

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.

***Eulophia graminea* Lindl.** This terrestrial orchid is the most recent of the 12 exotic orchids naturalized in Florida. *E. graminea* was first reported in 2007 from a residential garden in Miami. It has since been found in a number of locations in Miami-Dade and Broward counties, usually in sunny habitats. This orchid is native over a wide area in Asia, from Pakistan to Japan, and has also become naturalized in Australia.



Eupteryx decemnotata

Rey (Ligurian leafhopper), a new **Western Hemisphere record**, was found in Palatka on rosemary, the culinary herb, *Rosmarinus officinalis*.

The insect was intercepted in Florida on a shipment of holiday topiaries from Southern California. Please see the new [DPI Pest Alert](#) on this species for more information.

***Eulophia graminea* (no common name)**
Photograph and copyright courtesy of [Butterflies & Wild Orchids of Thailand](#)

***Eupteryx decemnotata* (Ligurian leafhopper)**.
Photograph courtesy of Alessandra Rung, CDFA

***Pseudococcus dendrobiorum* Williams (an orchid mealybug)**,

a new **Western Hemisphere record**, was found on a moth orchid, *Phalaenopsis* sp. This exotic orchid mealybug is native to Asia and has been reported from the Australasian, Oriental and Palearctic regions. Please see the new [DPI Pest Alert](#) on this species for more information.



***Sinomegoura citricola* (van der Goot) (an aphid)**, a

***Pseudococcus dendrobiorum* Williams (an orchid mealybug)**.

Section Reports

Botany

Entomology

Nematology

Plant Pathology

TRI-OLOGY's New Look

This is our second issue of TRI-OLOGY in the new format with improved use of the Internet. As we will continue to tweak our upgrade over the next few issues, we welcome your comments and suggestions for improvement. Please feel free to contact me at dixonw@doacs.state.fl.us or Dr. Patti Anderson at andersp1@doacs.state.fl.us and let us know.

Wayne N. Dixon, Ph.D., editor
Assistant Director, DPI



Photograph courtesy of Lyle J. Buss, University of Florida

new **Western Hemisphere record**, was found in Hemet, California, on lemon, *Citrus limon*. This aphid is Asian, including both Southeast Asia and the Indian subcontinent. It is a minor pest of many tropical plants, including citrus, camellia, ficus, mango, avocado and others. So far, the known distribution in the United States includes only Southern California.

***Sinomegoura citricola* (van der Goot) (an aphid).**

Photograph courtesy of Manjunath L. Keremane, USDA, and Tom Shea, University of California Cooperative Extension, Riverside County

***Aleurodicus rugioperculatus* Martin (a white fly)**, a new **US Continental record**, was found in Miami on *Bursera simaruba*, the gumbo limbo tree.

This white fly was first described in 2004 from specimens collected on coconut palms in Belize. This record represents the first occurrence in the United States of the Neotropical species.

***Liriomyza huidobrensis* Blanchard (pea leafminer)** was intercepted on *Molucella laevis*, bells of Ireland. This is the **first positive identification** of this highly invasive pea leafminer in Florida. This pest has possibly been intercepted in other imported commodities coming into Florida over the years, but never with a positive identification because DNA sequence data are needed to distinguish it from another commonly intercepted pest, the California pea leafminer, *Liriomyza langei*.



***Cyperus esculentus* (yellow nut-sedge)**
Photograph and copyright courtesy of Shirley Denton, [Atlas of Florida Vascular Plants](#)

***Heterodera cyperi* Golden, Rau & Coob, 1962 (a cyst-forming nematode)** was infecting the roots of *Cyperus esculentus* (yellow nut-sedge) growing in a potato field. Although this species has been detected in Florida since the early 1960s and is widely distributed in cultivated fields and natural land, *H. cyperi* population levels are usually low and do not cause appreciable damage to yellow nut-sedge.

***Meloidoygne mayaguensis* Rammah and Hirshmann, 1988 (guava root-knot nematode)** was found infecting the root of *Melaleuca viminalis* (bottle brush). This nematode species has been found infecting several other horticultural crops and weed plants in Florida.

***Puccinia sherardiana* (a fungal rust pathogen)** was collected on *Callirhoe* sp. (poppy mallow) at a plant nursery in Alachua County. This autoecious rust of Malvaceae, a **State record**, is known from further north and west in the United States, but this is the first reported incidence of the rust in Florida.

***Sordaria* sp. (a soilborne saprophytic fungus)** was collected on *Hydrangea* sp. (hydrangea) - at a plant nursery in Duval County. This saprophytic ascomycete shoots packets of black spores into the environment. The residue on plants could be mistaken for a pest and cause phytosanitary certification problems.

Kordyana tradescantiae (a leaf spot), a

Western Hemisphere record, was found on *Tradescantia ohiensis* (Ohio spiderwort) at a plant nursery in Lake County. The pathogen behaves like a leaf smut and is being explored for biocontrol potential where *Tradescantia* is weedy.



***Tradescantia ohiensis* (Ohio spiderwort)**

Photograph and copyright courtesy of Paul L. Redfearn, Jr., [Atlas of Florida Vascular Plants](#)

Patti J. Anderson, Ph.D., managing editor

Wayne N. Dixon, Ph.D., editor

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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.

***Eulophia graminea* Lindl (No common name)** (a genus of approximately 200 species, found almost entirely in the Old World tropics, with a single species widespread in tropical and subtropical America). Orchidaceae. This terrestrial species is the most recent of the 12 exotic orchids naturalized in Florida. *E. graminea* was first reported in 2007 from a residential garden in Miami. It has since been found in a number of locations in Miami-Dade and Broward counties, usually in sunny habitats. This orchid is native over a wide area in Asia, from Pakistan to Japan, and has become naturalized in Australia. The pseudobulbs are partly buried and occur singly in young plants or in clusters in older ones. Each mature pseudobulb produces a single shoot with three to five grass-like leaves which die in the fall or winter. Several inflorescences appear in succession during the spring and summer, either before the leaves or with them. The inflorescences are branched and stand from 0.5-1.5 m tall. They bear as many as 60 small flowers, from 1.5-2.5 cm across, with greenish or purplish petals and sepals and a white lip marked with rose-pink spots. The lateral sepals spread horizontally, and a nectar-producing spur is present at the base of the flower. Another species, *Eulophia alta* (L.) Fawcett & Rendle, is native in central and southern Florida, but is not likely to be confused with *E. graminea* since it is a much more robust plant with broad leaves and large flowers in which the lip is pink or purple and the lateral sepals are held erect. Although it is too early to determine the potential invasiveness of *E. graminea*, it has definite weedy tendencies and would probably be cold-hardy anywhere in Florida and perhaps other states in the Southeast. (Broward County; B2009-178; Patttan Bissoondial, USDA; 17 April 2009.) (Pemberton *et al.* 2008.)

***Mimosa quadrivalvis* L. var. *angustata* (Torr. & A. Gray) Barneby (Sensitive briar)** (a genus of 480 species, from tropical and warm regions of the Americas). Leguminosae (Fabaceae). This sprawling, vine-like native plant is perennial in Florida, but can die back to the woody roots in northern counties. The ribbed stem is armed with numerous recurved prickles. Its bipinnately compound leaves have pinnae with four to eight pairs of tiny, oblong to linear leaflets that grow up to 7.5 mm long and 1.7 mm wide with prickles along the petiole and rachis. The pinnae are "sensitive" in that they close when touched; they also close at night. The showy flower is a pink to pinkish-purple head, up to 1.5 cm across, on an armed peduncle. The fruits are also covered with prickles. Although it is similar to *M. strigillosa*, another native wildflower often used as a ground cover, the prickles covering much of this species make it much less likely to be planted in home gardens. *M. quadrivalvis* occurs in dry sites with sandy soils, including

Sample Submissions

	Mar/ Apr	Year to Date
Samples submitted by other DPI sections	1,765	2,635
Samples submitted for botanical identification only	113	194
Total Samples Submitted	1,878	2,829
Specimens added to the herbarium	53	130



***Eulophia graminea* (no common name)**
Photograph and copyright courtesy of
[Butterflies & Wild Orchids of Thailand](#)

forest edges, roadside clearings and open forests where it contributes to the diet of gopher tortoises. (Pinellas County; B2009-176; Bobbe A. Rose; 17 April 2009.) (Miller and Miller 2005; Norcini and Aldrich 2009; <http://edis.ifas.ufl.edu>.)

***Randia formosa* (Jacq.) K. Schum. (Jasmin de rosa, blackberry jam fruit)** (a genus of about 100 species of shrubs and trees, from tropical and warm regions of the Americas). Rubiaceae. Unlike most members of this tropical to subtropical genus, *R. formosa* usually lacks spines on its upright stem and can be cultivated in temperate climates. It is native to the West Indies and from Panama to Peru and Brazil. This shrubby plant with reddish-brown stems to 4 m tall has quite variable leaves up to 7 cm in length that may be glabrous or have appressed pubescence on the undersides. The leaves may be sessile or have a petiole up to 1 cm long, and the leaf tips may be rounded or acute. In contrast, this species almost always has persistent triangular stipules (that may appear spine-like) and leaf blades that are bright green above and paler green beneath. The fragrant, solitary flower has a white corolla with a slender tube up to 10 cm long and five ovate to oblong lobes. The fruit, for which the plant is prized, is oblong to oval and 2-3 cm long (roughly olive-sized and shaped) with very sweet, black pulp. This shrub can be cultivated much like its relative, the gardenia, to provide a fragrant ornamental as well as an edible addition to the landscape. (St. Lucie County; B2009-144; Kenneth L. Hibbard; 1 April 2009.) (Huxley 1992; Staples and Herbst 2005; <http://www.crfq.org/fg/xref/xref-r.html>; <http://toptropicals.com>.)

***Rumex crispus* L. (Curly dock, yellow dock)** (a genus of 200 temperate species, especially in the Northern Hemisphere). Polygonaceae. This species, found in fallow fields, waste places, ditches, roadside swales and other disturbed places, is native to Eurasia but has naturalized throughout the United States and most of the rest of the world (although it is not reported from Greenland). A tap-rooted perennial growing as tall as 1.5 m, curly dock can be recognized by its basal rosette of leaves with wavy or "crisped" margins and an unbranched, ridged stem that turns reddish with age. As is typical of members of this family, leaves along the stem have a sheath, called an "ocrea" that encircles the stem. In this species, the ocrea is deciduous and might not be apparent late in the growing season. The leaves are progressively smaller toward the stem apex, but the leaf margins remain crisped. Dense inflorescences cover the upper half of the stem with tiny yellow-green flowers that turn deep red with age. The fruit is a reddish-brown achene, 2-3 mm wide and 1.5-2 mm long. The success of this cosmopolitan weed is enhanced by several characteristics of its seeds: they are produced in massive quantities; they germinate and establish new plants quickly, yet remain viable for decades in the soil; and they can survive dispersal by wind or water. In addition, the taproot allows the plant to survive over winter and regrow after having been cut. There is some evidence that the root can resprout after damage from plowing. Like most of the genus, called docks or sorrels, this species is sometimes eaten or used medicinally to treat a number of ailments. Roots of several *Rumex* species have been used to make dyes, especially in the color range of yellow to orange to brown. The related *Rumex acetosa*, sour dock or garden



***Mimosa quadrivalvis* var. *angustata* (sensitive brier)**
 Photograph and copyright courtesy of Walter K. Taylor/Florida wildflowers in their natural communities, [Atlas of Florida Vascular Plants](#)



***Randia formosa* (blackberry jam fruit, jasmin de rosa) fruit**
 Photograph courtesy of [Top Tropicals](#)



***Rumex crispus* (curly dock)**
 Photograph courtesy of Dan Tenaglia, [Atlas of Florida Vascular Plants](#)

sorrel, is cultivated and eaten as a cooked green vegetable and in salads. (Submitted by the general public; 24 March 2009.) (Austin 2004; Lewis 2006; Pye and Andersson 2008; <http://www.calflora.org>; <http://www.efloras.org>; <http://www.missouriplants.com>.)

***Symphytum officinale* L. (Comfrey)** (a genus of 35 species, native to Europe from the Mediterranean to the Caucasus). Boraginaceae. This useful as well as ornamental perennial is native throughout most of Europe, but it is commonly cultivated in temperate climates and has naturalized widely. It can grow quite rampantly, spreading from the thick, black tuberous roots, and the erect, rough-hairy stems may grow to nearly a meter tall. The coarse, narrowly ovate, pointed leaves are as much as 30 cm long, and they form a loose, basal rosette; the stem leaves are smaller. All are rough to the touch due to their loose covering of short, stiff hairs, and rubbing against them may cause dermatitis in sensitive people. The somewhat bell-shaped, nodding, pale yellow or pinkish flowers are about 1.5 cm long and are held in terminal, drooping cymes. This plant has been cultivated for more than 2,000 years, sometimes for ornament, but more often for its medicinal properties. The leaves and roots contain a substance, allantoin, that, when prepared in a poultice or an ointment, seems to hasten the healing of burns or wounds by increasing the rate of cell growth. Extracts of the leaves and roots have been used to treat a variety of disorders, including varicose veins, rheumatism and muscle ailments. Comfrey tissues also contain pyrrolizidine alkaloids which are toxic to the liver, so no part of the plant should be taken internally. More recently, the leaves, either whole or chopped up and applied as a mulch, have been used as a green manure by organic gardeners. Comfrey is occasionally invasive, but it is not adapted to a hot and humid climate, so it should not be a problem here in Florida. (Hillsborough County; B2008-175; Howard L. Wallace; 17 April 2009.) (Mabberley 1997; <http://www.floridata.com>.)

***Xanthorhiza simplicissima* Marsh. (Yellowroot)** (a genus with a single species, endemic to the eastern United States). Ranunculaceae. This is a distinctive plant, found on shady stream banks and other moist places throughout the eastern United States from Maine to Texas, but it is most common in the Southeast. It is rare in Florida, having been reported only from Santa Rosa, Walton, Jackson and Gadsden counties in the Panhandle, and is included on the state's list of endangered species. Yellowroot is the only woody plant in the Crowfoot or Buttercup Family. It is 50-80 cm tall and strongly stoloniferous, making a tangle of erect, mostly unbranched stems, which if scraped, reveal a bright yellow inner bark. The inner bark of the roots is also bright yellow, giving rise to both the Latin and the common names. The leaves are clustered at the tips of the stems and are pinnately compound with a slender petiole about as long as the blade. The five leaflets are strongly toothed and often deeply cleft, giving the foliage a lacy effect. Attractive but not showy flowers are produced on lax racemes in the spring before the leaves have expanded. They are about a centimeter across, with conspicuous maroon or brownish maroon sepals and inconspicuous yellow, knob-like petals. Yellowroot is an attractive plant that should be cultivated more frequently. It makes an excellent, but rather tall groundcover with interesting flowers in the spring, attractive lacy foliage during the growing season, and beautiful orange autumn coloration, at least further north. The bark and the roots have been used to make a yellow dye, and they contain a bitter principle that is useful medicinally. Native



***Symphytum officinale* (comfrey)**
Photograph courtesy of [wikimedia](https://www.wikimedia.org/).



***Xanthorhiza simplicissima* (yellowroot)**
Photograph and copyright courtesy of Gil Nelson/Florida wildflowers in their natural communities, [Atlas of Florida Vascular Plants](#)

Americans used the plant to treat a wide variety of ailments, from ulcerate stomach to blood disorders and cancer. (Submitted by the general public; 16 April 2009.) (Godfrey 1988; Parfitt 1997.)

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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.

***Aleurodicus rugioperculatus* Martin (a white fly), a new US Continental record** found in Miami on *Bursera simaruba*, the gumbo limbo tree. This white fly was first described in 2004 from specimens collected on coconut palms in Belize. This record represents the first occurrence in the United States of the Neotropical species, previously known in Belize, Guatemala and Mexico. The economic importance of this introduction is unknown, but the species occurs on a wide range of hosts that includes plants from six families. Among these hosts are avocado, coconut, banana, guava and bay laurel. (Miami-Dade County; E2009-1229; Olga Garcia; 11 March 2009.) (Dr. Greg S. Hodges.)

***Eupteryx decemnotata* Rey (Ligurian leafhopper), a new Western Hemisphere record**, was found in Palatka on rosemary, the culinary herb, *Rosmarinus officinalis*. This is a pest of plants in the mint family. Apparently, it is established fairly widely in California. The species was intercepted in Florida on a shipment of holiday topiaries from Southern California. (Putnam County; E2008-8075; Sol F. Looker; 3 December 2008.) (Dr. Susan E. Halbert.) Please see the new [DPI Pest Alert](#) on this species for more information.

***Liriomyza huidobrensis* Blanchard (a pea leafminer)** was intercepted on *Molucella laevis*, bells of Ireland. This is the first positive identification of this highly invasive in Florida. This pest has possibly been intercepted in other imported commodities coming into Florida over the years, but never with a positive identification because DNA sequence data are needed to distinguish it from another commonly intercepted pest, the California pea leafminer, *Liriomyza langei*. The identification was confirmed with DNA sequence data showing >99% homology with *L. huidobrensis* vs. ~95% homology with *L. langei* and much lower homology with other *Liriomyza* species. The specimens were reared from cut foliage. Tracing the origin of the foliage was not possible because the vendor could not be located. No plant material was submitted to confirm the host species. (Miami-Dade County; E2009-1402; Olga Garcia; 2 March 2009.) (Dr. Gary J. Steck).

***Protopulvinaria longivalvata* (a soft scale)** was found on *Schefflera arboricola*, the dwarf schefflera. Because this scale does not occur naturally in the United States, it should be considered a quarantine pest. (Miami-Dade County; E2009-22512009 Steven P. Beidler; 16 April 2009.) (Dr. Greg S. Hodges). Please see link to a [Powerpoint presentation](#) on identification of this species, which requires microscopic examination for

Sample/Specimen Submissions

March

Samples Submitted	699
Specimens Identified	45,925

April

Samples Submitted	1,066
Specimens Identified	37,088

Year to Date

Samples Submitted	2,720
Specimens Identified	121,632



***Eupteryx decemnotata* (Ligurian leafhopper)**,
Photograph courtesy of Alessandra Rung, CDFA

species determination.

***Pseudococcus dendrobiorum* Williams (an orchid mealybug)**, a new **Western Hemisphere record**, was found on a moth orchid, *Phalaenopsis* sp. This exotic orchid mealybug is native to Asia and has been reported from the Australasian, Oriental and Palaeartic regions. Its economic importance is not known. (Alachua County; E2009-1738; Marjorie A. Hoy, University of Florida, Entomology and Nematology Department; 27 March 2009.) (Dr. Greg S. Hodges.) Please see the new [DPI Pest Alert](#) on this species for more information.

***Sinomegoura citricola* (van der Goot) (an aphid)**, a new **Western Hemisphere record**, was found in Hemet, California, on lemon, *Citrus limon*. This aphid is Asian, including both Southeast Asia and the Indian subcontinent. It is a minor pest of many tropical plants, including citrus, camellia, ficus, mango, avocado and others. It is not known to transmit citrus tristeza virus, but a report from Taiwan indicates that it is among the many species that transmit papaya ringspot virus (Wang 1981). This shiny chestnut brown aphid is quite distinctive among species on citrus. The antennae are banded in both nymphs and adults. The cauda of the adults is black and longer than the siphunculi. So far, the known distribution in the United States includes only southern California. (Riverside County; E2009-2077; Susan E. Halbert; 6 April 2009.) (Dr. Susan E. Halbert.)

References

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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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***Protospulvinaria longivalvata* (a soft scale)**, on *Schefflera arboricola* (dwarf schefflera). Note parasite exit holes. Photograph courtesy of Greg S. Hodges, DPI



***Pseudococcus dendrobiorum* (an orchid mealybug)**. Photograph courtesy of Lyle J. Buss, University of Florida



***Sinomegoura citricola* (an Asian aphid)**. View of underside of adult. Note long black cauda, bicolored siphunculus and banded antennae. Photograph courtesy of Manjunath L. Keremane, USDA, and Tom Shea, University of California Cooperative Extension, Riverside County

Plant Species Name	Plant Common Name	Arthropod Species Name	Arthropod Common Name	County	New Records
<i>Baccharis halimifolia</i>	salt bush, groundsel bush	<i>Tephritis subpura</i>	a fruit fly	Pinellas	COUNTY
<i>Bursera simaruba</i>	gumbo-limbo, West Indian birch	<i>Aleurodicus rugioperculatus</i>	a whitefly	Miami-Dade	US CONTINENTAL
<i>Caesalpinia bonduc</i>	gray nicker	<i>Tetranychus mexicanus</i>	spider mite	Monroe	HOST
<i>Caesalpinia bonduc</i>	gray nicker	<i>Anthocoptes</i> sp.	eriophyid mite	Monroe	HOST
<i>Calliandra haematocephala</i>	powderpuff	<i>Myzus persicae</i>	green peach aphid	Miami-Dade	HOST
<i>Casuarina equisetifolia</i>	Australian-pine, beefwood, she-oak, horsetail tree, beach sheoak	<i>Carphoborus bifurcus</i>	a scolytid beetle	Palm Beach	COUNTY
<i>Citrus limon</i>	lemon	<i>Sinomegoura citricola</i>	an aphid	Riverside	WESTERN HEMISPHERE
<i>Citrus reticulata</i>	tangerine, mandarin	<i>Acinia picturata</i>	a fruit fly	Lee	COUNTY
<i>Citrus sinensis</i>	sweet orange	<i>Paramyiolia rhino</i>	the "rhino" fly	Lee	COUNTY
<i>Citrus</i> sp.	Citrus	<i>Euthochtha galeator</i>	a coreid bug	Lee	COUNTY
<i>Clausena lansium</i>	wampee, wampi	new genus, new species	croton scale	Miami-Dade	HOST
<i>Codiaeum variegatum</i>	croton	<i>Gynaikothrips uzeli</i>	weeping fig thrips	Miami-Dade	HOST
<i>Colocasia esculenta</i>	dasheen, wild taro, taro	new genus, new species	croton scale	Miami-Dade	HOST

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Nematology Section

Compiled by [Janete A. Brito, Ph.D.](#), and [Renato N. Inerra, Ph.D.](#)

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

***Heterodera cyperi* Golden, Rau & Coob, 1962 (a cyst-forming nematode)** was infecting the roots of *Cyperus esculentus* (yellow nut-sedge) growing in a potato field. Although this species has been detected in Florida since early 1960s and is widely distributed in cultivated fields and natural land, *H. cyperi* population levels are low and do not cause appreciable damage to yellow nut-sedge. It seems that many biological control agents (especially fungi) prevent the nematode from reaching high populations levels. The mild parasitic relationship between the nematode and the weed allows the nematode to develop and to reproduce on the weed roots without affecting the vigor of the host plant. (St. Johns County, N09-00420, Trevor R. Smith, 27 March 2009.)

***Meloidogyne mayaguensis* Rammah and Hirshmann, 1988 (the guava root-knot nematode)** was found infecting the root of *Melaleuca viminalis* (bottle brush). The root system was heavily galled with visible egg masses on the surface of the roots. This nematode species has been found infecting several other horticultural crops and weed plants in the state. **New county record.** (Clay County, N09-00508, Sol F. Looker, 9 April 2009). (Brito, *et al.* 2008.)

References

Brito, J. A., R. Kaur, R. Cetintas, J. D. Stanley, M. L. Mendes, E. J. McAvoy, T. O. Powers and D. W. Dickson. 2008. Identification and isozyme characterization of *Meloidogyne* spp. infecting horticultural and agronomic crops and weed plants in Florida. *Nematology* 10:757-766.

Collectors submitting five or more samples that were processed for nematological analysis in March - April 2009

Anderson, James L.	192
Bentley, Michael A.	46
Bloom, Richard T.	5
Burgos, Frank A.	180
Edenfield, Carrie S.	63
LeBoutillier, Karen W.	205

Sample Submissions

	Mar/ Apr	Year to Date
Morphological Identifications	2,884	4,744
Molecular Identifications	303	602
Total Samples Submitted	3,187	5,346

Certification and Regulatory Samples

Multistate Certification for National and International Export	2,239	3,631
California Certification	437	755
Pre-movement (Citrus Nursery Certification)	34	62
Site or Pit Approval (Citrus Nursery and Other Certifications)	60	66

Other Samples

Identifications (invertebrate)	1	17
Plant Problems	33	58
Intrastate Survey, Random	80	155
Molecular Identifications*	303	602

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

Ochoa, Ana L.	186
Pate, Jo Ann	59
Qiao, Ping	160
Robinson, William L.	8
Spriggs, Charles L.	299
Toral, Angelina M.	10



***Cyperus esculentus* (yellow nut-sedge)**
 Photograph and copyright courtesy of Shirley Denton, [Atlas of Florida Vascular Plants](#)



***Meloidogyne mayaguensis* Rammah and Hirshmann, 1988 (the guava root-knot nematode)** infecting the roots of *Melaleuca viminalis* (bottle brush)
 Photograph courtesy of Mariana P. Beckman and Janete A. Brito, DPI

Plant Pathology Section

Compiled by [Robert 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.

***Puccinia sherardiana* (a rust)** was collected on *Callirhoe* sp. (poppy mallow) at a plant nursery in Alachua County on 6 March 2009. This autoecious rust of Malvaceae, a **State record**, is known from further north and west in the United States, but this is the first reported incidence of the rust in Florida.

***Sordaria* sp. (a soilborne saprophyte)** was collected on *Hydrangea* sp. (hydrangea) at a plant nursery in Duval County on 22 April 2009. This saprophytic ascomycete shoots packets of black spores into the environment. The residue on plants could be mistaken for a pest and cause phytosanitary certification problems.

***Kordyana tradescantiae*, (a leaf spot), a Western Hemisphere record**, was found on *Tradescantia ohioensis* (Ohio spiderwort) at a plant nursery in Lake County on 11 March 2009. The pathogen behaves like a leaf smut and is being explored for biocontrol potential where *Tradescantia* is weedy.

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.

Plant Species	Plant Common Name	Causal Agent	Disease Name	Location Type	County	Sample Number	Collector	Date	New Records
<i>Avena sativa</i>	common oats	<i>Ustilago avenae</i>	loose smut	border of field	Columbia	24560	Leroy Wilby - CAPS	29-Apr-09	
<i>Callirhoe</i> sp.	woodland poppy mallow	<i>Puccinia sherardiana</i>	rust	nursery	Alachua	23101	Cheryl A. Jones	6-Mar-09	STATE
<i>Dianella</i> sp.	flax lily	<i>Uredo dianellae</i>	leaf rust	nursery	Collier	23443	Scott D. Krueger	10-Mar-09	
<i>Hydrangea</i> sp.	hydrangea	<i>Sordaria</i> sp.	soil-borne saprophyte	nursery	Duval	24500	Isabelle S. James	22-Apr-09	HOST

Sample Submissions

	Mar/ Apr	Year to Date
Pathology	338	613
Bee	2	6
Citrus Canker	166	455
Citrus Greening	1,080	1,924
Total Samples Submitted	1,586	3,011



***Tradescantia ohioensis* (Ohio spiderwort)**
 Photograph and copyright courtesy of Paul L. Redfearn, Jr., [Atlas of Florida Vascular Plants](#)

<i>Ilex krugiana</i>	tawnyberry holly	<i>Pseudo-cercospora</i> sp.	leaf spot	empty lot	Miami-Dade	23535	Olga Garcia	11-Mar-09	HOST
<i>Pulmonaria saccharata</i>	Bethlehem sage, lungwort	<i>Botrytis cinerea</i>	leaf and flower blight	nursery	Lake	23518	Mary C. Sellers	11-Mar-09	HOST
<i>Tradescantia ohiensis</i>	Ohio spiderwort	<i>Kordyana tradescantiae</i>	leaf spot	nursery	Lake	23487	Mary C. Sellers	11-Mar-09	

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