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TRI-OLOGY

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



BOTANY

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
management recommendations



Erythemis simplicicollis, Eastern Pondhawk
Photo Credit: Jeffrey Weston Lotz, DPI



Florida Department of Agriculture and Consumer Services • Adam H. Putnam, Commissioner



Erythemis simplicicollis, Eastern Pondhawk
Photo Credit: Jeffrey Weston Lotz, DPI

ABOUT TRI-OLGY

The Florida Department of Agriculture and Consumer Services Division of Plant Industry's Bureau of Entomology, Nematology and Plant Pathology (ENPP), (including the Botany Section), produces TRI-OLGY 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-OLGY

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

For example: S.E. Halbert. 2015. Entomology Section. P.J. Anderson and G.S Hodges (Editors). TRI-OLGY 54(4): 9. [Accessed June 5, 2016.] Copies of TRI-OLGY are kept on the FDACS website for two years. To obtain older copies, contact the FDACS/DPI Library at (352) 395-4722.

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

Thank you,

Dr. Gregory Hodges, Editor
Assistant Director
Division of Plant Industry

Dr. Patti J. Anderson, Managing Editor
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HIGHLIGHTS



1 *Phorodon cannabis*, hemp aphid, a new Western Hemisphere record. This specimen was found in Colorado. The species is widespread in the Old World, where it is a pest of hemp. In the Western Hemisphere, these aphids have been found only in Colorado and only on industrial hemp.



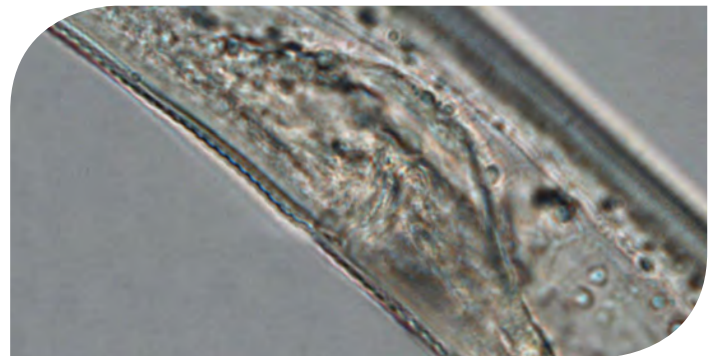
1 - *Phorodon cannabis*, hemp aphid
Photograph courtesy of Dr. Whitney S. Cranshaw, Colorado State University

2 *Koelreuteria elegans* (Seem.)A.C.Sm. subsp. *formosana* (Hayata)F.G.Mey. (flamegold, golden raintree), produces large, loose, upright panicles of small, bright yellow flowers during late summer into fall, when no other trees are blooming. The flowers are followed by papery, three-valved capsules that turn pink before maturity and are almost as showy as the flowers. Because of its late season interest, this is a popular ornamental although it has the potential to become invasive. It is listed by the Florida Exotic Pest Plant Council (FLEPPC) as a Category II invasive species.



2 - *Koelreuteria elegans* subsp. *formosana* (golden raintree) fruit
Photograph courtesy of Dennis Girard, [Atlas of Florida Plants](#)

3 *Scutellonema cavenessi* Sher, 1964 a spiral nematode, was detected in the roots of the ornamental, *Sansevieria* sp., (bowstring hemp). Recent morphological and molecular studies of these spiral nematodes indicated that they are *S. cavenessi*, a spiral nematode new to Florida (Van den Berg *et al.* 2017). The phylogenetic analysis indicates that the Florida populations of *S. cavenessi* are closely related genetically to a population of a *Scutellonema* sp. from Burkina Faso (West Africa), where many *Scutellonema* species are indigenous.



3 - *Scutellonema cavenessi* female.
Photograph courtesy of Jason D. Stanley, DPI

4 *Ralstonia solanacearum* (bacterial wilt) was detected for the first time in Florida on *Vaccinium corymbosum* (high bush blueberry). Late in 2016, Florida Department of Agriculture and Consumer Services Division of Plant Industry (FDACS-DPI) Gainesville began cooperating with University of Florida scientists regarding a new disease of southern highbush blueberries, bacterial wilt, caused by *Ralstonia solanacearum*. The first identifications of this bacterium were made on 'Arcadia' blueberries.



4 - 'Arcadia' blueberries (*Vaccinium corymbosum*) dying from stem blight and bacterial wilt
Photograph courtesy of Philip Harmon, [UF/IFAS](#)





BOTANY

Compiled by Patti J. Anderson, Ph.D.

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 over 12,000 plants and 1,400 vials of seeds.

QUARTERLY ACTIVITY REPORT

	OCTOBER - DECEMBER	YEAR TO DATE
Samples submitted by other DPI sections	1,041	5,239
Samples submitted for botanical identification only	110	546
Total samples submitted	1,321	5,785
Specimens added to the Herbarium	25	502



1 - *Koelreuteria elegans* subsp. *formosana* (golden raintree) in landscape
Photograph courtesy of Mark Stebbins, [Atlas of Florida Plants](#)

Some of the samples received for identification are discussed below:

1 *Koelreuteria elegans* (Seem.) A.C.Sm. subsp. *formosana* (Hayata) F.G.Mey. (flamegold, golden raintree), from a genus of four species native to Korea and throughout eastern Asia. Sapindaceae. This native of Taiwan and Fiji is the least hardy of the species of golden raintrees. In the United States, it is suitable as an ornamental only in peninsular Florida and the warmer sections of Texas, Arizona and California. When mature, it forms a somewhat irregularly-shaped, evergreen tree about 10-12 m tall. The large alternate leaves are bipinnately compound, with lanceolate to narrowly elliptic leaflets that are 5-8 cm long, acuminate at the apex and uneven at the base, with serrate margins. Large, loose, upright panicles of small, bright yellow flowers are borne during late summer into fall, when no other trees are blooming. The flowers are followed by papery, three-valved capsules that turn pink before maturity and are almost as showy as the flowers. Because of its late season interest, this is a popular ornamental although it often produces large numbers of spontaneous seedlings and has the potential to become invasive. It is listed by the Florida Exotic Pest Plant Council (FLEPPC) as a Category II invasive species (that is, having increased numbers, but not yet disrupting Florida's native plant communities) in South and Central Florida. This species has been documented in Broward, Marion, Orange, Pasco, Pinellas, Putnam, Seminole, St. Lucie and Volusia counties. These collections are the first reports of the species for three new counties. (Sumter County; B2016-473; Hernando County; B2016-474; Lake County; B2016-475; Daniel Merced, Gary R. Webb, and Karen R. Destefano; 31 October 2016.) (Dirr 1990; Mabberley 2008; Wunderlin and Hansen. 2011; http://keyserver.lucidcentral.org/weeds/data/media/Html/koelreuteria_elegans_subsp._formosana.htm [accessed 10 January 2017]; <http://www.fleppc.org/list/2015FLEPPCLIST-TRIFOLDFINAL04-14-15-LINKED.pdf> [accessed 10 January 2017].



1 - *Koelreuteria elegans* subsp. *formosana* (golden raintree) fruit
Photograph courtesy of Dennis Girard, [Atlas of Florida Plants](#)



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Dirr, M.A. 1990. Manual of woody landscape plants, 4th edition. Stipes Publishing Company, Champaign, Illinois. 1,007 p.

Mabberley, D.J. 2008. Mabberley's plant-book: a portable dictionary of plants, their classification and uses, 3rd edition. Cambridge University Press, New York, New York. 1,021 p.

Wunderlin, R. P. and B. F. Hansen. 2011. Guide to the vascular plants of Florida, 3rd edition. University Press of Florida, Gainesville, Florida. 783 p.

BOTANY IDENTIFICATION TABLE

The following table provides information about **new** records submitted in the current volume's time period. The table is organized alphabetically by collector name. The full version with more complete data is downloadable as a [PDF](#) or [Excel](#) spreadsheet.

NEW RECORD	COLLECTOR 1	COLLECTOR 2	COUNTY	SAMPLE NUMBER	COLLECTION DATE	GENUS	SPECIES
	Anthony Gubler		Brevard	B2016-441	10/3/2016	<i>Cupaniopsis</i>	<i>anacardioides</i> (A. Rich.) Radlk.
	Anthony Gubler		Brevard	B2016-442	10/3/2016	<i>Livistona</i>	<i>chinensis</i> (Jacq.) R. Br. ex Mart.
	Daniel Merced	Gary Webb, Karen Destefano	Sumter	B2016-473	10/31/2016	<i>Koelreuteria</i>	<i>elegans</i> (Seem.) A.C. Sm. ssp. <i>formosana</i> (Hayata) F.G. Mey.
	Daniel Merced	Gary Webb, Karen Destefano	Hernando	B2016-474	10/31/2016	<i>Koelreuteria</i>	<i>elegans</i> (Seem.) A.C. Sm. ssp. <i>formosana</i> (Hayata) F.G. Mey.
	Daniel Merced	Gary Webb, Karen Destefano	Lake	B2016-475	10/31/2016	<i>Koelreuteria</i>	<i>elegans</i> (Seem.) A.C. Sm. ssp. <i>formosana</i> (Hayata) F.G. Mey.
	Nora Marquez		Hernando	B2016-495	11/16/2016	<i>Colocasia</i>	<i>esculenta</i> (L.) Schott
	Sol F. Looker		Clay	B2016-541	12/29/2016	<i>Ligustrum</i>	<i>sinense</i> Lour.





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 (FSCA) with over nine million specimens) and investigates the biology, biological control and taxonomy of arthropods.

QUARTERLY ACTIVITY REPORT

OCTOBER - DECEMBER

Samples submitted	1,263
Lots identified	1,998
Specimens identified	43,406

YEAR TO DATE

Samples submitted	5,943
Lots identified	8,950
Specimens identified	109,385



1 - *Phorodon cannabis* (hemp aphids)

Photograph courtesy of Whitney S. Cranshaw, Colorado State University

1 *Phorodon cannabis*, hemp aphid, a new Western Hemisphere record. This species is widespread in the Old World, occurring in Europe, Asia, and northern Africa, where it is a pest of hemp. It is reported to transmit Cannabis Streak Virus, with an unknown transmission mechanism (Kennedy *et al.* 1962). So far, these aphids have been found only in Colorado and only on industrial hemp. (Weld County, Colorado; E2016-5402; Whitney S. Cranshaw, Colorado State University; 21 September 2016.) (Dr. Susan E. Halbert and Dr. Whitney S. Cranshaw, Colorado State University.)



2 - *Aclerda takahashii* on a biomass cultivar of *Saccharum*

Photograph courtesy of Susan E. Halbert

2 *Aclerda takahashii*, a scale, a new Continental USA record. This species was described from Taiwan and is known previously from Asia, Egypt, Brazil and Haiti. It is a pest of *Saccharum*. (Hamilton County; E2016-4461; Mary Jane Echols; 16 September 2016.) (Dr. Ian C. Stocks and Dr. Susan E. Halbert.)

3 *Erechthias* sp., a scavenger moth, a new Continental USA record. Two other species of *Erechthias* Meyrick (Tineidae) are established in Florida, the tramp species *E. minuscula* (Walsingham) and *E. zebrina* (Butler). Nearly 160 species of *Erechthias* are described, so identification to species level will be difficult. *Erechthias* larvae are general scavengers in vegetable detritus and have no economic significance. The apex of the forewing is turned up at a right angle. This species is distinguished from *E. minuscula* by its gray and black color and from *E. zebrina* by the broad black stripe in the middle of the forewing, whereas *E. zebrina* has smaller black spots along the costa and discal cell. The male valvae are shaped differently. The specimens are bycatch in traps of a USDA APHIS pilot survey for avocado seed moth. An older specimen in the Florida State Collection of Arthropods, by-catch in a CAPS *Spodoptera* trap, was re-identified as this same species (E2007-9018-1). The new *Erechthias* species could be locally abundant, as it has turned up in traps from the same survey in Homestead (E2016-5026). (Miami-Dade County; E2016-



3 - *Erechthias* sp., a scavenger moth

Photograph courtesy of James E. Hayden, DPI

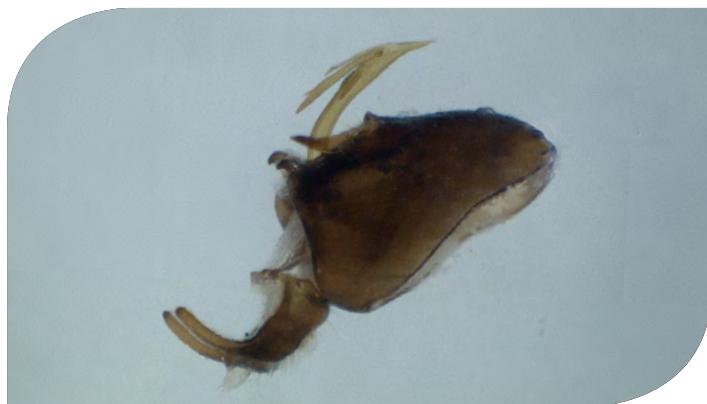


4 *Pissonotus muiri*, a delphacid planthopper, a new Continental USA record. A reproducing population of a Central American delphacid planthopper was found on *Sphagneticola trilobata* (wedelia; creeping oxeye) in Tampa in November. It is known throughout Central America. The species is reported from *Zexmenia*, a plant that is closely related to *Sphagneticola*. The genus *Pissonotus* includes many species, distinguished primarily by their male genitalia (Bartlett and Dietz 2000). This species is not known to be a pest. (Hillsborough County; E2016-5564; Travis J. Streeter; 26 November 2016.) (Dr. Susan E. Halbert and Dr. Charles R. Bartlett, University of Delaware.)



4a - *Pissonotus muiri*, a delphacid planthopper, brachypterous male
Photograph courtesy of Susan E. Halbert, DPI

5 *Salbia* sp., a crambid moth, a new Continental USA record. The caterpillars probably feed on grasses, as do related species of *Salbia* Guenée and *Cnaphalocrocis* Lederer. The specimens match unidentified ones from Honduras and Belize (McGuire Center for Lepidoptera); it could be a described species, but the 35 species of *Salbia* in the Neotropics are poorly known. Species in this group are generally no concern, but *Cnaphalocrocis medinalis* (Guenée) is a major pest of rice in Asia. One male of the new *Salbia* species was collected in 2013 at light in a dry prairie habitat in the middle of the state. In late 2016, two males and a female were collected at light in a state park in Alachua County (E2016-5176). Comparison with specimens in the FSCA enabled association of the sexes and diagnosis from the two native congeners, *S. mizaralis* (Druce) and *S. tytiusalis* (Walker). All probably have similar behavior, because the former was collected at the same time as the Alachua County record and the latter at the same time as the Okeechobee County record. Males of the newly recorded species have a large tuft of black scales on the antenna, whereas *S. mizaralis* has a small, pale tuft and *S. tytiusalis* has none at all. The hind wings have brown scales in the postmedial area that are darker and more restricted than those of the other species, and the genitalia of both sexes are distinctive. (Okeechobee County; E2016-5177; James T. Vargo; 9 January 2013.) (Dr. James E. Hayden.)



4b - *Pissonotus muiri*, genital capsule
Photograph courtesy of Susan E. Halbert, DPI

6 *Hypselonotus punctiventris*, spot-sided coreid, a new Florida State record. A coreid bug was found at a nursery in Live Oak in November 2015. It was determined to be a species known from Texas, Arizona, and the Neotropics, but not from Florida. Since the insect was found dead, and some of the plants at the nursery were not from Florida, establishment in Florida could not be confirmed. Subsequent surveys of the area did not net any further specimens. Approximately nine months later, a living specimen was found in Gainesville by University of Florida graduate student Jason L. Williams, confirming that the insect is established in Florida. It seems to have a wide host range, but is not a recognized pest. (Suwannee County; E-2015-6524; Kelly K. Douglas; 30 November 2015 and Alachua County; E2016-5721; Jason L. Williams, University of Florida; 7 September 2016.) (Dr. Susan E. Halbert.)



5 - *Salbia* sp., a crambid moth. Male specimen from Honduras
Photograph courtesy of James E. Hayden, DPI



6 - *Hypselonotus punctiventris*, spot-sided coreid
Photograph courtesy of Susan E. Halbert, DPI



7 *Polykatianna radricula*, black-speckled yellow globular springtail, a new Florida State Record. This species was collected on *Quercus virginiana* (live oak), in association with spider webs covering bark and leaves showing minor signs of damage. There is no information about the life history of this species, but the intestine of the individuals collected in St. Augustine contained mostly fungus hyphae and spores. This is not a pest species, and the individuals associated with damaged tissue were feeding on saprophytic fungi. *Polykatianna radricula* appears to be widespread across North America, having been reported from Oregon to New York and south to Veracruz, Mexico. This is the first time *P. radricula* has been reported from Florida. (St. Johns County; E2016-4982; Kaleigh Hire; 18 October 2016.) (Dr. Felipe N. Soto-Adames.)



7 - *Polykatianna radricula*, the black-speckled yellow globular springtail
Photograph courtesy of G.B. Edwards, DPI

8 *Tripudia paraplesia*, a noctuid moth, a new Florida State record. This is a Mexican species, with one specimen recorded from the United States in Louisiana in 1994. The larvae feed in the seeds of *Ruellia* in Yucatan, Mexico (Jose I. Martinez Noble, University of Florida, McGuire Center for Lepidoptera and Biodiversity, pers. comm. 2017), and congeners also feed in *Ruellia* seeds. This is a very small noctuid, one of four species in the *Tripudia quadrifera* group in Florida. Dissection of either sex is necessary to separate them from the common native *T. lamina* Pogue. It may be quite common in the county, having also been collected in Coral Gables at the USDA ARS Subtropical Horticultural Research Station (E2016-5061). Another record from Highlands County extends its range (E2016-5905). Specimens older than 2013 have not been found in the FSCA, but material from the 2000s is scanty. (Miami-Dade County; E2016-2810; James E. Hayden and Andrew I. Derksen, DPI/CAPS; 23 April 2013.) (Dr. James E. Hayden.)



8 - *Tripudia paraplesia* Pogue, a noctuid moth
Photograph courtesy of James E. Hayden, DPI

REFERENCES

- Bartlett, C.R. and L.L. Dietz. 2000.** Revision of the New World delphacid planthopper genus *Pissonotus* (Hemiptera: Fulgoroidea). Thomas Say Publications in Entomology: Monographs. Entomological Society of America, Lanham, Maryland. 234 p.
- Kennedy, J.S., M.F. Day, and V.F. Eastop. 1962.** A conspectus of aphids as vectors of plant viruses. Commonwealth Institute of Entomology, London, England. 114 p.



PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Halyomorpha halys</i>	brown marmorated stink bug	REGULATORY INCIDENT
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Halyomorpha halys</i>	brown marmorated stink bug	REGULATORY INCIDENT
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Hemiberlesia ithacae</i>	hemlock scale	REGULATORY INCIDENT
<i>Abies procera</i>	noble fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Abies procera</i>	noble fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Abies</i> sp.		<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Acer rubrum</i>	red maple	<i>Japananus hyalinus</i>	a leafhopper	COUNTY
<i>Agave desmettiana</i>	dwarf century plant	<i>Aphis gossypii</i>	cotton aphid/melon aphid	HOST
<i>Albizia lebeck</i>	woman's tongue tree; seris tree; Tibet lebeck	<i>Merobruchus insolitus</i>	a bruchid beetle	COUNTY
<i>Ammi majus</i>	bishop's-weed	<i>Rhinacloa forticornis</i>	a western plant bug	REGULATORY INCIDENT
<i>Ananas comosus</i>	pineapple	<i>Steneotarsonemus comosus</i>	pineapple multiple crown mite	TRUCK INTERDICTION
<i>Andropogon glomeratus</i>	bushy bluestem	<i>Saccharosydne saccharivora</i>	a delphacid planthopper	HOST
<i>Annona</i> sp.		<i>Aleurotrachelus</i> sp.	a whitefly	REGULATORY INCIDENT
<i>Apium graveolens</i>	celery	<i>Lygus elisus</i>	pale legume bug	TRUCK INTERDICTION
<i>Archontophoenix cunninghamiana</i>	bangalow palm	<i>Dysmicoccus brevipes</i>	pineapple mealybug	HOST
<i>Aster simmondsii</i>	Simmonds' aster	<i>Taylorilygus apicalis</i>	a mirid plant bug	HOST
<i>Beta vulgaris</i>	Swiss chard; leaf beet; spinach beet	<i>Thyanta pallidovirens</i>	a stink bug	TRUCK INTERDICTION
<i>Brassica rapa</i>	pak-choi, bok-choi, pak-choy, bok-choy, Chinese mustard, celery mustard	<i>Trioza</i> sp.	a jumping plant louse	TRUCK INTERDICTION
<i>Calyptocarpus vialis</i>	strangler daisy; hierba del caballo	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Cannabis sativa</i>	industrial hemp	<i>Phorodon cannabis</i>	hemp aphid	HEMISPHERE
<i>Capsicum annuum</i>	pepper	<i>Bactericera cockerelli</i>	potato psyllid	REGULATORY INCIDENT
<i>Carex</i> sp.		<i>Hysteroneura setariae</i>	rusty plum aphid	HOST
<i>Centratherum punctatum</i>	larkdaisy; Brazilian bachelor's button; porcupine flower	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Citrus aurantium</i>	sour orange	<i>Heteromeringia nitida</i>	a clusiid fly	COUNTY
<i>Citrus sinensis</i>	sweet orange, navel orange	<i>Chrysopilus rotundipennis</i>	a rhagionid fly	COUNTY
<i>Citrus sinensis</i>	sweet orange, navel orange	<i>Diaphorina citri</i>	Asian citrus psyllid	COUNTY



PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
<i>Citrus x tangelo</i>	tangelo, ugli	<i>Forcipomyia fuliginosa</i>	a biting midge	COUNTY
<i>Digitaria ciliaris</i>	southern crabgrass	<i>Balclutha rosea</i>	a leafhopper	HOST
<i>Dombeya burgessiae</i>		<i>Hyalochloria unicolor</i>	a mirid bug	HOST
<i>Dracaena braunii</i>	lucky bamboo, Belgian evergreen, ribbonplant	<i>Lepidosaphes chinensis</i>	an armored scale	REGULATORY INCIDENT
<i>Dracaena braunii</i>	lucky bamboo, Belgian evergreen, ribbonplant	<i>Lepidosaphes chinensis</i>	an armored scale	REGULATORY INCIDENT
<i>Dracaena fragrans</i>	corn plant	<i>Lepidosaphes laterochitinoso</i>	an armored scale	REGULATORY INCIDENT
<i>Dracaena</i> sp.		<i>Lepidosaphes laterochitinoso</i>	an armored scale	REGULATORY INCIDENT
<i>Emilia fosbergii</i>	tasselflower; Flora's-paintbrush	<i>Taylorilygus apicalis</i>	a mirid plant bug	HOST
<i>Enterolobium contortisiliquum</i>	ear-pod tree, pacara	<i>Umbonia crassicornis</i>	thornbug	HOST
<i>Eriobotrya japonica</i>	loquat, Japanese plum	<i>Pseudogaurax anchora</i>	a grass fly	COUNTY
<i>Euphorbia pulcherrima</i>	Christmas flower, poinsettia	<i>Bemisia tabaci</i>	sweetpotato whitefly	REGULATORY INCIDENT
<i>Ficus benamina</i>	weeping fig	<i>Mylocerus undecimpustulatus</i>	Sri Lanka weevil	COUNTY
<i>Fragaria x ananassa</i>	garden strawberry	<i>Lygus elisus</i>	pale legume bug	REGULATORY INCIDENT
<i>Gomphrena serrata</i>	arrasa con todo; prostrate globe amaranth	<i>Halticus brachtatus</i>	garden fleahopper	HOST
<i>Helianthus annuus</i>	sunflower	<i>Hypselonotus punctiventris</i>	spot-sided coreid	STATE
<i>Helianthus debilis</i>	beach sunflower, dune sunflower	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Hyptis mutabilis</i>	tropical bushmint	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Ixora</i> sp.		<i>Asiothrixus antidesmae</i>	a whitefly	COUNTY
<i>Jatropha multifida</i>	coral plant; physic nut	<i>Icerya purchasi</i>	cottonycushion scale	HOST
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Acyrtosiphon lactucae</i>	lettuce aphid	REGULATORY INCIDENT
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Deltocephalus fuscinevrosus</i>	a leafhopper	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	TRUCK INTERDICTION
<i>Lactuca sativa</i>	lettuce, romaine lettuce, leaf lettuce	<i>Lygus hesperus</i>	a western lygus bug	TRUCK INTERDICTION
<i>Lavandula multifida</i>	cutleaf lavender	<i>Taylorilygus apicalis</i>	green plant bug	HOST
<i>Lepidium virginicum</i>	Virginia pepper-weed; pepper-grass	<i>Agallia albidula</i>	a leafhopper	HOST
<i>Leucanthemum</i> sp.		<i>Lygus</i> sp.	a lygus bug	REGULATORY INCIDENT
<i>Leucanthemum</i> sp.		<i>Tetranychus</i> sp.	spider mite	REGULATORY INCIDENT



PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
<i>Melaleuca quinquenervia</i>	melaleuca; cajeput; punktree; paperbark; white bottlebrush tree	<i>Oxiops vitiosa</i>	melaleuca snout beetle	COUNTY
<i>Microsorium pteropus</i>	Java fern	<i>Paraponyx sp. near P. stagnalis</i>	an aquatic acentropine moth	REGULATORY INCIDENT
<i>Nuphar advena</i>		<i>Donacia hypoleuca</i>	a leaf beetle	COUNTY
<i>Nuphar advena</i>		<i>Megamelus davisii</i>	a delphacid planthopper	COUNTY & HOST
<i>Nymphaea capensis</i>	cape blue waterlily	<i>Megamelus palaetus</i>	a delphacid planthopper	HOST
<i>Nymphaea capensis</i>	cape blue waterlily	<i>Megamelus toddi</i>	a delphacid planthopper	COUNTY
<i>Olea europaea</i>	olive	<i>Bactrocera oleae</i>	olive fruit fly	REGULATORY INCIDENT
<i>Olea europaea</i>	olive	<i>Bactrocera oleae</i>	olive fruit fly	REGULATORY INCIDENT
<i>Olea europaea</i>	olive	<i>Bactrocera oleae</i>	olive fruit fly	REGULATORY INCIDENT
<i>Olea europaea</i>	olive	<i>Tetranychus merganser</i>	a spider mite	COUNTY & HOST
<i>Ophiopogon japonicus</i>	mondo grass	<i>Deroceras reticulatum</i>	gray garden slug	REGULATORY INCIDENT
<i>Oplismenus sp.</i>		<i>Pseudoregma panicola</i>	an Asian aphid	COUNTY
<i>Panicum maximum</i>	Guinea grass	<i>Rhopalosiphum maidis</i>	corn leaf aphid	HOST
<i>Parthenium hysterophorus</i>	Santa Maria; white top; escoba amarga	<i>Agallia albidula</i>	a leafhopper	HOST
<i>Parthenium hysterophorus</i>	Santa Maria; white top; escoba amarga	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Passiflora sp.</i>		<i>Epiphyas postvittana</i>	light brown apple moth	REGULATORY INCIDENT
<i>Pentas lanceolata</i>	star flower, pentas	<i>Macrolophus sp.</i>	a plant bug	HOST
<i>Persea americana</i>	avocado; alligator pear; aguacate	<i>Abgrallaspis aguacatae</i>	an armored scale	TRUCK INTERDICTION
<i>Petroselinum crispum</i>	parsley	<i>Cavariella aegopodii</i>	carrot aphid	TRUCK INTERDICTION
<i>Phaseolus vulgaris</i>	snapbean, stringbean, pole bean, foot-long bean	<i>Spodoptera albula</i>	gray armyworm moth	COUNTY
<i>Philodendron sp.</i>		<i>Frankliniella schultzei</i>	common blossom thrips	COUNTY
<i>Physalis philadelphica</i>	Mexican ground cherry; husk tomato; tomatillo	<i>Bactericera cockerelli</i>	potato psyllid	TRUCK INTERDICTION
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	REGULATORY INCIDENT
<i>Pontederia cordata</i>	pickerelweed	<i>Mitrapysylla cubana</i>	a psyllid	COUNTY
<i>Protea cynaroides</i>	king protea	<i>Delottococcus confusus</i>	a mealybug	REGULATORY INCIDENT
<i>Protea cynaroides</i>	king protea	<i>Delottococcus confusus</i>	a mealybug	REGULATORY INCIDENT
<i>Pseudotsuga menziesii</i>	Douglas fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Pseudotsuga menziesii</i>	Douglas fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Pseudotsuga menziesii</i>	Douglas fir	<i>Fiorinia externa</i>	an armored scale	REGULATORY INCIDENT
<i>Psophocarpus tetragonolobus</i>	winged bean; winged pea; goa bean; manila bean; dambola	<i>Corythucha gossypii</i>	cotton lace bug	HOST



PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
<i>Quercus laurifolia</i>	laurel oak	<i>Arge quidia</i>	sawfly	COUNTY
<i>Quercus virginiana</i>	live oak	<i>Polykatianna radricula</i>	black-speckled yellow globular springtail	STATE
<i>Quercus virginiana</i>	live oak	<i>Sargus fasciatus</i>	a soldier fly	COUNTY
<i>Rosmarinus officinalis</i>	rosemary	<i>Eupteryx decemnotata</i>	Ligurian leafhopper	REGULATORY INCIDENT
<i>Rottboellia cochinchinensis</i>	itchgrass	<i>Peregrinus maidis</i>	corn delphacid	HOST
<i>Rubus</i> sp.	blackberry	<i>Eotetranychus carpini</i>	a spider mite	COUNTY
<i>Saccharum</i> sp.		<i>Aclerda takahashii</i>	a scale	US CONTINENTAL
<i>Salvia officinalis</i>	garden sage; kitchen sage	<i>Eupteryx decemnotata</i>	Ligurian leafhopper	REGULATORY INCIDENT
<i>Setaria parviflora</i>	yellow bristlegrass	<i>Tetraneura nigriabdominalis</i>	a root aphid	HOST
<i>Sida cordifolia</i>	llima	<i>Jobertus chryselectrus</i>	a mirid bug	COUNTY
<i>Solanum lycopersicum</i>	garden tomato, tomato, jitomate	<i>Bactericera cockerelli</i>	potato psyllid	TRUCK INTERDICTION
<i>Sphagneticola trilobata</i>	creeping oxeye, wedelia, goldcup	<i>Pissonotus muii</i>	a delphacid planthopper	US CONTINENTAL
<i>Sphagneticola trilobata</i>	creeping oxeye, wedelia, goldcup	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
<i>Syzygium cumini</i>	jambolan plum; Java plum; black plum; jamun; duhat	<i>Tripudia paraplesia</i>	a noctuid moth	COUNTY
<i>Thalia geniculata</i>	bent alligator flag, fireflag	<i>Ischnodemus fulvipes</i>	a seed bug	COUNTY
<i>Tillandsia</i> sp.		<i>Tetranychus ludeni</i>	a spider mite	HOST
<i>Tithonia diversifolia</i>	Mexican sunflower; shrub sunflower; tree marigold	<i>Aphis spiraecola</i>	spirea aphid	HOST
<i>Trachelospermum asiaticum</i>	Asian jasmine	<i>Deroceras reticulatum</i>	gray garden slug	REGULATORY INCIDENT
<i>Tridax procumbens</i>	coat buttons	<i>Protalebrella brasiliensis</i>	Brasilian leafhopper	HOST
undetermined	undetermined	<i>Aleurotrachelus</i> sp.	a whitefly	REGULATORY INCIDENT
<i>Urochloa mutica</i>	para grass; California grass; buffalo grass; Scotch grass; Carib grass	<i>Hysteroneura setariae</i>	rusty plum aphid	HOST
		<i>Aclerda takahashii</i>	a scale	REGULATORY INCIDENT
		<i>Acrosticta apicalis</i>	a picture-winged fly	COUNTY
		<i>Anthonomus irroratus</i>	a weevil	COUNTY
		<i>Bulimulus guadeloupensis</i>	tree snail	COUNTY
		<i>Caliothrips phaseoli</i>	a thrips	COUNTY
		<i>Cnestus mutilatus</i>	camphor shot hole borer	COUNTY
		<i>Cryptocarenum diadematus</i>	a scolytid beetle	COUNTY
		<i>Cymus bellus</i>	a lygaeid bug	COUNTY
		<i>Delphacodes andromeda</i>	delphacid planthopper	COUNTY
		<i>Erechthias</i> sp.	a scavenger moth	US CONTINENTAL



PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
		<i>Fiorinia externa</i>	an armored scale	TRUCK INTERDICTION
		<i>Haplaxius enotatus</i>	a cixiid planthopper	COUNTY
		<i>Helix aspersa</i>	brown garden snail	REGULATORY INCIDENT
		<i>Hylesinus aculeatus</i>	a scolytid beetle	COUNTY
		<i>Hypselonotus punctiventris</i>	spot-sided coreid	COUNTY
		<i>Mallophora orcina</i>	southern bee killer	COUNTY
		<i>Nanus uniformis</i>	a weevil	COUNTY
		<i>Pectinophora gossypiella</i>	pink bollworm moth	COUNTY
		<i>Pycnarthrum hispidum</i>	a scolytid beetle	COUNTY
		<i>Rhagoletis juniperina</i>	a fruit fly	COUNTY
		<i>Salbia</i> sp.	a crambid moth	COUNTY
		<i>Salbia</i> sp.	a crambid moth	US CONTINENTAL
		<i>Tagosodes wallacei</i>	a delphacid planthopper	COUNTY
		<i>Tripudia paraplesia</i>	a noctuid moth	STATE
		<i>Xyleborinus andrewesi</i>	a scolytid beetle	COUNTY
		<i>Xylopsocus capucinus</i>	a bostrichid beetle	COUNTY
		<i>Xylosandrus germanus</i>	black timber bark beetle	COUNTY



NEMATODOLOGY



Compiled by Renato N. Inserra, Ph.D., Jason D. Stanley, M.S.,
Charles L. Spriggs, B.S., 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

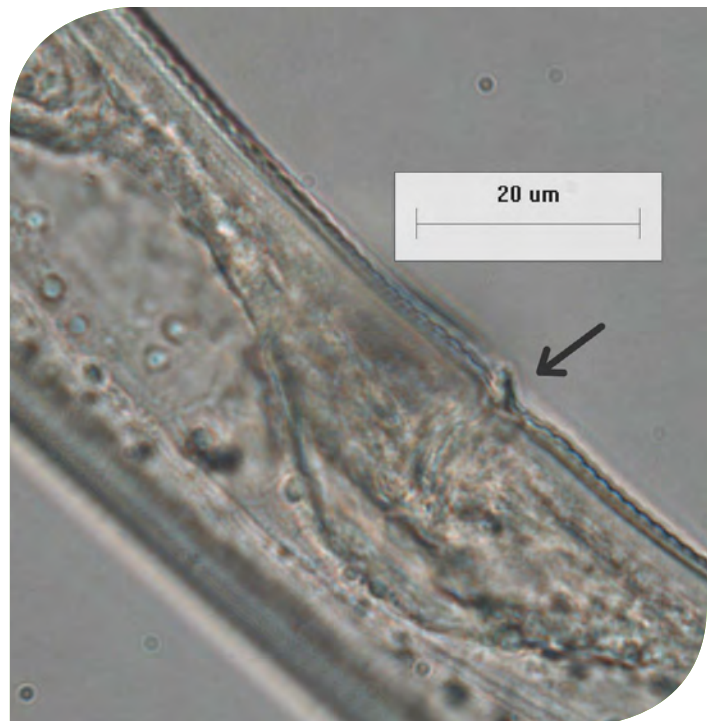
	OCTOBER - DECEMBER	YEAR TO DATE
Morphological identifications	2,271	11,107
Molecular identifications	1,274	4,262
Total samples submitted	3,545	15,368



Sansevieria sp. (bowstring hemp)
Photograph courtesy of Jeffrey W. Lotz, DPI

1 *Scutellonema cavenessi* Sher, 1964 a spiral nematode, was detected in the roots of the ornamental, *Sansevieria* sp., (bowstring hemp). (Lake County, N15-01178, Charles L. Spriggs; 19 October 2015.)

Sansevieria spp. are good hosts of the spiral nematode *Scutellonema brachyurus* (Steiner, 1938) Andrassy, 1958, a species in which males are commonly absent and which is often found in ornamental nurseries in Florida (Inserra *et al.* 2012). Occasionally, populations of *S. brachyurus* with males have been found in *Sansevieria* sp. samples submitted to DPI nematology laboratory for nematode certification. These mixed nematode populations contained females showing a distinct vulval flap (epiptygma) like that of the spiral nematode *Peltamigratus christiei* (Golden and Taylor, 1956) Sher, 1964, with which they were confused during routine microscopic identifications. Recent morphological and molecular studies of these spiral nematodes with males indicated that they were *S. cavenessi*, a spiral nematode new to Florida (Van den Berg *et al.* 2017). There is a report of this species from cotton in an undetermined locality in the United States (Elmiligy 1970); however, the report remains unconfirmed. The phylogenetic analysis indicates that the Florida populations of *S. cavenessi* are closely related genetically to a population of a *Scutellonema* sp. from Burkina Faso (West Africa), where many *Scutellonema* species are indigenous. Very probably, these two *Scutellonema* populations from Florida and West Africa have the same geographical origin, since *S. cavenessi* arrived in Florida with the trade of bowstring hemp plants from Tropical West Africa, where they are native. In the drylands of Senegal, field crops, such as peanut (*Arachis hypogaea*), are infested with high population levels of *S. cavenessi*, but the effects of this nematode have not been assessed (O'Bannon and Duncan 1990). As far as we know, *S. cavenessi* has been detected in Florida only on bowstring hemp.



Scutellonema cavenessi female. Note (see arrow) the vulval flap (epiptygma) protruding from the vulva.
Photograph courtesy of Jason D. Stanley, DPI



COLLECTORS

Collectors submitting five or more samples that were processed for nematological analysis from October through December 2016.

COLLECTOR NAME	SAMPLES PROCESSED
Bentley, Michael A.	8
Bloom, Richard T.	26
Brown, Lance A.	25
Burgos, Frank A.	208
Clanton, Keith B.	139
Flores, Mary A.	9
Golden, Walter W.	6
Gonzalez, Kathy A.	40
Gourlay, Anna J.	59
Krok, Jesse M.	7
Krueger, Scott D.	12
LeBoutillier, Karen W.	88
McCarthy, Sean P.	5
McMahan, Michael C.	25
Ochoa, Ana L.	99
Spriggs, Charles L.	157
Strange, Lisa S.	89
Violett, Larry L.	12

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- Sher, S.A. 1963.** Revision of the Hoplolaimidae (Nematoda) III. *Scutellonema* Andrassy, 1958. *Nematologica* 9: 421-443.
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- Inserra, R.N., J.D. Stanley, and J.A. Brito. 2012.** Nematology Section. P.J. Anderson and G.S. Hodges (Editors). *TRI-OLOGY* 51(4): 12-13.
- O'Bannon, J.H. and L.W. Duncan. 1990.** *Scutellonema* species as crop damaging parasitic nematodes. *Nematology Circular* No. 179. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville. 3 pp.
- Van den Berg, E., L.R. Tiedt, J.D. Stanley, R.N. Inserra, and S.A. Subbotin, 2017.** Characterisation of some *Scutellonema* species (Tylenchida: Hoplolaimidae) occurring in Botswana, South Africa, Costa Rica and the USA, with description of *S. clavicaudatum* sp. n. and a molecular phylogeny of the genus. *Nematology* 19 (In press).

CERTIFICATION AND REGULATORY SAMPLES

	OCTOBER-DECEMBER	YEAR TO DATE
Multistate certification for national and international export	1,488	7,806
California certification	356	1,706
Pre-movement (citrus nursery certification)	74	314
Site or pit approval (citrus nursery and other certifications)	39	186

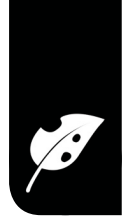
OTHER SAMPLES

	OCTOBER-DECEMBER	YEAR TO DATE
Identifications (Invertebrate)	3	6
Plant problems	44	178
Random intrastate surveys	267	911

IDENTIFICATIONS

	OCTOBER-DECEMBER	YEAR TO DATE
Morphological identifications	3,628	16,392
Molecular identifications*	1,274	4,262

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



PLANT PATHOLOGY

Compiled by Jodi Hansen, Regina Cahoe, David Davison, and Debra Jones

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.

QUARTERLY ACTIVITY REPORT

	OCTOBER-DECEMBER	YEAR TO DATE
Citrus black spot	16	74
Citrus canker	267	566
Citrus greening / HLB	124	1,298
Citrus Health Response Program/Nursery Certification	1,041	1,821
Honeybees	1	30
Interdictions	18	56
Laurel wilt	11	55
Pathology, general	596	2,488
Soil	11	38
Sudden oak death	0	4
Sweet orange scab-like syndrome	0	8
Texas Phoenix palm decline	2	3
Water	0	0
Miscellaneous	5	20
Total	2,092	6,585

1 *Ralstonia solanacearum* (bacterial wilt) was detected for the first time in Florida on *Vaccinium corymbosum* (highbush blueberry).

Late in 2016, Florida Department of Agriculture and Consumer Services Division of Plant Industry (FDACS-DPI) Gainesville began cooperating with University of Florida (UF) scientists regarding a new disease of southern highbush blueberries, bacterial wilt, caused by *Ralstonia solanacearum*. The first identifications of this bacterium on 'Arcadia' blueberries were made by UF from samples that were collected from three blueberry farms in Florida, two in Desoto County and one in Orange County. Following UF's announcement of their *Ralstonia* finds, UF and DPI plant pathologists visited the blueberry propagation nursery in Alachua County, indicated as the source of plant material for the *R. solanacearum* positive farms in Desoto and Orange counties.

One of the samples collected tested positive for *R. solanacearum* (Alachua County; P2016-89854; Phillip F. Harmon, University of Florida, and Xiaoan Sun; 16 November 2016.) Following the positive identification and report by the plant pathology lab, DPI inspectors and plant pathologists performed a second more extensive survey of the nursery. Forty-one symptomatic plant samples and two soil samples were collected during this survey from locations throughout the nursery. Many different varieties were collected during the second survey with an intense focus on the 'Arcadia' variety and other varieties proximal to the 'Arcadia' plants. All the samples collected during the second nursery survey tested negative for *R. solanacearum*. A DPI plant pathologist surveyed the plants that were the source of cutting material (mother plants) for the Alachua County blueberry propagation nursery. The five samples collected at this location also tested negative for *R. solanacearum*. Molecular research is ongoing at FDACS-DPI to learn more about the genetic relatedness of the *R. solanacearum* strains collected at each farm and the nursery in hopes of determining the etiology of this disease. Currently, DPI plant inspectors are performing routine surveys of blueberry nurseries for symptoms of bacterial wilt. Symptomatic plants are sent for disease processing at the DPI plant pathology lab. Greater expression of disease symptoms is anticipated during periods of consistently warm wet weather, most likely during spring and early summer. More information on this new blueberry disease can be found at the following Institute of Food and Agricultural Science-Electronic Data Information Source (IFAS-EDIS) publication: <https://edis.ifas.ufl.edu/pdf/PP/PP33200.pdf>



4 -'Arcadia' blueberries (*Vaccinium corymbosum*) dying from stem blight and bacterial wilt. Photograph courtesy of Philip Harmon, [UF/IFAS](https://edis.ifas.ufl.edu/pdf/PP/PP33200.pdf)



🔍 PLANT PATHOLOGY IDENTIFICATION TABLE

Following are table provides information about samples identified between October - December 2016. The table is organized alphabetically by plant species, with new records listed on the right.

PLANT SPECIES	COMMON NAME	CASUAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	NEW RECORDS	NOTES
<i>Citrus</i> sp.	citrus	<i>Liberabacter asiaticus</i>	citrus greening	natural area	90133	Franklin	Eric Lovestrand	COUNTY	The disease often can be recognized in the field by foliar and fruit symptoms. Early symptoms of citrus greening are small yellow leaves on one limb or section of the tree canopy. The most diagnostic symptoms of citrus greening are leaf mottling that does not follow the leaf veins.
<i>Fragaria</i> sp.	strawberry	<i>Alternaria alternata</i>	leaf spot	nursery	89384	Escambia	Mary A. Flores	HOST	<i>Alternaria alternata</i> has been recorded causing leaf spot and other diseases on over 380 host species of plant. It is an opportunistic pathogen on numerous hosts causing leaf spots, rots and blights on many plant parts. Individual conidiophores form bushy heads consisting of 4–8 large catenate conidia chains.
<i>Lycopersicon esculentum</i>	tomato	<i>Corynespora cassicola</i>	leaf spot	farm	90497	Lee	Walter Golden		<i>Corynespora cassicola</i> is an important pathogen affecting Florida tomato growers. It requires high humidity and favors temperatures greater than ninety degrees.
<i>Persea palustris</i>	swamp bay	<i>Raffaelea lauricola</i>	laurel wilt	natural area	89849	Wakulla	Michael Keys	COUNTY	Laurel wilt is a deadly disease of redbay <i>Persea borbonia</i> and other tree species in the Laurel family. The disease is caused by a fungus <i>Raffaelea lauricola</i> that is introduced into host trees by a nonnative insect, the redbay ambrosia beetle, <i>Xyleborus glabratus</i> .
<i>Phegopteris connectilis</i>	long beechfern	<i>Cercospora coniogrammes</i>	leaf spot	nursery	89088	Glades	Kathy A. Gonzalez	HOST	In June 2016, a California Department of Food and Agriculture (CDFA) inspector intercepted a shipment with leaf spots diagnosed as <i>Cercospora coniogrammes</i> on <i>Blechnum gibbum</i> from a Central Florida nursery. Symptomatic plants were collected by a DPI inspector and sent to the DPI plant pathology lab in Gainesville. A culture characteristic of <i>Cercospora</i> was recovered, and the ITS region of the organism was sequenced and found to match <i>C. coniogrammes</i> .



PLANT SPECIES	COMMON NAME	CASUAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	NEW RECORDS	NOTES
<i>Phoenix roebelenii</i>	pigmy date palm	<i>Colletotrichum theobromicola</i>	leaf spot	nursery	89497	Miami-Dade	Juan A. Martinez	HOST	<i>Colletotrichum theobromicola</i> was initially described as a pathogen of <i>Theobroma cacao</i> from Panama and has been reported from other hosts such as <i>Stylosanthes</i> and <i>Olea</i> spp. from Australia, <i>Limonium</i> sp. from Israel, <i>Annona</i> sp. from Mexico, <i>Acca</i> sp. from New Zealand, <i>Punica</i> sp. from India, and <i>Fragaria</i> and <i>Quercus</i> spp. from the United States (Farr and Rossman 2016).
<i>Polianthes tuberosa</i>	tuberose lily	Tuberose mild mottle virus (Potyvirus)	none	nursery	88920	Highlands	Richard T. Bloom	UNITED STATES	First report in United States. It has been described in New Zealand, China, Taiwan and India. The leaves of the plants show mild mottle and mosaic symptoms. It is also present asymptotically.
<i>Rumohra adiantiformis</i>	leatherleaf fern	<i>Fusarium</i> sp.	root rot	nursery	89825	Volusia	Kevin S. Loadholtz, Jodi L. Hansen, David A. Davison, Tracy L. Wright		<i>Fusarium</i> sp. was found on stems and rhizomes; however, root lesion nematodes contributed to the decline. Severe damage from high populations of lesion nematodes can result in a stunted plant root system. The extent of lesion formation can be accelerated during root invasion by other soilborne plant pathogens, and these interactions can develop into synergistic disease complexes.
<i>Rumohra adiantiformis</i>	leatherleaf fern	<i>Cylindrocladium</i> sp.	leaf spot	nursery	89825	Volusia	Kevin S. Loadholtz, Jodi L. Hansen, David A. Davison, Tracy L. Wright		Spots are pinpoint to inch long and are reddish to grayish brown. Disease is severe in the hot humid summer but can occur during warm winters.
<i>Sansevieria trifasciata</i>	snake plant	<i>Colletotrichum sansevieriae</i>	anthracnose	nursery	90126	Orange	Kathy A. Gonzalez		<i>Colletotrichum sansevieriae</i> was first reported on <i>Sansevieria trifasciata</i> in Florida in the summer of 2010. Leaves of the plant will exhibiting round water-soaked lesions, leading to severe leaf blight.



PLANT SPECIES	COMMON NAME	CASUAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	NEW RECORDS	NOTES
<i>Stephanotis floribunda</i>	Madagascar jasmine	Tomato chlorotic spot virus (Tospovirus)	none	nursery	89140	Duval	Lisa M. Hassell	HOST	First report of tomato chlorotic spot virus infecting <i>Stephanotis floribunda</i> . This isolate has been known to infect tomato in Florida. The host range of this virus has been expanding.
<i>Vaccinium corymbosum</i>	high bush blueberry	<i>Ralstonia solanacearum</i>	bacterial wilt	nursery	89854	Alachua	Xiaoan Sun; Phillip F. Harmon, University of Florida		Blueberry is a new host for this pathogen in Florida. See text above for more information.



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