i>Tropidosteptes quericola</i>	a mirid plant bug	Jackson Jablonski	First in county





NEMATOLOGY

Compiled by Denis Gitonga, Ph.D. and Janete A. Brito, Ph.D.

This section analyzes soil and plant samples for nematodes, conducts pest detection surveys and provides diagnoses of plant problems, in addition to completing identification of plant parasitic nematodes involved in regulatory and certification programs. State of Florida statutes and rules mandate the predominant regulatory activities of the section. Analyses of plant and soil samples include those from in-state programs, plant shipments originating in Florida destined for other states and countries, as well as samples intercepted in Florida from outside the United States.

QUARTERLY ACTIVITY REPORT

	JANUARY - MARCH	2026 - YEAR TO DATE
Morphological Identifications	4,184	4,184
Molecular Identifications *	264	264

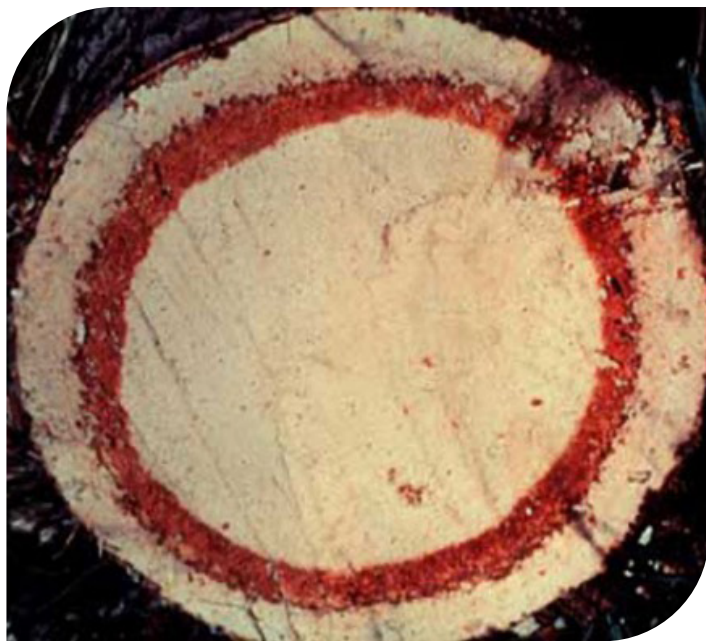
* The majority of these analyses involved root-knot nematode species.

Nematode of Special Interest

1 *Bursaphelenchus cocophilus* (Cobb, 1919) Baujard, 1989, the red ring nematode, is the causal agent of the lethal red ring disease of palms (Palmae). It infects more than 17 species within the family, most notably, the coconut (*Cocos nucifera*) and African oil palm (*Elaeis guineensis*). This nematode species is not currently known to occur in the continental United States, the U.S. Virgin Islands or Hawaii. In the Neotropics however, red ring disease is considered one of the most damaging wilt diseases of commercial palms, responsible for annual losses of 10-15%. Its confirmed distribution includes much of Central and South America and several Caribbean nations, while reports from Barbados, Dominica and Jamaica remain unverified.

Symptoms vary with palm species, age, cultivar and environmental conditions. In coconut palms, early signs include premature nut fall, inflorescence decline, and progressive yellowing and bronzing of leaves, beginning at the pinnae tips and moving inward. Dying leaves often break near the base of the petiole and remain hanging. A transverse stem section reveals a distinct 2-6 cm wide, brick- to brownish-red ring, located just beneath the stem periphery, with similar discoloration possible in petioles and roots (Fig. 1). In African oil palm, symptoms typically begin with premature yellowing and death of older leaves that break at the base of the petiole and hang from the stem. Cross-sections of the petiole show a brown, cream or rose-colored ring that may be irregular or discontinuous.

The nematode is transmitted primarily by the palm weevil, *Rhynchophorus palmarum*. Female weevils internally harbor



1 - Cross section of coconut palm stem showing the classical red ring symptom induced by *Bursaphelenchus cocophilus*.
Photo adapted from Brammer and Crow, 2019



dauer juveniles and introduce them into palms during oviposition, typically at leaf axils or internodes. The nematodes enter these wounds, feed and reproduce within the tissues, ultimately killing the host. A single weevil larva may carry up to 10,000 juveniles, which persist through metamorphosis and concentrate around the adult weevil's genital capsule. Newly emerged adults disperse from infested palms to healthy, stressed or dying palms, completing the disease cycle. In the coconut palm, weevils can also infest damaged coconut husks. Ground coconut husks (coir) are one of the preferred organic substitutes for peat in the ornamental plant industry. With Florida's extensive transportation infrastructure, which includes 16 major airports and 12 active maritime ports, there are numerous potential entry points for contaminated coir and other organic substrates containing the palm weevil (*R. palmarum*) and the red ring nematode (*B. cocophilus*). In addition to *R. palmarum*, other beetles are also known vectors of red ring nematode including *Dynamis borassi* and *Metamasius hemipterus*. Other potential vectors of red ring nematode include the native palmetto weevil, *Rhynchophorus cruentatus* and the southern Asian species, *Rhynchophorus ferrugineus*. The detection of *R. ferrugineus*, in Laguna Beach, California, in 2010 highlights the importance of strict oversight of imported organic materials and supports the implementation of a targeted survey to detect either *B. cocophilus* or its vectors in Florida's palms.

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SAMPLES FOR MOLECULAR ANALYSIS

	JANUARY - MARCH	2026 - YEAR TO DATE
Regulatory Purposes	189	189
Other Purposes	0	0
Identifications	75	75
Surveys	0	0
Total	264	264

SAMPLES FOR MORPHOLOGICAL ANALYSIS

Certifications and Regulatory Purposes

	JANUARY - MARCH	2026 - YEAR TO DATE
Multistate Certification involving California	1,284	1,284
Multistate Certification excluding California Certification	2,763	2,763
Citrus Certification (Citrus Nursery Certification, Site or Pit Approval)	58	58
Total	4,105	4,105

Other Purposes

	JANUARY - MARCH	2026 - YEAR TO DATE
Identification (other organisms)	1	1
Identification (plant-parasitic nematodes)	16	16
Agricultural Interdiction Stations (AIS)	42	42
Plant Problems	14	14
Survey	6	6
Total	79	79





PLANT PATHOLOGY

Compiled by Jodi Hansen, M.S.; Hector Urbina, Ph.D.; Kishore Dey, Ph.D.; Patricia Soria, M.S., Shelby Kernahan, B.S; Claudia Paez, Ph.D.; Vishal Negi, Ph.D. and Taryn Griffith, B.S.

The Plant Pathology section provides plant disease diagnostic services for the department. The agency-wide goal of protecting the flora of Florida very often begins with accurate diagnoses of plant problems. Management recommendations are offered where appropriate and available. Our plant pathologists are dedicated to keeping informed about endemic plant diseases along with those diseases and disorders active outside Florida in order to be prepared for potential introductions of new pathogens to our area.

1 *Cladosporium subuliforme* Bensch, Crous & U. Braun (Cladosporiaceae, Dothidiomycetes), **a new Florida state record**, was isolated from *Citrus reticulata* cv. Shiranui (Rutaceae, Streptophyta). Symptomatic fruit was collected from a grove in Monticello, Jefferson County, Florida. Field observations indicated the fruit had sustained injury from cold temperatures combined with wind scarring. Lesions that developed on peel surfaces exposed to these unfavorable climatic conditions were rapidly colonized by the fungal pathogen *C. subuliforme* (within the *Cladosporium cladosporioides* complex), giving the peel a dark-brown velvety appearance. The fungal identification was performed using morphological characterization and molecular analysis by PCR and Sanger sequencing of the following loci: the internal transcribed spacer (ITS) and large subunit (LSU) of the ribosomal RNA operon, as well as the actin (*act*) and translation elongation factor 1 α (*tef1*) genes. Species of *Cladosporium* are known to cause postharvest diseases in mandarins, particularly in fruit subjected to cold treatment prior to shipment. *Cladosporium* species, especially *C. ramotenellum* (within the *Cladosporium herbarum* complex), are recognized as important postharvest pathogens of citrus, producing superficial, dry, black sooty spots on mandarin rinds that reduce both appearance and marketability. *Cladosporium subuliforme* has previously been reported as a pathogen of *Agave*, *Capsicum*, *Carya*, *Chamaedorea*, *Citrus*, *Eucalyptus*, *Gossypium*, *Passiflora* and *Solanum* in Mexico, Cuba, Brazil, Thailand and South Africa, and its actual distribution is likely broader. Pathogenicity tests conducted on commercial Shiranui fruit from California (using both wounded and unwounded peel) confirmed the fungus was pathogenic only on unwounded fruit; however, the symptoms observed in the field were not reproduced. In Florida, only *C. herbarum*, *C. oxysporum* and *C. ramotenellum* had previously been documented as pathogens of *Citrus* spp. Moreover, *C. subuliforme* has been reported as a potential biocontrol agent of the Asian citrus psyllid, the vector of citrus greening. Based on our literature review and field observations, we hereby establish *Cladosporium subuliforme* as a new Florida state record. (Jefferson County; 01072026-00099; Larry Violet and Ethan Andrews; 7 January 2026.)



1a - *Cladosporium subuliforme* (postharvest disease) progression of symptoms observed on Shiranui fruit. The initial gray deposits were determined to be sand particles that were subsequently colonized by the fungus.
Photo by Hector Urbina, FDACS-DPI



1b - Reproductive structures of *Cladosporium subuliforme*.
Photo by Hector Urbina, FDACS-DPI



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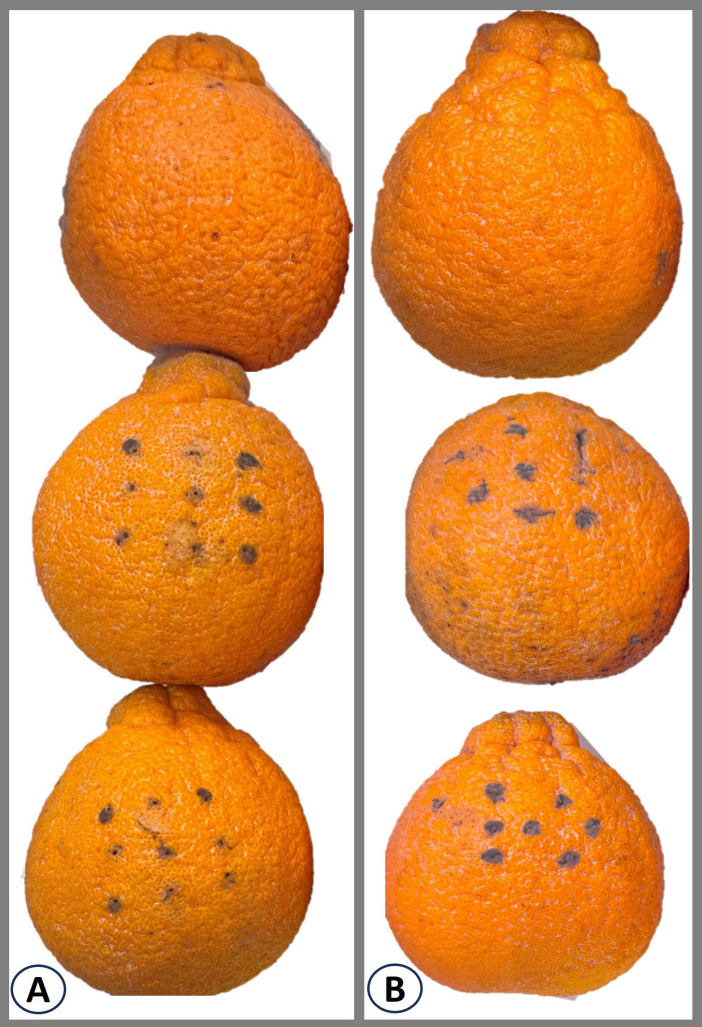
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QUARTERLY ACTIVITY REPORT

	JANUARY - MARCH	2026 - YEAR TO DATE
Citrus black spot	198	198
Citrus canker	71	71
Citrus greening / HLB	12	12
HLB certification for out-of-state shipping	1,405	1,405
Import inspections	8	8
Interdictions	62	62
Palm phytoplasma	3	3
Pathology, General	603	603
Soil	37	37
Totals	2,399	2,399



1c - *Cladosporium subuliforme* pathogenicity test after 16 days of incubation: (A) treatment on wounded fruit and (B) treatment on unwounded fruit. The negative control is the top fruit in both A and B. Photo by Hector Urbina, FDACS-DPI

🔍 PLANT PATHOLOGY IDENTIFICATION TABLE

The following table provides information about samples identified between January - March 2026. The table is organized alphabetically by plant species, with new records listed on the right.

PLANT SPECIES	PLANT COMMON NAME	CAUSAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN #	COUNTY	COLLECTOR	DATE	NEW RECORDS
<i>Citrus reticulata</i> "Shiranui"	Shiranui Mandarin, Shiranui Tangerine	<i>Cladosporium subuliforme</i>	post harvest disease	packing house	P0032-01072026-00099	Jefferson	Ethan Andrews, Larry Violet	1/7/26	Florida host record, Florida record





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