

# TRI-OLOGY

A PUBLICATION OF THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF PLANT INDUSTRY  
ADAM H. PUTNAM, COMMISSIONER WAYNE N. DIXON, DIVISION DIRECTOR

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DPI's Bureau of Entomology, Nematology and Plant Pathology (the botany section is included in this bureau) produces TRI-OLOGY six times a year, covering two 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.

## Highlights

Following are a few of the notable entries from this volume of TRI-OLOGY. These entries are reports of interesting plants or unusual pests, some of which may be problematic. See Section Reports for complete information.

***Jatropha integerrima (peregrina)***, unlike most species of the Euphorbiaceae family that have rather inconspicuous flowers although they may have showy bracts, this species has beautiful flowers with rather large, conspicuous and brightly colored petals. It is native to Cuba, perhaps Hispaniola as well, and has escaped sparingly throughout the Caribbean Basin. It is also spontaneous in a few spots along Florida's east coast, from Brevard County to the Keys, but is not invasive anywhere in its introduced range.



***Jatropha integerrima (peregrina)***  
Photograph courtesy of Joel Timyan, [Atlas of Florida Vascular Plants](#)



***Stromanthe sp.***  
Photograph courtesy of [Top Tropicals](#)

### **The burrowing**

### **nematode.**

### ***Radopholus similis.***

was found parasitizing *Stromanthe* sp. plants in a Central Florida nursery. *Stromanthe* sp. is a new host of this nematode. The direct damage caused by this endoparasitic nematode on these foliage ornamentals consists mainly of stunted growth and discoloration of the leaves; however, because of the infection, plants do not meet the requirements for nematode certification for export markets.

### ***Bactrocera dorsalis***

**(Oriental fruit fly)** is one of the world's most aggressive fruit fly pests. Its immature stages frequently are transported in infested fruit to new areas. Recently, two males were captured in a single methyl eugenol-baited Jackson trap at a residential site in Safety Harbor. A high-density delimitation trapping network was quickly implemented in an area of approximately 67 square



***Bactrocera dorsalis***  
**(Oriental fruit fly)**

## Section Reports

### Botany

### Entomology

### Nematology

### Plant Pathology

### Our Mission...getting it done

The mission of the Division of Plant Industry is to protect Florida's native and commercially grown plants and the State's apiary industry from harmful pests and diseases. Perhaps you'd be interested in some of the people involved in protecting our state's plant species.

Of course, DPI staff is critical to carry out the mission of the Division. One such staff member is leaving for the world of retirement. Dr. Richard E. Weaver, who joined the Botany Section in 2003, is a serious and dedicated gardener, who will soon have time to explore new plants to add to his living collection. While working at DPI, Dick was in charge of the Botany Section within

miles surrounding the detection site, and it will be maintained for an estimated three life cycles. No further flies have been detected to date.

Photograph courtesy of Gary J. Steck, [DPI](#)



***Duponchelia fovealis* (European pepper moth)**  
Photograph courtesy of Lyle J. Buss, University of Florida Department of Entomology and Nematology

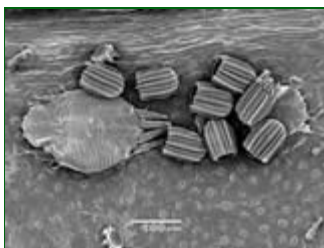
***Duponchelia fovealis* (European pepper moth), a new state record**, was first collected in Orlando, Florida, on October 13, 2010, during a CAPS survey using delta traps and the specific pheromone for the moth. This species is native to the Mediterranean region and the Canary Islands. Its larvae are polyphagous, feeding on a wide range of field crops, ornamental plants and aquatic plants. European pepper moth was reported first in North America in 2004 in California. This moth has been found in at least 10 other states, making it likely that the pest arrived in Florida via transported nursery material

or other infested plants.

***Stemmatomerinx adenticulata* (a mealybug)** is a species native to the United States in a very distinctive genus. A related species, *S. acircula*, was re-discovered in Florida in 2001, after its original collection in 1975. Several species occur in the southeastern United States, but they are known mainly from Georgia. The type material for *S. adenticulata* was collected from Irwin County, in Georgia. The only known hosts are various species of Gramineae/Poaceae.



***Stemmatomerinx acircula* (a mealybug)**  
Photograph courtesy of Lyle J. Buss, University of Florida Department of Entomology and Nematology



***Tenuipalpus uvae* (a false spider mite)**. This mite was described originally from Mexico in 1962 and reported from Costa Rica, Puerto Rico and Trinidad. Very little is known about the mite (Dr. W.C. 'Cal' Welbourn).

***Tenuipalpus uvae* (a false spider mite)**  
Photograph courtesy of Dr. W.C. 'Cal' Welbourn and Dr. Paul E. Skelley, [DPI](#)

#### **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 also

thank Scott Weinberg for his skillful use of web authoring tools to produce this report.



the Bureau of Entomology, Nematology and Plant Pathology. This section is responsible for plant identification for the DPI, as well as for other governmental agencies and private individuals. Dick's amazing knowledge of native plants and exotic ornamentals developed over years of experience with temperate and tropical plants. An early interest in wildflowers and other plants of his native Pennsylvania led to a career in botany, starting with a Ph.D. from Duke University in 1971 where he studied tropical genitans. At the Arnold Arboretum of Harvard University, his expertise in plants of the Far East and his knowledge of cultivated plants increased. Later, he co-founded We-Du Nurseries in Marion, North Carolina, a wildflower/rare plant nursery that is still in operation today. After six years of semi-retirement in Puerto Rico, he came to DPI. As part of our mission, the botany section maintains a herbarium of several thousand dried plant specimens and dried seed samples. During Dick's tenure, our herbarium has grown by over 2,800 new specimens to almost 11,000. His extensive knowledge and interest in sharing his expertise and insights in growing plants will be missed by colleagues throughout the Department and by countless visitors who



take advantage of his skills to identify the mystery plants that pop up so often in Florida yards.

We welcome your suggestions for improvement of TRI-OLOGY. Please feel free to contact [me](#) or [Dr. Patti Anderson](#) with your comments.

[Dr. Wayne N. Dixon](#), editor  
Director, DPI

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## Botany Section

Compiled by Richard E. Weaver, Jr., Ph.D., and [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 10,000 plants and nearly 1,400 vials of seeds.

***Acanthospermum hispidum* DC (bristly starbur; goat head; goat spur)**, from a genus of six tropical American species.

Compositae/Asteraceae. This weedy, herbaceous plant is native to South America, but has become naturalized in the United States with a somewhat scattered distribution in the states of Alabama, Georgia, South Carolina, New Jersey, Oregon and Florida. This weed of corn, peanut and soybean fields was likely introduced in ship ballast in coastal areas. Within Florida, this species is also scattered from the panhandle through the central peninsula from Escambia County to Martin County. The erect, pubescent stems range from 10-80 cm in height. The leaves are opposite with blades that are ovate to obovate, roughly 4-12 cm long, dotted with glands and clothed with septate hairs. The leaf may be sessile or have a very short petiolate base. The ray and disk flowers are yellow. The dry fruits are held in a flat, star-like configuration (hence the common name, starbur). Each fruit has hooked prickles and two large spines. These sharp structures attach readily to animal hair, aiding in dispersal or invasion, depending on your point of view, into fields, roadsides and disturbed areas. (Lake County; B2010-595; Mary C. Sellers; 7 October 2010.) (Bryson and DeFelice 2009; Mabberley 1997; Wunderlin and Hansen 2003; [http://www.hear.org/pier/species/acanthospermum\\_hispidum.htm](http://www.hear.org/pier/species/acanthospermum_hispidum.htm) <http://edis.ifas.ufl.edu/pdffiles/FW/FW00400.pdf> .)

***Ardisia escallonioides* Schlttdl. & Cham. (marlberry)**, from a genus of approximately 250 species widely distributed in tropical and warm regions. Myrsinaceae. This shrub or small tree is native to Florida, Mexico, the West Indies and Central America and grows in hammocks around the Florida peninsula, primarily in coastal counties from Flagler to Pasco. The glossy green leaves are alternate, with blades that are entire, lanceolate to ovate, glabrous and leathery. The fragrant flowers are held in densely packed terminal panicles. Each flower has five to six white (or pinkish) petals and conspicuous yellow stamens. The ripe fruits are shiny black drupes, 7-9 mm in diameter, and appear on the plant throughout much of the year. This native species is well adapted to the water and soil conditions found in coastal forests and can become a low-maintenance addition to landscapes in much of the state. People around the Caribbean have used the fruits medicinally, as a food and as a source of body paint. (Broward County; B2010-561; Rita J. Carpenter; 27 September 2010 and Indian River County; B2010-602; Kenneth Hibbard; 6 October 2010.) (Austin 2004; Mabberley 1997; Nelson 1994; <http://www.regionalconservation.org>.)

### Sample Submissions

	Sep/ Oct	Year to Date
Samples submitted by other DPI sections	1,208	6,164
Samples submitted for botanical identification only	137	633
Total Samples Submitted	1,345	6,797
Specimens added to the herbarium	36	85



***Acanthospermum hispidum* (bristly starbur)**  
Photograph courtesy of J.M.Garg/Wikipedia



***Acanthospermum hispidum* (bristly starbur)**  
herbarium specimen, collected by R. Batty,



***Jatropha integerrima* Jacquin (peregrina)**, from a genus of 175 species native to tropical and subtropical areas around the world. Euphorbiaceae. Most species of this family have rather inconspicuous flowers, although they may have showy bracts subtending the inflorescences, as in *Poinsettia*. The flowers often lack petals or even the entire perianth, but this species has beautiful flowers with rather large, conspicuous and brightly colored petals. It is native to Cuba, and perhaps Hispaniola as well, and has escaped sparingly throughout the Caribbean Basin. It is also spontaneous in a few spots along Florida's east coast, from Brevard County to the Keys, but is not invasive anywhere in its introduced range. Like most members of the family, all parts of the peregrina contain a milky sap, which oozes from any wound and can cause skin irritation in sensitive people. It is a sparsely branched shrub, growing to 4 m tall, and evergreen in frost-free climates. The leaves are a deep, glossy green and are variable in shape; they may be oval, oblong, obovate or fiddle-shaped or with two basal lobes. They range from 7-16 cm long, with a petiole half as long to almost as long as the blade. The plants bloom constantly and are attractive to butterflies and hummingbirds. The flowers are 2.5 cm across, with five separate, scarlet or vermilion petals, and are borne in terminal panicles. The peregrina is widely cultivated in most parts of Florida, but it is best adapted to the warmer areas of the state. It is very frost-sensitive and is killed to the ground during most winters in north-central parts of the peninsula. The roots can survive temperatures as cold as 20 degrees F., but regrowth is slow, and the plants seldom recover enough to bloom before midsummer. (Miami-Dade County; B2002-611; Juan Garcia Lopez, 12 October 2010.) ([http://www.floridata.com/ref/j/jatr\\_int.cfm](http://www.floridata.com/ref/j/jatr_int.cfm).)

***Limnobium spongia* (Bosc.) L. C. Rich. ex Steud. (American spongeplant; frog's-bit)**, from a genus with a single species, native to the southeastern United States. Hydrocharitaceae. This Florida native, perennial aquatic plant grows from Collier County to Liberty County, northward to New York and Illinois and as far west as Texas. It may grow as a floating mat in shallow water or as a rooted plant at the edges of ponds, ditches, canals and swamps. The plants grow from runners and form a rosette of cordate to reniform leaves with a distinctive area of red to purplish spongy tissue on the undersides. These rosettes eventually give rise to erect leaves with petioles to 15 cm tall. Unisexual flowers are produced in the axils of these petiolate leaves. Both male and female flowers have white tepals, but male flowers have a column of fused stamens with up to 12 anthers emerging along the column, while female flowers usually have six bifid stigmas. The fruit is a many-seeded berry that develops under the water surface. Although this is a native plant and therefore, not an invasive exotic, it can grow rampantly. Dense mats of this plant can cover other aquatic vegetation, much like *Eichhornia crassipes*, the invasive water hyacinth. (Miami-Dade County; B2010-568; Maria C. Acosta; 28 September 2010.) (Godfrey and Wooten 1979; <http://plants.ifas.ufl.edu>.)

***Lygodium japonicum* (Thunberg) Swartz (Japanese climbing fern)**, from a genus of 40 species, mostly in the tropics, but one species in eastern United States. Schizaeaceae. A number of fern species climb by means of rhizomes, but those of the genus *Lygodium* do so instead with greatly elongated, twining leaves (fronds). In the case of the species discussed here, the fronds may be as much as 30 m long and are able to climb into



***Ardisia escallonioides* (Marlberry)**  
Photograph courtesy of Roger Hammer, [Atlas of Florida Vascular Plants](#)



***Limnobium spongia* (frog's-bit)**  
Photograph courtesy of Ann Murray, [University of Florida](#)



***Limnobium spongia* (frog's-bit) underside**  
Photograph courtesy of Shirley Denton, [Atlas of Florida Vascular Plants](#)

the canopy of the tallest forest trees. The plant is native to eastern Asia, and it was introduced into Florida as an ornamental in the 1930s. It has become naturalized throughout the state, but is most common in the northern peninsula and the Panhandle. In addition, the Japanese climbing fern has spread into all of the coastal states, from North Carolina to Texas, and is considered a noxious weed in Florida and Alabama. It is commonly found in disturbed habitats, but it is rapidly becoming a pest in natural areas, where it smothers native vegetation with its rank growth. The plant reproduces from spores, which are very light and are easily carried long distances by the wind. In addition, since it is common in pine plantations, its spread has been facilitated by the harvesting and movement of pine straw. This is a very distinctive plant. The sterile pinnae (leaflets) are alternate or opposite on the long and flexuous rachis, and they are triangular in outline, resembling a bracken fern (*Pteridium*) frond. They are twice-pinnately compound, and the pinnate or pinnatifid segments generally have a prominent, long and slender terminal lobe. The fertile pinnae are borne on the same frond as the sterile ones, but they are distinctly different, with a lacy appearance. The margins of the fertile segments are rolled under, partially covering the spores, so the lobes are narrow and fingerlike. Two other species of *Lygodium* might be encountered in Florida. The very rare native Hartford fern, *L. palmatum*, with palmately lobed pinnae, has only been collected once. The very invasive *L. microphyllum*, the Old World climbing fern, is a serious problem in several parts of South Florida. It differs from *L. japonicum* in its once-pinnate pinnae, and its unlobed pinnules. (Volusia County; B2010-553; Stacey C. Simmons; 22 September 2010; Alachua County; B2010-587; Cheryl A. Jones; 7 October 2010 and Alachua County; B2010-589; Cheryl A. Jones, 7 October 2010.) (Langeland *et al.* 2008.)

***Solanum seafortianum* Andrews (Brazilian nightshade)**, from one of the largest genera of Dicotyledons, with more than 1700 species; cosmopolitan). Solanaceae. Most species of this large and varied genus are herbaceous plants or shrubs, but the species discussed here is a woody vine. Its country of origin is probably Brazil, although many references list it as being native to the West Indies. It has become naturalized in the tropics, and is considered invasive in parts of Australia and the Pacific islands. It is adventive in central and southern Florida, but nowhere is it invasive at present, and it is not regulated by any state or federal agency. The plant is a twining vine reaching 3 m or more and is generally well behaved in the garden. The alternate leaves are variably but pinnately lobed, with the sinuses between the lobes usually reaching nearly to the midvein. The beautiful, star-shaped, bluish or lilac flowers are borne in drooping panicles from the upper leaf nodes. They are 2 – 2.5 cm across, with five spreading "petals" (corolla lobes) and five conspicuous yellow anthers. The flowers are followed by round berries which are red and juicy when ripe; they have caused poisoning to humans and livestock in Australia. This plant is not frost tolerant, so it is best suited as an ornamental in the warmer parts of Florida. It will die back to the ground during cold winters in the north-central part of the state, but usually will resprout from the roots and bloom in season.



***Lygodium japonicum* (Japanese climbing fern)**  
 Photograph courtesy of James Tear, [Atlas of Florida Vascular Plants](#)



***Lygodium japonicum* (Japanese climbing fern)**  
 Photograph courtesy of Shirley Denton, [Atlas of Florida Vascular Plants](#)



***Solanum seafortianum* (Brazilian nightshade)**  
 Photograph courtesy of Dennis Girard, [Atlas of Florida Vascular Plants](#)

(Hernando County; B2010-643; Stephen R. Jenner; 19 October 2010.)  
(Howard 1989.)

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- Nelson, G. 1994.** Trees of Florida: a reference and field guide. Pineapple Press, Sarasota, Florida. 338 p.
- Wunderlin, R. P. and B. F. Hansen. 2003.** Guide to the vascular plants of Florida, 2nd edition. University Press of Florida, Gainesville, Florida. 787 p.

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## Entomology Section

Compiled by [Susan E. Halbert, Ph.D.](#)

This section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. The entomology section also builds and maintains the arthropod reference and research collection (the Florida State Collection of Arthropods - with over 9 million specimens), and investigates the biology, biological control and taxonomy of arthropods.

***Bactrocera dorsalis* (Oriental fruit fly)** is one of the world's most aggressive fruit fly pests. Its immature stages frequently are transported in infested fruit to new areas. It has been detected on numerous occasions in Florida since 1964, with the most recent previous event in 2008 in the Orlando area. Recently, two males were captured in a single methyl eugenol-baited Jackson trap at a residential site. A high-density delimitation trapping network was quickly implemented in an area of approximately 67 square miles surrounding the detection site in Safety Harbor, and it will be maintained for an estimated three life cycles. No further flies have been detected to date. The estimated end date for surveillance is 22 December 2010 (Dr. Gary J. Steck).

***Duponchelia fovealis* (European pepper moth), a new state record,** was first collected in Orlando, Florida, on October 13, 2010, during a CAPS survey using delta traps and the specific pheromone for the moth. European pepper moth was reported first in North America in 2004 in California. It likely entered Florida via the transport of infested plants or other nursery material from other states, as this moth has been found in at least 10 other states including Georgia, Alabama, and Mississippi. *D. fovealis* is native to the Mediterranean region and the Canary Islands, but is now established in many countries in Europe, the Middle East and Africa. Larvae of the European pepper moth are polyphagous, feeding on a wide range of field crops, ornamental plants and aquatic plants, including green pepper, strawberries and poinsettias (Julieta Brambila).

***Stemmatomerinx adenticulata* (a mealybug)** is a species native to the United States in a very distinctive genus. A related species, *S. acircula*, was re-discovered in Florida in 2001, after its original collection in 1975. Several species occur in the southeastern United States, but they are known mainly from Georgia. The type material for *S. adenticulata* was collected from Irwin County, in Georgia. The only known hosts are various species of Gramineae/Poaceae. In life, the mealybugs, which are 2-3mm long, are a light lime-green color, with long projections of crystalline wax (Dr. Ian C. Stocks).

***Tenuipalpus uvae* (a false spider mite)** was described originally from Mexico in 1962 and reported from Costa Rica, Puerto Rico and Trinidad. Very little is known about the mite (Dr. W.C. 'Cal' Welbourn).

***Dysmicoccus mcdanieli* (a mealybug)** is known previously from asters

### Sample/Specimen Submissions

#### September

Samples Submitted	653
Specimens Identified	17,452

#### October

Samples Submitted	625
Specimens Identified	8,847

#### Year to Date

Samples Submitted	6,639
Specimens Identified	193,789



***Bactrocera dorsalis* (Oriental fruit fly)**  
Photograph courtesy of Gary J. Steck, [DPI](#)



***Duponchelia fovealis* (European pepper moth)**  
Photograph courtesy of Lyle J. Buss, University of Florida Department of Entomology and Nematology



and Urticaceae in California and Missouri. It is possibly native and probably not a pest of concern (Dr. Ian C. Stocks).

***Odonaspis secreta* (an armored scale)** is a cosmopolitan scale that infests only grasses. There are published records of it from Louisiana and New Jersey. It has a fairly extensive list of documented parasitoids and predators. Its pest status in the United States is unknown, but appears to be negligible (Dr. Ian C. Stocks).

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- Boczek, J. and Davis, R. 1984.** New species of eriophyid mites (Acari: Eriophyoidea). Florida Entomologist 67: 198-213.
- Flechtmann, Carlos H.W. and G.J. De Moraes. 2003.** New genus and species of eriophyid mites (Acari, Eriophyidae) from Myrtaceae in Brazil, with notes on damages caused by *Aculus pitangae* Boczek & Davis. Zootaxa 153: 1-10.

## Entomology Specimen Report

Following are tables with entries for records of new hosts or new geographical areas for samples identified in the current volume's 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 an Excel spreadsheet.

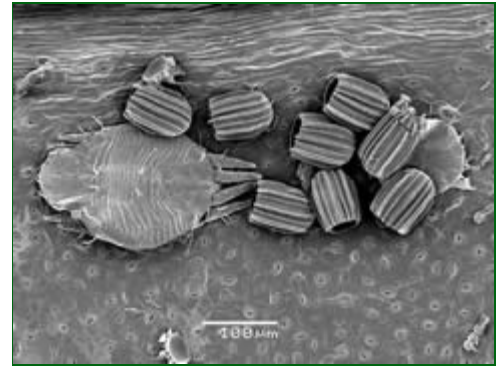
The tables are organized alphabetically by plant host, if the specimen has a plant host. Some arthropod specimens are not collected on plants and are not necessarily plant pests. In the table below, those entries have no plant information included and are organized by arthropod name.

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***Stemmatomerinx acircula* (a mealybug)**  
Photograph courtesy of Lyle J. Buss, University of Florida Department of Entomology and Nematology



***Tenuipalpus uvae* (a false spider mite)**  
Photograph courtesy of Dr. W.C. 'Cal' Welbourn and Dr. Paul E. Skelley, DPI

Plant Species Name	Plant Common Name	Arthropod Species Name	Arthropod Common Name	County	New Records
<i>Albizia julibrissin</i>	mimosa	<i>Merobruchus lysilomae</i>	a bruchid beetle	Alachua	COUNTY
<i>Ambrosia artemisiifolia</i>	common ragweed	<i>Nipaecoccus viridis</i>	a mealybug	Palm Beach	HOST
<i>Asimina tetramera</i>	four-petal pawpaw, scrub pawpaw	<i>Aethecerinus hornii</i>	a cerambycid beetle	Palm Beach	COUNTY
<i>Bambusa</i> sp.	bamboo	<i>Odonaspis secreta</i>	an armored scale	Miami-Dade	STATE
<i>Bidens alba</i>	beggarticks, romerillo	<i>Nipaecoccus viridis</i>	Lebbeck mealybug	Palm Beach	HOST
<i>Cenchrus</i> sp.	a grass	<i>Odonaspis benardi</i>	an armored scale	Miami-Dade	STATE; HOST
<i>Chrysophyllum cainito</i>	star-apple; caimito	<i>Epicorsia oedipodalis</i>	fiddlewood leafroller	Broward	HOST
<i>Citrus aurantium</i>	sour orange	<i>Odinia biguttata</i>	an odiniid fly	Hardee	COUNTY
<i>Citrus sinensis</i>	orange	<i>Homaemus proteus</i>	a scutellerid bug	Charlotte	COUNTY
<i>Citrus</i> sp.		<i>Diaphorina citri</i>	Asian citrus psyllid	Bay	COUNTY
<i>Cocos nucifera</i>	coconut palm	<i>Aleurodicus rugloperculatus</i>	a whitefly	Indian River	COUNTY

<i>Croton glandulosus</i>	vente conmigo	<i>Nipaecoccus viridis</i>	a mealybug	Palm Beach	HOST
<i>Cucumis sativus</i>	cucumber; garden cucumber	<i>Phenacoccus madeirensis</i>	a mealybug	Miami-Dade	HOST
<i>Dioscorea bulbifera</i>	air potato; potato yam, air yam	<i>Halyomorpha halys</i>	brown marmorated stink bug	Duval	REGULATORY INCIDENT

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## Nematology Section

Compiled by [Renato N. Inserra, Ph.D.](#), [Janete A. Brito, Ph.D.](#), and [Jason D. Stanley, M.S.](#)

This section analyzes soil and plant samples for nematodes, conducts pest detection surveys and provides diagnosis 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 principal part of the regulatory activity 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.

### Nematodes of Special Interest

Nematodes of special interest detected and/or identified in September - October 2010

The majority of foliage ornamentals in the family Marantaceae are very good hosts of the burrowing nematode, *Radopholus similis*. *Maranta* and *Calathea* species are considered target hosts for the detection of the burrowing nematodes in nurseries (Esser *et al.* 1988). The direct damage caused by this endoparasitic nematode on these foliage ornamentals consists mainly of stunted growth and discoloration of the leaves. However, as a consequence of the nematode infection, these plants fail to meet the requirements for nematode certification for export markets. Recently, *Stromanthe* sp. plants, originating from plantlets introduced from Costa Rica, were found parasitized by the burrowing nematode in a Central Florida nursery. *Stromanthe* sp. is a new host of this nematode.

*Stromanthe* sp. (stromanthe) - *Radopholus similis* (Cobb, 1893) Thorne, 1949, a burrowing nematode, was found infecting the roots of this foliage ornamental. (Lake County, N10-01161, Charles L. Spriggs, 22 September 2010.)

Collectors submitting five or more samples that were processed for nematological analysis in July - August 2010

Anderson, James L.	11
Bailey, Wayne W.	14
Bentley, Michael A.	7
Burgos, Frank A.	62
Edenfield, Carrie S.	162
Hassell, Lisa M.	8
LeBoutillier, Karen W.	108
Ochoa, Ana L.	145
Pate, Jo Ann	25

### Sample Submissions

	Sep/ Oct	Year to Date
Morphological Identifications	1,791	11,704
Molecular Identifications	199	671
Total Samples Submitted	1,990	12,375

### Certification and Regulatory Samples

Multistate Certification for National and International Export	1,338	8,693
California Certification	202	1,904
Pre-movement (Citrus Nursery Certification)	16	198
Site or Pit Approval (Citrus Nursery and Other Certifications)	136	210

### Other Samples

Identifications (invertebrate)	4	9
Plant Problems	31	137
Intrastate Survey, Random	64	553
Molecular Identifications*	199	671

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



Qiao, Ping	92
Spriggs, Charles L.	218
Tannehill, Ellen J.	8
Toral, Angelina M.	11

## References

**Esser, R.P., J.H. O'Bannon and R.A. Clark. 1988.** How to detect burrowing nematode when making annual nursery inspections. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, Florida. Nematology Circular No. 155, 4 p.



***Stromanthe* sp., a new host of *Radopholus similis* (burrowing nematode)**  
Photograph courtesy of [Top Tropicals](#)

## Plant Pathology Section

 Compiled by [Robert M. Leahy](#)

This section provides plant disease diagnostic services and conducts a citrus germplasm introduction program. The agency-wide goal of protecting Florida agriculture very often begins with accurate diagnosis of plant problems. Disease management recommendations are offered where appropriate and available. Our plant pathologists are dedicated to keeping informed about plant diseases outside Florida in order to be prepared for potential introductions of new pathogens.

### Plant Pathology Sample Report

Following is a table 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. The tables are organized alphabetically by plant host.

***Cylindrocladium pteridis* F. A. Wolf 1926**, a fungal pathogen that causes leaf spot on a wide range of plant species, from leatherleaf ferns to eucalyptus trees, was found for the first time on *Chamaerops humilis*, the European fan palm. (Hillsborough County; P2010-39456; James R. Martin; 17 August 2010.)

***Burkholderia andropogonis* (Smith 1911) Gillis et al. 1995**, the causal agent for bacterial leaf spot on a broad range of plants, was found on *Vaccinium corymbosum*, highbush blueberry, at a blueberry farm. This is a new bacterial pathogen on this host, and the economic significance is unknown. (Marion County; P2010-39161; grower; 26 August 2010.)

### Sample Submissions

	Sep/ Oct	Year to Date
Pathology	485	1,993
Bee	9	42
Soil	32	100
Citrus Canker	593	1,711
Citrus Greening	2,055	7,721
Citrus Black Spot	0	100
Miscellaneous	0	58
Total Samples Submitted	3,174	11,725

Plant Species	Plant Common Name	Causal Agent	Disease Name	Location Type	County	Sample Number	Collector	Date	New Records
<i>Agastache</i> sp.	giant hyssop	<i>Acidovorax konjaci</i>	bacterial leaf spot	Florida Museum of Natural History	Alachua	39204	Cheryl A. Jones	30-Aug-10	Host
<i>Chamaerops humilis</i>	European fan palm	<i>Cylindrocladium pteridis</i>	leaf spot	Dooryard	Hillsborough	39456	James R. Martin	17-Aug-10	Host
<i>Citrus sinensis</i>	orange	<i>Phytophthora nicotianae</i>	stem blight	Nursery	Nassau	39152	Theresa R. Estok	25-Aug-10	
<i>Citrus</i> sp.	orange	<i>Phytophthora nicotianae</i>	stem blight	Nursery	Wakulla	39687	Michael A. Bentley	10-Sep-10	
<i>Cucumis sativus</i>	cucumber	<i>Myrothecium roridum</i>	leaf spot	Nursery	Martin	40905	Joel Allingham	14-Oct-10	Host
<i>Cucumis sativus</i>	cucumber	<i>Exerothilum</i>	leaf spot	Nursery	Martin	40905	Joel Allingham	14-	Host

		<i>rostratum</i>						Oct - 10	
<i>Ficus carica</i>	common fig	<i>Phytophthora palmivora</i>	fungus	Nursery	Miami-Dade	38922	Haylett Cruz-Escoto	17-Aug-10	
<i>Halesia diptera</i>	snowdrop tree	<i>Hinomyces moricola</i>	leaf spot	Dooryard	Alachua	40007	homeowner	22-Sep-10	Host
<i>Loropetalum chinense</i>	fringe bush	<i>Xanthomonas</i> sp.	bacterial leaf spot	Nursery	Alachua	40929	Cheryl A. Jones	12-Oct-10	Host
<i>Odontonema strictum</i>	odontonema	<i>Sclerotium rolfsii</i>	southern blight	Nursery	Collier	38199	Scott D. Krueger	22-Jul-10	Host
<i>Pelargonium x citrosium</i>	mosquito plant	<i>Myrothecium roridum</i>	leaf spot	Nursery	Orange	38191	Kathy A. Gonzalez	22-Jul-10	Host
<i>Persea americana</i>	avocado	<i>Raffaelea lauricola</i>	Laurel wilt	Dooryard	Alachua	39481	homeowner	7-Sep-10	
<i>Persea borbonia</i>	red bay	<i>Raffaelea lauricola</i>	Laurel wilt	Dooryard	Polk	40384	homeowner	28-Sep-10	County
<i>Persea palustris</i>	swamp bay	<i>Cylindrocladium perseeae</i>	leaf spot	Dooryard	Alachua	39903	Michael C. Thomas, Katherine E. Okias	2-Sep-10	Host
<i>Polymnia sonchifolia</i>	yacon	<i>Cercospora</i> sp.	leaf spot	Nursery	Alachua	39098	nursery owner	17-Aug-10	Host
<i>Rhynchelytrum repens</i>	rose Natalgrass	<i>Curvularia</i> sp.	pathogenic fungi	Dooryard	Alachua	39898	homeowner	20-Sep-10	Host
<i>Rhynchelytrum repens</i>	rose Natalgrass	<i>Ascochyta</i> sp.	pathogenic fungi	Dooryard	Alachua	39898	homeowner	20-Sep-10	Host
<i>Rhynchelytrum repens</i>	rose Natalgrass	<i>Rhizoctonia</i> sp.	pathogenic fungi	Dooryard	Alachua	39898	homeowner	20-Sep-10	Host
<i>Rhynchelytrum repens</i>	rose Natalgrass	<i>Gaeumannomyces graminis</i>	pathogenic fungi	Dooryard	Alachua	39898	homeowner	20-Sep-10	Host
<i>Rosmarinus officinalis</i>	rosemary	<i>Corynespora cassiicola</i>	unknown	Nursery	Marion	37822	nursery owner	7-Jul-10	Host
<i>Vaccinium corymbosum</i>	highbush blueberry	<i>Burkholderia andropogonis</i>	bacterial leaf spot	Blueberry farm	Marion	39161	grower	26-Aug-10	Host

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