

FDACS-P-00124

January - March 2024

Volume 63, Number 1

A PUBLICATION FROM THE DIVISION OF PLANT INDUSTRY, BUREAU OF ENTOMOLOGY, NEMATOLOGY, AND PLANT PATHOLOGY Division Director, Trevor R. Smith, Ph.D.



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



#### **ENTOMOLOGY**

Identifying arthropods, taxonomic research and curating collections



#### **NEMATOLOGY**

Providing certification programs and diagnoses of plant problems



**PLANT PATHOLOGY** 

Offering plant disease diagnoses and information





#### **ABOUT TRI-OLOGY**

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-OLOGY 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-OLOGY**

Section Editor. Year. Section Name. P.J. Anderson and G.S. Hodges (Editors). TRI-OLOGY Volume (number): page. [Date you accessed site.]

For example: S.E. Halbert. 2015. Entomology Section. P.J. Anderson and G.S. Hodges (Editors). TRI-OLOGY 54(4): 9. [Accessed 5 June 2016.]

Copies of TRI-OLOGY are kept on the FDACS website for two years. To obtain older copies, contact the FDACS-DPI Library at (352) 395-4722 or <a href="mailto:PlantIndustry@FDACS.gov">PlantIndustry@FDACS.gov</a>.

#### **ACKNOWLEDGEMENTS**

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-OLOGY. Please feel free to contact the <u>helpline</u> with your comments at 1-888-397-1517.

Thạnk you,

Gregory Hodges, Ph.D.

Editor

Assistant Director, Division of Plant Industry

Patti<sup>'</sup> J. Anderson, Ph.D. 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.

**₩** E1

**ENTOMOLOGY** 

07

Quarterly activity reports from Entomology and samples reported as new introductions or interceptions.

6 NEMATOLOGY

14

Quarterly activity reports from Nematology and descriptions of nematodes of special interest.

PLANT PATHOLOGY

16

Quarterly activity reports from Plant Pathology and selected identified plant pest and disease samples.

**₽** FROM THE EDITOR

18

Articles of interest that vary in subject matter.

Cover Photo



#### **HIGHLIGHTS**



**Tradescantia fluminensis Vell. (small-leaf spiderwort), a new County record,** is native to tropical South America from southern Brazil to northern Argentina. In Florida, it is introduced across the state and grows in disturbed areas, lawns, vacant lots, moist suburban woods and along streams. Frequently grown as a houseplant or in gardens, it has escaped cultivation in Florida and become naturalized.

**2** Emmelina devriesi (B. Landry & Gielis), a plume moth, a new Continental USA record. Three male moths were collected on a Jackson trap baited with CUE lure. This species is distributed in the Galapagos Islands and in the Caribbean Region.

**3** Paratylenchus roboris Álvarez-Ortega, Subbotin, Wang, Stanley, Vau, Crow & Inserra, 2023 was parasitizing the roots of live oak (Quercus virginiana Mill.) in a commercial nursery in North Florida. **This is a new taxonomic discovery.** This *P. roboris* population, extracted from the live oak rhizosphere, behaved as a sedentary ectoparasite and consisted of vermiform and motile females, males, quiescent juveniles and sedentary swollen females.

4 Pleurostoma richardsiae (Nannf.) Réblová & Jaklitsch (Pleurostomataceae, Sordariomycetes), a new host record, was found on Olea europaea L. (Oleaceae, Lamiales) at a nursery in Volusia County. The plant affected exhibited the following symptoms: wood discoloration, canker on the trunk and decline of canopy health. Pleurostoma richardsiae is a fungal pathogen.



**1 - Tradescantia fluminensis Vell., small-leaf spiderwort, flower.** Photo from Shutterstock



**2 - Emmelina devriesi, a plume moth.** Photo by James Hayden, FDACS-DPI



3 - Paratylenchus roboris. Photo by Silvia Vau, FDACS-DPI



4 - Pleurostoma richardsiae wood discoloration on Olea europaea. Photo by Claudia Paez, FDACS-DPI





#### **BOTANY**

Compiled by Patti J. Anderson, Ph.D. and Alex de la Paz, B.S.

The Botany section of the Division of Plant Industry identifies plants for regulatory purposes as well as for other governmental agencies and private individuals. The section maintains a reference herbarium with over 18,000 plants and 1,400 vials of seeds.

#### QUARTERLY ACTIVITY REPORT

	JANUARY - MARCH	2024 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1,367	1,367
Samples Submitted for Botanical Identification Only	250	250
Total Samples Submitted	1,617	1,617
Specimens Added to the Herbarium	70	70

Some of the samples submitted recently are described below.

Syagrus romanzoffiana (Cham.) Glassman (queen palm), from a genus of 65 tropical and subtropical American species in the plant family Palmae/Arecaceae. This species is the closest relative of the coconut palm (Cocos nucifera) and was previously thought to be in the same genus, with the name Cocos romanzoffiana Cham (1822). This palm has a single, gray stem, ornamented with widely spaced leaf scars and encircled with matted fibers from old leaf bases, to 15 m tall and 15-45 cm in diameter, often swollen at variable points. The leaves have an arching rachis up to 5 m long and are divided into pinnate leaflets. The leaflets are usually dark green, but are somewhat variable in color, and spread into several planes. The 300-500 leaflets are irregularly clustered along the rachis in groups of two to seven and have drooping leaftips. The inflorescence, bearing both male and female flowers, is 1-1.5 m long and is protected by a woody spathe until the white flowers emerge. The yellow to orange edible fruits are oblong to globose and 2-3 cm long. The gueen palm is native to South America from Brazil to Argentina and Bolivia but has been frequently used as an ornamental in tropical and subtropical landscapes. The Florida Invasive Species Council (formerly known as Florida Exotic Pest Plant Council) lists this species as a Category II invasive: exotic plants increasing in abundance in natural areas but without proven disruption of native plant communities. In addition, this palm has been identified by the University of Georgia Center for Invasive Species and Ecosystem Health as an invasive species in California, Florida and Hawaii. In Florida, it has escaped cultivation to become naturalized in at least 15 mainly coastal counties from St. Johns to Broward on the Atlantic coast and from Pasco to Charlotte along the



 1a - Syagrus romanzoffiana, queen palm, foliage and woody spathe protecting immature flowers.
 Photo by Patti Anderson, FDACS-DPI



b - Syagrus romanzoffiana, queen palm, old woody spathes and ripening fruit. Photo by Patti Anderson, FDACS-DPI



Gulf. This sample represents a new county record. (Seminole County; 02262024-01705; Jennifer Hesse; 25 February 2024.) (Henderson et al., 1995; Noblick, 2017; Wunderlin and Hansen, 2011; Syagrus romanzoffiana - Species Page - ISB: Atlas of Florida Plants (usf.edu) [accessed 19 April 2024]; https://powo. science.kew.org/taxon/urn:lsid:ipni.org:names:246966-2 [accessed 19 April 2024].)

Tradescantia fluminensis Vell. (small-leaf spiderwort), from a genus of about 70 species of herbs from the New World, in the plant family Commelinaceae. This species is native to tropical South America from southern Brazil to northern Argentina. In Florida, it has been introduced across the state and grows in disturbed areas, lawns, vacant lots, moist suburban woods and along streams. It is frequently grown as a houseplant or in gardens, but it has escaped cultivation in Florida and become naturalized. It can form dense colonies of plants, completely taking over large areas of groundcover and outcompeting native vegetation for space and nutrients. It is listed as a Category 1 invasive species by the Florida Invasive Species Council (FISC). Plants are perennial herbs with creeping, fleshy stems, rooting at the nodes, with several green, fleshy, lanceolate-elliptic to ovate-lanceolate leaf blades arranged alternately along the stem. Inflorescences are terminal umbel-like pairs of cymes with a few small, white flowers. Each flower is distinctly pedicillate (with a stalk or stem that supports a single flower) and consists of three sepals; three white petals; six stamens, with white filaments densely bearded with white hairs; and a superior, three-locular ovary with one style and one stigma. The fruits are three-locular capsules with two seeds per locule. The genus name Tradescantia was chosen by Linnaeus to honor John Tradescant the Elder (1570-1638) and John Tradescant the Younger (1608-1662), English botanists and successive gardeners to Charles I of England, who introduced many new plants to European gardeners. The specific epithet 'fluminensis' comes from the Latin 'flumen' meaning river, likely a reference to the January River in Brazil, along which this species grows and is native. Tradescantia fluminensis was documented for the first time in Volusia County this quarter. (Volusia County; 02262024-01702; Jennifer Hesse, Deann Hansen, Randi Shreve and Laura Ureta; 24 February 2024.) (Faden, 2000; Weakley and Southeastern Flora Team, 2024; Wunderlin and Hansen, 2011).

#### **REFERENCES**

Faden, R.B. (2000). Tradescantia. In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico [Online]. 22+ vols. New York and Oxford. Vol. 22. http://floranorthamerica.org/Tradescantia [accessed 17 April 2024].

Henderson, A., Galeano, G. and Bernal, R. (1995). Field guide to palms of the Americas. Princeton University Press, Princeton, New Jersey.

Noblick, L.R. (2017). A revision of the genus Syagrus (Arecaceae). *Phytotaxa*. 294: 1–262. DOI: 10.11646/ phytotaxa.294.1.1

Weakley, A.S. and Southeastern Flora Team (2023). 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.



Tradescantia fluminensis, small-leaf spiderwort, infestation. Photo by Shirley Denton, Atlas of Florida Plants



2b - Tradescantia fluminensis, small-leaf spiderwort, flowers. Photo by Rob Nykvist, Atlas of Florida Plants



# **Q** BOTANY IDENTIFICATION TABLE

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

COLLECTOR NAME	COLLECTOR 2	LIST NUMBER	RECEIVED DATE	PLANT NAME	COUNTY
Alexander Tasi	Victoria Benjamin	1512	2/22/2024	Ardisia crenata	Okeechobee
Angi Hutcherson		2942	3/29/2024	Wisteria floribunda	Jackson
Caroline Pride	Alexander Tasi	1725	2/29/2024	Cyperus rotundus	Indian River
Caroline Pride	Alexander Tasi	1724	2/29/2024	Lepidium didymum	Indian River
Chase Groninger		2971	3/29/2024	Xanthosoma sagittifolium	Brevard
Christine Podos	Matthew Brodie	2308	3/14/2024	Solanum torvum	Collier
David Brown		930	2/6/2024	Sphagneticola trilobata	Putnam
Gary Webb		1172	2/13/2024	Chromolaena odorata	Pasco
Harry Morrison		2869	3/27/2024	Acalypha arvensis	Lake
Jennifer Hesse		549	1/25/2024	Ageratum conyzoides	Volusia
Jennifer Hesse		2562	3/20/2024	Callisia fragrans	Flagler
Jennifer Hesse		1710	2/27/2024	Callisia repens	Seminole
Jennifer Hesse		1817	2/29/2024	Costus pulverulentus	Volusia
Jennifer Hesse		2564	3/20/2024	Costus pulverulentus	Flagler
Jennifer Hesse		722	2/1/2024	Cycas revoluta	Volusia
Jennifer Hesse		224	1/12/2024	Cyperus involucratus	Volusia
Jennifer Hesse		2072	3/11/2024	Justicia brandegeeana	Volusia
Jennifer Hesse		2558	3/20/2024	Phoenix reclinata	Flagler
Jennifer Hesse	Randi Shreve, Deann	1703	2/27/2024	Selenicereus pteranthus	Volusia
Jennifer Hesse	Hansen, Laura Ureta	276	1/17/2024	Stachytarpheta jamaicensis	Volusia
Jennifer Hesse		1705	2/27/2024	Syagrus romanzoffiana	Seminole
Jennifer Hesse	Randi Shreve, Deann Hansen, Laura Ureta	1702	2/27/2024	Tradescantia fluminensis	Volusia
Jennifer Mckeever	Jesse Krok	2702	3/29/2024	llex vomitoria	Seminole
Jimmy Hernandez		1478	2/21/2024	Pseudosasa japonica	Marion
Lisa Tyler		2916	3/29/2024	Chionanthus virginicus	Duval
Lisa Tyler		2990	3/29/2024	Emilia sonchifolia	Duval
Mark Laurint		1222	2/13/2024	Gibasis pellucida	St. Johns
Mark Zenoble		1613	2/27/2024	Gamochaeta pensylvanica	Broward
Mark Zenoble		2724	3/25/2024	Lepidium didymum	Broward
Mary Graham	Matthew Brodie	1499	2/22/2024	Albizia lebbeck	Hendry
Nora Marquez	Jimmy Hernandez	2454	3/15/2024	Syngonium podophyllum	Marion
Patricia Mcgill		738	2/1/2024	Dalbergia sissoo	Glades
Randi Shreve	Diane Mccoll	1065	2/9/2024	Canna indica	St. Johns
Randi Shreve	Diane Mccoll	1067	2/9/2024	Emilia fosbergii	St. Johns
Randi Shreve	Diane Mccoll	428	1/23/2024	Emilia praetermissa	Volusia
Randi Shreve	Diane Mccoll	1066	2/9/2024	Emilia sonchifolia	St. Johns
Randi Shreve	Diane Mccoll	490	1/25/2024	Musa x paradisiaca	Putnam
Randi Shreve	Diane Mccoll	1063	2/9/2024	Syngonium podophyllum	St. Johns
Samuel Smith	Caroline Pride, Alexander Tasi	1884	3/6/2024	Eugenia uniflora	Indian River
Scott Kreuger		40	1/5/2024	Melilotus indicus	Collier
Vincent Barrios		2457	3/15/2024	Wisteria sinensis	Dixie
Vincent Barrios		2527	3/19/2024	Wisteria sinensis	Gilchrist



6



#### **ENTOMOLOGY**

Compiled by Susan E. Halbert, Ph.D.

The Entomology Section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. This 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	2024 - YEAR TO DATE
Samples Submitted	1,487	1,487
Lots Identified	2,401	2,401

Psyllaephagus sp., an encyrtid wasp, a new Western **Hemisphere record.** A series of parasitoid wasps were reared from *Boreioglycaspis melaleucae* (Moore) (Hemiptera: Psyllidae) on Melaleuca quinquenervia (Cav.) S.T. Blake in St. Lucie County. Boreioglycaspis melaleucae was introduced as a biological control agent to control M. quinquenervia, but this parasitoid did not match any of the Psyllaephagus species known from North America. Because M. quinquenervia and B. melaleucae are both introduced from Australia, a study was conducted with Australian collaborators at Commonwealth Scientific and Industrial Research Organisation in Brisbane and the University of Adelaide to determine if the parasitoid is also an introduced species. Morphological and molecular data matched the Florida specimens to a *Psyllaephagus* species reared from B. melaleucae in Australia. This study determined it is a new species to science and its description is underway. (St. Lucie County; E2803-01-04142023-03806; Matthew Hentz, USDA, ARS; 8 April 2023).

**2** Emmelina devriesi (B. Landry & Gielis), a plume moth, a new Continental USA record. Three male moths were collected on a Jackson trap baited with CUE lure. Dissection of the diagnostic male genitalia was necessary for identification. This species is distributed in the Galapagos Islands and in the Caribbean Region (Gielis, 2011). Congeners are associated with Convolvulaceae (morning glory family) as larvae, feeding on leaf shoots, flower buds and young foliage. Larvae of *E. devriesi* are specifically reported to feed on species of *Ipomoea* and *Merremia*, and are not known to be pests of *Ipomoea batatas* (sweet potato). (Broward County; E0324-01-01262024-00638; Liliana Jerez; 23 January 2024.) (Dr. James E. Hayden and Dr. Deborah Matthews, University of Florida.)



1 - Psyllaephagus sp., an encyrtid wasp. Photo by Jonathan Bremer, FDACS-DPI



**2 - Emmelina devriesi, a plume moth.** Photo by James Hayden, FDACS-DPI

**3** Saccharosydne viridis Muir, a delphacid planthopper, a new Continental USA record. A single male specimen was collected in a short suction trap in Immokalee. This species is known from Guyana and Venezuela. It is not known to be a pest, but it is in the same genus as a common Neotropical pest of sugarcane occurring in Florida. (Collier County; E6278-01-11172023-11897; Monica Triana, University of Florida, IFAS, Southwest Florida Research and Education Center; 30 October 2023.) (Dr. Susan E. Halbert and Dr. Charles Bartlett, University of Delaware.)

Agonoscelis puberula Stål, African cluster bug, a new Florida State record. This species is originally from Africa. It is adventive in Mexico, several states in the western United States and in some Caribbean islands. The common host in the west is Marrubium, horehound, but apparently it will also colonize other plants in the mint family such as Leonotis, the host in Florida. So far, African cluster bug has not become a serious pest. (Orange County; E0152-01-01162024-00289; Shawn Kelly and Rachel Weavers, both University of Central Florida; 9 January 2024.) (Dr. Susan E. Halbert; Dr. Joseph E. Eger, FSCA Research Associate; and Sandor 'Shawn' Kelly and Rachel Weavers, University of Central Florida.)



3a - Saccharosydne viridis, a delphacid planthopper, dorsal view. Note the abdomen was removed to process male genitalia for identification. Photo by Susan Halbert, FDACS-DPI



3b - Saccharosydne viridis, a delphacid planthopper, lateral view of head. For comparison with Saccharosydne saccharivora, a pest in Florida sugarcane, see Genus Saccharosydne Kirkaldy, 1907 - Planthoppers of North America (udel.edu). Photo by Susan Halbert, FDACS-DPI



4 - Agonoscelis puberula Stål, African cluster bug, on Leonotis. Photo by Shawn Kelly, University of Central Florida



**Melanaphis donacis** (Passerini), Arundo aphid, a new Florida State record. This is the first Florida record for the Arundo aphid, detected for the first time in the southeastern United States in Georgia in late 2023. Its main host is Arundo (giant reed), but it also will colonize Phragmites and possibly bamboo. Likely native to the Middle East and Central Asia, this species is established in Europe, Africa and the New World, but it has not been reported as a pest. (Levy County; E0206-01-01192024-00406; Samuel Hart; 19 January 2024.) (Dr. Susan E. Halbert and Dr. Karen Harris-Schultz, USDA, Tifton, Georgia.)

Pseudobourletiella spinata (MacGillivray), a new Florida State record. Pseudobourletiella spinata is a species native to North America and is associated with lentic aquatic systems (Christiansen and Bellinger, 1998). The species displays several distinct morphological adaptations to living on the surface of the water, including many long, lateral setae on the dens of the furcula and an atypically wide and flat mucro. Pseudobourletiella spinata is also unique in having a so called "nasal organ" formed by a group of spines on the frons, and in showing strong sexual dimorphism expressed as an anteriorly bent small abdomen bearing hook-like spines. How the spines are used during courtship has not yet been described. The species was originally described from New York State, but it is now known to occur in at least 16 states, three Canadian provinces, Mexico, Europe, China, Korea and Australia (Christiansen and Bellinger, 1998; Bretfeld, 1998; Greenslade, 2018; Yong and Fu, 2000). The Eurasian and Australian populations are thought to represent recent introductions from North America. Among southern states, Pseudobourletiella spinata has been reported from Texas, Louisiana, Kentucky and North Carolina, but this is the first record from Florida. (Broward County; E0030-01-01042024-00059; Mark Zenoble; 4 January 2024.) (Dr. Felipe Soto-Adames.)

#### **REFERENCES**

**Bretfeld, G. (1999).** Symphypleona. In W. Dunger, (Ed.) Synopsis on Palearctic Collembola Volume 2, Abhandlungen der Naturforschenden Gesellschaft zu Görlitz 71: 1-318

Christiansen, K. and Bellinger, P. (1998). The Collembola of North America north of the Rio Grande: a taxonomic analysis. 2<sup>nd</sup> ed. Grinnell College, Grinnell, Iowa.

**Gielis, C. (2011).** Review of the Neotropical species of the family Pterophoridae, part 2: Pterophorinae (Oidaematophorini, Pterophorini) (Lepidoptera). *Zoologische Mededelingen*, 85: 589-824.

**Greenslade, P. (2018).** Why are there so many exotic springtails in Australia? A review. *Soil Organisms* 90: 141-156.

**Yue, Q.-y. and Fu, R.-s. (2000).** New records and new species of fresh water springtails from China (Collembola) Kun Chong xue bao. *Acta Entomologica Sinica* 43: 394-402.



5 - Melanaphis donacis (Passerini) colony on Arundo donax. Photo by Karen Harris-Schultz, USDA, Tifton, Georgia



6a - Pseudobourletiella spinata (MacGillivray), aquatic globular springtail. Male lateral view. Photo by Christian Estevez, University of Florida



6b - Pseudobourletiella spinata (MacGillivray), aquatic globular springtail.

Male dorsal view.

Photo by Christian Estevez, University of Florida

# **Q ENTOMOLOGY SPECIMEN REPORT**

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.

	DI ANT COMMON	A DTUDO DO DO O DELVIDO	A DTUDO DO D		
PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
Acer rubrum	red maple	Paraphlepsius attractus	leafhopper	Alexander Tasi	First in county
Allium sp.	green onion	Myzus sp.	aphid	Chase Groninger	Regulatory significant
Arundo donax	giant reed, Spanish reed, wild cane	Melanaphis donacis	Arundo aphid	Sam Hart	New Florida record
Baccharis halimifolia	salt bush, groundsel bush, sea myrtle, eastern baccharis	Aleurodicus rugioperculatus	rugose spiraling whitefly	Erin Powell, Mark Zenoble	New Florida host record
Bothriochloa bladhii	Australian beardgrass, Australian bluestem, Caucasian bluestem	Balclutha rubrostriata	red streaked leafhopper	Solomon Hendrix, Susan Halbert	First in county
Brassica oleracea	cauliflower	Bactericera cockerelli	potato psyllid	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significant
Calliandra haematocephala	powderpuff	Planococcus minor	mealybug	Mark Zenoble	New Florida host record
Capsicum annuum	bell pepper	Bactericera cockerelli	potato psyllid	Logan Cutts	Regulatory significant
Capsicum annuum	poblano pepper	Prytanes oblongus	seed bug	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significant
Cichorium endivia	endive	Rhinacloa forticornis	Western plant bug	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significant
Cirsium horridulum	purple thistle, horrid thistle	Ochrimnus mimulus	seed bug	Harry Morrison, Nora Marquez, Abby Bartlett, Ayiana Rivera Robles, Mary Sellers	First in county
Coccoloba uvifera	seagrape	Entomobrya citrensis	springtail	Jeanie Frechette, Teresa Ortelli	First in county
Coriandrum sativum	cilantro	Acyrthosiphon malvae	aphid	Renee Shiska	Regulatory significant
Crotalaria incana	rattlelebox, shakeshake	Hyalopsallus diaphanus	Crotalaria bug	Erin Powell, Mark Zenoble	First in county
Cyperus sp.	a sedge	Parlatoria proteus	proteus scale	Keith Zugar	New Florida host record
Cyperus virens	green flatsedge	Kelisia curvata	delphacid planthopper	Solomon Hendrix, Susan Halbert	New Florida host record
Cyperus virens	green flatsedge	Stenocranus lautus	delphacid planthopper	Solomon Hendrix, Susan Halbert	New Florida host record
Dactyloctenium aegyptium	crowfoot grass, Durban crowfoot grass, Egyptian crowfoot grass, Egyptian crabgrass	Tetraneura nigriabdominalis	root aphid	Mark Zenoble	New Florida host record
Dimocarpus longan	longan, dragon eye	Emmelina devriesi	plume moth	Liliana Jerez	New Continental USA record
Diospyros digyna	black sapote	Fiorinia phantasma	phantasma scale	Brandon Di Lella, Diere Hodges, & K-9	New Florida host record
Diospyros virginiana	persimmon	Ceroplastes feltyi	Felty's wax scale	Susan Halbert	New Florida host recor First in county
Eucalyptus sp.	eucalyptus	Ctenarytaina spatulata	rose gum psyllid	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significant
Ficus aurea	Florida strangler fig	Trioza myresae	Ficus aurea psyllid	Mark Zenoble	First in county
Foeniculum vulgare	fennel	Cavariella aegopodii	carrot aphid	Jakira Davis, Justin Anto	Regulatory significant
•	1 .	Thrips hawaiiensis	Hawaiian flower thrips	Leann West, Matthew	First in county
Gardenia jasminoides	gardenia	Timps nawanensis		Miller	
Gardenia jasminoides Gramineae	grass	Sminthurus bivittatus	springtail		First in county

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
lxora sp.	ixora	Petrusa epilepsis	seagrape flatid planthopper	Mark Zenoble, homeowner	New Florida host record
Lactuca sativa	butter leaf lettuce	Empoasca mexara	Mexican leafhopper (in alfalfa)	Logan Cutts	Regulatory significant
Lactuca sativa	green and red leaf lettuce	Nasonovia ribisnigri	currant-lettuce aphid	Chase Groninger	Regulatory significant
Lactuca sativa	romaine hearts	Nasonovia ribisnigri	currant-lettuce aphid	Cheryl Jones, Justin Anto, Jakira Davis, Renee Shiska, Twylah Morelli, Alexia Simos, Diere Hodges, Gregg Farina, Karianne Rivera, Julio Rodriguez, Sherry Steele, Logan Cutts, Dyrana Russell	Regulatory significant
Lactuca sativa	little gem lettuce	Nasonovia ribisnigri	currant-lettuce aphid	Renee Shiska, Logan Cutts	Regulatory significant
Lactuca sativa	red artisan lettuce	Nasonovia ribisnigri	currant-lettuce aphid	Renee Shiska, Logan Cutts	Regulatory significant
Lactuca sativa	sweet gem lettuce	Nasonovia ribisnigri	currant-lettuce aphid	Renee Shiska, Logan Cutts	Regulatory significant
Lactuca sativa	lettuce	Nasonovia ribisnigri	currant-lettuce aphid	Justin Anto, Jakira Davis	Regulatory significant
Lactuca sativa	green leaf lettuce	Rhinacloa forticornis	Western plant bug	Logan Cutts	Regulatory significant
Lavandula sp.	lavender	Eucarazzia elegans	Mediterranean mint aphid	Emily Safran	Regulatory significant
Lavandula sp.	lavender	Eupteryx decemnotata	Ligurian leafhopper	Emily Safran	Regulatory significant
Leonotis nepetifolia	Christmas candlestick, annual lion's tail	Agonoscelis puberula	African cluster bug	Sandor Kelly, Rachel Weavers	New Florida record
Mangifera indica	mango	Acanalonia excavata	acanaloniid planthopper	Matthew Miller	First in county
Mangifera indica	mango	Aleuroplatus vinsonioides	whitefly	Eduardo Solis	New Florida host record
Mangifera indica	mango	Gyponana germari	leafhopper	Jeanie Frechette, Teresa Ortelli	First in county
Melaleuca quinquenervia	melaleuca	Psyllaephagus sp.	psyllid parasite	Matthew Hentz	New Western Hemisphere record
Mentha sp.	mint	Ovatus crataegarius	mint aphid	Caroline Pride, Alexander Tasi	Regulatory significant
Mentha sp.	spearmint	Ovatus crataegarius	mint aphid	Chase Groninger	Regulatory significant
Mentha sp.	sweet mint	Ovatus crataegarius	mint aphid	Chase Groninger	Regulatory significant
Mentha sp.	peppermint	Ovatus crataegarius	mint aphid	Jeanie Frechette, Teresa Ortelli	Regulatory significant
Mentha sp.	peppermint	Ovatus crataegarius	mint aphid	Jeanie Frechette	Regulatory significant
Mentha sp.	spearmint and peppermint	Ovatus crataegarius	mint aphid	Kacie Gmitter	Regulatory significant
Mentha sp.	peppermint	Ovatus crataegarius	mint aphid	Jeanie Frechette	Regulatory significant
Mentha sp.	spearmint	Ovatus crataegarius	mint aphid	Matthew Brodie, Mary Graham	Regulatory significant
Mentha sp.	mint	Ovatus crataegarius	mint aphid	Jeanie Frechette	Regulatory significant
Mentha sp.	mint	Ovatus crataegarius	mint aphid	Jeanie Frechette	Regulatory significant
Mentha sp.	mint	Ovatus crataegarius	mint aphid	Victoria Benjamin	Regulatory significant
Mentha sp.	mint	Seira brasiliana	springtail	Employee	First in county
Mimusops elengi	Spanish cherry, medlar, bulletwood	Ceroplastes stellifer	stellate scale	Mark Zenoble	New Florida host record
mixed vegetation	mixed vegetation	Cumora furcata	leafhopper	Solomon Hendrix	First in county
Myrcianthes fragrans	Simpson's stopper, nakedwood, twinberry	Chilocampyla sp. 1	leafminer	Christopher Grinter, James Hayden	First in county
Ocimum basilicum	sweet basil	Ovatus sp.	mint aphid	Mary Graham	Regulatory significant
Orchidaceae	orchid	Pseudaulacaspis coloisuvae	armored scale	Mark Zenoble	Regulatory significant
Orchidaceae	orchid	Pseudaulacaspis coloisuvae	armored scale	Mark Zenoble	Regulatory significant
Origanum vulgare	oregano	Myzus ornatus	violet aphid	Victoria Benjamin, Alexander Tasi	Regulatory significant
Origanum vulgare	oregano	Myzus ornatus	violet aphid	Chase Groninger	Regulatory significant



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
Origanum vulgare	oregano	Myzus ornatus	violet aphid	Victoria Benjamin	Regulatory significant
Persea americana	avocado	Dagbertus semipictus	mirid plant bug	Mark Zenoble	New Florida host record
Persea americana	avocado	Davidsonaspis aguacatae	Davidson's avocado scale	Dyrana Russell, Jakira Davis, Cheryl Jones, Twylah Morelli, Leticia Miranda Caetano, Matthew Meise, Kiley Epperson, Vishal Negi, Shelby Kernahan, Claudia Paez, James Fulton, Logan Cutts	Regulatory significant
Persea americana	avocado	Davidsonaspis aguacatae	Davidson's avocado scale	Renee Shiska, Dyrana Russell, Logan Cutts	Regulatory significant
Persea americana	avocado	Davidsonaspis aguacatae	Davidson's avocado scale	Twylah Morelli	Regulatory significant
Persea americana	avocado	Davidsonaspis aguacatae	Davidson's avocado scale	Renee Shiska, Alexia Craig, Cheryl Jones, Twylah Morelli, Justin Anto, Jakira Davis, Dyrana Russell, Sherry Steele, Karianne Rivera, Gregg Farina, Brandon Di Lella, Logan Cutts	Regulatory significant
Persea americana	avocado	Davidsonaspis aguacatae	Davidson's avocado scale	Renee Shiska	Regulatory significant
Persea americana	avocado	Paracarniella cubana	mirid plant bug	Mark Zenoble	First in county
Phyla stoechadifolia	southern matchsticks, capeweed, marsh phyla, southern fogfruit	Phenacoccus parvus	lantana mealybug	Mark Zenoble	New Florida host record
Pluchea carolinensis	cure-for-all, cough bush, wild tobacco, sourbush	Pseudophacopteron gumbolimbo	gumbo limbo psyllid	Mark Zenoble	First in county
Podocarpus macrophyllus	Japanese yew	Argyrotaenia amatana	pondapple leafroller	Lyle Buss	New Florida host record
Salvia sp.	salvia	Frankliniella salviae	thrips	Catherine Long	First in county
Salvia sp.	salvia	Frankliniella salviae	thrips	Leann West, Matthew Miller	First in county
Setaria parviflora	yellow bristlegrass	Balclutha lucida	leafhopper	Mark Zenoble	New Florida host record
Setaria parviflora	yellow bristlegrass	Oebalus ypsilongriseus	rice stink bug	Mark Zenoble	New Florida host record
Smilax sp.	smilax	Scirtothrips citri	thrips	Nicole Benda, Alyssa Lucas	First in county
Spinacia oleracea	spinach	Chlorochroa uhleri	Uhler's stink bug	Caleb Poock	Regulatory significant
Sporobolus indicus	smut grass	Paradoxococcus mcdanieli	Johnson grass mealybug	Trudi Deuel	New Florida host record
Sporobolus tenuissimus	tropical dropseed	Balclutha saltuella	leafhopper	Mark Zenoble	New Florida host record
Taraxacum sp.	dandelion	Nasonovia ribisnigri	currant-lettuce aphid	Renee Shiska	Regulatory significant
Terminalia buceras	black olive tree, oxhorn bucida	Enigmogramma basigera	pink-washed looper moth	Liliana Jerez	First in county
Thymus sp.	thyme	Ovatus crataegarius	mint aphid	Matthew Brodie, Mary Graham	Regulatory significant
Triadica sebifera	Chinese tallow tree	Aphis craccivora	cowpea aphid	Maya Frere	New Florida host record
Viburnum rufidulum	rusty blackhaw	Aphis illinoisensis	grapevine aphid	Mark Rothschild	New Florida host record
Wodyetia bifurcata	foxtail palm	Fiorinia phantasma	phantasma scale	Ryan Czaplewski	First in county
		Atractotomus miniatus	mirid plant bug	Jaoan Paravassini	First in county
		Chinaola quercicola	microphysid bug	Robert Leahy, Krystal Ashman	First in county
		Chionomus dissipatus	delphacid planthopper	Douglas Restom-Gaskill	First in county
		Chionomus herkos	delphacid planthopper	Douglas Restom-Gaskill	First in county
		Emblethis sp.	dirt-colored seed bug	Robert Shim	Regulatory significant
		Gyponana germari	leafhopper	Monica Triana	First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
		Gyponana germari	leafhopper	Daniel Wilwerding	First in county
		Halyomorpha halys	brown marmorated stinkbug	Robert Shim	Regulatory significant
		Peritropis saldaeformis	mirid plant bug	Sara Furgeson	First in county
		Philaenus spumerius	meadow spittlebug	Robert Shim	Regulatory significant
		Pissonotus muiri	delphacid planthopper	Mark Zenoble	First in county
		Pseudobourletiella spinata	springtail	Mark Zenoble	New Florida record
		Saccharosydne viridis	delphacid planthopper	Monica Triana	New Continental USA record
		Stethoconus praefectus	lace bug predator	Teresa Ortelli	First in county
		Xanthochilus saturnius	Mediterranean seed bug	Robert Shim	Regulatory significant



#### **NEMATOLOGY**

Compiled by Renato N. Inserra, Ph.D., Sergio Álvarez Ortega, Sergei A. Subbotin, Janie Echols, Silvia Vau, 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	2024 - YEAR TO DATE
Morphological Identifications	2,670	2,670
Molecular Identifications *	63	63

<sup>\*</sup> The majority of these analyses involved root-knot nematode species.

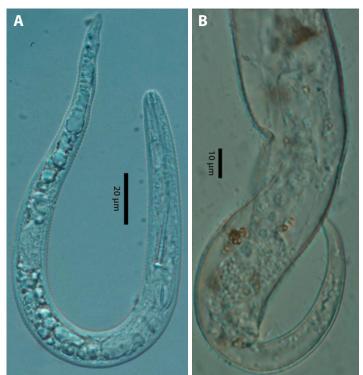
#### **Nematode of Special Interest**

**Paratylenchus roboris** Álvarez-Ortega, Subbotin, Wang, Stanley, Vau, Crow & Inserra, 2023 was parasitizing the roots of live oak (*Quercus virginiana* Mill.) in a commercial nursery in North Florida. **This is a new taxonomic discovery.** (Alachua County; N21-00211; Janie Echols; 24 February 2021.)

A long-term project, still in progress, on pin nematodes associated with cultivated and non-cultivated plants of Florida was initiated in 2019. Accurate identifications of the detected pin nematodes were provided by combining the findings of morphological analysis with those of the molecular character analysis of the examined species (Álvarez Ortega et al., 2023). The species identified included *Paratylenchus* acti Eroshenko, 1978, parasitizing broomsedge (Andropogon virginicus L.); P. aquaticus Merny, 1966, parasitizing St. Augustine grass, (Stenotaphrum secundatum (Walter)Kuntze); P. minutus Linford in Linford, Oliveira & Ishii, 1949, parasitizing daylily (Hemerocallis sp.) and P. straeleni (De Coninck, 1931) Oostenbrink, 1960 associated with live oak (Quercus virginiana Mill.). In this study, an additional population, extracted from the live oak rhizosphere was described as a new species and named P. roboris. This population behaved as a sedentary ectoparasite and consisted of vermiform and motile females, males, guiescent juveniles and sedentary swollen females. Vermiform females had a body curved ventrad and a stylet 65 µm long. These females were extracted from soil with males and juveniles. Obese and egg-lying females, attached permanently to the roots by the stylet, were dislodged using water sprays. The anterior portion of the body of the obese females was lemon shaped, and the posterior portion after the vulva was narrow and projecting like an opened sickle. Third and fourth stage juveniles were coiled, non-feeding and without a discernable stylet. These resistant stages



**1a - Quercus virginiana Mill., live oak tree.**Photo by Bob Upcavage, Atlas of Florida Plants



1b - Paratylenchus roboris. A. Entire body of vermiform female; B. Posterior body of obese female. Note the terminal portion of the body projecting like an open sickle. Photo by Silvia Vau, FDACS-DPI



persisted in the soil before molting into adults under favorable environmental conditions. The impact of the infestations of this pin nematode on oak growth has not been assessed. The discovery of this species enriches our knowledge of pin nematode biodiversity in Florida landscapes.

#### **REFERENCES**

Álvarez-Ortega, S., Subbotin, S.A., Wang, K.-H., Stanley, J.D., Vau, S., Crow, W.T. and Inserra, R.N. (2023). Morphological and molecular diversity among pin nematodes of the genus *Paratylenchus* (Nematoda: Paratylenchidae) from Florida and other localities and molecular phylogeny of the genus. *Plants* 12: 2770. <a href="https://doi.org/10.3390/plants12152770">https://doi.org/10.3390/plants12152770</a>

# SAMPLES FOR MORPHOLOGICAL ANALYSIS Certifications and Regulatory Purposes

	JANUARY - MARCH	2024 - YEAR TO DATE
Multistate Certification involving California	974	974
Multistate Certification excluding California Certification	1,580	1,580
Citrus Certification (Citrus Nursery Certification, Site or Pit Approval)	32	32
Total	2,586	2,586

#### **Other Purposes**

	JANUARY - MARCH	2024 - YEAR TO DATE
Identification (other organisms)	0	0
Interdiction Station (AIS)	24	24
Plant Problems	18	18
Survey	42	42
Total	84	84

#### SAMPLES FOR MOLECULAR ANALYSIS

	JANUARY - MARCH	2024 - YEAR TO DATE
Regulatory Purposes	15	15
Other Purposes	0	0
Identifications	48	48
Surveys	0	0
Total	63	63

### PLANT PATHOLOGY

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

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.

Pleurostoma richardsiae (Nannf.) Réblová & Jaklitsch (Pleurostomataceae, Sordariomycetes), a new host **record**, was found on *Olea europaea* L. (Oleaceae, Lamiales) at a nursery in Volusia County. The affected plant exhibited the following symptoms: wood discoloration, canker on the trunk and decline of canopy health. Pleurostoma richardsiae is a fungal pathogen, previously identified as a causal agent of trunk and branch canker in olives trees, reported in California and several countries including Brazil, Croatia and Italy (Lawrence et al., 2021; Canale et al., 2019; Carlucci et al., 2013; Ivic et al., 2018). Mechanized planting and pruning may significantly influence the emergence and epidemiology of this fungal disease (Lawrence et al., 2021). Under favorable environmental conditions, these practices create wounds facilitating the entry of fungal pathogens. This is the first time Pleurostoma richardsiae has been isolated from canker lesions on Olea europaea in Florida. (Volusia County; 02082024-1091; Ray Jarrett and Kenneth Ellis; 11 March 2024.)

#### **REFERENCES**

Canale, M.C., Nesi, C.N., Falkenbach, B.R., Da Silva, C.A.H. and Brugnara, E.C. (2019). Pleurostomophora richardsiae associated with olive tree and grapevine decline in southern Brazil. Phytopathologia Mediterranea 58: 201–206.

Carlucci, A., Raimondo, M.L., Cibelli, F., Phillips, A.J.L. and Lops, F. (2013). Pleurostomophora richardsiae, Neofusicoccum parvum and Phaeoacremonium aleophilum associated with a decline of olives in southern Italy. Phytopathologia Mediterranea. 52: 517-527.

Ivic, D., Tomic, Z. and Godena, S. (2018). First report of Pleurostomophora richardsiae causing branch dieback and collar rot of olive in Istria, Croatia. Plant Disease, 102: 2648-2648.

Lawrence, D.P., Nouri, M.T. and Trouillas, F.P. (2021). Pleurostoma decline of olive trees caused by Pleurostoma richardsiae in California. Plant Disease, 105: 2149-2159.



Pleurostoma richardsiae canker symptoms on Olea europaea. Photo by Kenneth Ellis, FDACS-DPI

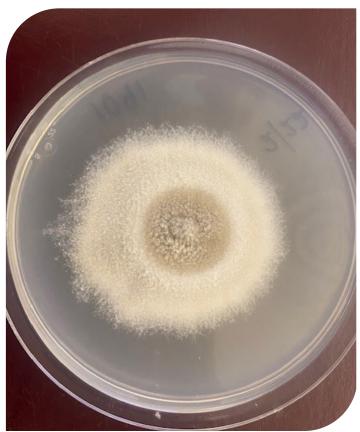


1b - Pleurostoma richardsiae wood discoloration on Olea europaea. Photo by Claudia Paez, FDACS-DPI



## **QUARTERLY ACTIVITY REPORT**

	JANUARY - MARCH	2024 - YEAR TO DATE
Citrus black spot	248	248
Citrus canker	114	114
Citrus greening / HLB	19	19
HLB certification for out-of- state shipping	1,096	1,096
Import inspections	7	7
Interdictions	25	25
Palm phytoplasma	4	4
Pathology, General	1,076	1,076
Soil	31	31
Totals	2,620	2,620



1c - Pleurostoma richardsiae culture on APDA (Acidified Potato Dextrose Agar).
Photo by Claudia Paez, FDACS-DPI

# **Q PLANT PATHOLOGY IDENTIFICATION TABLE**

The following table provides information about samples identified between January-March 2024. 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 NUMBER	COUNTY	COLLECTOR	DATE	NEW RECORDS
Farfugium japonicum	leopard plant	Alternaria cinerariae	leaf spot	nursery	P0471- 02162024- 01416	Alachua	Paola Ramos Perez	2/16/24	state
Olea europaea	olive	Xenoacremonium falcatum	wood decomposer	nursery	P0362-02- 02082024- 01089	Volusia	Kenneth Ellis, Ray Jarrett	2/6/24	state
Olea europaea	olive	Pleurostoma richardsiae	canker	nursery	PO363- 02082024- 01091	Volusia	Kenneth Ellis, Ray Jarrett	2/6/24	host



#### FROM THE EDITOR

By Patti Anderson

#### Lost and Found: one endangered plant

Sabal miamiensis Zona is a palm species found only in pinelands of Miami-Dade County from the time it was first described as a species and given a name, it has been at risk of extinction. Since the species has not been collected from the wild in over 30 years, it was presumed to be lost, except for individuals protected for conservation in botanical gardens and the nursery trade. This year, a new discovery of this palm was published. A small population in the wild appeared healthy and included plants of varying ages, offering hope for the survival of this rare species, although habitat loss to development in South Florida limits possible future expansion of this lone population.

This palm, found in South Florida pinelands on limestone soil, was thought to be S. etonia (scrub palmetto) or a hybrid of S. etonia and S. palmetto (cabbage palm), but it occurs outside the range of *S. etonia* (scrub lands found on the Lake Wales and Atlantic Coast Ridges), making hybridization less likely. Sabal miamiensis differs from S. palmetto, which does grow in South Florida, by having an underground stem and much larger fruit than either of the two other species. Although S. etonia also has an underground stem, the Miami palmetto has flowers in clusters (inflorescences) branching three times, whereas the scrub palmetto inflorescences branch only twice. Of course, plant morphology, habitats and distributions can change over long time periods making an ancient hybridization event possible; however, the isolation of this species and the consistency of its characteristics indicate it is a well-defined species and deserves protection. Because this species was thought to be extinct before it could be listed as endangered, it has never been listed as a regulated plant by the state. To remedy this neglect, the Endangered Plant Advisory Council will include consideration of this species for listing as endangered at its next meeting in October 2024. (Griffith, et al., 2021; Tucker, et al., 2024; Zona, 1985.)

#### **REFERENCES**

**Griffith, M.P., Meyer A. and Grinage, A. (2021).** Global ex situ conservation of palms: living treasures for research and education. *Frontiers in Forests and Global Change* 4: 711414.

Tucker, D.A., Noblick, L.R. and Joyner, T. (2024) Sabal miamiensis: not extinct in the Wild. Palms 68: 11-13.
 Zona, S. (1985). A new species of Sabal (Palmae) from Florida. Brittonia 37: 366–368.



1a - Sabal miamiensis, Miami palmetto, herbarium specimen Photo from Atlas of Florida Plants



Ib - Sabal miamiensis, Miami palmetto, leaf and fruit Photo from wikipedia





FDACS.gov/TRI-OLOGY

1-888-397-1517

Florida Department of Agriculture and Consumer Services
Division of Plant Industry
1911 SW 34th St.
Gainesville, FL 32608-1201