TRI-OLOGY

A Publication of the Florida Department of Agriculture and Consumer Services, Division of Plant Industry
Adam H. Putnam, Commissioner — Richard D. Gaskalla, Division Director

DACS-P-00124 Volume 53, Number 4, July - August 2014

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.

***Ardisia crenata* (coral ardisia)**
Photograph courtesy of Michael Meisenburg, University of Florida
http://edis.ifas.ufl.edu/LyraEDISServlet?command=getImageDetail&image_soid=FIGURE 4&document_soid=AG281&document_version=34208

***Epitamyra albomaculalis,* a pyralid moth,** a male (above) and female (below)
Photograph courtesy of James E. Hayden, DPI.

***Helicotylenchus dihystera* (a spiral nematode)** female recovered from roots of dwarf pomegranate *Punica granatum.*
Photography courtesy of Jason D. Stanley, DPI

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.

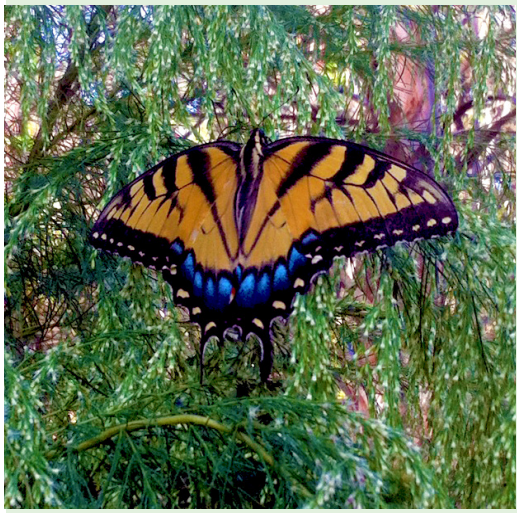
***Ardisia crenata* Sims (coral ardisia, hen's eyes, scratch throat, coralberry ardisia),** is native to temperate and tropical Asia, from Japan to northern India, but has been widely introduced in other areas as an ornamental and has become naturalized in Hawaii, Georgia, Alabama, Louisiana and Texas as well as Florida. In Florida, the shrub is usually found in rich, moist woods in the Panhandle and southward to Palm Beach County. Dense stands that carpet forest understories can alter native plant communities and forest regeneration processes. Coral ardisia is a Florida Exotic Pest Plant Council (FLEPPC) Category I invasive species and was recently listed as a Florida noxious weed.

***Epitamyra albomaculalis,* a pyralid moth, a new continental USA record.** This moth is native to Cuba and Puerto Rico. Its host plant is unknown. Most of the related species in the tropics feed on buds and shoots of Bignoniaceae (the trumpet creeper or catalpa family), but the closest relative in Florida feeds on *Cartrema americana*, wild olive.

***Helicotylenchus dihystera* (Cobb, 1892) Sher, 1961, a spiral nematode,** was detected infecting the root system of dwarf pomegranate, *Punica granatum*. This is the first time *H. dihystera* has been found on this host in Florida.

Cercosporoids. As summer ends, plant inspectors find more and more fungal leaf spot diseases. One particular group of fungi, the Cercosporoids, take advantage of the aging foliage which defoliates host plants prematurely and spoil what might be a chance to display showy fall leaf color or to store away more photosynthates for a spectacular bloom and fruit set the following spring.

Section Reports



Photography courtesy of Patti J. Anderson, DPI

How to cite Tri-ology:
Dixon, W.N. and P.J. Anderson. (Editors). year. Section. Tri-ology Volume(number): page. [date you accessed site] website address For example: Dixon, W.N. and P.J. Anderson. (Editors). 2012. Entomology section. Tri-ology 47(5): 8. [accessed July 5, 2013] http://www.freshfromflorida.com/content/download/12542/151552/triology_5101.pdf

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 Reid Carswell for his skillful use of web authoring tools to produce this report.

We welcome your suggestions for improvement of TRIOLOGY. Please feel free to contact me or Dr. Patti Anderson with your comments.
Dr. Wayne N. Dixon, Editor,
Assistant Director, DPI

Botany Section

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 11,000 plants and nearly 1,400 vials of seeds.

Some of the samples received for identification are discussed below:

***Ardisia crenata* Sims (coral ardisia, hen's eyes, scratch throat, coralberry ardisia),** from a genus of about 500 species in tropical and warm areas. Myrsinaceae. Coral ardisia is native to temperate and tropical Asia, from Japan to northern India, but has been widely introduced in other areas as an ornamental and has become naturalized in Hawaii, Georgia, Alabama, Louisiana and Texas as well as Florida. In Florida, the shrub is usually found in rich, moist woods in the central and eastern Panhandle, from Holmes County to Jefferson County and the peninsula from Alachua County south to Lee and Palm Beach counties. It has also escaped into scrub, sandhill and maritime habitats. This species can grow to 1.8 m tall, but is usually shorter. The leaves are alternate, elliptic, evergreen, glossy, up to 20 cm long, and conspicuously crenate along the margins with nodules in the margin crenations. The flowers grow in the axils of the leaves in dense, drooping, rounded clusters and have small, white or pale pink petals. The attractive fruits are bright red when ripe, round, about 8 mm in diameter, in clusters that persist on the plant through the winter. This species produces a heavy crop of fruit with seeds that remain viable over several months and germinate at a rate of 84-98% on a range of soil types.

In addition, this species spreads by resprouting after fire or stem damage. It has been found to reduce the diversity of natural areas by shading seedlings of native species. Dense stands that carpet forest understories can alter native plant communities and forest regeneration processes. Coral ardisia is a Florida Exotic Pest Plant Council (FLEPPC) Category I invasive species and was recently listed as a Florida noxious weed. For over 20 years, nematologists at DPI found plant parasitic nematodes associated with 60% of the *A. crenata* samples received. Of these, 71% were species of the root-knot nematode genus, *Meloidogyne*, including *M. arenaria*, *M. incognita* and *M. javanica*. These plant pests can damage the infected plants and infest nearby plants of this and other species. (Seminole County; B2014-653; Bryce J. Merritt; 22 August 2014; Seminole County; B2014-654; Bryce J. Merritt; 22 August 2014 and Alachua County; B2014-656; Theresa R. Estok; 26 August 2014.) (Kitajima *et al*. 2006; Langeland *et al*. 2008; Lehman 1985; Mabberley 2008; Sellers *et al*. 2013; http://www.fleppc.org/list/2013PlantList-WithLinksToUFL-update_05_28_14.pdf [accessed 2014 September 4].)

***Crotalaria juncea* L. (sunn hemp, sunn, Madras hemp)**, from a genus of about 700 species native to tropical and subtropical areas. Leguminosae/ Fabaceae. This species is assumed to be native to tropical Asia, but it is widely distributed in the tropics and subtropics. In Florida, it is documented to have escaped cultivation in Putnam and Miami-Dade counties, but is rarely seen in natural areas. Sunn hemp is an annual (usually) legume that grows 1-4 m tall. The unifoliate, alternate leaves are simple, linear to oblong, 4–12 cm long and 0.5–3 cm wide with silky, appressed hairs on both surfaces. The showy, pea-shaped, yellow flowers grow on erect racemes to 30 cm long, with blooms maturing from the bottom upwards. The inflated fruits are 2.5-3.2 cm long, light brown and pubescent. This plant has been grown for fiber and forage as well as a nitrogen-fixing cover crop between spring and fall seasonal plantings. It is used as green manure or as hay for livestock. (Miami-Dade County; B2014-518;

Sample Submissions

	July August	Year to date
Samples submitted by other DPI sections	1,442	**5,362**
Samples submitted for botanical identification only	152	**665**
Total Samples Submitted	1,594	**6,027**
Specimens added to the herbarium	99	**236**

***Ardisia crenata* (coral ardisia)**
Photograph courtesy of Michael Meisenburg, University of Florida. http://edis.ifas.ufl.edu/LyraEDISServlet?command=getImageDetail&image_soid=FIGURE4&document_soid=AG281&document_version=34208

***Crotalaria juncea* (sunn hemp)**
Photograph courtesy of Wikimedia. http://commons.wikimedia.org/wiki/Category:Crotalaria_juncea#mediaviewer/File:Crotalaria_juncea_Da220020.JPG

***Lachnanthes caroliniana* (red root)**
Photograph courtesy of Roger Hammer, Atlas of Florida Vascular Plants http://florida.plantatlas.usf.edu/Photo.aspx?id=9645

***Parthenium hysterophorus* (parthenium, false ragweed) flower.**
Photograph courtesy of Bob Upcavage, Atlas of Florida Vascular Plants http://florida.plantatlas.usf.edu/Photo.aspx?id=2799

Karen W. LeBoutillier; 2 July 2014 and Miami-Dade County; B2014-539; Jake M. Farnum; 17 July 2014.)

(http://edis.ifas.ufl.edu/pdffiles/HS/HS37600.pdf [accessed 2014 September 29]; http://plants.usda.gov/plantguide/pdf/pg_crju.pdf [accessed 2014 September 15]; http://www.fao.org/ag/AGP/AGPC/doc/GBASE/DATA/PF000475.HTM [accessed 2014 September 29].)

***Lachnanthes caroliniana* (Lam.) Dandy (Carolina redroot),** from a genus with this single species. Haemodoraceae. Sources differ on the accepted spelling of this name, with *L. caroliana* used by some authorities, based on an annotation of the published name. This species is found in flatwoods, ditches, bogs and the edges of swamps and moist hammocks from Nova Scotia southward through several states of the eastern United States and in Cuba. It is a species of special concern, endangered or threatened in six states, but it is found in almost every county in Florida. The perennial Carolina redroot grows to 1 m tall from orange to red rhizomes and roots that inspired the common name and are the source of a reddish dye. The stem is whitish tomentose toward the tip, grading to glabrous at the base. The alternate leaves are 15-45 cm long at the base of the stem, then decrease in size toward the inflorescence. The flowers, held in a rounded inflorescence, have six, small (7–9 × 1–1.5 mm), pale yellow tepals with dense, grayish tomentum on the abaxial surfaces. The fruits are somewhat flattened, spherical capsules, 3–5 mm in diameter, with reddish brown to black, slightly wrinkled seeds. The seeds are an important food for wildlife, especially sandhill cranes and waterfowl. The plant chemistry of this species includes several toxic compounds, leading to a well-reported legend that eating the roots is fatal to white pigs, but not harmful to black pigs. More research-based reports indicate that the toxin is a photosensitizing compound from which dark pigs are protected by the pigmentation of their hair. (Hillsborough County; B2014-530; W. Jim Dowling; 7 July 2014 and Lake County; B2014-591; Mary C. Sellers; 29 July 2014.) (Ferrell *et al.* 2012; Nellis 1997; Perkins and Payne 1978; Tobe 1998; http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101724 [accessed 2014 October 1].)

***Parthenium hysterophorus* L. (parthenium, false ragweed, Santa Maria feverfew, whitetop weed),** from a genus of 16 species in North America and the West Indies. Compositae/Asteraceae. This weedy annual is found in fields, disturbed or open areas and roadsides scattered through much of the eastern United States in the area roughly bounded by Massachusetts and Michigan to the north and south from New Mexico to Florida. Within Florida, the species is concentrated in counties of the southern and central peninsula, but is also found in the Panhandle as well as in Duval, St. Johns and Alachua counties. Although the seedlings begin with only a basal rosette of leaves, the plant produces pale green, pinnately-lobed, gland-dotted leaves along the stem and branches as it grows to 1-2 m in height. The white flower heads are borne in open panicle-like clusters, with five or sometimes six minute ray flowers (0.3 - 1mm) and 12-30 disc flowers. The leaves are similar to those of *Ambrosia artemesiifolia* (common ragweed), but that species has opposite leaves at the base of the stem with alternate leaf arrangement toward the apex. In parthenium, all leaves are alternate. This species can be toxic to livestock and can cause severe dermatitis in humans as well as respiratory problems in allergy-prone individuals. It has become a serious weed of croplands and pastures through aggressive spread in Australia, Asia and Africa and is becoming a pest plant in the southern United States. This species can overwhelm native plants through production of massive seed crops and allelopathic chemicals. (Marion County; B2014-660; Shelly M. Wayte; 26 August 2014.) (Bryson and DeFelice 2009; http://efloras.org/florataxon.aspx?flora_id=1&taxon_id=200024340 [accessed 2014 September 29]; http://keys.lucidcentral.org/keys/v3/eafrinet/weeds/key/weeds/Media/Html/Parthenium_hysterophorus_(Parthenium_Weed).htm [accessed 2014 September 29].)

References

Bryson, C.T. and M.W. DeFelice. 2009. Weeds of the South. University of Georgia Press, Athens, Georgia. 468 p.

Ferrell, J., B. Sellers and J. Walter. 2012. Control of redroot (*Lachnanthes caroliniana*) in pastures. SS-AGR 290, Agronomy Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida. 2 p.

FLEPPC. 2013. List of invasive plant species. Florida Exotic Pest Plant Council. http://www.fleppc.org/list/2013PlantList-WithLinksToUFL-update_05_28_14.pdf [accessed 2014 September 4].

Kitajima, K., A.M. Fox, T. Sato and D. Nagamatsu. 2006. Cultivar selection prior to introduction may increase invasiveness: evidence from *Ardisia crenata*. Biological Invasions 8: 1471-1482.

Langeland, K.A., H.M. Cherry, C.M. McCormick and K.A. Craddock Burks. 2008. Nonnative plants in Florida's natural areas. The University of Florida, Institute of Food and Agricultural Sciences Communications Services, Gainesville, Florida. 193 p.

Lehman, P.S. 1985. Plant parasitic nematodes associated with *Ardisia* in Florida. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, Florida. Nematology Circular No. 115. 2 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.

Nellis, D. 1997. Poisonous plants and animals of Florida and the Caribbean. Pineapple Press, Sarasota, Florida. 416 p.

Perkins, K.D. and W.W. Payne. 1978. Guide to the poisonous and irritant plants of Florida. Florida Cooperative Extension Service, University of Florida, Gainesville, Florida. 91 p.

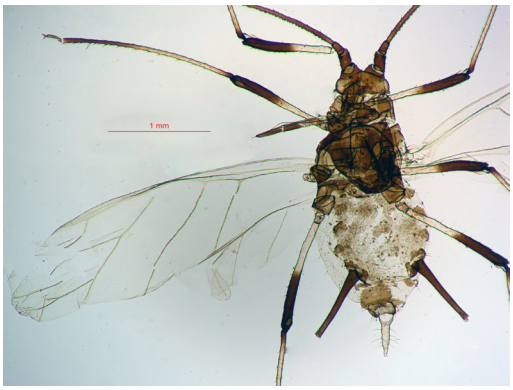
Sellers, B.A., S. Lancaster, K.A. Langeland, J.A. Ferrell, M. Meisenberg and J. Walter. 2013. Identification and control of coral ardisia (*Ardisia crenata*): a potentially poisonous plant. SS AGR 276, Agronomy Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida. 3 p.

Tobe, J. D. (ed.). 1998. Florida wetland plants: an identification manual. Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida. 598 p.

Sample/Specimen Submissions

July	
Samples Submitted	745
Specimens Identified	10,543
August	
Samples Submitted	876
Specimens Identified	15,874
Year to Date	
Samples Submtted	6,117
Specimens Identified	110,893

***Epitamyra albomaculalis*, a pyralid moth**, male (above) and female (below)
Photograph courtesy of James E. Hayden, DPI.



***Uroleucon picridis*, an aphid**
Photograph courtesy of Susan E. Halbert, DPI.

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.

***Amblypalpus* n. sp., a tenuipalpid mite, a new continental USA record.** All species in the Tenuipalpidae are obligate plant feeders, and some are significant plant pests. The genus *Amblypalpus* is known from only two species, *A. masakii* intercepted in South Africa on *Nebelia* sp. from Japan and *A. narsikulovi* from Tajikistan on *Aster alpinus*. The Florida species is different from the two described species. Nothing is known about the biology or potential pest status of this mite. The Florida record was on a native mistflower, *Conoclinium coelestinum* (Asteraceae), blue mist flower, in Paisley. (Lake County; E2014-5441; Harry L. Morrison, Stacey S. Simmons and Mary C. Sellers; 6 August 2014.) (Dr. W. C. 'Cal' Welbourn.) (See page 6 for photograph.)

***Epitamyra albomaculalis*, a pyralid moth, a new continental USA record.** This moth is native to Cuba and Puerto Rico. The species can be distinguished by two white spots on the leading edge of the forewings and an orange medial area contrasted with the wings' otherwise reddish color. Its host plant is unknown. Most of the related species in the tropics feed on buds and shoots of Bignoniaceae, but the closest relative in Florida feeds on *Cartrema americana*, wild olive. (Miami-Dade County; E2014-3352; Michelle A. DaCosta; Leroy A. Whilby; W. Gordon Bonn; Phellicia P. Perez; Julio C. Garcia; Andrew I. Derksen, all DPI/CAPS; 14 May 2014.) (Dr. James E. Hayden.)

***Uroleucon picridis*, an aphid, a new Western Hemisphere record.** This aphid is native to the Palearctic, ranging from Europe to Japan. We have intercepted winged forms twice on lettuce, a potential host. It is also known from *Cichorium endivia* (endive, chicory, radicchio) and several weedy species of Compositae. It could become a pest of endive or lettuce. The species can be recognized by its long, thin ultimate rostral segment. (Suwannee County via California; E2014-5618; Lane P. Southerland, Amber L. Roux and Dyrana N. Russell-Hughes, CAPS; 17 August 2011.) (Dr. Susan E. Halbert.)

***Atherigona reversura*, bermudagrass stem maggot, range extension.** Four new county distribution records indicate that this invasive pest from Asia has become widespread in Florida. Previous Florida county records include Bradford, Levy and Nassau. The pest was first reported in Georgia in 2010 and has since spread widely in the southeastern United States. A visit to the Alachua County collection site revealed that the fly was extremely abundant and damage to new growth of bermudagrass was very apparent. Detections in Polk and Collier counties are the southernmost to date and occurred in suction traps, indicating that flies are abundant in the area and actively dispersing. (Alachua County; E2014-5697; Nancy Croley; 17 August 2014, Collier County; E2014-6062; Scott Croxton; 14 August 2014, Marion County; E2014-5854; Shelly Wayte; 22 August 2014, and Polk County; E2014-6061; Peggy Sieburth; 22 August 2014.) (Dr. Gary J. Steck.) (See page 6 for photograph.)

***Atherigona reversura*, the bermudagrass stem maggot**
Photograph courtesy of Gary J. Steck, DPI

***Cynodon dactylon* (bermudagrass)**, with dead terminal shoot from *Atherigona reversura* infestation.
Photograph courtesy of Gary J. Steck, DPI

***Amblypalpus* n. sp.**
Photograph courtesy of W. C. 'Cal' Welbourn, DPI

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 that have no plant

Plant Name	Plant Common Name	Arthropod	Arthropod Common Name	County	Records
Adonidia merrillii	Christmas palm; Manila palm	*Palmicultor browni*	a mealybug	Seminole	COUNTY
Aglaonema sp.		*Pseudococcus jackbeardsleyi*	a mealybug	Miami-Dade	REGULATORY INCIDENT
Albizia julibrissin	mimosa	*Acizzia jamatonica*	a mimosa psyllid	Jefferson	COUNTY
Albizia julibrissin	mimosa	*Acizzia jamatonica*	a mimosa psyllid	Leon	COUNTY
Ananas comosus	pineapple	*Phyllocoptruta sakimurae*	an eriophyid mite	Escambia	INTERDICTION INTERCEPTION
Ananas comosus	pineapple	*Steneotarsonemus comosus*	pineapple multiple crown mite	Escambia	INTERDICTION INTERCEPTION
Ananas comosus	pineapple	*Steneotarsonemus comosus*	pineapple multiple crown mite	Escambia	INTERDICTION INTERCEPTION
Ananas comosus	pineapple	*Steneotarsonemus comosus*	pineapple multiple crown mite	Escambia	INTERDICTION INTERCEPTION
Ananas comosus	pineapple	*Steneotarsonemus comosus*	pineapple multiple crown mite	Escambia	INTERDICTION INTERCEPTION
Ananas comosus	pineapple	*Steneotarsonemus comosus*	pineapple multiple crown mite	Escambia	INTERDICTION INTERCEPTION
Apium graveolens	celery	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Avicennia germinans	black mangrove	*Leptoypha morrisoni*	mangrove lace bug	Broward	COUNTY
Brassica juncea	mustard greens; leaf mustard; indian mustard; brown mustard	*Phyllotreta* sp.	a chrysomelid beetle	Escambia	INTERDICTION INTERCEPTION
Brassica oleracea	kale, decorative kale, flowering kale, flowering cabbage, collards, cole, borecole	*Bagrada hilaris*	Bagrada bug	Orange	REGULATORY INCIDENT
Brassica oleracea	kale, decorative kale, flowering kale, flowering cabbage, collards, cole, borecole	*Bagrada hilaris*	Bagrada bug	Orange	REGULATORY INCIDENT
Brassica oleracea	broccoli, cauliflower	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Brassica rapa	pe-tsai, Chinese cabbage, napa cabbage	*Bagrada hilaris*	Bagrada bug	Escambia	INTERDICTION INTERCEPTION
Brassica rapa	pe-tsai, Chinese cabbage, napa cabbage	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Brassica rapa	pak-choi, bok-choi, pak-choy, bok-choy, Chinese mustard, celery mustard	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Brassica rapa	pak-choi, bok-choi, pak-choy, bok-choy, Chinese mustard, celery mustard	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Brassica rapa	pe-tsai, Chinese cabbage, napa cabbage	*Phyllotreta striolata*	striped flea beetle	Nassau	INTERDICTION INTERCEPTION
Caesalpinia bonduc	gray nicker	*Tetralopha floridella*	a webworm	Brevard	COUNTY
Capsicum annuum	pepper	*Limonethe maurator*	parasitic wasp	Pasco	COUNTY
Carya illinoinensis	pecan	*Brevipalpus sayedi*	false spider mite	Taylor	COUNTY
Carya illinoinensis	pecan	*Eotetranychus hicoriae*	spider mite	Taylor	COUNTY
Citrus reticulata	tangerine, mandarin	*Eubule spartocerana*	a coreid bug	Charlotte	COUNTY
Citrus sinensis	sweet orange, navel orange	*Condylostylus caudatus*	a long-legged fly	Indian River	COUNTY
Citrus sinensis	sweet orange, navel orange	*Condylostylus chrysoprasi*	a long-legged fly	Indian River	COUNTY
Citrus sinensis	sweet orange, navel orange	*Condylostylus inermis*	a long-legged fly	Indian River	COUNTY
Citrus sinensis	sweet orange, navel orange	*Hentzia mitrata*	a jumping spider	Glades	COUNTY
Citrus sinensis	sweet orange, navel orange	*Lyssomanes viridis*	magnolia green jumper	Hendry	COUNTY
Citrus sinensis	sweet orange, navel orange	*Odinia coronata*	an odiniid fly	Volusia	COUNTY
Citrus x *paradisi*	grapefruit	*Chrysso pulcherrima*	a cobweb weaver	Lee	COUNTY
Citrus x *paradisi*	grapefruit	*Clastoptera* sp.	a spittlebug	Seminole	COUNTY
Coccoloba uvifera	seagrape	*Diadalotarsonemus* sp.	a tarsonemid mite	Brevard	HOST
Conoclinium coelestinum	blue mistflower	Amblypalpus n. sp.	a tenuipalpid mite	Lake	US CONTINENTAL
Cynara cardunculus	cardoon, artichoke, globe artichoke	*Lygus* sp.	a lygus bug	Escambia	INTERDICTION INTERCEPTION
Cynodon sp.	Bermudagrass	*Atherigona reversura*	bermudagrass stem maggot	Alachua	COUNTY
Eriobotrya japonica	loquat, Japanese plum	*Choropleca terpsichorella*	dancing moth	Glades	COUNTY
Eriobotrya japonica	loquat, Japanese plum	*Conura delicata*	parasitic wasp	Hillsborough	COUNTY
Eriobotrya japonica	loquat, Japanese plum	*Odontomachus brunneus*	ponerine ant	Seminole	COUNTY
Eriocaulon decangulare	tenangle pipewort	*Hypogeococcus margaretae*	a mealybug	Sarasota	COUNTY
Eucalyptus sp.		*Ctenarytaina eucalypti*	blue gum psyllid	Miami-Dade	REGULATORY INCIDENT
Eugenia uniflora	Surinam cherry;Cayenne cherry	*Tuckerella* sp.	tuckerellid mite	Miami-Dade	HOST
Helianthus annuus	sunflower	*Aphis helianthi*	sunflower aphid	Hillsborough	REGULATORY INCIDENT
Hemerocallis sp.	daylily	*Ophiomyia kwansonis*	daylily leafminer	Columbia	COUNTY

Plant Name	Plant Common Name	Arthropod	Arthropod Common Name	County	Records
Hemerocallis sp.	daylily	*Ophiomyia kwansonis*	daylily leafminer	Escambia	COUNTY
Hemerocallis sp.	daylily	*Ophiomyia kwansonis*	daylily leafminer	Leon	COUNTY
Hemigraphis alternata	red ivy; red flame ivy	*Phenacoccus multicerarii*	a mealybug	Miami-Dade	REGULATORY INCIDENT
Imperata cylindrica	cogongrass	*Atherigona reversura*	Bermudagrass stem maggot	Marion	COUNTY
Imperata cylindrica	cogongrass	*Choropleca terpsichorella*	dancing moth	Marion	COUNTY
Imperata cylindrica	cogongrass	*Conura side*	parasitic wasp	Marion	COUNTY
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Acyrthosiphon lactucae*	lettuce aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Autographa californica*	alfalfa looper	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Autographa californica*	alfalfa looper	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Ceratagallia californica*	a leafhopper	Nassau	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Ceratagallia californica*	a leafhopper	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Ceratagallia californica*	a leafhopper	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	red leaf lettuce	*Chaitophorus nigrae*	a willow aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Cixius cultus*	a cixiid planthopper	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Delphacodes pacifica*	a delphacid planthopper	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Eucarazzia elegans*	a mint aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Hyadaphis foeniculi*	honeysuckle aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	red leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	iceberg lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION

Plant Name	Plant Common Name	Arthropod	Arthropod Common Name	County	Records
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Manatee	REGULATORY INCIDENT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	iceberg lettuce	*Liriomyza langei*	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	romaine lettuce	*Liriomyza langei*	California pea leafminer	Manatee	REGULATORY INCIDENT
Lactuca sativa	romaine lettuce	*Lygus hesperus*	a western lygus bug	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Nassau	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Nassau	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	romaine lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Trioza* sp.	a jumping plant louse	Escambia	INTERDICTION INTERCEPTION
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Uroleucon picridis*	an aphid	Suwannee	HEMISPHERE
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Uroleucon picridis*	an aphid	Suwannee	REGULATORY INCIDENT
Mangifera indica	mango	*Genaparlatoria pseudaspidiotus*	vanda orchid scale	Suwannee	INTERDICTION INTERCEPTION
Mangifera indica	mango	*Smeringopus pallidus*	a longlegged spider	Collier	COUNTY
Monarda punctata	horsemint, spotted beebalm	*Neortholomus scolopax*	a seed bug	Marion	COUNTY
Myrcianthes fragrans	Simpson's stopper, nakedwood, twinberry	*Tuckerella ornata*	a tuckerellid mite	Miami-Dade	HOST
Persea americana	avocado; alligator pear; aguacate	*Mycetobia divergens*	a wood gnat	Miami-Dade	COUNTY
Persea americana	avocado; alligator pear; aguacate	*Trioza anceps*	an avocado psyllid	Suwannee	INTERDICTION INTERCEPTION
Petroselinum crispum	parsley	*Cavariella aegopodii*	carrot aphid	Brevard	REGULATORY INCIDENT
Phoenix dactylifera	date palm	*Anchastus* sp.	click beetle	Escambia	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	Hypera brunneipennis	Egyptian alfalfa weevil	Escambia	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	*Hypera brunneipennis*	Egyptian alfalfa weevil	Escambia	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	*Hypera brunneipennis*	Egyptian alfalfa weevil	Escambia	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	*Metacyrba taeniola similis*	a jumping spider	Escambia	REGULATORY INCIDENT
Phoenix dactylifera	date palm	*Neoscona oaxacensis*	a spotted orbweaver	Escambia	REGULATORY INCIDENT
Phoenix dactylifera	date palm	*Phoenicococcus marlatti*	red date scale	Suwannee	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	*Solenopsis xyloni*	southern fire ant	Escambia	INTERDICTION INTERCEPTION
Phoenix dactylifera	date palm	*Solenopsis xyloni*	southern fire ant	Escambia	INTERDICTION INTERCEPTION
Pinus sp.	pine	*Eilica bicolor*	a ground spider	Lee	COUNTY
Platanus occidentalis	sycamore	*Corythucha ciliata*	sycamore lace bug	Hillsborough	COUNTY
Platycerium sp.		*Brevipalpus californicus species group*	a false spider mite	Indian River	HOST
Platycerium sp.		*Cheletomimus* sp.	cheyletid mite	Indian River	HOST
Protea cynaroides	king protea	*Delottococcus confusus*	a mealybug	Broward	REGULATORY INCIDENT
Psychotria nervosa	wild-coffee, Seminole balsamo	*Acaphylla* sp.	eriophyid mite	Brevard	COUNTY & HOST
Rosa sp.	rose	*Trachelas volutus*	a red sac spider	Orange	COUNTY
Schinus terebinthifolia	Brazilian pepper tree; Florida holly; Christmas berry	*Freya ambigua*	a jumping spider	Lee	COUNTY
Solidago fistulosa	pinebarren goldenrod	*Ochrimnus lineoloides*	a seed bug	Lake	COUNTY
Solidago odora	chapman's goldenrod	*Cyrtocapsus caligineus*	a plant bug	Lake	COUNTY
Spinacia oleracea	spinach	*Liriomyza langei*	California pea leafminer	Escambia	INTERDICTION INTERCEPTION
Swietenia mahagoni	West Indian mahogany, mahogany, Madeira redwood	*Phyllocoptruta* sp.	eriophyid mite	Miami-Dade	HOST
Synedrella nodiflora	nodeweed	*Aphis gossypii*	cotton aphid/melon aphid	Miami-Dade	HOST

Plant Name	Plant Common Name	Arthropod	Arthropod Common Name	County	Records
Syzygium cumini	jambolan plum; Java plum; black plum; jamun; duhat	*Tuckerella* sp.	tuckerellid mite	Miami-Dade	HOST
Terminalia catappa	tropical-almond	*Odontomyia rufipes*	a soldier fly	Broward	COUNTY
Vitis sp.	grape	*Saileria ivrorata*	a mirid bug	Pinellas	COUNTY
		Angustipes ameghini	slug	Escambia	COUNTY
		Anthidiellum notatum rufimaculatum	anthidiine bee	Pinellas	COUNTY
		Araneus pegnia	an orbweaver	Pinellas	COUNTY
		Atherigona reversura	bermudagrass stem maggot	Polk	COUNTY
		Atherigona reversura	bermudagrass stem maggot	Collier	COUNTY
		Attagenus fasciatus	a dermestid beetle	Hillsborough	COUNTY
		Camponotus floridanus	Florida carpenter ant	Sumter	COUNTY
		Camptoprosopella verticalis	a clusiid fly	Broward	COUNTY
		Catorhintha guttula	a coreid bug	Hillsborough	COUNTY
		Chalybion bengalense	mud-dauber	Hillsborough	COUNTY
		Choropleca terpsichorella	dancing moth	Seminole	COUNTY
		Clastoptera sp.	a spittlebug	Levy	COUNTY
		Clastoptera sp.	a spittlebug	Miami-Dade	COUNTY
		Coptocheles boharti	a mite	Monroe	COUNTY
		Dorymyrmex bureni	dolichoderine ant	Sumter	COUNTY
		Empicoris palmensis	an assassin bug	Miami-Dade	UNUSUAL ARTHROPOD
		Epitamyra albomaculalis	a pyralid moth	Miami-Dade	US CONTINENTAL
		Lasioerythraeus sp.	erythraeid mite	Monroe	COUNTY
		Liriomyza langei	California pea leafminer	Manatee	REGULATORY INCIDENT
		Liriomyza langei	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
		Liriomyza langei	California pea leafminer	Suwannee	INTERDICTION INTERCEPTION
		Nacoleia charesalis	a crambid moth	Monroe	COUNTY
		Nacoleia charesalis	a crambid moth	Levy	COUNTY
		Neoscona crucifera	brown spotted orbweaver	Escambia	COUNTY
		Neoscona domiciliorum	redleg spotted orbweaver	Escambia	COUNTY
		Nesticodes rufipes	red house spider	Hendry	COUNTY
		Nylanderia fulva	tawny crazy ant	Baker	COUNTY
		Omolicna joi	Florida palm derbid	Collier	COUNTY
		Ozophora levis	a seed bug	Miami-Dade	COUNTY
		Sargus elegans	a soldier fly	Seminole	COUNTY
		Trogoderma anthrenoides	a dermestid beetle	Hillsborough	COUNTY
		Tropidosteptes forestierae	Florida privet bug	Miami-Dade	UNUSUAL ARTHROPOD
		Xystrologa grenadella	a tineid moth	Orange	COUNTY

Nematology Section

Compiled by Jason D. Stanley, M.S., Renato N. Inserra, Ph.D., and Janete A. Brito, Ph.D.

This section analyzes soil and plant samples for nematodes, conducts pest detection surveys and provides diagnoses of plant problems, in addition to completing identification of plant parasitic nematodes involved in regulatory and certification programs. State of Florida statutes and rules mandate the predominant regulatory activities of the section. Analyses of plant and soil samples include those from in-state programs, plant shipments originating in Florida destined for other states and countries, as well as samples intercepted in Florida from outside the United States.

Nematodes of Special Interest

***Helicotylenchus dihystera* (Cobb, 1892) Sher, 1961, a spiral nematode**, was detected infecting the root system of dwarf pomegranate, *Punica granatum*. This is the first time *H. dihystera* has been found on this host in Florida. (Pasco County; N14-01046; Daniel Merced; 7 August 2014.)

Helicotylenchus dihystera is one of the most common species of plant-parasitic nematodes found in Florida. Although information is not available to implicate this species as a serious parasite, it has been involved in growth suppression of many plants (O'Bannon and Inserra 1989). This ectoparasite feeds by inserting its stylet into root tissues from the outside of the root. In some cases, specimens of this species have also been found to partially embed themselves into the root tissue. *Helicotylenchus dihystera* is commonly found associated with ornamental plants in Florida, but it is reported for the first time parasitizing pomegranate (*Punica granatum*) in the state. Previously, this spiral nematode was reported infecting pomegranate in China, where it is both an ornamental and fruit producing tree.

The nematode infestation on *P. granatum* was detected in a bonsai nursery in Central Florida. The continuous exposure of the pomegranate roots to the high population levels of these spiral nematodes in small containers may be a contributing factor to the bonsai decline. Pathogenic fungi and agronomic factors, including fertilization and pH levels, also play an important role in stunting the growth of these ornamental trees. Since spiral nematodes are ectoparasites, a reduction of their densities in containers can be obtained by replacing the nematode-infested soil medium with a clean medium. Appropriate cultural practices, such as application of organic matter, balanced fertilization and irrigation, can mitigate the nematode damage.

Sample Submissions

	July August	Year to date
Morphological Identifications	1,970	8,348
Molecular Identifications	317	1,143
Total Samples Submitted	2,287	9,491

Certification and Regulatory Samples

	July August	Year to date
Multistate Certification for National and International Export	1,439	5,672
California Certification	245	1,341
Pre-movement (Citrus Nursery Certification)	38	170
Site or Pit Approval (Citrus Nursery and Other Certifications)	7	141

Other Samples

	July August	Year to date
Identifications (invertebrate)	1	25
Plant Problems	53	113
Intrastate Survey, Random	187	886
Molecular Identifications*	317	1,143

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

***Punica granatum* (pomegranate)**
Photography courtesy of Top Tropicals
http://toptropicals.com/pics/garden/07/25/P3172990.jpg

Collectors submitting five or more samples that were processed for nematological analysis during July - August 2013

Bailey, W. Wayne	15		Ochoa, Ana L.	56
Bentley, Michael A.	83		Southerland, Lane P.	22
Blaney, Richard L.	9		Spriggs, Charles L.	144
Burgos, Frank A.	184		Terrell, Mark R.	10
Clanton, Keith B.	55		Violett, Larry L.	119
Karppe, Carrie L.	5		Welch, Johanna	15
Keen, Emily I.	45		Wolfe, C. David	7
LeBoutillier, Karen W.	188			

***Helicotylenchus dihystera* (a spiral nematode)** female recovered from roots of dwarf pomegranate *Punica granatum*.
Photography courtesy of Jason D. Stanley, DPI

References

O'Bannon, J.H. and R.N. Inserra. 1989. *Helicotylenchus* species as crop damaging parasitic nematodes. Nematology Circular No. 165. Florida Department of Agriculture and Consumer Services, Gainesville, Florida. 4 p.

Zhou, Y., Y. Guo, W. Zhang and X. Hu. 2007. Preliminary description on pomegranate parasitical nematodes in Yunnan. Acta-Agriculturae-Universitatis-Jiangxiensis 29: 937-939.

Plant Pathology Section

Compiled by Timothy S. Schubert, Ph.D. and David A. Davison

This section provides plant disease diagnostic services. The agency-wide goal of protecting Florida agriculture very often begins with accurate diagnoses 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.

Late Summer Cercosporoid Fungal Diseases in Florida

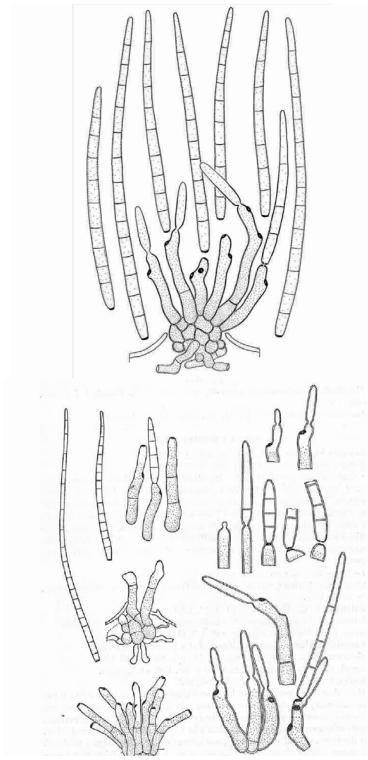
As summer ends with shorter days and at least the expectation of cooler temperatures, plant inspections will reveal more and more leaf spot diseases. This should come as no surprise. In many cases, the foliage sporting the new lesions has been hard at work for seven to eight months in the hot, wet, heavily human-influenced Florida environment, easily one of the most plant disease-conducive locations in the Western Hemisphere. This time of year more than ever, if you keep a close eye on the cultivated and natural vegetation in your area, you might just score a new host or pathogen record for your county, state or even country or continent!

Much of the reason for this is that diseases of our native flora are often overlooked with the onset of fall. One particular group of fungi, the Cercosporoids, take advantage of the senescing, but still functioning, foliage which results in premature defoliation and spoils what might be a chance to display showy fall leaf color or store away more photosynthates for a spectacular bloom and fruit set the following spring. The largest fungal genus in this confederation of pathogens is *Cercospora*, presently containing about 660 officially described species, reduced from over 1,500 by reclassification.

At the risk of overcomplicating the subject in this forum, we note here that in the last few decades, this genus has been segregated into several morphologically and genetically related genera that still bear many of the main characteristics of *Cercospora*, hence the informal name, the Cercosporoid fungi. The main features are leaf spots bearing simple conidiophores producing long, multicellular conidia. (Alachua County; P2014-81075; Dr. Timothy S. Schubert; 25 July 2014.)

Sample Submissions

	July August	Year to date
Pathology	358	1,914
Bee	13	20
Black Spot	0	48
Citrus Canker	185	778
Greening	249	1,484
Interdiction	5	36
Laurel Wilt	19	60
Soil	3	17
Sudden Oak Death	3	13
Sweet Orange Scab-like Disease	2	8
Texas Phoenix Palm Decline	0	32
Water	0	9
Miscellaneous	18	35
Total Samples	855	4,454

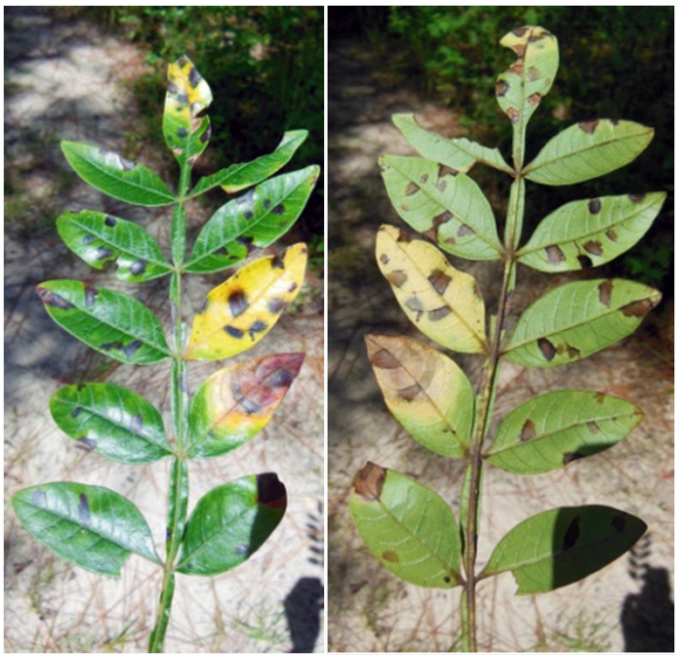


***Cercospora* spp. (leaf spot)** Illustrated above are drawings of typical microscopic reproductive structures of a leaf spot pathogen in the genus *Cercospora*. Closely related genera may have shorter conidia, wider conidia, more pigmentation or surface decoration on the conidia, different scar morphology at the point of detachment, or conidia that form chains, lack fasciculate conidiophores conjoined at the base, branched conidiophores and differ in other characteristics. The general form of the fruiting structures can often be observed on the upper and/or lower lesion surface with a hand lens.
Images from K. Seifert *et al.* 2011; M.B. Ellis 1971.

Here are five of the more common late-season cercosporoid leaf-spotters that you can encounter on a walk in the fields and woods of Florida this time of year:

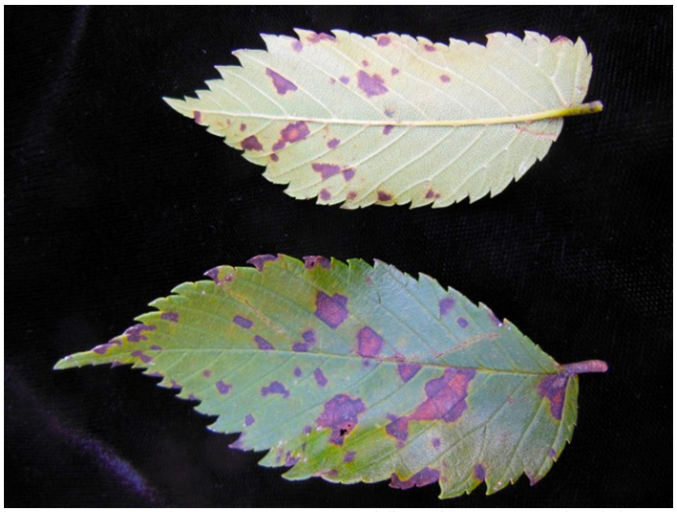
***Cercospora liquidambaris* (leaf spot)** on the foliage of *Liquidambar styraciflua* (sweet gum), front and back of leaf.
Photographs courtesy of Timothy S. Schubert, DPI

***Pseudocercospora rubi* (leaf spot)** on the foliage of *Rubus cuneifolius* (sand blackberry), front and back of leaf.
Photographs courtesy of Timothy S. Schubert, DPI



***Pseudocercospora rhoina* (leaf spot)** on the foliage of *Rhus copallina* (shining sumac), front and back of leaf.
Photographs courtesy of Timothy S. Schubert, DPI

***Cercospora arcti-ambrosiae* (leaf spot)** blighting the lower foliage on *Ambrosia artimisiifolia* (common ragweed). It is common to see large stands of ragweed with much of the lower canopy lost to this disease.
Photographs courtesy of Timothy S. Schubert, DPI



***Pseudocercospora sphaeriiformis* (leaf spot)** on foliage of *Ulmus alata* (winged elm), front (lower image) and back (upper image) of leaf.
Photographs courtesy of Timothy S. Schubert, DPI

References

Ellis, M. B. 1971. Dematiaceous Hyphomycetes. Commonwealth Mycological Institute. Kew, England. 608 p.

Seifert, K., G. Morgan-Jones, W. Gams and B. Kendrick. 2011. The genera of Hyphomycetes. CBS-KNAW Fungal Biodiversity Centre. [CBS Biodiversity Series no. 2.] Utrecht, The Netherlands. 997 p.

Plant Species	Plant Common Name	Causal Agent	Disease Name	Location Type	County	Sample Number	Collector	Date	New Records	Comments
Ambrosia artemisiifolia	annual ragweed	*Cercospora arcti-ambrosiae*	Cercospora leaf spot	natural area	Alachua	81075	Timothy S. Schubert	7/25/2014		This plant pathogen could have real potential as a biocontrol agent if it were to infect ragweed earlier in the year.
Forestiera segregata	Florida swampprivet	*Fusarium decemcellulare*	Fusarium stem gall	landscape	Miami-Dade	80825	Property owner and Karen W. Leboutillier	7/14/2014	Host	This gall forming pathogen has the potential to become a major problem for this Florida native.
Gossypium hirsutum	Marie Galante cotton	*Pleospora* sp.	leaf spot	commercial cotton field	Hamilton	81584	Robert M. Leahy, USDA/ CAPS; Brad A. Danner, DPI/CAPS	9/3/2014	Host	This leaf-spottng organism was found while looking at cotton for pests and diseases.
Ipomoea sp.	ipomoea	*Stemonitis* sp.	slime mold	landscape	Alachua	81492	Property owner	8/25/2014		Our overly wet spring and summer has allowed many slime molds to prosper this year.
None		*Chaetomidium* sp.	drywall mold fungus	home interior	Alachua	81181	Julieta Brambila, USDA	8/1/2014	State	While new to the state, this is not a human pathogen; it was found growing on water-logged gypsum drywall.
Sassafras albidum	sassafras	*Raffaelea lauricola*	laurel wilt	tree on farm site	Jackson	81296	Larry M. Smith	8/18/2014		Only the third sassafrass sample that has been positive for laurel wilt since it was confirmed in Florida in 2005.
Zea mays	sweet corn	*Bipolaris maydis*	southern corn leaf blight	farm	Alachua	81473	Vegetable farmer	8/21/2014		Our warm and wet weather has allowed this corn pathogen to fluorish this year. Without proper sanitation of infected debris, this organism can easily carryover to next year's crop.