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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



1 mm





Juanulloa mexicana.
Photo by Scott Zona, Wikipedia

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

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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

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Cover Photo

Promalactis suzukiella (Matsumura), an oecophorid moth, a new Florida State record.
Photo by James Hayden, FDACS-DPI



HIGHLIGHTS



1 *Emilia praetermissa* Milne-Redh., pale tasselflower, is native to West Africa and is thought to be a natural hybrid between *E. sonchifolia* and *E. lisowskiana*. A fast-growing annual weed, pale tasselflower is found in disturbed sites such as roadsides, waste grounds and forest edges. This species appears to be a recent introduction to Florida, with the first documented collection in Osceola County in 2020. Since then, it has been documented with voucher specimens from six counties in the peninsula. Be on the lookout.



1 - *Emilia praetermissa*, pale tasselflower, close view of florets.
Photo by Salver Mily, [PlantNet](#)

2 *Lascelina pedernalensis* Neunzig, a phycitine moth, a new Continental USA record. Three specimens were caught in a UV light trap on Key West in April during a pest survey. The host plants of *L. pedernalensis* are not known. This species is evidently uncommon but persistent in the Florida Keys.



2 - *Lascelina pedernalensis*, a phycitine moth.
Photo by James Hayden, FDACS-DPI

3 *Nanidorus minor* (Allen, 1957) Siddiqi, 1980 was found parasitizing strawberries (*Fragaria x ananassa*) in a commercial production area of Central Florida. The polyphagous stubby-root nematode is a harmful root ectoparasite species. *Nanidorus minor* damages many crops and turf grasses; however, there are no previous reports of damage to strawberries by stubby-root nematodes.

4 Colombian *Datura potyvirus* (CDV, Genus: *Potyvirus*), a new Florida State record, was found on *Juanullos aurantiaca* [= *Juanullos mexicana*], a popular ornamental shrub with bright yellow-orange flowers. Foliar symptoms included mottling and chlorotic spots. CDV can be transmitted mechanically through vegetative propagation and can also be transmitted by aphids.



3 - Strawberry fields showing symptoms of crop decline in a commercial farm infested by *Nanidorus minor*.
Photo modified from Oliveira et al., 2023



4 - Colombian datura virus on *Juanullos aurantiaca*, showing mottling and chlorotic spots on leaves.
Photo by Melanie Fryman, FDACS-DPI





BOTANY

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

The Botany section of the Division of Plant Industry identifies plants for regulatory purposes as well as for other governmental agencies and private individuals. The section maintains a reference herbarium with over 17,000 plants and 1,400 vials of seeds.

QUARTERLY ACTIVITY REPORT

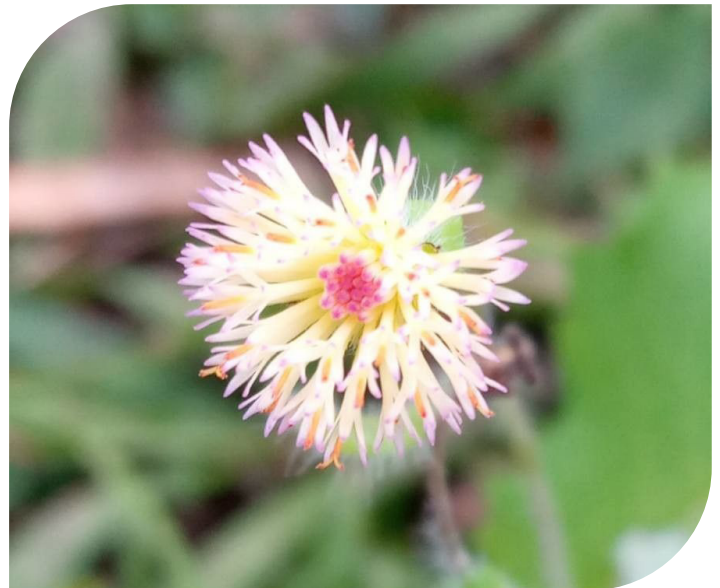
	APRIL - JUNE	2023 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1,519	2,912
Samples Submitted for Botanical Identification Only	564	842
Total Samples Submitted	2,083	3,754
Specimens Added to the Herbarium	223	570

Some of the samples submitted recently are described below.

1 *Emilia praetermissa* Milne-Redh. (pale tasselflower), from a genus of about 100 species distributed in tropical and subtropical regions of the world, with the greatest species diversity occurring in East Africa, in the plant family Compositae (Asteraceae). This species, *E. praetermissa*, is native to West Africa and is thought to be a natural hybrid between *E. sonchifolia* and *E. lisowskiana*. A fast-growing annual weed, pale tasselflower is found in disturbed sites such as roadsides, lawns, fields, gardens, waste grounds and forest edges. This species appears to be a recent introduction to Florida, with the first documented collection in 2020 (by A.R. Franck, Osceola County) and has now been documented with voucher specimens from six counties in the peninsula (Alachua, Brevard, Indian River, Osceola, Pasco and St. Lucie counties). The sample submitted for identification this reporting period is a new county record for St. Lucie County. There are more observations on iNaturalist from across the peninsula of Florida, but many of these new populations have not been documented with a voucher specimen. Plants are annual herbs with erect to ascending stems up to 140 cm tall. The basal and lower stem leaves are petiolate and broadly ovate with dentate margins, while the mid to upper stem leaves are sessile and pandurate (shaped somewhat like a violin) to triangular, becoming smaller upwards. The flower heads are discoid and arranged in lax corymbs (a cluster with lower flower stalks longer than upper ones, forming a flat or slightly convex head), each head consisting of numerous disc florets with pinkish corolla lobes and pale yellowish tubes. This bi-colored corolla character is the most obvious distinction between *E. praetermissa* and the other species of *Emilia* in Florida with uniformly colored



1a - *Emilia praetermissa*, pale tasselflower, inflorescence.
Photo by Denis Barthel, [wikipedia](#)



1b - *Emilia praetermissa*, pale tasselflower, close view of florets.
Photo by Salver Mily, [PlantNet](#)



corollas: *E. fosbergii* (reddish corollas) and *E. sonchifolia* (pinkish corollas). The pedicel of the flower head is pilose to glabrate, and the involucre is sparsely to densely pilose at the apex and densely pilose to glabrate at the base. The seeds are primarily dispersed by wind but can be secondarily dispersed by water. This fast-growing, weedy species has the potential to colonize disturbed areas rapidly and spread across the state. As a recent introduction to our flora, this plant should be observed and documented with voucher specimens. *Emilia praetermissa* is regarded as invasive in Taiwan and St. Lucia and is listed as a weed in banana and oil palm plantations across its range. (St. Lucie County; B2023-832; Caroline Pride, Alexander Tasi, Teresa Orтели and Jeanie Frechette; 26 June 2023.) (Barkley, 2006; Olorode and Olorunfemi, 1973; eFloras <http://www.efloras.org> [accessed 13 July 2023]; Franck, A.R. 4,875 [Emilia praetermissa - Species Page - ISB: Atlas of Florida Plants \(usf.edu\)](#) [accessed 14 July 2023].)

2 *Quercus michauxii* Nutt. (swamp chestnut oak; basket oak) from a genus of over 500 species in the plant family Fagaceae, which includes beeches and chestnuts as well as oaks. Most oak species are native to the Northern Hemisphere, but at least one group of red oaks (known as the *Q. seemannii* complex) occurs in Central America and Colombia. Swamp chestnut oak has been documented growing naturally on the silty-clay soil of moist, forested bottomlands in 33 northern Florida counties, throughout most of the area from Escambia and Nassau to Hernando and Lake counties. Beyond Florida, it is found in coastal states from New Jersey to Texas and northward along the Mississippi and Ohio River Valleys to Illinois and Indiana. The sample submitted for identification this reporting period is a new county record for Okaloosa County. This deciduous tree species can grow to 20 m tall (with a few very old individuals over 30 m). The national champion tree in Virginia Beach, Virginia, was measured in 2022 with a height of 127 feet (38.7 m) and trunk circumference of 279 inches (708 cm). The simple, alternate leaves are obovate (oval shaped with the widest area near the leaf tip) and characterized by 15-20 pairs of straight, parallel veins extending from the midrib to the large, rounded teeth on the leaf margin. Leaves are glabrous on the upper surface with grayish-green pubescence covering the undersides. The separate male and female flowers are produced in early spring. *Quercus michauxii* produces among the largest acorns in the genus, ranging from 2.5-3.5 x 2.0-2.5 cm. The gray or light brown cap encloses up to half the light brown nut. These acorns are eaten by livestock, deer, wild hogs, wild turkeys, black bears, birds, a variety of smaller mammals and even humans. As USDA reports, the average number of acorns per pound is 85; in contrast, *Q. virginiana* acorns range from 240-510 per pound with an average of 352. The durable wood of this tree has been used traditionally for timber and wooden farm implements as well as providing flexible strips of wood used to weave baskets (hence the common name, basket oak). (Okaloosa County; 04252023-04249; Ethan Kelly; 26 April 2023.) (Mabberley, 2017; Miller and Miller, 2005; Nelson, 2011; Nixon, 2006; Wunderlin and Hansen, 2011; [fs_qumi.docx \(live.com\)](#) [accessed 7 July 2023]; [pg_quvi.docx \(live.com\)](#) [accessed 7 July 2023]; [Quercus michauxii - FNA \(floranorthamerica.org\)](#) [accessed 7 July 2023]; [Swamp Chestnut Oak - VA - American Forests](#) [accessed 7 July 2023]; [Quercus michauxii - Plant Finder \(missouribotanicalgarden.org\)](#) [accessed 10 July 2023].)



2a - *Quercus michauxii*, swamp chestnut oak, leaves.
Photo by Chris Evans, University of Illinois, Bugwood.org



2b - *Quercus michauxii*, swamp chestnut oak, acorn.
Photo by Doug Goldman, bplant.org



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🔍 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		4720	5/4/2023	<i>Gladiolus dalenii</i>	Columbia
Alexa Barrios		6691	6/23/2023	<i>Melia azedarach</i>	Gilchrist
Alexa Barrios		6748	6/26/2023	<i>Triadica sebifera</i>	Gilchrist
Andres Cabrera		5872	6/13/2023	<i>Atalantia buxifolia</i>	Orange
Andres Cabrera		5603	5/26/2023	<i>Eugenia uniflora</i>	Orange
Andres Cabrera		5607	5/26/2023	<i>Ipomoea alba</i>	Orange
Andres Cabrera		5878	6/13/2023	<i>Lactuca floridana</i>	Orange
Andres Cabrera	Alberto Rentas Muller	6693	6/27/2023	<i>Thunbergia alata</i>	Orange
Angi Hutcherson	Austin Hawes	6159	6/13/2023	<i>Albizia julibrissin</i>	Santa Rosa
Angi Hutcherson		5965	6/8/2023	<i>Asimina pygmaea</i>	Wakulla
Angi Hutcherson		5774	6/2/2023	<i>Lonicera japonica</i>	Columbia
Angi Hutcherson		3714	4/13/2023	<i>Phytolacca americana</i>	Lafayette
Angi Hutcherson		4582	5/3/2023	<i>Platanus occidentalis</i>	Suwannee
Angi Hutcherson	Austin Hawes	6160	6/13/2023	<i>Pueraria montana</i> var. <i>lobata</i>	Santa Rosa
Austin Hawes		5887	6/6/2023	<i>Cocculus carolinianus</i>	Bay
Austin Hawes		4178	4/25/2023	<i>Colocasia esculenta</i>	Walton
Austin Hawes		5190	5/22/2023	<i>Eriobotrya japonica</i>	Bay
Austin Hawes		5189	5/22/2023	<i>Paederia foetida</i>	Bay
Austin Hawes		3350	4/6/2023	<i>Sabal palmetto</i>	Walton
Austin Hawes		3231	4/5/2023	<i>Taxodium distichum</i>	Bay
Austin Hawes		3734	4/17/2023	<i>Thelypteris kunthii</i>	Bay
Austin Hawes		5187	5/22/2023	<i>Ulmus parvifolia</i>	Bay
Austin Hawes		6770	6/28/2023	<i>Ulmus parvifolia</i>	Jackson
Austin Hawes		4112	4/21/2023	<i>Vitis aestivalis</i>	Bay
Caroline Pride	Alexander Tasi, Teresa Ortelli, Jeanie Frechette	6724	6/29/2023	<i>Emilia praetermissa</i>	St. Lucie
Chase Groninger	Victoria Benjamin	5251	5/18/2023	<i>Echinochloa muricata</i>	Indian River
Chase Groninger	Victoria Benjamin	5265	5/18/2023	<i>Pennisetum purpureum</i>	Indian River
Chase Groninger	Victoria Benjamin	5256	5/18/2023	<i>Sporobolus jacquemontii</i>	Indian River
Cynthia Blattenberger		3556	4/12/2023	<i>Pseudosasa japonica</i>	Pasco
Cynthia Blattenberger		6183	6/14/2023	<i>Vitex agnus-castus</i>	Pasco
Ethan Kelly		4861	5/11/2023	<i>Cycas revoluta</i>	Santa Rosa
Ethan Kelly		5339	5/22/2023	<i>Dichantherium scoparium</i>	Okaloosa
Ethan Kelly		5578	5/26/2023	<i>Dolichandra unguis-cati</i>	Santa Rosa
Ethan Kelly		4249	4/26/2023	<i>Quercus michauxii</i>	Okaloosa
Ethan Kelly		5338	5/22/2023	<i>Spiranthes vernalis</i>	Okaloosa



COLLECTOR NAME	COLLECTOR 2	LIST NUMBER	RECEIVED DATE	PLANT NAME	COUNTY
Ethan Kelly		5329	5/22/2023	<i>Verbena rigida</i>	Okaloosa
Jennifer Hesse		3659	4/13/2023	<i>Briza minor</i>	Flagler
Jennifer Hesse		4271	4/27/2023	<i>Coreopsis lanceolata</i>	Flagler
Jennifer Hesse		3647	4/13/2023	<i>Ligustrum lucidum</i>	Flagler
Jennifer Hesse		4312	4/27/2023	<i>Platanus occidentalis</i>	Flagler
Jennifer Hesse		4715	5/5/2023	<i>Smalanthus uvedalia</i>	Flagler
Kelsey Helseth	Anthony Puppelo, Katherine Steinkamp, Andres Cabrera, Lance Brown, Jessica Begley, Jennifer McKeever	5400	5/30/2023	<i>Syagrus romanzoffiana</i>	Orange
Mark Laurint		3446	4/7/2023	<i>Taxodium distichum</i>	St. Johns
Mark Zenoble		5111	5/17/2023	<i>Alternanthera sessilis</i>	Okeechobee
Mark Zenoble		4434	5/3/2023	<i>Amaranthus hybridus</i>	Okeechobee
Mark Zenoble		3977	4/19/2023	<i>Amaranthus viridis</i>	St. Lucie
Mark Zenoble		4596	5/3/2023	<i>Amaranthus viridis</i>	Okeechobee
Mark Zenoble		5116	5/17/2023	<i>Geranium carolinianum</i>	Okeechobee
Mark Zenoble		3942	4/19/2023	<i>Pilea microphylla</i>	St. Lucie
Mark Zenoble		4437	5/2/2023	<i>Pilea microphylla</i>	Okeechobee
Mark Zenoble		4026	4/21/2023	<i>Richardia grandiflora</i>	Marion
Mark Zenoble		5102	5/17/2023	<i>Salvia lyrata</i>	Okeechobee
Mark Zenoble		5100	5/17/2023	<i>Salvia misella</i>	Okeechobee
Mark Zenoble		4029	4/21/2023	<i>Spermacoce verticillata</i>	Marion
Mark Zenoble		4436	5/2/2023	<i>Spermacoce verticillata</i>	Okeechobee
Mark Zenoble	NIT 96 Class	4967	5/12/2023	<i>Wahlenbergia marginata</i>	Hernando
Mark Zenoble	NIT 96 Class	4966	5/12/2023	<i>Zamia integrifolia</i>	Hernando
Peter Carbon		6273	6/14/2023	<i>Fatoua villosa</i>	Taylor
Randi Shreve	Ray Jarrett, Larry Violett, Mark Laurint, Diann Hansen, Jennifer Hesse	5861	6/6/2023	<i>Sassafras albidum</i>	Flagler
Sam Hart		6580	6/22/2023	<i>Melia azedarach</i>	Levy
Sam Hart		6143	6/12/2023	<i>Salvia coccinea</i>	Levy
Shanelle Mulrooney	Gary Webb, Vaden Edmondson, Cynthia Blattenberger	3809	4/17/2023	<i>Eugenia uniflora</i>	Pasco
Shanelle Mulrooney		5743	6/2/2023	<i>Mirabilis jalapa</i>	Pasco



ENTOMOLOGY

Compiled by Susan E. Halbert, Ph.D.

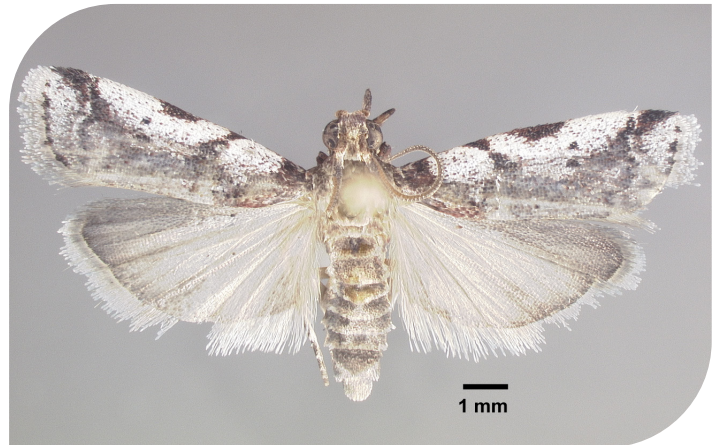
The Entomology Section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. This section also builds and maintains the arthropod reference and research collection (the Florida State Collection of Arthropods with over 12.5 million specimens), and investigates the biology, biological control and taxonomy of arthropods.

	APRIL - JUNE	2023 - YEAR TO DATE
Samples Submitted	1,838	3,419
Lots Identified	2,915	5,155

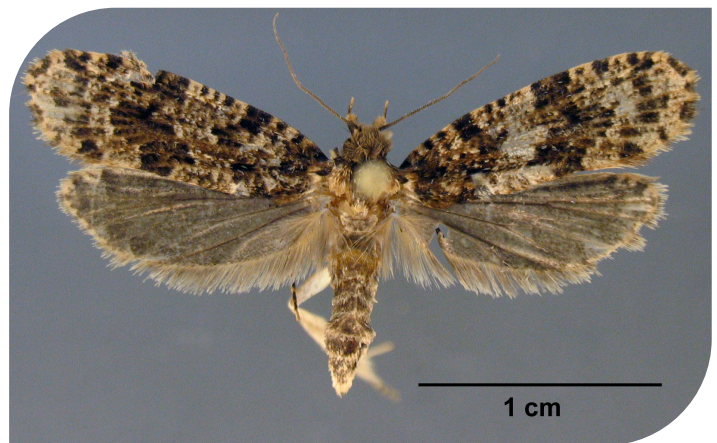
1 *Lascelina pedernalensis* Neunzig, a phycitine moth, a new Continental USA record. *Lascelina pedernalensis* Neunzig was described in 1996 from the Dominican Republic. Three specimens were caught in a UV light trap on Key West during a pest survey earlier this year. Subsequently, a few specimens from the Lower and Middle Keys, collected in 1984 and 1990, were found in the Florida State Collection of Arthropods. One had been identified by Neunzig as *L. pedernalensis* but not published, and the other specimens have the same morphology. The host plants of *L. pedernalensis* are not known. This species is evidently uncommon but persistent in the Florida Keys. (Monroe County; E2821-01-0512023-05155; James Hayden; 27 April 2023.) (Neunzig, 1996.) (Dr. James E. Hayden.)

2 *Montescardia fuscofasciella* (Chambers), a bracket-fungus moth, a new Florida State record. Scardiinae (Tineidae) are large, conspicuous micro-moths whose larvae feed in bracket fungi or dead wood permeated by fungal hyphae (Robinson, 1986). They are not strongly attracted to light and are not commonly collected. Until now, only three other species of scardiines were known from Florida. One specimen of *Montescardia fuscofasciella* (Chambers) was collected at Split Rock Conservation Area on the edge of Gainesville. This species is distributed widely in eastern North America but is seldom collected; this is also a southernmost range record. (Alachua County; E3140-01-06022023-05876; Robert A. Belmont, volunteer at the University of Florida McGuire Center for Lepidoptera and Biodiversity; 12 October 2022.) (Dr. James E. Hayden and Robert A. Belmont, McGuire Center volunteer.)

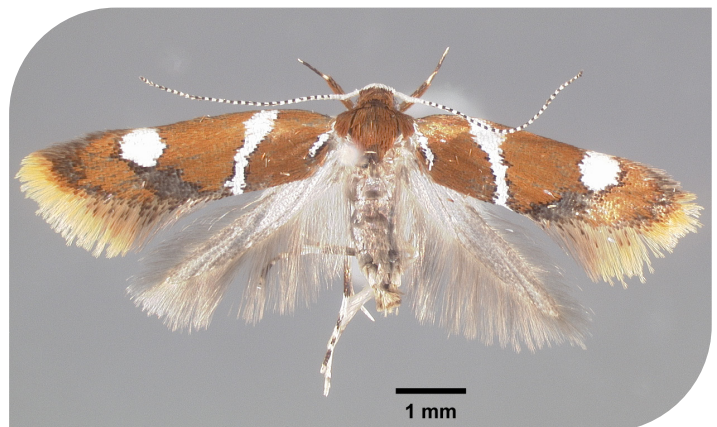
3 *Promalactis suzukiella* (Matsumura), Suzuki's promalactis moth, an oecophorid moth, a new Florida State record. Originating from Asia, *Promalactis suzukiella* (Matsumura) appeared in the northeastern United States in 2002. Thanks to its conspicuous wing pattern, the range expansion of this moth has been tracked by photographers. Its eventual arrival in Florida has been expected. This is the first specimen collected in the state and submitted to FDACS-DPI;



1 - *Lascelina pedernalensis* Neunzig, a phycitine moth. Photo by James Hayden, FDACS-DPI



2 - *Montescardia fuscofasciella*, a bracket-fungus moth. Photo by James Hayden, FDACS-DPI



3 - *Promalactis suzukiella*, an oecophorid moth. Photo by James Hayden, FDACS-DPI



there are also photographic records from the Pensacola area. The larvae are not pests, feeding under the bark of rotting logs. (St. Johns County; E3273-01-06102023-06149; Luke S. Smith, volunteer at the University of Florida McGuire Center for Lepidoptera and Biodiversity; 7 March 2023.) (Dr. James E. Hayden.)

4 *Tinocallis takachihoensis* Higuchi, Japanese elm aphid, a new Florida State record. This species is common in eastern Asia and was found for the first time in the Western Hemisphere in 1996 and later in 1997 in Maryland. There were no further formal reports, but photographs of this distinctive and attractive species were posted online in the intervening years. This aphid is not reported to be a pest, and it is limited to elms. (Alachua County; E1780-01-04032023-03287; 3 April 2023; Susan Halbert.) (Dr. Susan E. Halbert.)



4 - *Tinocallis takachihoensis* Higuchi, Japanese elm aphid. Photo by Lyle Buss, University of Florida, Department of Entomology and Nematology

5 *Bactrocera zonata* (Saunders), peach fruit fly, a Regulatory Incident. A single male specimen was captured in a Jackson trap baited with methyl eugenol, hung in an oak tree (*Quercus* sp.), in Davie, Florida. Increased trap densities in a 79-square-mile area around the detection site were maintained and traps were monitored closely for an estimated two life cycles. No additional flies were found, and the delimitation program was terminated on June 14, 2023. The standard delimitation area is 81 square miles, centering on the point at which the fly was detected. This delimitation area can vary in size depending on barriers to access such as multi-lane highways or the ocean. (Broward County; E1803-01-04042023-03315; William A. Thiel, USDA-APHIS; 3 April 2023.) (Dr. Erick J. Rodriguez.)



5 - *Bactrocera zonata* (Saunders), collected on a trap in Davie, Florida. Photo by Gary Steck, FDACS-DPI

6 *Bactrocera zonata* (Saunders), peach fruit fly, a Regulatory Incident. In Hallandale Beach, Florida, a single male specimen was captured in a Jackson trap baited with methyl eugenol, hung in a mango tree. Increased trap densities in a 68-square-mile area around the detection site were maintained and traps were monitored closely for an estimated two life cycles. No additional flies were found, and the delimitation program was terminated on June 28, 2023. (Broward County; E2274-01-04212023-04139; Carlene Sargeant; 20 April 2023.) (Dr. Erick J. Rodriguez.)



6 - *Bactrocera zonata* (Saunders) collected in Hallendale Beach, Florida. Photo by Erick Rodriguez, FDACS-DPI

7 *Pseudaulacaspis coloisuvae* Williams & Watson, an armored scale, a Regulatory Incident and new Florida Host record. Specimens were collected on orchids imported from Thailand, labeled as *Vanda* sp. (Orchidaceae), during a nursery inspection. Described from Fiji in 1988 and subsequently reported from the Solomon Islands, this species does not occur in the Western Hemisphere. This is the first time the armored scale has been intercepted in Florida. Three plant hosts have now been recorded for this likely polyphagous species: *Terminalia calamansanai* (Blanco) Rolfe (Combretaceae), *Gardenia* sp. (Rubiaceae) and *Vanda* sp. (Orchidaceae). (DeSoto County; E3295-01-06132023-06185; Grayson Grume and Robert Denoux; 12 June 2023.) (Dr. Erin C. Powell.)



7 - *Pseudaulacaspis coloisuvae* Williams and Watson, an armored scale, adult female on the leaf of a *Vanda* orchid. Photo by Erin Powell, FDACS-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 reporting 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 with no plant information included are organized by arthropod name.

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Aleurites moluccanus</i>	candlenut tree, Indian walnut	<i>Planococcus citri</i>	citrus mealybug	Nubia Tapias	New Florida host Record
<i>Allamanda</i> sp.	allamanda	<i>Thrips parvispinus</i>	thrips	Chase Groninger	New Florida host record
<i>Andropogon</i> sp.	bluestem	<i>Anoecia cornicola</i>	aphid	Erin Powell	First in county
<i>Andropogon</i> sp.	bluestem	<i>Paradoxococcus mcdanieli</i>	Johnson grass mealybug	Erin Powell, Elise Ponders, Doug Miller	First in county
<i>Anethum graveolens</i>	dill	<i>Hyadaphis coriandri</i>	coriander aphid	Prem Kumar	First in county
<i>Anethum graveolens</i>	dill	<i>Hyadaphis coriandri</i>	coriander aphid	Prem Kumar	First in county
<i>Avicennia germinans</i>	black mangrove	<i>Lorita scarificata</i>	tortricid moth	Alexander Tasi	New Florida host record
<i>Balduina angustifolia</i>	coastalplain honeycombhead	<i>Rhizaspidotus dearnessi</i>	dearness scale	Lily Deeter	New Florida host record
<i>Bidens alba</i>	beggarticks, romerillo	<i>Phenacoccus sisymbriifolium</i>	mealybug	Nora Marquez	First in county
<i>Bidens alba</i>	beggarticks, romerillo	<i>Phenacoccus sisymbriifolium</i>	mealybug	Caleb Pock	First in county
<i>Breynia disticha</i>	snowbush	<i>Lepidosaphes laterochitinoso</i>	mussel scale	Nubia Tapias	New Florida host record; First in county
<i>Capsicum annuum</i>	poblano pepper	<i>Bactericera cockerelli</i>	potato psyllid	Victoria Benjamin, Alexander Tasi	Regulatory significant
<i>Capsicum annuum</i>	bell pepper	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	bell pepper	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	bell pepper	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	bell pepper	<i>Rhinacloa forticornis</i>	mirid plant bug	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	bell pepper	<i>Rhinacloa forticornis</i>	mirid plant bug	Logan Cutts	Regulatory significant
<i>Capsicum annuum</i>	pepper	<i>Thrips parvispinus</i>	short spine thrips	Anna Meszaros	First in county
<i>Capsicum chinense</i>	habanero pepper	<i>Thrips parvispinus</i>	short spine thrips	Lisa Tyler	New Florida host Record
<i>Cephalanthus occidentalis</i>	common buttonbush	<i>Eriophyes cephalanthi</i>	eriophyoid mite	Andres Cabrera	First in county
<i>Chasmanthium sessiliflorum</i>	longleaf woodoats	<i>Paradoxococcus mcdanieli</i>	Johnson grass mealybug	Lily Deeter, Alex de la Paz	First in county
<i>Cinnamomum burmannii</i>	Malaysian cinnamon, Indonesian cassia, padang cinnamon, padang cassia, korintje cassia	<i>Fiorinia floriniae</i>	fiorinia scale	Junior Williams	New Florida host record
<i>Citrus</i> sp.	citrus	<i>Papilio demoleus</i>	lime swallowtail	Leroy Whilby, Paula Dwyer, Matthew Moore	Quarantinable
<i>Coccoloba uvifera</i>	seagrape	<i>Scirtothrips coccolobae</i>	seagrape thrips	employee	First in county
<i>Crassula ovata</i>	jade plant	<i>Vryburgia trionymoides</i>	mealybug	Katherine Steinkamp	Regulatory significant
<i>Cuphea</i> sp.		<i>Thrips parvispinus</i>	short spine thrips	Paola Ramos Perez	Quarantinable; New Florida host record
<i>Dichantherium portoricense</i>	hemlock witchgrass	<i>Odonaspis benardi</i>	armored scale	Paola Ramos Perez, Alexa Barrios, Caleb Pock, Noemi Negron, John Zito, Mark Zenoble, Chantelle Vilorio, Norberto Hernandez Sosa, Shaelyn McGiveron, Alberto Rentas Muller	New Florida host record; First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Diospyros virginiana</i>	persimmon	<i>Baeoaltriozus diospyri</i>	persimmon psyllid	Paola Ramos Perez, Caleb Pooch, Alberto Rentas Muller, Noemi Negron, John Zito, Mark Zenoble, Chantelle Vilorio, Norberto Hernandez Sosa, Riccardo Tordi, Larry Violett, Susan Halbert	First in county
<i>Eulophia graminea</i>	Asian ground orchid, Chinese crown orchid	<i>Phenacoccus multicerarii</i>	mealybug	Mark Zenoble	New Florida host record
<i>Euphorbia cyathophora</i>	painted leaf, dwarf poinsettia, fire-on-the-mountain	<i>Phenacoccus sisymbriifolium</i>	mealybug	Mark Zenoble	New Florida host record
<i>Ficus benjamina</i>	weeping fig	<i>Choreutis sexfasciella</i>	banyan leaf skeletonizer	Nicole Agapay	First in county
<i>Ficus microcarpa</i>	Cuban laurel	<i>Choreutis sexfasciella</i>	banyan leaf skeletonizer	Noemi Negron, Alexander Tasi	First in county
<i>Ficus microcarpa</i>	Cuban laurel	<i>Choreutis sexfasciella</i>	banyan leaf skeletonizer	Victoria Benjamin, Alexander Tasi	First in county
<i>Fragaria x ananassa</i>	strawberry	<i>Acyrtosiphon malvae</i>	aphid	Twylah Morelli	Regulatory significant
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Logan Cutts	Regulatory significant
Gramineae	grasses	<i>Duplachionaspis uniolae</i>	armored scale	Catherine Nance, Kayla Stalcup, Alyssa Lucas	First in county
<i>Helenium amarum</i>	Spanish daisy, bitterweed	<i>Clastoptera xanthocephala</i>	spittlebug	Victoria Benjamin, Alexander Tasi	New Florida host Record
<i>Jasminum</i> sp.	jasmine	<i>Deroceras</i> sp.	slug	Kelsey Helseth, Jesse Krok	Regulatory significant
<i>Krugiodendron ferreum</i>	black ironwood, leadwood	<i>Philephedra tuberculosa</i>	soft scale	Scott Krueger	New Florida host record
<i>Lactuca sativa</i>	romaine lettuce	<i>Cavariella aegopodii</i>	carrot aphid	Dyrana Russell, Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine lettuce	<i>Liriomyza langei</i>	California pea leafminer	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine lettuce	<i>Metopolophium dirhodum</i>	rose grass aphid	Logan Cutts	Regulatory significant
<i>Lactuca sativa</i>	romaine lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Jakira Davis	Regulatory significant
<i>Lactuca sativa</i>	romaine lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Twylah Morelli, Dyrana Russell, Logan Cutts	Regulatory significant
<i>Lantana strigocamara</i>	lantana, shrub verbena	<i>Ceratocapsus pumilius</i>	plant bug	Angi Hutcherson	First in county
<i>Lupinus cumulicola</i>	sky-blue lupine	<i>Ferrisia gilli</i>	Gill's mealybug	Lily Deeter, Alex de la Paz	New Florida host record
<i>Macroptilium lathyroides</i>	wild bushbean, phasey bean	<i>Cyrtus sordida</i>	flatid planthopper	Anna Held, Alexander Tasi	New Florida host Record
<i>Magnolia grandiflora</i>	southern magnolia	<i>Neolecanium cornuparvum</i>	magnolia scale	Lily Deeter, Alex de la Paz	First in county
<i>Mangifera indica</i>	mango	<i>Sinomegoura citricola</i>	aphid	Douglas Restom-Gaskill	First in county
<i>Mangifera indica</i>	mango	<i>Sinomegoura citricola</i>	aphid	Scott Weihman	First in county
<i>Mangifera indica</i>	mango	<i>Sinomegoura citricola</i>	aphid	Carrie Karppe	First in county
<i>Melaleuca quinquenervia</i>	melaleuca	<i>Ceroplastes stellifer</i>	stellate scale	Jason Flores	New Florida host record
<i>Moringa oleifera</i>	horseradish tree, drumstick tree	<i>Nesothrips lativentris</i>	thrips	Caleb Pooch	First in county
Orchidaceae	orchid	<i>Pseudaulacaspis coloisuvae</i>	armored scale	Robert Denoux, Grayson Grume	Regulatory significant; New host record
<i>Passiflora</i> sp.	passion vine	<i>Chondrocera laticornis</i>	coreid bug	Stephen Friedt	First in county
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	armored scale	Logan Cutts	Regulatory significant
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	armored scale	Logan Cutts	Regulatory significant
<i>Pityopsis aequilifolia</i>		<i>Pseudococcus sorghiellus</i>	trochanter mealybug	Lily Deeter	First in county
<i>Quercus laurifolia</i>	swamp laurel oak	<i>Lachnohemitaphorus obscurus</i>	oak aphid	Erin Powell	First in county
<i>Quercus</i> sp.	oak	<i>Acanthococcus quercus</i>	oak eriococcin	Lyle Buss	First in County



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Quercus</i> sp.	oak	<i>Bactrocera zonata</i>	peach fruit fly	William Thiel	Regulatory incident
<i>Quercus</i> sp.	oak	<i>Euxesta alternans</i>	picture-winged fly	Carmelo Torres	First in county
<i>Rivina humilis</i>	rouge plant	<i>Pulvinaria urbicola</i>	urbicola soft scale	Nora Marquez	New Florida host record
<i>Sabal etonia</i>	scrub palmetto	<i>Comstockiella sabalis</i>	palmetto scale	Lily Deeter	First in county
<i>Sabal palmetto</i>	cabbage palm	<i>Omolicna joi</i>	Florida palm derbid	Chase Groninger	First in county
<i>Salvia officinalis</i>	sage	<i>Eupteryx decemnotata</i>	Ligurian leafhopper	Xavier Martini	First in county
<i>Salvia</i> sp.	sage	Phylinae	phylina mirid plant bug	Logan Cutts	Regulatory significant
<i>Salvia</i> sp.	sage	<i>Pronotacantha annulata</i>	stilt bug	Logan Cutts	Regulatory significant
<i>Solanum lycopersicum</i>	Roma tomato	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts	Regulatory significant
<i>Solanum melongena</i>	eggplant	<i>Thrips parvispinus</i>	short spine thrips	Sam Hart	New Florida host Record
<i>Solidago canadensis</i>	Canada goldenrod	<i>Ormenoides venusta</i>	flatid planthopper	Austin Hawes	New Florida host record
<i>Thymus</i> sp.	thyme (organic)	<i>Ovatus crataegarius</i>	mint aphid	Alexander Tasi	Regulatory significant
<i>Tillandsia recurvata</i>	ballmoss	<i>Epidiaspis tillandsiae</i>	Spanish moss scale	Lily Deeter	First in county
<i>Tillandsia</i> sp.		<i>Graminorthezia tillandsiae</i>	Spanish moss orthezia	Erin Powell	First in county
<i>Ulmus parvifolia</i>	Chinese elm	<i>Tinocallis takachihoensis</i>	Japanese elm aphid	Susan Halbert	New Florida State record
<i>Vaccinium stamineum</i>	deerberry	<i>Pulvinaria ericicola</i>	cottony azalea scale	Kelsey Helseth, Jennifer McKeever	New Florida host record
<i>Viburnum odoratissimum</i>	sweet arrowwood, sweet viburnum	<i>Dagbertus semipictus</i>	plant bug	Patricia McGill	First in county
		<i>Aceratagallia sanguinolenta</i>	leafhopper	Robert Leahy, Krystal Ashman	First in county
		<i>Arhyssus nigristernum</i>	scentless plant bug	Jakira Davis, Logan Cutts, Dyrana Russell, Shanelle Mulrooney, Cynthia Blattenberger, Twylah Morelli	First in county
		<i>Autosticha kyotensis</i>	moth	Victoria Benjamin, Alexander Tasi	First in county
		<i>Bactrocera zonata</i>	peach fruit fly	Carlene Sargeant	Regulatory incident
		<i>Ceratocapsus bifurcus</i>	mirid plant bug	Douglas Restom-Gaskill	First in county
		<i>Chlamydatus suavis</i>	plant bug	Robert Leahy	First in county
		<i>Davidsonaspis aguacatae</i>	armored scale	Jakira Davis	Regulatory significant
		<i>Draeculacephala inscripta</i>	water lettuce leafhopper	Monica Triana	First in county
		<i>Empicoris rubromaculatus</i>	assassin bug	Krystal Ashman, Robert Leahy	First in county
		<i>Empicoris rubromaculatus</i>	assassin bug	Robert Leahy, Krystal Ashman	First in county
		<i>Erythroneura calycula</i>	leafhopper	Robert Leahy, Krystal Ashman	First in county
		<i>Lascelina pedernalensis</i>	pyralid moth	James Hayden	New Continental USA record
		<i>Lipoptena mazamae</i>	louse fly	Robert Leahy, Krystal Ashman	First in county
		<i>Lissachatina fulica</i>	giant African land snail	Walter Golden, Matthew Brodie	Regulatory incident
		<i>Lissachatina fulica</i>	giant African land snail	Sherry Steele	Regulatory incident
		<i>Lissachatina fulica</i>	giant African land snail	Sherry Steele	Regulatory incident
		<i>Litoprosopus linea</i>	palm moth	Sidney Bennett, James Hayden	First in county
		<i>Macrotomella carinata</i>	delphacid planthopper	Joseph Hanus, James Bouie	First in county
		<i>Montescardia fuscofasciella</i>	bracket fungus moth	Robert Belmont	New Florida State record
		<i>Neortholomus jamaicensis</i>	seed bug	Maximilian Carfagno	First in county
		<i>Norvellina seminuda</i>	leafhopper	Robert Leahy	First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
		<i>Osbornellus auronitens</i>	leafhopper	Ray Jarrett	First in county
		<i>Paramyiolia rhino</i>	rhino fly	Rafael Hernandez	First in county
		<i>Pareuidella avicephaliforma</i>	delphacid planthopper	Paola Ramos Perez, Alexa Barrios, Shaelyn McGiveron, Caleb Poock, Noemi Negron, John Zito, Mark Zenoble, Chantelle Vilorio, Norberto Hernandez Sosa, Susan Halbert	First in county
		<i>Pareuidella weedi</i>	delphacid planthopper	Robert Leahy	First in county
		<i>Pilophorus nasicus</i>	plant bug	Sharon Hayes	First in county
		<i>Polyamia weedi</i>	leafhopper	Jakira Davis, Logan Cutts, Dyrana Russell, Shanelle Mulrooney, Cynthia Blattenberger, Twylah Morelli	First in county
		<i>Promalactis suzukiella</i>	Suzuki's promalactis moth	Luke Smith	New Florida State record
		<i>Pseudatomoscelis seriatus</i>	cotton fleahopper	Krystal Ashman	First in county
		<i>Ranzovius clavicornis</i>	mirid plant bug	Monica Triana	First in county
		<i>Saccharosydne saccharivora</i>	West Indian canefly	Victoria Benjamin, Alexander Tasi	First in county
		<i>Schizoptera bispina</i>	jumping ground bug	Scott Weihman	First in county
		<i>Schizoptera bispina</i>	jumping ground bug	Ray Jarrett	First in county
		<i>Senopterina varia</i>	platystomatid fly	Vaden Edmondson	First in county
		<i>Sinomegoura citricola</i>	aphid	Joseph Hanus, James Bouie	First in county
		<i>Sophonia orientalis</i>	two-spotted leafhopper	Paola Ramos Perez, Alexa Barrios, Caleb Poock, Noemi Negron, John Zito, Mark Zenoble, Chantelle Vilorio, Norberto Hernandez Sosa, Shaelyn McGiveron, Alberto Rentas Muller	First in county
		<i>Stenolemus lanipes</i>	assassin bug	Robert Leahy, Krystal Ashman	First in county
		<i>Tyththus parviceps</i>	mirid plant bug	Scott Weihman	First in county
		<i>Tyththus piceus</i>	plant bug	Julien Beuzelin	First in county
		<i>Zyginama tripunctata</i>	leafhopper	Ray Jarrett	First in county



NEMATOLOGY

Compiled by Clemen J. Oliveira, Ph.D., Renato N. Inserra, Ph.D.,
Johan A. Desaegeer, Ph.D. and Janete A. Brito, Ph.D.

The Nematology 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

	APRIL - JUNE	2023 - YEAR TO DATE
Morphological Identifications	4,291	7,738
Molecular Identifications *	315	648

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

Nematode of Special Interest

1 *Nanidorus minor* (Allen, 1957) Siddiqi, 1980 was found parasitizing strawberries (*Fragaria x ananassa*) in a commercial production area of Central Florida. (Hillsborough County; N20-00249; Clemen J. De Oliveira, Graduate Assistant, University of Florida/IFAS Gulf Coast Research and Education Center; 28 February 2020.)

The stubby-root nematode is a polyphagous and damaging root ectoparasite species able to transmit viruses of the group *Tobravirus* (Sol *et al.*, 1960). Forty-one species belonging to this group, including species in the genera *Allotrichodorus* Rodriguez-M, Sher & Siddiqi, 1978; *Nanidorus* Siddiqi, 1974; *Paratrichodorus* Siddiqi, 1974 and *Trichodorus* Cobb, 1913, have been reported in Florida (Lehman, 2002). Because the species were listed from nematological analyses of regulatory samples submitted to the Florida Department of Agriculture and Consumer Services without data on morphological characters, the identities of these Florida taxa need verification. Subbotin *et al.* (2020) confirmed by molecular analyses the occurrence of *Nanidorus minor* (Colbran, 1956) Siddiqi, 1980; *N. renifer* (Siddiqi, 1974) Siddiqi, 1980; *Paratrichodorus allius* (Jensen, 1963) Siddiqi, 1974 and *Trichodorus obtusus* Cobb 1913 in Florida. *Nanidorus minor*, the vector of *Tobacco Rattle Virus* (TRV), the causal agent of corky ringspot disease of potato tubers, is among the most common of these species in Florida cultivated fields. *Nanidorus minor* damages many crops and turf grasses (Crow, 2017); however, there are no reports of damage to strawberry by stubby-root nematodes. From 2019–2022, Oliveira *et al.* (2023) observed declining symptoms on the strawberry cultivars 'Florida Brilliance' and 'Florida Sensation' in two commercial farms. The fields were



1a - Female of *Nanidorus minor*.
Photo modified from Oliveira *et al.*, 2023



1b - Strawberry fields showing symptoms of crop decline in a commercial farm infested by *N. minor*.
Photo modified from Oliveira *et al.*, 2023



fumigated with the chemical Telone® before planting. Soil and root samples collected from the declining strawberries were infested with stubby-root nematodes identified morphologically and molecularly as *N. minor*. Stunted strawberry plant symptoms included smaller root systems with arrested growth and elongation of the feeder roots. The nematode population densities in the two fields increased and at the end of strawberry season averaged 66 and 96 specimens in 200 cm³ soil. However, in one of the fields where a second strawberry crop was planted after applying additional fumigation and new plastic to cover the beds, the population of *N. minor* declined and did not reach damaging levels. The factors causing the decline of the nematode population were not explained further by the authors. This is the first report of direct damaging effect of *N. minor* to strawberry in Florida.



1c - Strawberry feeder roots with symptoms induced by *N. minor* feeding activity.
Photo modified from Oliveira et al., 2023

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Crow, W.T. (2017). Stubby-root nematode, *Nanidorus minor* (Colbran) Siddiqi (syn. *Paratrichodorus minor*, *P. christiei*, *Trichodorus minor*, *T. christiei*) (Nematoda: Adenophorea: Triplonchida: Diphtherophorina: Trichodoridea: Trichodoridae). Publication # EENY339. University of Florida, IFAS Extension, Gainesville, Florida. <https://edis.ifas.ufl.edu/publication/IN616>

Lehman, P.S. (2002). Phytoparasitic nematodes reported from Florida. Nematology booklet. Gainesville, Florida, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Bureau of Entomology, Nematology and Plant Pathology, Nematology Section. <https://www.fdacs.gov/About-Us/Publications/Plant-Industry-Publications>

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Sol, H.H., van Heuven, J.C. and Seinhorst, J.W. (1960). Transmission of rattle virus and *Atropa belladonna* virus by nematodes. *Tijdschrift Plantenziekten*, 66: 228–231.

Subbotin, S.A., Cid del Prado-Vera, I., Inserra, R.N., Chizhov, V.N. and Decraemer, W. (2020). Molecular characterization of some stubby-root nematodes (Nematoda: Trichodoridae) from the USA and other countries. *Nematology*, 22: 39–57.

SAMPLES FOR MORPHOLOGICAL ANALYSIS
Certifications and Regulatory Purposes

	APRIL - JUNE	2023 - YEAR TO DATE
Multistate Certification involving California	956	1,790
Multistate Certification excluding California Certification	2,072	3,750
Citrus Certification (Citrus Nursery Certification, Site or Pit Approval)	40	102
Total	3,068	5,642

Other Purposes

	APRIL - JUNE	2023 - YEAR TO DATE
Identification (other organisms)	0	2
Interdiction Station (AIS)	30	78
Plant Problems	32	46
Survey	108	172
Total	170	298

SAMPLES FOR MOLECULAR ANALYSIS

	APRIL - JUNE	2023 - YEAR TO DATE
Regulatory Purposes	107	301
Other Purposes	0	0
Identifications	208	347
Surveys	0	0
Total	315	648





PLANT PATHOLOGY

Compiled by Jodi Hansen, M.S.; Hector Urbina, Ph.D.; Kishore Dey, Ph.D.;
Patricia Soria, M.S. and Melanie Fryman, B.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 Colombian Datura potyvirus (CDV, Genus: *Potyvirus*), a new Florida State record, was found on *Juanulloa aurantiaca* (goldfinger plant, in the family Solanaceae (a synonym of *Juanulloa mexicana*) at a nursery in Lake County. Foliar symptoms included mottling and chlorotic spots. CDV was first described in *Datura* sp. (later moved to the genus *Brugmansia*) in Colombia, South America. Native to Mexico, *J. aurantiaca* is a popular ornamental shrub with bright yellow-orange flowers. CDV has since been found worldwide among many solanaceous hosts, but this is the first time it has been reported in *J. aurantiaca* in the United States. CDV can be transmitted mechanically through vegetative propagation and can also be transmitted through aphids (*Myzus persicae*) in a non-persistent manner. The production and maintenance of virus-free *J. aurantiaca* is important for limiting the spread of CDV among solanaceous ornamentals in Florida nurseries. (Lake County; 04112023-03614; Mary Sellers; 11 April 2023). (Kahn and Bartels, 1968).



1 - Colombian datura virus on *Juanulloa aurantiaca*, showing mottling and chlorotic spots on leaves.
Photo by Melanie Fryman, FDACS-DPI

2 Gloriosa stripe mosaic potyvirus (GSMV, Genus: *Potyvirus*), a new Florida State record, was found on *Gloriosa superba* (Gloriosa lily, plant family Colchicaceae) outside a residence in Bradenton. The submitted sample had foliar symptoms of streaking, interveinal chlorosis and severe distortion. Although they are usually lance-shaped, the submitted leaves were slightly falcate and exhibited moderate rugosity (wrinkling) across the leaf blade. GSMV was initially found in Germany in co-infection with *Cucumber mosaic virus* (CMV). Other than GSMV, the only virus reported to infect *G. superba* is an unclassified *Dichorhavirus*, with the suggested name *Gloriosa fleck virus*. PCR and serological tests for this sample were negative for CMV and generic *Dichorhavirus*es.

The first occurrence of the virus in the United States was reported from a commercial nursery in Maryland in 2011. GSMV is transmitted by sap inoculation and propagation and may be disseminated through commercial propagation of the host plant. *Gloriosa superba* is propagated sexually by seed or asexually by dividing the tuberous rhizomes. This long, climbing vine is a popular ornamental for homeowners across the world because it can grow in nutrient poor soil, and the flowers are quite striking in appearance. (Manatee County; 03312023-03176; Prem Kumar, USDA; 27 March 2023.) (Araki *et al.*, 1985; Koenig and Lesemann, 1974; Mollov *et al.*, 2017.)



2a - *Gloriosa stripe mosaic Potyvirus* on *Gloriosa superba* with streaking and interveinal chlorosis.
Photo by Melanie Fryman, FDACS-DPI



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2b - *Gloriosa superba*, gloriosa lily, flower.
Photo by Allen Boatman, [Atlas of Florida Plants](#)



🔍 PLANT PATHOLOGY IDENTIFICATION TABLE

The following table provides information about samples identified between April - June 2023. 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>Asclepias curassavica</i>	scarlet milkweed, bloodflower	<i>Tospovirus Tomato spotted wilt virus</i>	tomato spotted wilt virus	nursery	P1627-04-06192023-06432	Alachua	Paola Ramos Perez	6/19/23	host
<i>Gloriosa superba</i>	flame lily, glory lily, gloriosa lily, agnishikha	<i>Gloriosa stripe mosaic Potyvirus</i>	none	residence	P0855-03312023-03176	Manatee	Prem Kumar	3/27/23	state
<i>Juanulloa aurantiaca</i>	goldfinger plant	<i>Potyvirus Columbian datura virus</i>	none	nursery	P0913-08-04112023-03614	Lake	Mary Sellers	4/11/23	state
<i>Ligustrum lucidum</i>	glossy privet	<i>Parvodontia relampaga</i>	relampago blight	residence	P1269-01-05182023-05279	Sumter	John Hoch	5/7/23	host
<i>Quercus hemisphaerica</i>	Darlington's oak, laurel oak	<i>Parvodontia relampaga</i>	relampago blight	natural area	P1029-01-04242023-04204	Dixie	Matthew Raulerson	4/24/23	county
<i>Salvia coccinea</i>	tropical sage	<i>Puccinia impedita</i>	rust fungus	residence	P1338-02-05222023-05441	Alachua	Matthew Smith	5/22/23	state

QUARTERLY ACTIVITY REPORT

	APRIL - JUNE	2023 - YEAR TO DATE
Citrus black spot	67	170
Citrus canker	192	245
Citrus greening / HLB	75	85
HLB Certification for out-of-state shipping	3,639	4,449
Import inspections	3	3
Interdictions	32	95
Palm phytoplasma	11	13
Pathology, General	290	1,160
Soil	13	56





NOTES FROM A GUEST

By Alex de la Paz

Have you ever wondered how botanists find new species?

I recently had my first opportunity to contribute evidence to authors who described a new species of *Rhynchospora*. In 2021, while I was conducting a floristic inventory of Morningside Nature Center in Gainesville, Florida, I made two separate collections of an anomalous *Rhynchospora* entity in section *Mixtae*. The first collection was from plants growing in a wet ditch in a disturbed powerline right-of-way downslope from mesic-wet pine flatwoods on June 6, 2021 (A. de la Paz 2745). While pressing the material and attempting to identify it, I realized the plant did not perfectly match the species concepts for any of the species recognized in Florida. My specimen was morphologically similar to three species but differed from each in several characteristics. The major differences from *R. decurrens* (swampforest beaksedge), *R. elliotii* (Elliot's beaksedge) and *R. microcarpa* (southern beaksedge) were its robust habit, more diffuse inflorescences, light brown spikelets and slightly biconvex achenes with unequal perianth bristle lengths. I found a second population of this species at Morningside, growing in a seasonally wet depression pond in mesic pine flatwoods, and made a collection on June 10, 2021 (A. de la Paz 2763). Later, while looking at specimens in the PIHG herbarium, I found two earlier collections with characters matching the new, still undescribed species but originally identified as *R. microcarpa* (roadside ditch, 39th Avenue near Main Street, Gainesville, 29 May 1965, R.E. Woodruff s.n.; cypress depression swamp near mesic pine savanna, Lake Dan Nature Preserve, Keystone, 9 May 2020, A. de la Paz 1227).



Rhynchospora vernalis E. Bridges & Orzell, achenes.
Photo by Alex de la Paz, FDACS-DPI

I sent photos of the plant to the botanist Edwin Bridges, a noted expert on the genus and the flora of Florida. To my surprise, he was aware of this unusual entity from his field work across Florida and was already in the process of describing the new species. I was able to add my collections and a photograph of the achenes to his research. In July 2023, the description of the new species was published and given the name *Rhynchospora vernalis* E. Bridges & Orzell, a reference to its early spring (vernal) flowering and fruiting. The publication includes a description, diagnosis, illustration, photos, detailed notes on the distribution and ecology, a dichotomous key to section *Mixtae* and referenced herbarium specimens. (Weakley *et al.*, 2023).

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