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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-OLOGY

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-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 June 5, 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.

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 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
Botanist
Division of Plant Industry

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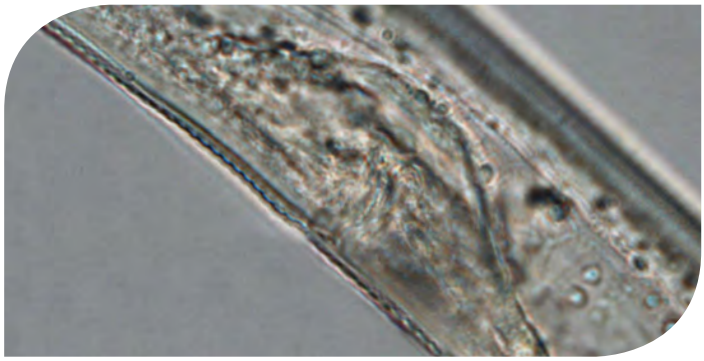
2 ***Koelreuteria elegans* (Seem.)A.C.Sm. subsp. *formosana* (Hayata)F.G.Mey. (flamegold, golden raintree),** produces large, loose, upright panicles of small, bright yellow flowers during late summer into fall, when no other trees are blooming. The flowers are followed by papery, three-valved capsules 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.

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.

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.

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

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



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

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**

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) in landscape
Photograph courtesy of Mark Stebbins, Atlas of Florida Plants

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

REFERENCES

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	*Cupaniopsis*	*anacardioides* (A. Rich.) Radlk.
	Anthony Gubler		Brevard	B2016-442	10/3/2016	*Livistona*	*chinensis* (Jacq.) R. Br. ex Mart.
	Daniel Merced	Gary Webb, Karen Destefano	Sumter	B2016-473	10/31/2016	*Koelreuteria*	*elegans* (Seem.) A.C. Sm. ssp. *formosana* (Hayata) F.G. Mey.
	Daniel Merced	Gary Webb, Karen Destefano	Hernando	B2016-474	10/31/2016	*Koelreuteria*	*elegans* (Seem.) A.C. Sm. ssp. *formosana* (Hayata) F.G. Mey.
	Daniel Merced	Gary Webb, Karen Destefano	Lake	B2016-475	10/31/2016	*Koelreuteria*	*elegans* (Seem.) A.C. Sm. ssp. *formosana* (Hayata) F.G. Mey.
	Nora Marquez		Hernando	B2016-495	11/16/2016	*Colocasia*	*esculenta* (L.) Schott
	Sol F. Looker		Clay	B2016-541	12/29/2016	*Ligustrum*	*sinense* 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 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*****, 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-

1 – *Phorodon cannabis* (hemp aphids)
Photograph courtesy of Whitney S. Cranshaw, Colorado State University

2 – *Aclerda takahashii* on a biomass cultivar of *Saccharum*
Photograph courtesy of Susan E. Halbert

3 – *Erechthias* sp., a scavenger moth
Photograph courtesy of James E. Hayden, DPI

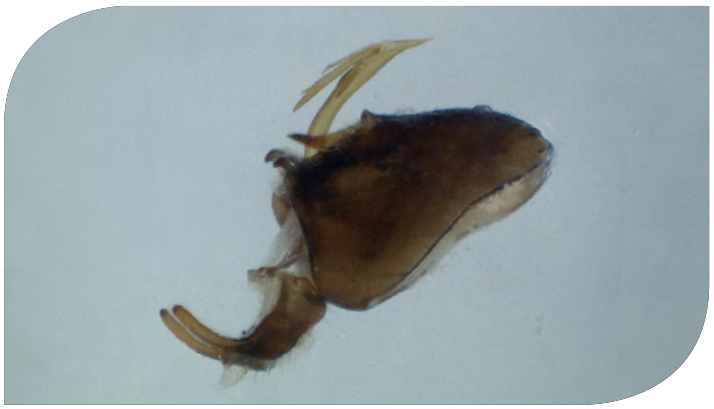
2882; Carina (Terri) L. Allen, USDA, and Scott W. Weihman, USDA; 25 April 2016.) (Dr. James E. Hayden.)

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.)

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.)

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.)

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



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

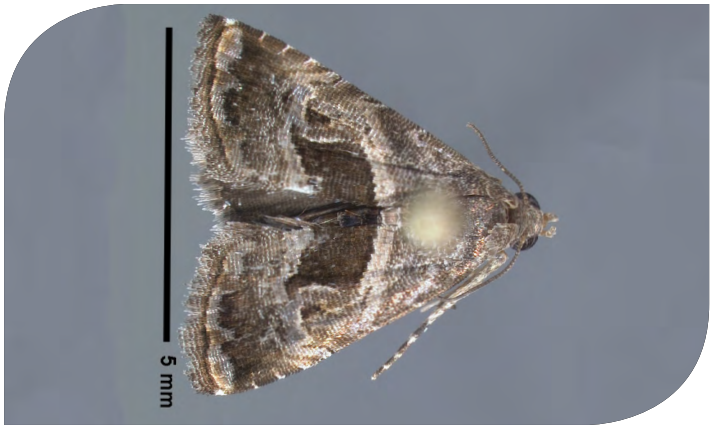
5 - *Salbia* sp., a crambid moth. Male specimen from Honduras
Photograph courtesy of James E. Hayden, DPI

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

7 ***Polykatianna radicula*, 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 radicula*** 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. radicula* has been reported from Florida. (St. Johns County; E2016-4982; Kaleigh Hire; 18 October 2016.) (Dr. Felipe N. Soto-Adames.)

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.)

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



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.

ENTOMOLOGY IDENTIFICATION TABLE

Following are tables with entries for records of new hosts or new geographical areas for samples identified in the current volume's time 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 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 that have no plant information included are organized by arthropod name.

PLANT NAME	PLANT COMMON NAME	ARTHROPOD	ARTHROPOD COMMON NAME	RECORD
Abies fraseri	Fraser's fir, southern balsam fir	*Adelges piceae*	balsam woolly adelgid	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Aspidiotus cryptomeriae*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Donus zoilus*	clover leaf weevil	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	TRUCK INTERDICTION
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
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Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT
Abies fraseri	Fraser's fir, southern balsam fir	*Fiorinia externa*	an armored scale	REGULATORY INCIDENT

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

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

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

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

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

NEMATOLOGY

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.

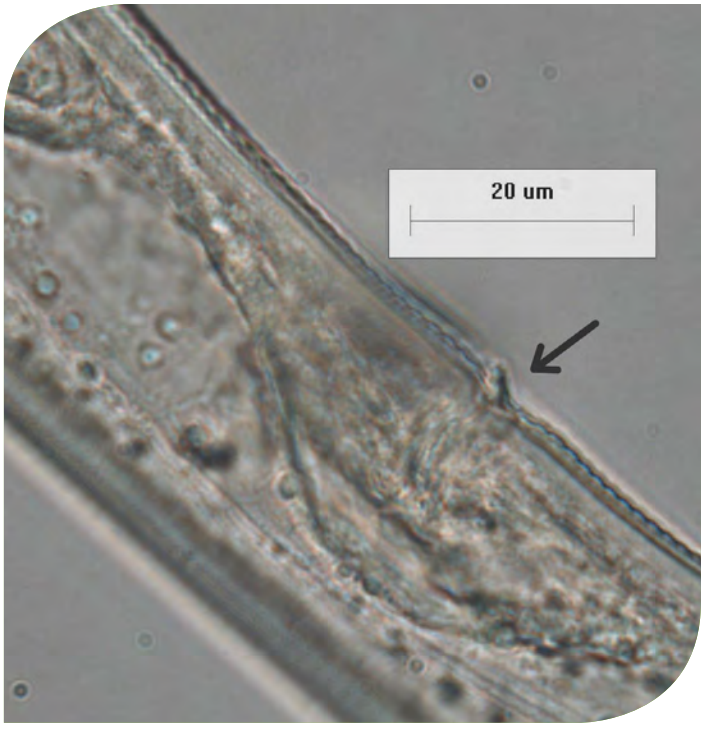
QUARTERLY ACTIVITY REPORT

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

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) Andrássy, 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.

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



***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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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 nusery certification)	74	**314**
Site or pit approval (citrus nusery and other certifications)	39	**186**

OTHER SAMPLES

	OCTOBER-DECEMBER	YEAR TO DATE
Identifications (Inverterbrate)	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/pdffiles/PP/PP33200.pdf

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

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
Citrus sp.	citrus	*Liberabacter asiaticus*	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.
Fragaria sp.	strawberry	*Alternaria alternata*	leaf spot	nursery	89384	Escambia	Mary A. Flores	HOST	*Alternaria alternata* 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.
Lycopersicon esculentum	tomato	*Corynespora cassicola*	leaf spot	farm	90497	Lee	Walter Golden		*Corynespora cassicola* is an important pathogen affecting Florida tomato growers. It requires high humidity and favors temperatures greater than ninety degrees.
Persea palustris	swamp bay	*Raffaelea lauricola*	laurel wilt	natural area	89849	Wakulla	Michael Keys	COUNTY	Laurel wilt is a deadly disease of redbay *Persea borbonia* and other tree species in the Laurel family. The disease is caused by a fungus *Raffaelea lauricola* that is introduced into host trees by a nonnative insect, the redbay ambrosia beetle, *Xyleborus glabratus*.
Phegopteris connectilis	long beechfern	*Cercospora coniogrammes*	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 *Cercospora coniogrammes* on *Blechnum gibbum* 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 *Cercospora* was recovered, and the ITS region of the organism was sequenced and found to match *C. coniogrammes.*

PLANT SPECIES	COMMON NAME	CASUAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	NEW RECORDS	NOTES
Phoenix roebelenii	pigmy date palm	*Colletotrichum theobromicola*	leaf spot	nursery	89497	Miami-Dade	Juan A. Martinez	HOST	*Colletotrichum theobromicola* was initially described as a pathogen of *Theobroma cacao* from Panama and has been reported from other hosts such as *Stylosanthes* and *Olea* spp. from Australia, *Limonium* sp. from Israel, *Annona* sp. from Mexico, *Acca* sp. from New Zealand, *Punica* sp. from India, and *Fragaria* and *Quercus* spp. from the United States (Farr and Rossman 2016).
Polianthes tuberosa	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 asymptomatically.
Rumohra adiantiformis	leatherleaf fern	*Fusarium* sp.	root rot	nursery	89825	Volusia	Kevin S. Loadholtz, Jodi L. Hansen, David A. Davison, Tracy L. Wright		*Fusarium* 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.
Rumohra adiantiformis	leatherleaf fern	*Cylindrocladium* 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.
Sansevieria trifasciata	snake plant	*Colletotrichum sansevieriae*	anthracnose	nursery	90126	Orange	Kathy A. Gonzalez		*Colletotrichum sansevieriae* was first reported on *Sanserviera trifasciata* 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
Stephanotis floribunda	Madagascar jasmine	Tomato chlorotic spot virus (Tospovirus)	none	nursery	89140	Duval	Lisa M. Hassell	HOST	First report of tomato chlorotic spot virus infecting *Stephanotis floribunda*. This isolate has been known to infect tomato in Florida. The host range of this virus has been expanding.
Vaccinium corymbosum	high bush blueberry	*Ralstonia solanacearum*	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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