



FDACS-P-00124

October - December 2022

Volume 61, Number 4

TRI-OLOGY

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



BOTANY

Providing information about plants:
native, exotic, protected and weedy



ENTOMOLOGY

Identifying arthropods, taxonomic
research and curating collections



NEMATOLOGY

Providing certification programs and
diagnoses of plant problems



PLANT PATHOLOGY

Offering plant disease diagnoses
and information



Florida Department of Agriculture and Consumer Services • Division of Plant Industry



Physegenua obscuripennis (Bigot), adult female.
Photo by Erick Rodriguez, FDACS-DPI

ABOUT TRI-OLOGY

The Florida Department of Agriculture and Consumer Services-Division of Plant Industry's (FDACS-DPI) Bureau of Entomology, Nematology, and Plant Pathology (ENPP), including the Botany Section, produces TRI-OLOGY four times a year, covering three months of activity in each issue.

The report includes detection activities from nursery plant inspections, routine and emergency program surveys, and requests for identification of plants and pests from the public. Samples are also occasionally sent from other states or countries for identification or diagnosis.

HOW TO CITE TRI-OLOGY

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

For example: S.E. Halbert. 2015. Entomology Section. P.J. Anderson and G.S. Hodges (Editors). TRI-OLOGY 54(4): 9. [Accessed 5 June 2016.]

Copies of TRI-OLOGY are kept on the FDACS website for two years. To obtain older copies, contact the FDACS-DPI Library at (352) 395-4722 or PlantIndustry@FDACS.gov.

ACKNOWLEDGEMENTS

The editors would like to acknowledge the work of all those who contributed information and explanations by providing data, photographs or text, and by carefully reading early drafts.







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

Thank you,

Gregory Hodges, Ph.D.
Editor
Assistant Director, Division of Plant Industry

Patti J. Anderson, Ph.D.
Managing Editor
Botanist, Division of Plant Industry

TABLE OF CONTENTS

	HIGHLIGHTS	03
<hr/>		
Noteworthy examples from the diagnostic groups throughout the ENPP Bureau.		
	BOTANY	04
<hr/>		
Quarterly activity reports from Botany and selected plant identification samples.		
	ENTOMOLOGY	07
<hr/>		
Quarterly activity reports from Entomology and samples reported as new introductions or interceptions.		
	NEMATOLOGY	13
<hr/>		
Quarterly activity reports from Nematology and descriptions of nematodes of special interest.		
	PLANT PATHOLOGY	15
<hr/>		
Quarterly activity reports from Plant Pathology and selected identified plant pest and disease samples.		
	FROM THE EDITOR	18
<hr/>		
Articles of interest that vary in subject matter.		

Cover Photo

Senna occidentalis (coffee senna).
Photo by Johnny N. Dell, Bugwood.org



HIGHLIGHTS



1 *Andropogon ternarius* Michx. (splitbeard bluestem), a new county record, for Bay County.

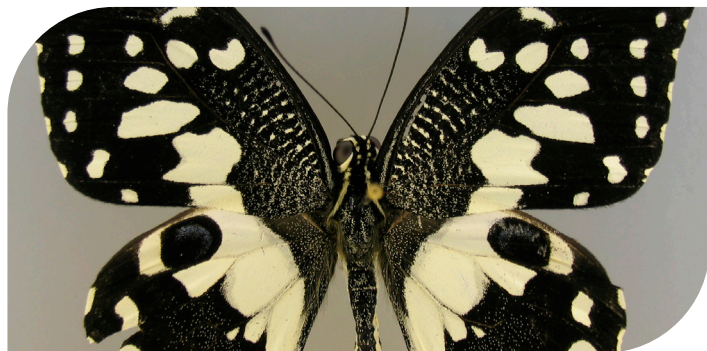
This species is native to the southeastern United States and northern Mexico where it grows in longleaf pine sandhills, dry to mesic pine savannas, scrubby flatwoods and dry to moist soils of woodlands and openings. It is sometimes planted as an ornamental.



1 - *Andropogon ternarius*, inflorescence.
Photo from [North Carolina Extension Service](#)

2 *Papilio demoleus* Linnaeus, lime swallowtail, a new Florida State record.

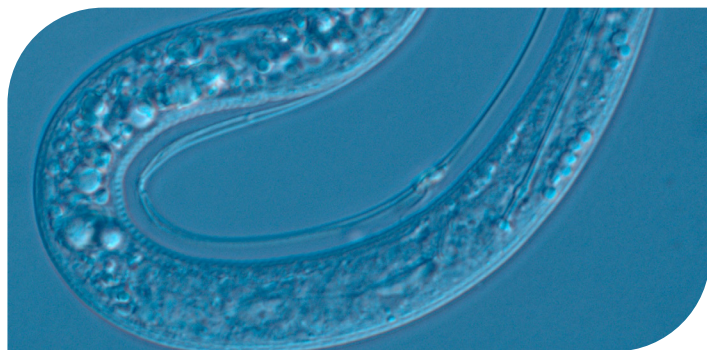
The lime swallowtail butterfly is native to southern Asia, where it is a pest of *Citrus*. Caterpillars chew large holes in leaves, and heavy infestations can defoliate young trees.



2 - *Papilio demoleus*, lime swallowtail, reared in containment.
Photo by James Hayden, FDACS-DPI

3 *Paratylenchus acti*, Eroshenko 1978, a pin nematode, was detected in the rhizosphere of broom-sedge species (*Andropogon* spp.) collected from a peat mine operation in Avon Park, Florida, a new Florida State record.

4 *Calonectria amazonica* L. Lombard & Crous (Nectriaceae, Sordaryomycetes) (leaf blight) was detected on *Clusia rosea* Jacq., known as autograph tree or pitch apple, a new USA record, from a nursery in Miami-Dade County.



3 - *Paratylenchus acti*, a pin nematode.
Photo by Silvia Vau, FDACS-DPI



4 - *Calonectria amazonica* showing leaf spot symptoms on *Clusia rosea*.
Photo by Scott Krueger, FDACS-DPI





BOTANY

Compiled by Patti J. Anderson, Ph.D. and Alex de la Paz, B.S.

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 16,000 plants and 1,400 vials of seeds.

QUARTERLY ACTIVITY REPORT

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1,037	4,603
Samples Submitted for Botanical Identification Only	231	1,204
Total Samples Submitted	1,268	5,807
Specimens Added to the Herbarium	271	1,267

Some of the samples submitted recently are described below.

1 *Senna occidentalis* (L.) Link (**septicweed, coffee senna, ant bush**), from a genus of about 300, mainly tropical and warm-temperate species, in the plant family Leguminosae. This species is native to the Americas from Mexico to Argentina and throughout the Caribbean but has become naturalized throughout the tropics and subtropics and even some warm temperate areas. In the United States, it has been reported in almost the entire southeastern quarter of the country. *Senna occidentalis* has been documented in 51 Florida counties from Escambia to Miami-Dade where it is typically found in disturbed sites, such as roadsides, pastures, among cultivated row crops and in waste places. This annual plant grows to a height of up to 3 m. The leaves are alternate and evenly compound with four to six pairs of opposite, ovate to lanceolate leaflets with acute tips. The petiole has a rounded or conical gland (or sometimes two) near its base. Each leaf has a linear or falcate stipule 3-5 mm long, but it falls away soon after the leaf emerges to its full length. Flowers are held singly or in clusters (a short raceme) of up to five flowers. The five yellow petals are 2-3 cm wide and marked with dark veins. Each flower has six fertile stamens. The fruit is a flattened, linear to slightly curved legume, 8-14 cm long and 6-8 mm wide, turning from green to brown when the seeds are mature. The common name, coffee senna, suggests the use of roasted seeds as a coffee substitute. Raw seeds, leaves and roots are toxic to humans and livestock. Two samples this quarter were new records for Levy and Suwannee counties. (Levy County; 10272022-09610; Alexa Barrios; 27 October 2022 and Suwannee County; 11042022-09942; Alexa



1a - *Senna occidentalis*, coffee senna, flowers.
Photo by Matthew Merritt, [Atlas of Florida Plants](#)



1b - *Senna occidentalis*, coffee senna, petiole gland.
Photo by Bob Upcavage, [Atlas of Florida Plants](#)



Barrios; 4 November 2022.) (Mabberley, 2017; Wunderlin and Hansen, 2011; Wunderlin and Hansen, 2016; [Factsheet - *Senna occidentalis* \(Coffee Senna\) \(lucidcentral.org\)](#) [accessed 13 January 2023].)

2 *Andropogon ternarius* Michx. (splitbeard bluestem), from a genus of about 100-110 species from tropical and warm-temperate areas around the world, in the plant family Poaceae (Gramineae). *Andropogon* is an ecologically important and conspicuous member of various grasslands throughout its range. This species is native to the southeastern United States and northern Mexico where it grows in longleaf pine sandhills, dry to mesic pine savannas, scrubby flatwoods and dry to moist soils of woodlands and openings. It is sometimes planted as an ornamental and for erosion control on slopes in poor sandy soils. Plants are perennial herbs with short, stout, knotty rhizomes, growing in small clumps. The culms (stems) are stiffly erect and range from about 90-120 cm tall. The leaf sheaths are smooth or sparsely pubescent, and the leaf blades are 30-40 cm long, 3-4 mm wide, smooth or pubescent and green. The ligule is membranous and 1-1.2 mm long. The flowers are arranged in paired spikelets, one sessile and the other pedicellate, alternating along an axis (rachis). The pedicellate spikelet is borne on a pedicel, attached at the base of the sessile spikelet and typically angles away from it at a roughly 45-degree angle. The rachis internode extends from the base of one sessile spikelet to the next sessile spikelet above, breaking apart (upon dehiscence) just below the next spikelet and remaining attached to the sessile spikelet below. The dispersal unit consists of a sessile spikelet sitting in the V-shape formed by (on one side) the pedicel and pedicellate spikelet and (on the other side) the rachis internode. Both the pedicel and the rachis internode are usually pubescent with long hairs, giving a fluffy white “bearded” appearance to the inflorescence. While the dispersal units are still attached to one another, the rachis internodes form a continuous and more-or-less straight rachis. The dispersal units attached together in an unbranched sequence are termed a raceme (or rame). Two racemes are attached digitately at the summit of the peduncle. A raceme sheath subtends the peduncle, often more or less surrounding the peduncle and the racemes. The racemes, peduncle and subtending raceme sheath make up an inflorescence unit. In this species, the peduncles are longer than the subtending raceme sheaths at maturity, when the racemes are fully exerted above the apex of the raceme sheath. The first or lower glume of the sessile spikelet has two keels, is somewhat scabrous on the keels and is smooth to sparsely scabridulous between the keels, without additional nerves. The lemma awns are about 18-25 mm long, straight to only slightly twisted at the base, delicate and tawny. The fruit (caryopsis) is wind-dispersed, aided by the fluffy white hairs subtending the dispersal units. The sample submitted for identification this reporting period is a new county record for Bay County. (Bay County; B2022-1196; Austin Hawes; 16 December 2022). (Campbell, 2003; Weakley, 2022; Wunderlin and Hansen, 2011).



2 - *Andropogon ternarius*, splitbeard bluestem.
Photo by Patricia Howell, [Atlas of Florida Plants](#)

REFERENCES

- Bryson, C.T. and DeFelice, M.W. (2009).** *Weeds of the South*. University of Georgia Press. Athens, Georgia.
- Campbell, C.S. (2003).** *Andropogon*. In: Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico* [Online]. 22+ vols. New York and Oxford. Vol. 25. <http://floranorthamerica.org/Andropogon> [accessed 17 January 2023].
- Mabberley, D.J. (2017).** *Mabberley's plant-book: a portable dictionary of plants, their classification and uses* (4th edition). Cambridge University Press, New York, New York.
- Weakley, A.S. and Southeastern Flora Team (2022).** *Flora of the southeastern United States*. University of North Carolina Herbarium, North Carolina Botanical Garden, Chapel Hill, North Carolina.
- Wunderlin, R.P. and Hansen, B.F. (2011).** *Guide to the vascular plants of Florida*, 3rd edition. University Press of Florida, Gainesville, Florida.
- Wunderlin, R.P. and Hansen, B.F. (2016).** *Flora of Florida, Volume III: Dicotyledons, Vitaceae through Urticaceae*. University Press of Florida. Gainesville, Florida.



🔍 BOTANY IDENTIFICATION TABLE

The following table provides information about new county records submitted in the reported quarter. The table is organized alphabetically by collector name. The full version with more complete data is downloadable as a [PDF](#) or an [Excel](#) spreadsheet also organized by collector name, except new county records are listed first.

COLLECTOR NAME	COLLECTOR 2	LIST NUMBER	RECEIVED DATE	PLANT NAME	COUNTY
Alexa Barrios		9940	11/4/22	<i>Broussonetia papyrifera</i>	Suwannee
Alexa Barrios	Kelly Douglas	9048	10/12/22	<i>Mitracarpus hirtus</i>	Suwannee
Alexa Barrios	Kelly Douglas	9055	10/12/22	<i>Sambucus nigra</i> ssp. <i>canadensis</i>	Suwannee
Alexa Barrios		9610	10/27/22	<i>Senna occidentalis</i>	Levy
Alexa Barrios		9942	11/4/22	<i>Senna occidentalis</i>	Suwannee
Alexa Barrios		9643	10/28/22	<i>Solanum viarum</i>	Dixie
Alexa Barrios		10693	12/6/22	<i>Solanum viarum</i>	Suwannee
Angi Hutcherson		10459	12/5/22	<i>Ardisia crenata</i>	Suwannee
Angi Hutcherson		9968	11/14/22	<i>Psilotum nudum</i>	Calhoun
Austin Hawes		11048	12/20/22	<i>Andropogon ternarius</i>	Bay
Austin Hawes		9650	11/1/22	<i>Ipomoea leucantha</i>	Jackson
Austin Hawes		9230	10/20/22	<i>Triadica sebifera</i>	Walton
Chase Groninger		9946	11/14/22	<i>Calyptocarpus vialis</i>	Brevard
Chase Groninger	Victoria Benjamin	9727	11/3/22	<i>Stylosanthes hamata</i>	Brevard
Chase Groninger		9953	11/14/22	<i>Syagrus romanzoffiana</i>	Brevard
David Brown		10263	11/18/22	<i>Abrus precatorius</i>	Putnam
Jennifer Hesse		9419	10/26/22	<i>Carica papaya</i>	Flagler
Jennifer Hesse		11014	12/16/22	<i>Cissus verticillata</i>	Volusia
Jennifer Hesse		9614	10/28/22	<i>Coccinia grandis</i>	Volusia
Jennifer Hesse		9420	10/26/22	<i>Cyperus esculentus</i>	Flagler
Jennifer Hesse		8856	10/6/22	<i>Ipomoea triloba</i>	Volusia
Jennifer Hesse		10776	12/13/22	<i>Washingtonia robusta</i>	Volusia
Jennifer McKeever	Kelsey Helseth	10593	12/9/22	<i>Citrus x aurantium</i>	Osceola
Jennifer McKeever	Kelsey Helseth	10597	12/9/22	<i>Clerodendrum indicum</i>	Osceola
Jennifer McKeever	Kelsey Helseth	10601	12/9/22	<i>Koeleruteria elegans</i> ssp. <i>formosana</i>	Osceola
Jennifer McKeever	Kelsey Helseth	10594	12/9/22	<i>Lygodium japonicum</i>	Osceola
Jennifer McKeever	Kelsey Helseth	10647	12/9/22	<i>Prunus serotina</i>	Osceola
Jennifer McKeever	Kelsey Helseth	10770	12/13/22	<i>Thunbergia fragrans</i>	Osceola
Matt Miller		9381	10/25/22	<i>Oplismenus burmannii</i>	Palm Beach
Nora Marquez	Mary Graham	9384	10/26/22	<i>Clerodendrum x speciosum</i>	Pasco
Nora Marquez	Mary Graham	9387	10/26/22	<i>Ruellia simplex</i>	Pasco
Rachel Conklin		8994	10/11/22	<i>Hydrocotyle ranunculoides</i>	St. Johns
Rachel Conklin		8991	10/11/22	<i>Kalanchoe x houghtonii</i>	St. Johns
Rachel Conklin		8997	10/11/22	<i>Nuphar advena</i>	St. Johns
Rachel Conklin		8993	10/11/22	<i>Pistia statiotes</i>	St. Johns
Rachel Conklin		8995	10/11/22	<i>Salvinia minima</i>	St. Johns
Ray Jarrett		10235	11/21/22	<i>Schizachyrium niveum</i>	Orange





ENTOMOLOGY

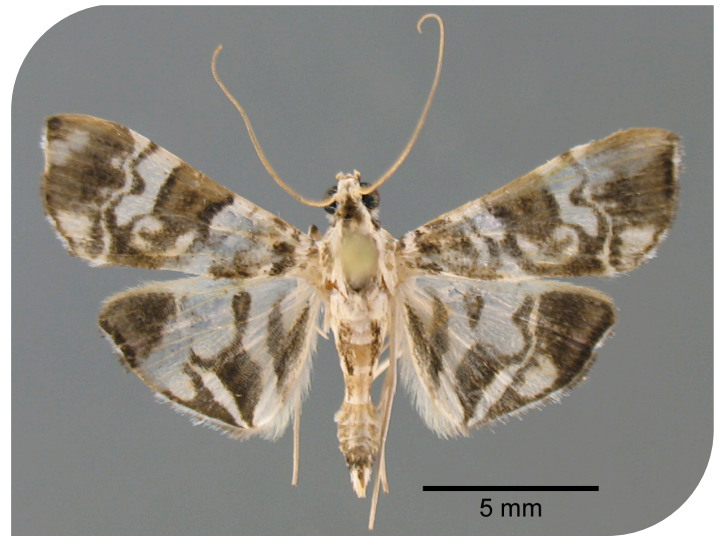
Compiled by Susan E. Halbert, Ph.D.

This section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. The entomology section also builds and maintains the arthropod reference and research collection (the Florida State Collection of Arthropods with over 10 million specimens) and investigates the biology, biological control and taxonomy of arthropods.

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Samples Submitted	1,014	5,321
Lots Identified	1,698	7,739

1 *Chabula acamasalis* (Walker), a crambid moth, a new Continental USA record. *Chabula acamasalis*, a tropical Asian margaroniine crambid moth, ranges from India and China through Southeast Asia to northern Australia. It is not known to be a pest. In the only host record for this moth, it was found feeding on the roots of *Ficus* in Australia. Related moths in the *Glyphodes* group also feed on Moraceae, albeit on above-ground parts. In September 2022, one moth was collected from the window of a home in Fort Lauderdale, Florida, and submitted to DPI. Previously, photographs of this species were posted on Bugguide ([Species Chabula acamasalis - Hodges#5199.3 - BugGuide.Net](#)), documenting collections by the public in Davie in 2020 and Vero Beach earlier in 2022. Subsequent searches of the areas by FDACS-DPI personnel found nothing. (Broward County; E4777-01-10102022-08987; Ted and Barbara Center, homeowners; 20 September 2022.) (Dr. James E. Hayden.)

2 *Lepidosaphes laterochitinos* Green, a mussel scale, a new USA record. This armored scale insect was detected in the landscape for the first time in Broward County, Florida. In December, this species was found on an *Epipremnum pinnatum* (L.) Engl. vine growing up a tree trunk. In the previous month, this scale was also identified on *Dracaena cochinchinensis* (Lour.) S.C. Chen about three miles away in horticultural waste on the side of a road (E5534-11092022-10059). This species of Asian origin has been intercepted regularly by the U.S. Department of Agriculture at ports and twice in Florida nurseries, once in 1987 and again in 2016. Many individuals from both samples had been parasitized by wasps. See Stocks (2016) for more information. (Broward County; E5667-12092022-10822; Mark Zenoble; 9 December 2022.) (Dr. Erin C. Powell.)



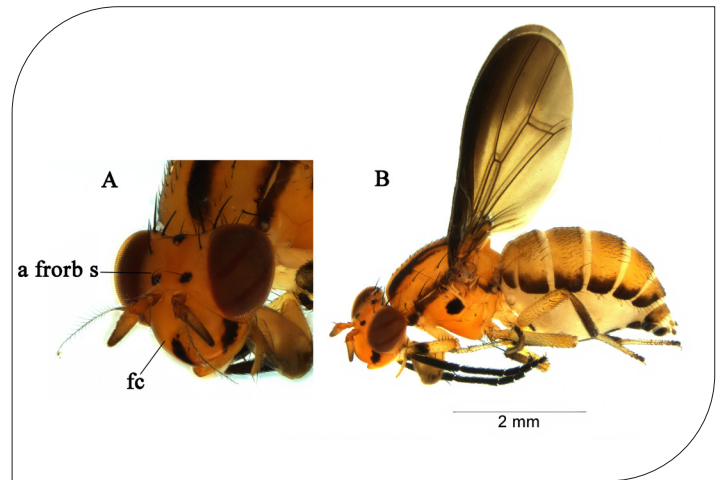
1 - *Chabula acamasalis*, a margaroniine crambid moth.
Photo by James Hayden, FDACS-DPI



2 - *Lepidosaphes laterochitinos* Green, a mussel scale, adult females on *Dracaena cochinchinensis*.
Photo by Erin Powell, FDACS-DPI



3 *Physegenia obscuripennis* (Bigot), striped fly, a new Continental USA record. This record applies to both the species and the genus. This lauxaniid species (Diptera: Lauxaniidae) was collected for the first time in the United States by sweeping in tall grasses in Palm Beach County. It was identified by Dr. Stephen D. Gaimari, California Department of Food & Agriculture (CDFA). Like all members of this genus, it is native to the New World (Gaimari and Silva 2010) and has been reported previously from Cuba, Jamaica, Puerto Rico, Dominica, Mexico, Costa Rica and Panama (Gaimari and Silva 2020). This species is among four in the genus occurring in the West Indies, the rest being from Central and South America. This genus is among the few lauxaniids having a strongly convex bulging face, with the anterior fronto-orbital setae being inclinate. Curran (1942) provides the only published key to species (including only seven of the 11 described species, but fortunately all the West Indian species). A few species within this genus have been reared from puparia in Costa Rica with no further natural history information (Miller 1977), and there are no biological data for *P. obscuripennis*. Evidence from mouthpart morphology suggests adults in this genus are fungal grazers on leaf surfaces (Broadhead 1984). No additional flies have been collected in Florida since the first find in October 2022. (Palm Beach County; E4944-01-10212022-09359; Jonas K. Insinga, USDA-APHIS-PPQ-Plant Inspection Service of the Miami International Airport; 3 October 2022.) (Dr. Erick J. Rodriguez, FDACS-DPI and Dr. Stephen D. Gaimari, CDFA.)



3 - *Physegenia obscuripennis* (Bigot), adult female. Anterior view of head (A) and dorsolateral habitus (B). (fc= face; a frorb s= anterior fronto-orbital seta).
Photo by Erick J. Rodriguez, FDACS-DPI

4 *Choreutis sexfasciella* (Sauber), a choreutid moth, a new Florida State record. This is an invasive pest of *Ficus* native to Southeast Asia. It has been established in California since 2020, where it mainly damages *Ficus microcarpa* L.f. The larvae skeletonize leaves, which wither and suffer necrosis. The moths in Florida were photographed first by a member of the public, who collected and submitted a specimen to FDACS-DPI for verification. The genitalia match those of *C. sexfasciella*, and the COI barcode data are 100% consistent with the population in California. Photographs online suggest this moth is spreading rapidly in southeastern Florida. (Palm Beach County; E5602-01-12072022-10725; Mr. Shawn Roller; 24 November 2022.) (Dr. James E. Hayden, Dr. John B. Heppner, Matthew R. Moore.)



4 - *Choreutis sexfasciella*.
Photo by Shawn Roller

5 *Endothenia microptera* (Clarke), a tortricid moth, a new Florida State record. *Endothenia* Stephens includes several species of small brown moths that are most reliably identified by dissection. The smallest among them, *E. microptera*, is distributed in the southeastern and central United States, but it is seldom collected and identified correctly. Pupae were collected in stems of alligatorweed (*Alternanthera philoxeroides* (Mart.) Griseb.). This is also the first apparent host record for *E. microptera*, and it is surprising because congeners do not feed on closely related plants. The plant is a native of tropical America and has become a serious weed in natural areas. (Wakulla County; E5173-01-11032022-09805; Nicole Benda and Donald Bracey; 13 September 2022.) (Dr. James Hayden and Alex de la Paz.)



5 - *Endothenia microptera* female.
Photo by James Hayden, FDACS-DPI



6 *Papilio demoleus* Linnaeus, lime swallowtail, a new Continental USA record. The lime swallowtail butterfly is native to southern Asia, where it is a pest of *Citrus*. Caterpillars chew large holes in leaves, and heavy infestations can defoliate young trees. The subspecies *P. d. malayanus* Wallace became established in the Caribbean in 2004, so its invasion of Florida has been anticipated and a major focus of survey effort in South Florida for many years. The first sample, a larva and pupa, were photographed by residents of Key West and collected by FDACS-DPI personnel. Subsequent surveys have found immature stages on citrus trees on multiple properties in Key West. COI DNA sequences of the specimens are 97–100% identical matches to specimens from South and Southeast Asia. (Monroe County; E4734-01-10062022-08936 and M0396-01-10062022-08936; Phellicia Perez and Suhayla Carrasquilla; 4 October 2022.) (Dr. James E. Hayden and Matthew R. Moore.)



6 - *Papilio demoleus* reared in containment.
Photo by James Hayden, FDACS-DPI

REFERENCES

- Broadhead, E.C. (1984).** Adaptations for fungal grazing in lauxaniid flies. *Journal of Natural History* 18: 639-649.
- Curran, C.H. (1942).** American Diptera. *Bulletin of the American Museum of Natural History* 80(3): 51-84.
- Gaimari, S.D. and Silva, V.C. (2010).** Lauxaniidae (Lauxaniid flies). In B.V. Brown, A. Borkent, J.M. Cumming, D.M. Wood, N.E. Woodley and M.A. Zumbado, (Eds.) *Manual of Central American Diptera: (Volume 2, pp. 971-995)*. NRC Research Press. Ottawa, Ontario, Canada.
- Gaimari, S.D. and Silva, V.C. (2020).** A conspectus of Neotropical Lauxaniidae (Diptera: Lauxanioidae). *Zootaxa* 4862(1): 1-217.
- Miller, R.M. (1977).** Ecology of Lauxaniidae (Diptera: Acalyptratae), I. Old and new rearing records with biological notes and discussion. *Annals of the Natal Museum* 23(1): 215–238.
- Stocks, I. (2016).** *Lepidosaphes laterochitinos* (Green), a new mussel scale intercepted in a Florida nursery. *Pest Alert* FDACS-P-01527. Division of Plant Industry. Gainesville, Florida.



🔍 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 information included are organized by arthropod name.

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Abies balsamea</i>	balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Alexa Barrios	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Logan Cutts	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Keith Zugar	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Keith Zugar	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Keith Zugar	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Shannan Webb	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Mark Zenoble	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Mark Zenoble	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Shannon Webb	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Shannon Webb	Regulatory significant
<i>Abies fraseri</i>	Fraser's fir, southern balsam fir	<i>Fiorinia externa</i>	elongate hemlock scale	Stephen Jenner	Regulatory significant
<i>Aglaonema</i> sp.	Chinese evergreen	<i>Pentalonia caladii</i>	caladium aphid	Mark Zenoble	New Florida host record
<i>Alternanthera philoxeroides</i>	alligatorweed, green lead plant	<i>Endothenia microptera</i>	moth	Nicole Benda	New Florida State record, New Florida host record
<i>Apium graveolens</i>	celery	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Artocarpus altilis</i>	breadfruit	<i>Fiorinia phantasma</i>	phantasma scale	Pattanjaldal Bissoondial	New Florida host record
<i>Asclepias</i> sp.	milkweed	<i>Thrips parvispinus</i>	thrips	Noemi Negron, Victoria Benjamin, Alexander Tasi	First in county
<i>Bidens alba</i>	beggarticks, romerillo	<i>Phenacoccus sisymbriifolium</i>	mealybug	Elise Pounders	First in county
<i>Bidens alba</i>	beggarticks, romerillo	<i>Phenacoccus solani</i>	solanium mealybug	Elise Pounders	First in county
<i>Bidens alba</i>	beggarticks, romerillo	<i>Pseudococcus sorghiellus</i>	trochanter mealybug	Elise Pounders	First in county
<i>Bischofia javanica</i>	bishopwood	<i>Mycetaspis personata</i>	masked scale	Teresa Ortelli, Jeanie Frechette	New Florida host record
<i>Bischofia javanica</i>	bishopwood	<i>Saissetia miranda</i>	Mexican black scale	Teresa Ortelli, Jeanie Frechette	New Florida host record
<i>Brassica oleracea</i>	kale	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	pepper	<i>Bactericera cockerelli</i>	potato psyllid	Teresa Ortelli, Jeanie Frechette	Regulatory significant
<i>Capsicum annuum</i>	pepper	<i>Bactericera cockerelli</i>	potato psyllid	Carlos Averhoff Chirino, Jeanie Frechette	Regulatory significant
<i>Capsicum annuum</i>	jalapeño pepper	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	poblano pepper	<i>Bactericera cockerelli</i>	potato psyllid	Shannan Webb	Regulatory significant
<i>Capsicum annuum</i>	poblano pepper	<i>Bactericera cockerelli</i>	potato psyllid	Victoria Benjamin	Regulatory significant
<i>Capsicum annuum</i>	pepper	<i>Bactericera cockerelli</i>	potato psyllid	Mary Graham, Matthew Brodie, Richard Blaney, Emily Safran	Regulatory significant
<i>Cichorium endivia</i>	endive	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Citrus</i> sp.	citrus	<i>Papilio demoleus</i>	Old World lime swallowtail	Phellicia Perez, Suhayla Carrasquilla	New Florida State record
<i>Citrus</i> sp.	citrus	<i>Thrips parvispinus</i>	thrips	Kelsey Helseth	New Florida host record
<i>Citrus x paradisi</i>	grapefruit	<i>Notogramma stigma</i>	ulidiid fly	Michael Dina	First in county
<i>Desmodium incanum</i>	zarzabacoa comun, creeping beggarweed, Spanish clover, Spanish tick-trefoil	<i>Microsarsus olivei</i>	aphid	Chase Groninger	First in county
<i>Digitaria</i> sp.	a grass	<i>Antonina graminis</i>	Rhodes grass mealybug	Elise Pounders	First in county
<i>Echinodorus</i> sp.	burrhead	<i>Opiconsiva anacharsis</i>	delphacid planthopper	Mark Zenoble	Regulatory significant
<i>Echinodorus</i> sp.	burrhead	<i>Opiconsiva anacharsis</i>	delphacid planthopper	Paola Ramos Perez	Regulatory significant
<i>Elaeocarpus sylvestris</i>	woodland elaeocarpus, Japanese blueberry	<i>Hemiberlesia lataniae</i>	latania scale	Frank Burgos	New Florida host record
<i>Epipremnum pinnatum</i>	pothos	<i>Lepidosaphes laterochitinoso</i>	armored scale	Mark Zenoble	New Florida State record
<i>Eriobotrya japonica</i>	Japanese plum, loquat	<i>Spodoptera pulchella</i>	Caribbean armyworm	Jennifer Hesse	First in county
<i>Ernodea littoralis</i>	beach creeper, cough bush	<i>Planckonia stentae</i>	euphorbia pit scale	Teresa Ortelli, Jeanie Frechette	New Florida host record
<i>Eupatorium capillifolium</i>	dogfennel	<i>Phenacoccus sisymbriifolium</i>	mealybug	Kyle Schnepf	New Florida host record
<i>Fragaria x ananassa</i>	strawberry	<i>Bactericera</i> sp.	psyllid	Dyrana Russell, Logan Cutts	Regulatory significant
<i>Ipomoea batatas</i>	sweet potato, boniato, camote, batata	<i>Thrips parvispinus</i>	thrips	Riccardo Tordi, Lane Smith	New Florida host record
<i>Lactuca sativa</i>	green leaf lettuce	<i>Acyrtosiphon lactucae</i>	lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	iceberg lettuce	<i>Acyrtosiphon lactucae</i>	lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine hearts	<i>Halyomorpha halys</i>	brown marmorated stink bug	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	red leaf lettuce	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	iceberg lettuce	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	red leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine hearts	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	green leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	iceberg lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Laportea aestuans</i>	West Indian woodnettle	<i>Thrips parvispinus</i>	thrips	Riccardo Tordi, Lane Smith	New Florida host record
<i>Lobularia maritima</i>	seaside lobularia, sweet alyssum	<i>Thrips parvispinus</i>	thrips	Riccardo Tordi, Lane Smith	New Florida host record
<i>Milletia pinnata</i>	poonga-oil tree, pongam, Indian beech	<i>Aleurodicus rugioperculatus</i>	rugose spiraling whitefly	Edgardo Luiggi	New Florida host record
mixed	Tuscan mix	<i>Lygus</i> sp.	western lygus bug	Logan Cutts	Regulatory significant
mixed greens		<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
mixed greens		<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
<i>Neyraudia reynaudiana</i>	silkreed, Burma reed, cane grass	<i>Hysteroneura setariae</i>	rusty plum aphid	Mary Yong Cong	New Florida host record
Orchidaceae	orchid	<i>Ceroplastes stellifer</i>	stellate scale	Brandon Di Lella, Nichole Bushue, K-9	Regulatory significant
<i>Oryza sativa</i>	rice	<i>Sanctanus fasciatus</i>	leafhopper	Donna Larsen	First in county
<i>Persea americana</i>	avocado, alligator pear, aguacate	<i>Hyalymenus</i> sp.	broadheaded bug	Jakira Davis, Eric Dougherty	Regulatory significant
<i>Phlox</i> sp.	phlox	<i>Thrips parvispinus</i>	thrips	Riccardo Tordi, Lane Smith	New Florida host record
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	Lisa Tyler	Regulatory significant



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	Lisa Tyler	Regulatory significant
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	Lisa Tyler	Regulatory significant
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	Alexa Barrios	Regulatory significant
<i>Pinus strobus</i>	eastern white pine	<i>Chionaspis pinifoliae</i>	pine needle scale	Alexa Barrios	Regulatory significant
<i>Piptochaetium avenaceum</i>	blackseed needlegrass	<i>Duplacionaspis divergens</i>	bunchgrass scale	Erin Powell	New Florida host record
<i>Pittosporum tobira</i>	pittosporum, Japanese cheesewood	<i>Lopholeucaspis japonica</i>	Japanese maple scale	Nermaret Canales-Guardiola	New Florida host record
<i>Quercus minima</i>	dwarf live oak	<i>Stegophylla brevisrostris</i>	woolly oak aphid	Erin Powell, Elise Pounders, Trudi Deuel, Alex de la Paz, Lily Deeter, Doug Miller	New Florida host record
<i>Quercus</i> sp.	oak	<i>Diphyllaphis microtrema</i>	woolly oak aphid	Elise Pounders	First in county
<i>Solanum diphyllum</i>	twoleaf nightshade, twinleaf nightshade	<i>Platynota rostrana</i>	eastern omnivorous leafroller	Alexander Tasi	New Florida host record
<i>Solanum quitoense</i>	Quito orange, lulo	<i>Phenacoccus sisymbriifolium</i>	mealybug	Tavia Gordon	New Florida host record
<i>Sorghastrum secundum</i>	lopsided indiagrass	<i>Duplacionaspis divergens</i>	armored scale	Maria Furnas, Christine Zamora, Cheryl Jones	New Florida host record
<i>Tagetes</i> sp.	marigold	<i>Thrips parvispinus</i>	thrips	Riccardo Tordi, Lane Smith	New Florida host record
<i>Triadica sebifera</i>	popcorn tree, Chinese tallow tree	<i>Ceroplastes rusci</i>	fig wax scale	Alyssa Lucas	New Florida host record
<i>Triadica sebifera</i>	popcorn tree, Chinese tallow tree	<i>Hemiberlesia lataniae</i>	latania scale	Alyssa Lucas	New Florida host record
<i>Ulmus parvifolia</i>	Chinese elm, lacebark elm	<i>Tinocallis ulmiparvifoliae</i>	Chinese elm aphid	Alexander Tasi	First in county
<i>Vitis</i> sp.		<i>Planococcus ficus</i>	mealybug	Jakira Davis, Eric Dougherty	Regulatory significant
		<i>Bruchomorpha oculata</i>	piglet bug	Alexander Tasi	First in county
		<i>Catonia bicinctura</i>	achilid planthopper	Scott Weihman, Alexander Tasi	First in county
		<i>Chabula acamasalis</i>	margaroniine snout moth	Ted and Barbara Center, Keith Zugar	New Continental USA record
		<i>Choreutis sexfasciella</i>	moth	Shawn Roller	New Florida State record
		<i>Flavoclypeus andromedus</i>	delphacid planthopper	Victoria Benjamin, Noemi Negrón, Alexander Tasi	First in county
		<i>Gonoporumiris mirificus</i>	plant bug	Julien Beuzelin, Donna Larsen	First in county
		<i>Haplaxius lunatus</i>	cixiid planthopper	Alexander Tasi	First in county
		<i>Holcocranum saturejae</i>	cattail seed bug	Krystal Ashman	First in county
		<i>Liburniella ornata</i>	ornate planthopper	David Miller	First in county
		<i>Meristopsis rhamphis</i>	delphacid planthopper	Logan Cutts, Dyrana Russell	First in county
		<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significant
		<i>Nersia florida</i>	dictyopharid planthopper	Alexander Tasi	First in county
		<i>Physegenua obscuripennis</i>	striped fly	Jonas Insinga	New Continental USA record
		<i>Pissonotus binotatus</i>	delphacid planthopper	Monica Triana	First in county
		<i>Pselliopus cinctus</i>	assassin bug	Ethan Kelly	First in county
		<i>Pselliopus cinctus</i>	assassin bug	Angi Hutcherson	First in county
		<i>Pselliopus cinctus</i>	assassin bug	Angi Hutcherson	First in county
		<i>Pygospina spinata</i>	delphacid planthopper	Douglas Restom-Gaskill	First in county
		<i>Tagosodes approximatus</i>	delphacid planthopper	Joseph Hanus, James Bouie	First in county
		<i>Tropidosteptes forestierae</i>	Florida privet bug	Douglas Restom-Gaskill	First in county





NEMATOLOGY

Compiled by Renato N. Inserra, Ph.D.; Sergio Álvarez-Ortega, Ph.D.; Silvia Vau, Ph.D., Richard T. Bloom, B.S.; Scott D. Berryman, B.S.; Lucas Dombeck, B.S.; Ruimin Xue, B.S.; Jason D. Stanley, M.S.; and Janete Brito, Ph.D.

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

QUARTERLY ACTIVITY REPORT

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Morphological Identifications	5,096	15,899
Molecular Identifications *	208	1,844
Total Identifications	5,304	17,743

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

Nematode of Special Interest

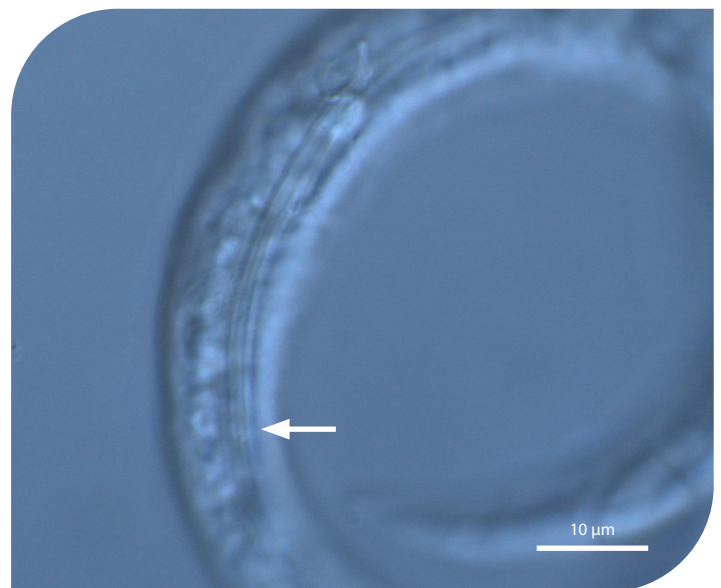
1 The pin nematode, *Paratylenchus acti*, Eroshenko 1978, was detected in the rhizosphere of broom-sedge species (*Andropogon* spp.) in Avon Park, Florida, a **new Florida State record**. (Highlands County; N21-1034; Richard Bloom and Scott Berryman; 16 August 2021.)

In Florida, tropical peat is formed in the anaerobic environment of dystrophic and artificially drained lakes. Much of this peat is derived from sedges and grasses, including broomsedge (*Andropogon* spp.), growing around these peat mines. Soil samples from these sites are often infested by pin nematodes morphologically close to *Paratylenchus aciculatus* Brown, 1959, or *P. aculeatus* Brown, 1959, two species reported from Florida by Esser (1992). Taxonomic studies of a pin nematode population in samples collected from a peat mine operation in Central Florida indicate the population contained specimens morphologically and morphometrically matching *Paratylenchus acti*, a species described from forests on Sakhalin, a Russian island in the Pacific Ocean, north of Japan. *Paratylenchus acti* can be confused with *P. aciculatus* and *P. aculeatus* but differs from these two species in having females with the lateral field marked by four incisures rather than three as in *P. aciculatus* and *P. aculeatus*. Morphological and phylogenetic analyses using D2-D3 of the 28S rRNA, ITS rRNA and COI gene sequences are in progress to clarify the taxonomic status of this Florida population of *P. acti*.



1a - *Paratylenchus acti*, a pin nematode. Photomicrograph of entire body of female.

Photo by Silvia Vau, FDACS-DPI



1b - *Paratylenchus acti*, a pin nematode. Photomicrograph of a magnified portion of midbody showing the lateral field marked by four incisures (arrowed).

Photo by Silvia Va, FDACS-DPI



REFERENCES

- Eroshenko, A.S. (1978).** Pathogenic nematodes of pine plantations in the south of Sakhalin Island. *Fitogel'mintologicheskies issledovaniya* 32: 33-37.
- Esser, R.P. (1992).** A diagnostic compendium to species included in Paratylenchinae Thorne, 1949 and Tylenchocriconematinae Raski & Siddiqi, 1975 (Nematoda: Criconematoidea). *Nematologica* 38: 146-163. <http://dx.doi.org/10.1163/187529292x00135>

SAMPLES FOR MORPHOLOGICAL ANALYSIS Certifications, Regulatory and Other Purposes

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Total	2,064	10,694

SAMPLES FOR MOLECULAR ANALYSIS Certifications, Regulatory and Other Purposes

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Total	208	1,844



PLANT PATHOLOGY

Compiled by Hector Urbina, Ph.D.; Jodi Hansen, M.S.; Kishore Dey, Ph.D. and Patricia Soria, M.S.

The Plant Pathology section provides plant disease diagnostic services for the department. The agency-wide goal of protecting the flora of Florida very often begins with accurate diagnoses of plant problems. Management recommendations are offered where appropriate and available. Our plant pathologists are dedicated to keeping informed about endemic plant diseases along with those diseases and disorders active outside Florida in order to be prepared for potential introductions of new pathogens to our area.

1 *Calonectria amazonica* L. Lombard & Crous (Nectriaceae, Sordaryomycetes) (**leaf blight**) was detected on *Clusia rosea* Jacq. (Clusiaceae, Malpighiales), known as autograph tree or pitch apple, **a new USA record**, from a nursery in Miami-Dade County. Submitted foliar samples initially exhibited red, circular (~1mm diam.) leaf spots. As the disease progressed, lesions became dark brown and depressed in the center; eventually, the lesions expanded and coalesced. In the landscape, symptomatic leaves eventually turn brown and fall from the plant. *Calonectria amazonica* on *Clusia rosea* was first collected from Collier County in 2017, but the species identity was unknown until molecular analysis was performed on this 2021 sample. Previously, *C. amazonica* has only been reported in Brazil on *Eucalyptus* species. It is possible this leaf blight was introduced to Florida on *Eucalyptus*, a plant often used as a windbreak and as a component in mulch. Since 2017, this disease has been detected in Miami-Dade, Broward and Palm Beach counties. *Clusia* species should be inspected for leaf spots before purchase and installation in the landscape (Miami-Dade; 106317; Sean Brown; 20 January 2021).



1a - *Clusia rosea*, defoliated plants in landscape.
Photo by Scott Krueger, FDACS-DPI



1b - *Clusia rosea*, leaf spot symptoms.
Photo by Scott Krueger, FDACS-DPI



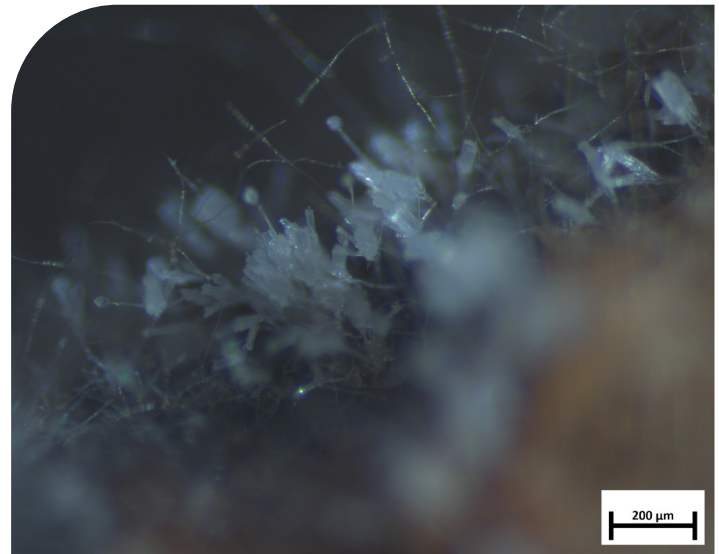
2 Brugmansia latent virus (BrLV, Genus: Tobamovirus), a **new Florida State record**, was found on *Brugmansia* sp. (angel's trumpet) at a Jacksonville, Florida, nursery in October 2022. The submitted leaf samples had severe mosaic symptoms over the entire leaf and showed lack of vigor. DNA analysis confirmed a co-infection with Colombian datura virus, a widespread potyvirus in *Brugmansia*. The frequent vegetative propagation of this popular ornamental landscape shrub can allow BrLV to spread via infected plant material. As with other tobamoviruses, BrLV is most likely to be mechanically transmitted through clonal propagation of infected plants. Although characterized as latent (Scott-Brown, *et al.*, 2020), BrLV might play a role in the development of more severe symptoms as a co-infection with other viruses. (Duval County; 10312022-09658; Lisa Tyler; 28 October 2022.)

REFERENCES

Scott-Brown, A.S., D’Elia, T., Devey, D.S., Funderburk, J.E. and Adkins, S. (2020). Genome characterization of brugmansia latent virus, a novel tobamovirus. *Archives of Virology*, 165(10), 2389–2392. <https://doi.org/10.1007/s00705-020-04718-z>

QUARTERLY ACTIVITY REPORT

	OCTOBER - DECEMBER	2022 - YEAR TO DATE
Citrus black spot	18	71
Citrus canker	89	303
Citrus greening / HLB	19	151
HLB Certification for out-of-state shipping	4,300	8,712
Import inspections	14	24
Interdictions	5	46
Palm phytoplasma	2	13
Pathology, General	1,004	2,520
Soil	40	182
Totals	5,491	12,022



1c - *Calonectria amazonica*, reproductive structures (view from stereomicroscope).
Photo by Hector Urbina, FDACS-DPI



1d - *Calonectria amazonica*, cylindrical spores (view from compound microscope).
Photo by Hector Urbina, FDACS-DPI



2 - *Brugmansia* sp., leaves showing latent virus symptoms.
Photo by Patricia Sora, FDACS-DPI



🔍 PLANT PATHOLOGY IDENTIFICATION TABLE

The following table provides information about samples identified between October - December 2022. The table is organized alphabetically by plant species, with new records listed on the right.

PLANT SPECIES	PLANT COMMON NAME	CAUSAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	DATE	NEW RECORDS
<i>Acer palmatum</i>	Japanese maple	<i>Sawadaea polyfida</i>	powdery mildew	nursery	12122022-10847	Alachua	Paola Ramos Perez	12/9/22	state
<i>Aesculus pavia</i>	red buckeye	<i>Cystiodontia</i> sp.	relampago blight	natural area	11172022-10281	Lafayette	Jeff Eickwort	11/17/22	state
<i>Clusia rosea</i>	cupey, balsam apple	<i>Calonectria amazonica</i>	leaf blight	nursery	ppst 106317	Miami-Dade	Suhayla Carrasquilla	1/20/21	US
<i>Monstera deliciosa</i>	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	10132022-09118	St. Johns	Mark Laurint	10/13/22	county
<i>Monstera deliciosa</i>	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	10122022-09040	Volusia	Diane Mccoll	10/12/23	county
<i>Monstera deliciosa</i>	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	11012022-09725	Clay	Mark Laurint	11/1/22	county
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	10142022-09150	Manatee	Caleb Poock	10/14/22	county
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	landscape supply	10192022-09268	Nassau	Lisa Tyler	10/18/22	county
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	residence	10252022-09430	Miami-Dade	Narciso Rodriguez Medina	10/25/22	state
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	11022022-09783	Alachua	Paola Ramos Perez	11/2/22	county
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	11012022-09693	Marion	Tavia Gordon	11/1/22	county
<i>Monstera</i> sp.	Swiss-cheese plant	<i>Puccinia paullula</i>	rust	garden center	11012022-09712	Bay	Austin Hawes	11/1/22	county
<i>Morella cerifera</i>	wax myrtle	<i>Cystiodontia</i> sp.	relampago blight	natural area	11172022-10286	Lafayette	Jeff Eickwort	11/17/22	host
<i>Nekemias arborea</i>	peppervine	<i>Cystiodontia</i> sp.	relampago blight	natural area	11172022-10279	Lafayette	Jeff Eickwort	11/17/22	host
<i>Quercus nigra</i>	water oak	<i>Cystiodontia</i> sp.	relampago blight	natural area	12092022-10833	Volusia	Jeff Eickwort	12/8/22	county
<i>Salix caroliniana</i>	Carolina willow	<i>Cystiodontia</i> sp.	relampago blight	natural area	10202022-09336	Alachua	Jeff Eickwort	10/20/22	host
<i>Tabebuia impetiginosa</i>	pink trumpet tree	<i>Corynespora cassiicola</i>	leaf spot	garden center	10122022-09058	Manatee	Scott Krueger	10/12/22	host





FROM THE EDITOR

By Patti Anderson

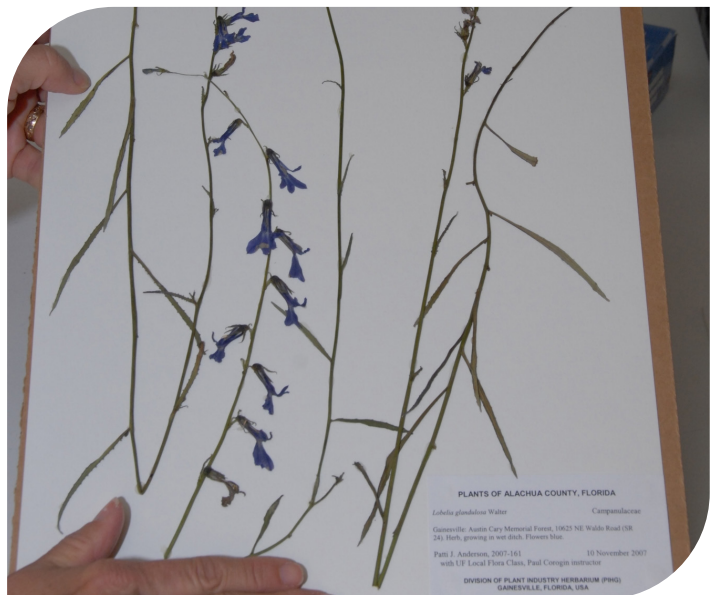
Inquiring minds want to know...

What's the latest milestone for the DPI Herbarium (international acronym PIHG)? 17,000 specimens and counting!

In November 2022, the DPI herbarium added accession number 17,000 to our collection of dried plant specimens. Reaching another thousand provides a reminder of how quickly the collection has grown in recent years. In November 2007, number 10,000 was added--43 years after the herbarium was established. This growth has been possible in part from DPI collections and from exchanges with the University of Florida and the California Department of Food and Agriculture, as well as a generous gift from the Morton Arboretum herbarium in Lisle, Illinois, an excellent source of ornamental plant specimens. This recent addition, shown to the right, is *Polygonella gracilis*, tall jointweed, a native wildflower collected in Levy County by Alexander de la Paz.



1a - *Polygonella gracilis*, tall jointweed, DPI accession number 17,000. Photo by Alex de la Paz, FDACS-DPI



1b - DPI accession number 10,000. Photo by Jeff Lotz, FDACS-DPI





TRI-OLGY

[FDACS.gov/TRI-OLGY](https://fdacs.gov/TRI-OLGY)

1-888-397-1517

Florida Department of Agriculture and Consumer Services
Division of Plant Industry
1911 SW 34th St.
Gainesville, FL 32608-1201