



FDACS-P-00124

April - June 2024

Volume 63, Number 2

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



Krigia virginica, Virginia dwarf dandelion.
Photo from Shutterstock

ABOUT TRI-LOGY

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-LOGY 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-LOGY

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

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

Copies of TRI-LOGY 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-LOGY. 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

Noteworthy examples from the diagnostic groups throughout the ENPP Bureau.



BOTANY

04

Quarterly activity reports from Botany and selected plant identification samples.



ENTOMOLOGY

09

Quarterly activity reports from Entomology and samples reported as new introductions or interceptions.



NEMATOLOGY

18

Quarterly activity reports from Nematology and descriptions of nematodes of special interest.



PLANT PATHOLOGY

20

Quarterly activity reports from Plant Pathology and selected identified plant pest and disease samples.

Cover Photo

Macrocephalus sp., an ambush bug, lateral view.
Photo by Susan Halbert, FDACS-DPI



HIGHLIGHTS



1 *Boerhavia diffusa* L. (red spiderling, wine flower, spreading hogweed) in the four o'clock plant family, Nyctaginaceae. The four o'clock plant family name is derived from the common name of another member of this family, *Mirabilis jalapa*, with the unusual pattern of opening its flowers in late afternoon—at or about 4:00 pm. *Boerhavia diffusa* is thought to be native to Florida and is found throughout the state although it is also reported from Africa, Asia, South and Central America, Mexico, parts of the Caribbean and Spain, as well as Florida, Georgia and South Carolina.



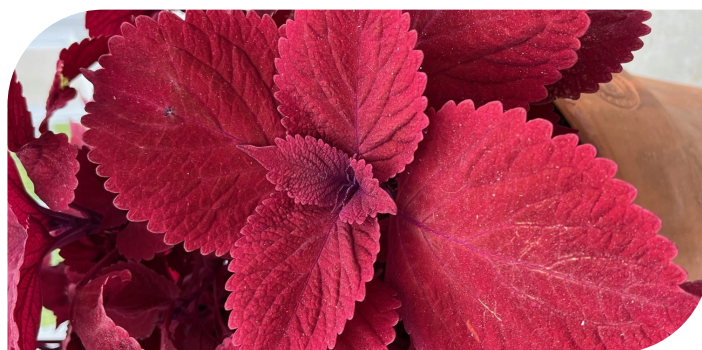
1 - *Mirabilis jalapa*, four o'clock plant, source of the common name of the Nyctaginaceae.
Photo from Shutterstock

2 *Hamana valeka* DeLong & Freytag, a leafhopper, a new Continental USA record. A single male specimen was found in a multi-lure trap in Broward County. This species was identified by Dr. Adilson Pinedo-Escatel, Instituto de Biología, UNAM, Mexico, a visiting scholar at the Florida State Collection of Arthropods.



2 - *Hamana valeka*, a leafhopper, male, dorsal view.
Photo by Solomon Hendrix, University of Delaware

3 *Aphelenchoides fragariae* (Ritzema Bos, 1891) Christie, 1932, the spring crimp nematode, was detected in the leaves of ornamental *Coleus* plants in spring 2024 in a St. Johns County landscape. Symptoms of the infestation by foliar nematodes were localized on the leaves and consisted of necrotic spots on the blades and chlorotic areas delineated by the leaf veins. A genetic analyses showed these foliar nematodes were specimens of *A. fragariae*.



3 - *Coleus* sp., healthy coleus plant.
Photo by Patti Anderson, FDACS-DPI

4 *Jasmine virus C* (JaVC, Genus: *Carlavirus*), a new Continental USA record, was detected on *Jasminum sambac* (plant family *Oleaceae*) at a residential site in Sarasota County, Florida. The plants exhibited severe yellow mosaic and distortions on the leaves.



4 - *Jasmine virus C* on *Jasminum sambac*, close view of severe yellow mosaic symptoms on distorted leaves.
Photo by Patricia Soria, 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 18,000 plants and 1,400 vials of seeds.

QUARTERLY ACTIVITY REPORT

	APRIL - JUNE	2024 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1,922	3,289
Samples Submitted for Botanical Identification Only	479	729
Total Samples Submitted	2,401	4,018
Specimens Added to the Herbarium	191	261

Some of the samples submitted recently are described below.

1 *Boerhavia diffusa* L. (red spiderling, wine flower, spreading hogweed), a new County record, from a genus of 40-50 species found worldwide in warm regions, in the four o'clock plant family, Nyctaginaceae. The name of this species is based on a Dutch physician, educator and naturalist (Hermann Boerhaave) and its open, diffuse growth habit (*diffusa*). The four o'clock plant family name is derived from the common name used for another member of this family, an ornamental commonly found in southern gardens, *Mirabilis jalapa*, with the unusual pattern of opening its flowers in late afternoon—at or about 4:00. In contrast, the red spiderling opens at dawn to begin a complex reproductive dance. The minute flowers contain two or three stamens curled around the stigma. As the flower opens, these reproductive structures unfurl within the narrow space available, allowing the possibility of self-fertilization. If this fertilization does not occur, another opportunity for pollen reaching the stigma comes from bees visiting the flowers in search of nectar and pollen rewards during the daylight hours. Eventually, in late afternoon (perhaps four o'clock?), the flower parts re-curl, offering a last chance for self-fertilization before the flower wilts away with the following sunrise. In addition to prolific seed production, this species also reproduces vegetatively by root fragmentation, further insuring its spread. This herbaceous perennial has a woody taproot, and often dies back to the roots in winter. Its sprawling, hairless or nearly hairless (glabrous) stems are branched profusely with few or no hairs. The leaves are opposite, with paired leaves of unequal size, 1-5 cm long and broadly lanceolate, ovate or broadly ovate, often with a few hairs on the veins and found



1a - *Boerhavia diffusa*, red spiderling, flowers and fruit in multi-branched inflorescence.

Photo by John R. Park, [Atlas of Florida Plants](#)



1b - *Boerhavia diffusa*, red spiderling, close view of flowers with stamens and pollen covered stigma.

Photo by Patti Anderson, FDACS-DPI



mainly in the basal half of each branch. The inflorescence is a many-branched terminal cyme. The purplish red to reddish pink flowers, 1-1.5 mm long, consists of a single whorl with fused, sepal-like segments at the base and petal-like segments above, with two or three stamens included or barely exerted. There is a tiny (1 mm) bract at the base of the perianth. Fruits are 3-5 mm long, broadly conic at the apex, with five viscid, glandular (sticky) ribs easily attached to passing animals. Plants grow in dry soil along roadsides, in waste places, disturbed sandy areas and as a “weed” in lawns. The species is thought to be native to Florida and is found throughout the state, but it reportedly has an extensive distribution including Africa, Asia, South and Central America, Mexico, parts of the Caribbean and Spain, as well as Florida, Georgia and South Carolina. In several cultures, the leaves, roots and seeds have been used as food, and as medicine for a range of ailments. (Pasco County; LIST 04122024-03631; Daniel Merced; 16 April 2024.) (Holm et al., 1997; Kunkel, 1984; Mochanla and Aluri, 2021; Spellenberg, 2000; Wunderlin and Hansen, 2011; Wunderlin et al., 2018; *Boerhavia diffusa* - FNA (floranorthamerica.org) [accessed 18 June 2024]; [Boerhavia diffusa information from the Global Compendium of Weeds \(GCW\) \(hear.org\)](#) [accessed 19 June 2024] [Four O’Clocks – Gardening Solutions \(ufl.edu\)](#) [accessed 18 June 2024].)

2 *Carex longii* Mack. (Long’s sedge), from a genus of about 2,000 species, cosmopolitan in distribution, especially in temperate and boreal regions, in the plant family Cyperaceae. *Carex* is one of the largest genera of vascular plants in the world. This species is native to North America from Nova Scotia west to Wisconsin and south to Florida and Texas, Mexico, West Indies (Haiti), Bermuda, Central America and South America. It is also introduced in the Pacific Islands (Hawaii) and New Zealand. In Florida, it is one of the most common and widespread species of *Carex* and grows in wet or seasonally wet, sandy soils, fields, thickets, ditches, pond edges, hammocks, flatwoods, bottomlands, floodplains and bogs. It flowers and fruits in spring through summer. Plants are perennial herbs with culms (stems) ranging from 30-140 cm tall with several grass-like leaves 2-4.5 mm wide and an inflorescence of several spikes. Spikes consist of separate male (staminate) and female (pistillate) flowers occurring on the same spike. The spikes are gynecandrous, meaning the pistillate flowers are located above the staminate flowers. Staminate flowers consist of one to three stamens subtended by a single scale. Pistillate flowers consist of a single compound pistil of two fused carpels with a single two-branched style, all enclosed by a scale-like bract called a perigynium (pl. perigynia), which has an orifice at the tip through which the style projects. Each perigynium is subtended by a single scale. The shape, size and surface texture of the perigynium is crucial for *Carex* identification. In this species, the perigynia are green to brown, obovate, 3-4.6 mm long and 1.6-2.8 mm wide, flat except over the achene, with winged margins. The fruit is a biconvex, oblong achene 1.3-1.7 mm long and 0.7-1 mm wide. *Carex longii* was documented for the first time in Indian River County this quarter. (Indian River County; LIST 04102024-03479; Chase Groninger, Victoria Benjamin; 10 April 2024.) (Ford and Reznicek, 2002; Weakley and Southeastern Flora Team, 2024; Wunderlin and Hansen, 2011).



1c - *Boerhavia diffusa*, red spiderling, opposite leaves of unequal size.
Photo by Patti Anderson, FDACS-DPI



2 - *Carex longii*, Long’s carex, inflorescence of several spikes.
Photo by Shirley Denton, [Atlas of Florida Plants](#)



REFERENCES

- Ford, B.A. and Reznicek, A.A. (2002).** *Carex*. In: Flora of North America Editorial Committee, eds. 1993+. *Flora of North America north of Mexico* [Online]. 21+ vols. New York and Oxford. Vol. 23. <http://floranorthamerica.org/Carex> [accessed 10 July 2024].
- Holm, L.G., Plucknett, D.L., Pancho, J.V. and Herberger, J.P. (1977).** *The world's worst weeds*. The University Press of Hawaii, Honolulu, Hawaii.
- Kunkel, G. (1984).** *Plants for human consumption*. Koeltz Scientific Books. Koenigstein, Germany.
- Mochanla, D.S. and Aluri, J.S.R. (2021).** Reproductive Ecology of *Boerhavia diffusa* L. and *Boerhavia erecta* L. (Nyctaginaceae). *Jordan Journal of Natural History* 8: 93-109.
- Spellenberg, R.W. (2000).** *Boerhavia*. In: Flora of North America Editorial Committee, eds. 1993+. *Flora of North America north of Mexico* [Online]. 22+ vols. New York and Oxford. Vol. 4.
- Weakley, A.S. and Southeastern Flora Team (2023).** *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., Hansen, B.F. and Franck, A.R. (2018).** *Flora of Florida, Volume V: Dicotyledons, Gisekiaceae through Boraginaceae*. 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
Bobbe Rose		4450	5/2/2024	<i>Acanthospermum hispidum</i>	Pinellas
Caroline Pride		4752	5/9/2024	<i>Dichantherium commutatum</i> ssp. <i>joorii</i>	Indian River
Caroline Pride		4759	5/9/2024	<i>Plantago major</i>	Indian River
Chase Groninger	Victoria Benjamin	3479	4/11/2024	<i>Carex longii</i>	Indian River
Chase Groninger	Victoria Benjamin	3478	4/11/2024	<i>Cyperus brevifolius</i>	Indian River
Chase Groninger	Victoria Benjamin	3487	4/11/2024	<i>Desmodium triflorum</i>	Indian River
Chase Groninger	Noemi Negron	3007	4/2/2024	<i>Medicago polymorpha</i>	Brevard
Chase Groninger	Victoria Benjamin	3515	4/11/2024	<i>Melaleuca viminalis</i>	Indian River
Chase Groninger	Victoria Benjamin	3469	4/11/2024	<i>Rubus trivialis</i>	Indian River
Christine Podos		4041	4/23/2024	<i>Ricinus communis</i>	Collier
Christine Zamora	Mo Violet, Maria Furnas	3602	4/12/2024	<i>Trachelospermum jasminoides</i>	Alachua
Cynthia Blattenberger		3620	4/16/2024	<i>Ligustrum lucidum</i>	Pasco
Daniel Merced		3632	4/16/2024	<i>Ageratum conyzoides</i>	Pasco
Daniel Merced		3631	4/16/2024	<i>Boerhavia diffusa</i>	Pasco
Danny Young		5285	5/20/2024	<i>Eustachys distichophylla</i>	Orange
Danny Young		5279	5/20/2024	<i>Halophila engelmannii</i>	Volusia
Danny Young		5283	5/20/2024	<i>Ophioglossum petiolatum</i>	Orange
Danny Young		5282	5/20/2024	<i>Ponthieva racemosa</i>	Orange
Danny Young		5280	5/20/2024	<i>Pteridium aquilinum</i> var. <i>caudatum</i>	Volusia
Gary Webb		3611	4/16/2024	<i>Callisia repens</i>	Pasco
Harry Morrison		3439	4/10/2024	<i>Eulophia graminea</i>	Lake
Heather Rohrer		6319	6/14/2024	<i>Asarum arifolium</i>	St. Johns
Jeanie Frechette	Teresa Ortelli	5219	5/21/2024	<i>Distimake dissectus</i>	St. Lucie
Jeanie Frechette	Teresa Ortelli	6300	6/18/2024	<i>Rhabdadenia biflora</i>	St. Lucie
Jennifer Hesse		4126	4/25/2024	<i>Callisia repens</i>	Volusia
Jennifer Hesse		4122	4/25/2024	<i>Casuarina cunninghamiana</i>	Volusia
Jennifer Hesse	Randi Shreve	4437	5/6/2024	<i>Catharanthus roseus</i>	Flagler
Jennifer Hesse		5098	5/16/2024	<i>Elaeagnus pungens</i>	Volusia
Jennifer Hesse	Randi Shreve	4443	5/6/2024	<i>Eleocharis montana</i>	Flagler
Jennifer Hesse		3445	4/12/2024	<i>Eleocharis montevidensis</i>	Flagler
Jennifer Hesse		5914	6/06/2024	<i>Lagerstroemia indica</i>	Volusia
Jennifer Hesse		4923	5/10/2024	<i>Lilium longiflorum</i>	Volusia
Jennifer Hesse	Randi Shreve	4439	5/6/2024	<i>Lolium perenne</i>	Flagler
Jennifer Hesse		3566	4/12/2024	<i>Oenothera speciosa</i>	Volusia
Jennifer Hesse		6245	6/14/2024	<i>Panicum repens</i>	Flagler

COLLECTOR NAME	COLLECTOR 2	LIST NUMBER	RECEIVED DATE	PLANT NAME	COUNTY
Jennifer Hesse		5918	6/06/2024	<i>Populus deltoides</i>	Volusia
Jennifer McKeever		4034	4/26/2024	<i>Schefflera actinophylla</i>	Osceola
Jennifer McKeever		3352	4/12/2024	<i>Syzygium cumini</i>	Osceola
Jennifer McKeever		4795	5/9/2024	<i>Yucca filamentosa</i>	Hernando
Jimmy Hernandez	Nora Marquez	6019	6/07/2024	<i>Ruellia blechum</i>	Marion
Justin Anto	Jakira Davis	3040	4/2/2024	<i>Nothoscordum bivalve</i>	Santa Rosa
Lisa Tyler		5108	5/17/2024	<i>Albizia julibrissin</i>	Nassau
Lisa Tyler		3435	4/10/2024	<i>Allium canadense</i> var. <i>canadense</i>	Nassau
Lisa Tyler		5107	5/17/2024	<i>Arisaema triphyllum</i>	Nassau
Lisa Tyler		4113	4/24/2024	<i>Coreopsis lanceolata</i>	Duval
Lisa Tyler		6518	6/20/2024	<i>Eriobotrya japonica</i>	Duval
Lisa Tyler		3139	4/5/2024	<i>Melia azedarach</i>	Nassau
Lisa Tyler		3433	4/10/2024	<i>Platanus occidentalis</i>	Nassau
Lisa Tyler		3109	4/3/2024	<i>Rosa laevigata</i>	Duval
Lisa Tyler		3587	4/12/2024	<i>Trachelospermum jasminoides</i>	Duval
Logan Cutts		3295	4/8/2024	<i>Argemone albiflora</i>	Dixie
Logan Cutts	Dyrana Russell	3360	4/9/2024	<i>Asimina incana</i>	Dixie
Logan Cutts		5372	5/23/2024	<i>Baptisia lecontei</i>	Nassau
Logan Cutts		4807	5/9/2024	<i>Campsis radicans</i>	Gilchrist
Logan Cutts		5367	5/23/2024	<i>Celtis laevigata</i>	Dixie
Logan Cutts	Dyrana Russell	3281	4/8/2024	<i>Coreopsis basalis</i>	Gilchrist
Logan Cutts		5335	5/22/2024	<i>Coreopsis basalis</i>	Levy
Logan Cutts	Dyrana Russell	3282	4/8/2024	<i>Gaillardia pulchella</i>	Gilchrist
Logan Cutts		3275	4/8/2024	<i>Glandularia aristigera</i>	Gilchrist
Logan Cutts	Dyrana Russell	3306	4/8/2024	<i>Hymenopappus scabiosaeus</i>	Dixie
Logan Cutts	Dyrana Russell	3284	4/8/2024	<i>Hymenopappus scabiosaeus</i>	Gilchrist
Logan Cutts		5369	5/23/2024	<i>Hypochaeris glabra</i>	Nassau
Logan Cutts		5637	6/04/2024	<i>Ipomoea cordatotriloba</i>	Levy
Logan Cutts		4808	5/9/2024	<i>Ipomoea cordatotriloba</i>	Suwannee
Logan Cutts	Dyrana Russell	3290	4/8/2024	<i>Krigia virginica</i>	Gilchrist
Logan Cutts		3287	4/8/2024	<i>Lantana strigocamara</i>	Gilchrist
Logan Cutts		5640	6/04/2024	<i>Mimosa strigillosa</i>	Hamilton
Logan Cutts	Dyrana Russell	3373	4/9/2024	<i>Modiola caroliniana</i>	Hamilton
Logan Cutts	Dyrana Russell	3363	4/9/2024	<i>Osmunda cinnamomea</i>	Dixie
Logan Cutts	Dyrana Russell	3304	4/8/2024	<i>Oxalis corniculata</i>	Dixie
Logan Cutts		5537	5/24/2024	<i>Penstemon multiflorus</i>	Gilchrist
Logan Cutts	Dyrana Russell	3841	4/18/2024	<i>Plantago lanceolata</i>	Gilchrist
Logan Cutts		5618	6/05/2024	<i>Poncirus trifoliata</i>	Lafayette
Logan Cutts		5366	5/23/2024	<i>Portulaca amilis</i>	Dixie
Logan Cutts		3301	4/8/2024	<i>Prunus caroliniana</i>	Dixie
Logan Cutts	Dyrana Russell	3300	4/8/2024	<i>Raphanus raphanistrum</i>	Dixie
Logan Cutts		5638	6/04/2024	<i>Rhexia mariana</i>	Suwannee
Logan Cutts		3289	4/8/2024	<i>Richardia brasiliensis</i>	Gilchrist
Logan Cutts		3298	4/8/2024	<i>Rubus cuneifolius</i>	Dixie
Logan Cutts		5644	6/04/2024	<i>Rudbeckia hirta</i>	Gilchrist
Logan Cutts	Dyrana Russell	3526	4/10/2024	<i>Sambucus canadensis</i>	Gilchrist
Logan Cutts		3366	4/9/2024	<i>Sphagneticola trilobata</i>	Gilchrist
Logan Cutts	Dyrana Russell	3359	4/9/2024	<i>Stachys floridana</i>	Dixie
Logan Cutts		3729	4/16/2024	<i>Tradescantia ohiensis</i>	Dixie
Logan Cutts		3288	4/8/2024	<i>Tradescantia ohiensis</i>	Gilchrist
Logan Cutts	Dyrana Russell	3367	4/9/2024	<i>Trifolium campestre</i>	Gilchrist
Logan Cutts	Dyrana Russell	3842	4/18/2024	<i>Trifolium campestre</i>	Suwannee
Logan Cutts	Dyrana Russell	3523	4/10/2024	<i>Triodanis perfoliata</i>	Suwannee
Logan Cutts		5761	6/05/2024	<i>Vaccinium corymbosum</i>	Dixie
Logan Cutts	Dyrana Russell	3278	4/8/2024	<i>Verbascum virgatum</i>	Gilchrist
Logan Cutts		3293	4/8/2024	<i>Verbena halei</i>	Gilchrist
Logan Cutts	Dyrana Russell	3368	4/9/2024	<i>Vicia sativa</i>	Gilchrist
Logan Cutts		3279	4/8/2024	<i>Vitis rotundifolia</i>	Gilchrist
Logan Cutts		5645	6/04/2024	<i>Yucca filamentosa</i>	Dixie
Logan Deuel		5048	5/15/2024	<i>Pseudosasa japonica</i>	Levy
Mark Laurint		3776	4/18/2024	<i>Asparagus setaceus</i>	Duval

COLLECTOR NAME	COLLECTOR 2	LIST NUMBER	RECEIVED DATE	PLANT NAME	COUNTY
Mark Laurint		3826	4/19/2024	<i>Gaillardia pulchella</i>	Clay
Mark Walker		5198	5/21/2024	<i>Syagrus romanzoffiana</i>	Collier
Mary Graham		4638	5/7/2024	<i>Acer rubrum</i>	Hendry
Mary Graham	Matthew Brodie	3818	4/19/2024	<i>Antigonon leptopus</i>	Hendry
Mary Graham	Matthew Brodie	3821	4/19/2024	<i>Syngonium podophyllum</i>	Hendry
Michael Claus		5553	6/03/2024	<i>Rubus cuneifolius</i>	Brevard
Noemi Negron		3003	4/2/2024	<i>Mitchella repens</i>	Brevard
Nora Marquez	Abby Bartlett	6641	6/25/2024	<i>Zephyranthes simpsonii</i>	Lake
Nora Marquez	Jimmy Hernandez	6044	6/07/2024	<i>Cyperus entrerianus</i>	Marion
Nora Marquez	Sam Hart	3984	4/23/2024	<i>Enterolobium contortisiliquum</i>	Pasco
Patricia McGill		4392	5/6/2024	<i>Albizia lebbek</i>	Glades
Patricia McGill		4032	4/24/2024	<i>Antigonon leptopus</i>	Glades
Patricia McGill		4394	5/6/2024	<i>Melaleuca quinquenervia</i>	Glades
Patricia McGill		4390	5/6/2024	<i>Syzygium cumini</i>	Glades
Randi Shreve		4548	5/6/2024	<i>Cyperus papyrus</i>	Volusia
Randi Shreve	Diane Mccoll	4086	4/24/2024	<i>Lepidium didymum</i>	Flagler
Randi Shreve	Diane Mccoll	4090	4/24/2024	<i>Parietaria floridana</i>	Flagler
Randi Shreve	Diane Mccoll	4104	4/24/2024	<i>Polypogon monspeliensis</i>	Flagler
Randi Shreve	Diane Mccoll	4108	4/24/2024	<i>Typha latifolia</i>	Flagler
Sam Hart		6667	6/25/2024	<i>Antigonon leptopus</i>	Levy
Sam Hart		6662	6/25/2024	<i>Morrenia odorata</i>	Levy
Sam Hart	Nora Marquez	3971	4/19/2024	<i>Russelia equisetiformis</i>	Pasco
Sam Hart	Nora Marquez	3965	4/19/2024	<i>Tecomaria capensis</i>	Pasco
Samuel Smith	Caroline Pride, Michael Claus	5184	5/21/2024	<i>Ambrosia hispida</i>	Indian River
Vaden Edmondson		3623	4/16/2024	<i>Galium aparine</i>	Pasco
Victoria Benjamin	Michael Claus	4918	5/10/2024	<i>Sigmoidotropis speciosa</i>	Brevard
Vincent Barrios		4117	4/24/2024	<i>Solanum viarum</i>	Gilchrist
William F. Grey		5069	5/15/2024	<i>Desmodium paniculatum</i>	Bradford
William F. Grey		5067	5/15/2024	<i>Orthosia scoparia</i>	Bradford



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	2024 - YEAR TO DATE
Samples Submitted	2,003	3,490
Lots Identified	3,432	5,833

1 *Macrocephalus* sp., an ambush bug, a species new to science. A single specimen of an ambush bug was collected in a multi-lure trap in 2016. It did not match any Florida species. For the next eight years, various experts looked at it, but the bug could not be identified. This year, Dr. Paul Masonick, then at University of California, Riverside, was able to determine the genus and to confirm the species had not been described. This species is a predator, but nothing is known about its biology because this is the only known specimen. The closest genetic matches are from Costa Rica and Panama; it is likely adventive in Florida. (Broward County; E2016-1259; Justin Anto; 23 March 2016.) (Dr. Susan E. Halbert and Dr. Paul Masonick, University of Florida, McGuire Center for Lepidoptera, and University of California, Riverside.)



1a - *Macrocephalus* sp., an ambush bug, lateral view.
Photo by Susan Halbert, FDACS-DPI



1b - *Macrocephalus* sp., an ambush bug, tiny foot.
Photo by Susan Halbert, FDACS-DPI



2 *Hamana valeka* DeLong & Freytag, a leafhopper, a new Continental USA record. A single male specimen was found in a multi-lure trap in Broward County. This species was identified by Dr. Adilson Pinedo-Escatel, Instituto de Biología, UNAM, Mexico, a visiting scholar at the Florida State Collection of Arthropods. It was described in 1966 from a few specimens in Michoacán, Mexico. Records in iNaturalist from South Florida appear to match this species, beginning in spring of 2022, but this is the first verified male specimen. There are no reports of pest species in this genus. (Broward County; E5192-01-09222023-09841; Antonio Demien, USDA-APHIS-PPQ; 19 September 2023.) (Dr. J. Adilson Pinedo-Escatel, UNAM, Mexico and Dr. Susan E. Halbert.)



2a - *Hamana valeka* DeLong & Freytag, a leafhopper, dorsal view. Note the abdomen was removed to process male genitalia for identification.
Photo by Solomon Hendrix, University of Delaware



2b - *Hamana valeka* DeLong & Freytag, a leafhopper, male genital capsule.
Photo by Susan Halbert, FDACS-DPI

3 *Amorpha* sp., a psyllid, a new Florida State record.

This species was found on *Amorpha herbacea* at the Withlacoochee Forestry Training Center by a DPI inspector training class. A closely related species, *Amorpha amorphae* is known from a few collections in Florida from *Amorpha fruticosa*, its known host. This collection does not match *A. amorphae*. This find either represents a large range extension for *Amorpha pallida*, reported from the upper Midwest, or an undescribed endemic Florida species on *Amorpha herbacea*. First instars cluster around the petioles and larger nymphs feed on leaves. (Hernando County; E2431-01-05072024-04709; Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo; 5 May 2024.) (Dr. Susan E. Halbert.)



3a - *Amorpha* sp., adult.

Photo by Lyle Buss, University of Florida

4 *Bactrocera dorsalis* (Hendel), Oriental fruit fly, a regulatory incident.

A single male specimen from Palm Harbor was captured in a Jackson trap baited with methyl eugenol hanging in a turkey oak tree (*Quercus laevis*). Increased trap densities in a 64-square-mile area around the detection site were maintained, and traps were monitored closely for two life cycles of this species. No additional flies were found, and the delimitation program was terminated on 17 July 2024. (Pinellas County; E2826-01-05232024-05467; James Zapko; 22 May 2024.) (Drs. Erick J. Rodriguez and Craig H. Welch.)



3b - *Amorpha* sp., young nymphs clustered around the base of the petiole.

Photo by Lyle Buss, University of Florida



4 - *Bactrocera dorsalis* (Hendel), Oriental fruit fly.

Photo by Erick J. Rodriguez, 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>Alstroemeria</i> sp.	lily of the Incas	<i>Deroceras reticulatum</i>	gray garden slug	Jesse Krok	Regulatory significance
<i>Ambrosia artemisiifolia</i>	ragweed	<i>Planchonia stentae</i>	euphorbia pit scale	Mark Zenoble	New Florida host record
<i>Ambrosia</i> sp.	ragweed	<i>Uroleucon tuataiae</i>	ragweed aphid	Nora Marquez	First in county
<i>Amorpha herbacea</i>	clusterspike indigobush	<i>Amorpha</i> sp.	amorpha psyllid	Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo	New Florida record
<i>Asclepias humistrata</i>	pinewood milkweed	<i>Prosapia bicincta</i>	two-lined spittle bug	Logan Cutts	New Florida host record; first in county
<i>Asparagus officinalis</i>	asparagus	<i>Caliothrips fasciatus</i>	bean thrips	Renee Shiska	Regulatory significance
<i>Bidens</i> sp.	bidens	<i>Leucothrips piercei</i>	thrips	Alyssa Lucas, Nicole Benda	First in county
<i>Brassica oleracea</i>	cauliflower	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Brassica oleracea</i>	broccoli crowns	<i>Frankliniella williamsi</i>	thrips	Renee Shiska	Regulatory significance
<i>Brassica oleracea</i>	cauliflower	<i>Lygus elisus</i>	pale legume bug	Jakira Davis, Justin Anto	Regulatory significance
<i>Brassica oleracea</i>	cauliflower	<i>Lygus hesperus</i>	western lygus bug	Logan Cutts	Regulatory significance
<i>Brassica rapa</i>	bok choy	<i>Circulifer tenellus</i>	beet leafhopper	Renee Shiska	Regulatory significance
<i>Brassica rapa</i>	bok choy	<i>Circulifer tenellus</i>	beet leafhopper	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Brassica rapa</i>	bok choy	<i>Lygus elisus</i>	pale legume bug	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Brugmansia</i> sp.	angel trumpet	<i>Aleurodothrips fasciapennis</i>	predacious thrips	Caleb Poock	First in county
<i>Capsicum annuum</i>	jalapeño pepper	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Capsicum annuum</i>	pepper	<i>Frankliniella vespiformis</i>	vespiform thrips	Caleb Poock	First in county
<i>Cephalanthus occidentalis</i>	common buttonbush	<i>Aphis cephalanthi</i>	aphid	Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo	First in county
<i>Cephalanthus occidentalis</i>	common buttonbush	<i>Aphis cephalanthi</i>	aphid	Stephen Jenner, Abby Bartlett, Nora Marquez, Alica Velazquez, Sam Hart, Timothy Stumpp, Jimmy Hernandez	First in county
<i>Cichorium endiva</i>	escarole	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Cichorium endiva</i>	endive	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Logan Cutts, Dyrana Russell, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Cichorium endiva</i>	endive	<i>Lygus hesperus</i>	western lygus bug	Logan Cutts	Regulatory significance
<i>Cichorium endiva</i>	endive	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significance
<i>Clitoria fragrans</i>	sweetscented pigeonwings, butterfly pea	<i>Tetraleurodes ursorum</i>	bearberry whitefly	Olivia Wetsch	New Florida host record
<i>Condea verticillata</i>	John Charles	<i>Macrosiphum mesosphaeri</i>	aphid	Edgardo Luiggi	First in county



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Cordia sebestena</i>	geiger tree	<i>Petrusa epilepsis</i>	seagrape flatid planthopper	Katiana Jovellar, Mark Zenoble	New Florida host record
<i>Coriandrum sativum</i>	cilantro	<i>Ceratagallia californica</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Coriandrum sativum</i>	cilantro	<i>Deltocephalus fuscinervosus</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Coriandrum sativum</i>	cilantro	<i>Nothodelphax consimilis</i>	delphacid planthopper	Renee Shiska	Regulatory significance
<i>Corymbia torelliana</i>	cadaghi	<i>Thrips australis</i>	thrips	Alyssa Lucas, Nicole Benda	First in county
<i>Cupaniopsis anacardioides</i>	carrotwood	<i>Platycotis vittata</i>	oak treehopper	Jessica Mills	First in county
<i>Cyperus ligularis</i>	swamp flatsedge	<i>Schizaphis rotundiventris</i>	sedge aphid	Victoria Benjamin, Chase Groninger	First in county
<i>Dactyloctenium aegyptium</i>	crowfoot grass, Durban crowfoot grass	<i>Ferrisia malvastra</i>	mealybug	Mark Zenoble	New Florida host record
<i>Daucus carota</i>	carrot	<i>Cavariella aegopodii</i>	carrot aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Daucus carota</i>	carrot	<i>Cavariella aegopodii</i>	carrot aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Dendrobium</i> sp.	orchid	<i>Aphis aurantii</i>	black citrus aphid	Wills Flowers	New Florida host record
<i>Dracaena marginata</i>	dragon tree	<i>Lepidosaphes chinensis</i>	armored scale	Mark Zenoble	Regulatory significance
<i>Dracaena</i> sp.	dracaena	<i>Lepidosaphes chinensis</i>	armored scale	Mark Zenoble	Regulatory significance
<i>Eragrostis ciliaris</i>	gophertail lovegrass, wooly lovegrass	<i>Tetraneura nigriabdominalis</i>	root aphid	Mark Zenoble	New Florida host record
<i>Erechtites hieracifolius</i>	American fireweed	<i>Brachycaudus hieracifolius</i>	plum leafcurl aphid	Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo	First in county
<i>Erigeron quercifolius</i>	oakleaf fleabane	<i>Ceratocapsus punctulatus</i>	mirid plant bug	Mark Zenoble	First in county
<i>Erythrina herbacea</i>	Cherokee bean, coral bean	<i>Calx cubensis</i>	common Cuban calx	Noemi Negron	First in county
<i>Eucalyptus</i> sp.	eucalyptus	<i>Ctenarytaina eucalypti</i>	blue gum psyllid	Jakira Davis, Justin Anto	Regulatory significance
<i>Eupatorium compositifolium</i>	yankeeweed	<i>Uroleucon ciefi</i>	aphid	Stephen Jenner, Abby Bartlett, Nora Marquez, Alica Velazquez, Sam Hart, Timothy Stumpp, Jimmy Hernandez	First in county
<i>Foeniculum vulgare</i>	fennel	<i>Myzus</i> sp.	aphid	Renee Shiska	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Amphorophora</i> sp.	aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Ceratagallia californica</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Ceratagallia californica</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Renee Shiska	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Renee Shiska	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Renee Shiska	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Chaetosiphon fragaefolii</i>	strawberry aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Ericaphis fimbriata</i>	aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Fragaria x ananassa</i>	strawberry	<i>Lygus</i> sp.	western lygus bug	Justin Anto, Jakira Davis	Regulatory significance
<i>Fragaria x ananassa</i>	organic strawberry	<i>Metopolophium dirhodum</i>	rose grass aphid	Renee Shiska	Regulatory significance
<i>Gymnanthes lucida</i>	crabwood	<i>Fiorinia phantasma</i>	phantasma scale	Edgardo Luiggi	New Florida host record, regulatory significance
<i>Ilex vomitoria</i>	yaupon holly	<i>Gyropsylla ilicis</i>	yaupon psyllid	Paul Skelley	First in county
<i>Ipomoea pes-caprae</i>	railroad vine	<i>Circulifer tenellus</i>	beet leafhopper	Jeanie Frechette, Teresa Ortell	First in county
<i>Ixora coccinea</i>	ixora	<i>Holopothrips tabebuia</i>	trumpet tree thrips	Maria Leyva	New Florida host record
<i>Jasminum dichotomum</i>	gold coast jasmine	<i>Fiorinia phantasma</i>	phantasma scale	Nubia Tapias	New Florida host record; regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Acyrtosiphon malvae</i>	aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Acyrtosiphon malvae</i>	aphid	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Bactericera</i> sp.	willow psyllid	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Brachycaudus cardui</i>	plum-thistle aphid	Renee Shiska	Regulatory significance



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Lactuca sativa</i>	green leaf lettuce	<i>Brachycaudus rumexicolens</i>	aphid	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia californica</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia californica</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia californica</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	butterleaf lettuce	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia californica</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia californica</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Ceratagallia longula</i>	leafhopper	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Ceratagallia longula</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Ceratagallia</i> sp.	leafhopper	Renee Shiska, Logan Cutts, Dyrana Russell	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Ceratagallia</i> sp.	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	butterleaf lettuce	<i>Ceratagallia</i> sp.	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Craspedolepta pulchella</i>	psyllid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Renee Shiska, Logan Cutts, Dyrana Russell	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	butterleaf lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Deltocephalus fuscinevrosus</i>	leafhopper	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Empoasca ulusa</i>	leafhopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Gliridonius venditaria</i>	leafhopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Hyadaphis foeniculi</i>	honeysuckle aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Liriomyza langei</i>	California pea leafminer	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus elisus</i>	pale legume bug	Renee Shiska, Logan Cutts, Dyrana Russell	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Lygus elisus</i>	pale legume bug	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Lygus hesperus</i>	western lygus bug	Renee Shiska, Logan Cutts, Dyrana Russell	Regulatory significance
<i>Lactuca sativa</i>	baby iceberg lettuce	<i>Lygus</i> sp.	western lygus bug	Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Metopolophium dirhodum</i>	rose grass aphid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Metopolophium dirhodum</i>	rose grass aphid	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	romaine hearts	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Twylah Morelli	Regulatory significance
<i>Lactuca sativa</i>	red leaf lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nasonovia ribisnigri</i>	currant-lettuce aphid	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	butterleaf lettuce	<i>Neoneides muticus</i>	stilt bug	Logan Cutts	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	romaine lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Renee Shiska	Regulatory significance



PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Justin Anto, Jakira Davis	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	James 'Eddie' Anderson	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Nothodelphax consimilis</i>	delphacid planthopper	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Proba californica</i>	mirid plant bug	Jakira Davis, Justin Anto	Regulatory significance
<i>Lactuca sativa</i>	green leaf lettuce	<i>Sipha maydis</i>	hedgehog grain aphid	Logan Cutts, Dyrana Russell, Renee Shiska	Regulatory significance
<i>Lactuca sativa</i>	lettuce	<i>Tuberocephalus sakurae</i>	Japanese cherry-wormwood aphid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
Leguminosae	legume	<i>Vanduzee segmentata</i>	treehopper	Hector Elhansville, Mark Zenoble	First in county
<i>Liquidambar styraciflua</i>	sweetgum	<i>Scirtothrips citri</i>	citrus thrips	Alyssa Lucas, Nicole Benda	First in county
<i>Magnolia grandiflora</i>	southern magnolia	<i>Davisella breihowi</i>	eriphyid mite	Justin Anto, Jakira Davis	First in county
<i>Mangifera indica</i>	mango	<i>Thiotricha laterestriata</i>	gelechiid moth	Mark Zenoble	First in county
<i>Megathyrus maximus</i>	Guinea grass	<i>Schizaphis graminum</i>	greenbug	Mark Zenoble	New Florida host record
<i>Melaleuca quinquenervia</i>	melaleuca	<i>Boreioglycaspis melaleucae</i>	melaleuca psyllid	Alexander Tasi	First in county
<i>Melaleuca quinquenervia</i>	melaleuca	<i>Ranzovius clavicornis</i>	mirid bug	Alexander Tasi	First in county
<i>Mentha</i>	mint	<i>Ovatus crataegarius</i>	mint aphid	Samuel Smith, Alexander Tasi, Chase Groninger	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Myzus ornatus</i>	violet aphid	Caroline Pride	Regulatory significance
<i>Mentha</i> sp.	peppermint	<i>Ovatus crataegarius</i>	mint aphid	Jeanie Frechette	Regulatory significance
<i>Mentha</i> sp.	peppermint	<i>Ovatus crataegarius</i>	mint aphid	Jeanie Frechette	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Chase Groninger	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Chase Groninger	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Jeanie Frechette	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Caroline Pride	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus crataegarius</i>	mint aphid	Isabelle Atchia	Regulatory significance
<i>Mentha</i> sp.	spearmint	<i>Ovatus mentharius</i>	European mint aphid	Scott Krueger	Regulatory significance
<i>Mentha</i> sp.	peppermint	<i>Ovatus mentharius</i>	European mint aphid	Scott Krueger	Regulatory significance
<i>Mentha</i> sp.	spearmint and peppermint	<i>Ovatus mentharius</i>	mint aphid	Scott Krueger	Regulatory significance
<i>Mentha</i> sp.	mint	<i>Ovatus mentharius</i>	mint aphid	Jeanie Frechette	Regulatory significance
<i>Mentha spicata</i>	spearmint	<i>Ovatus mentharius</i>	European mint aphid	Chase Groninger	Regulatory significance
mixture	potted plants in greenhouse	<i>Pseudosinella violenta</i>	springtail	Lance Osborne	First in county
mixture	potted plants in greenhouse	<i>Seira brasiliana</i>	springtail	Lance Osborne	First in county
mixture	potted plants in greenhouse	<i>Sminthurinus quadrimaculatus</i>	springtail	Lance Osborne	First in county
<i>Monstera deliciosa</i>	split-leaf philodendron, swiss cheese plant	<i>Lepidosaphes laterochitnosa</i>	armored scale	Mark Zenoble	New Florida host record, regulatory significance
<i>Ocimum basilicum</i>	basil	<i>Alkindus atratus</i>	black bug	Juan Aleman Martinez, Arline Diaz Santos, Ariadna Gonzalez	Regulatory significance
<i>Origanum vulgare</i>	oregano	<i>Ovatus crataegarius</i>	mint aphid	Victoria Benjamin	Regulatory significance
<i>Origanum vulgare</i>	oregano	<i>Ovatus crataegarius</i>	mint aphid	Alexander Tasi, Chase Groninger	Regulatory significance
<i>Parthenium hysterophorus</i>	Santa Maria feverfew, false ragweed	<i>Phenacoccus miruku</i>	mealybug	Nora Marquez	New Florida host record
<i>Parthenocissus quinquefolia</i>	Virginia creeper	<i>Ormenoides venusta</i>	flatid planthopper	Logan Cutts, Dyrana Russell, Renee Shiska, Justin Anto, Jakira Davis, Twylah Morelli	First in county
<i>Paspalum notatum</i>	bahiagrass	<i>Cuerna costalis</i>	sharpshooter leafhopper	Logan Cutts	First in county
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Chantelle Viloria	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Chantelle Viloria	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Diere Hodges, Julio Rodriguez, K-9	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Logan Cutts, Dyrana Russell, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Renee Shiska, Logan Cutts	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Renee Shiska	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Renee Shiska	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Renee Shiska	Regulatory significance
<i>Persea americana</i>	avocado	<i>Davidsonaspis aguacatae</i>	Davidson's avocado scale	Justin Anto, Jakira Davis	Regulatory significance
<i>Persea americana</i>	avocado	<i>Macrocephalus</i> sp.	ambush bug	Justin Anto	New Continental USA record
<i>Petroselinum crispum</i>	parsley	<i>Cavariella aegopodii</i>	carrot aphid	Jakira Davis, Justin Anto	Regulatory significance
<i>Physalis philadelphica</i>	tomatillo	<i>Bactericera cockerelli</i>	potato psyllid	Twylah Morelli	Regulatory significance
<i>Physalis philadelphica</i>	tomatillo	<i>Bactericera cockerelli</i>	potato psyllid	Logan Cutts, Justin Anto, Twylah Morelli, Renee Shiska, Jakira Davis	Regulatory significance
<i>Pinus elliottii</i>	slash pine	<i>Oracella acuta</i>	loblolly mealybug	Mark Zenoble	First in county
<i>Pinus taeda</i>	loblolly pine	<i>Schizolachnus parvus</i>	woolly pine needle aphid	Ayiana Rivera Robles, Robert Denoux, Ariadna Gonzaliz, Yamiley Guia Riquenes, Reinaldo Casanas, Maria Leyva, Sara Restrepo, Jennifer McKeever, Anthony Puppelo	First in county
<i>Pityopsis graminifolia</i>	narrowleaf silkgrass	<i>Acanthococcus megaporus</i>	large pore eriococcin	Kyle Schnepf	First in county
<i>Podocarpus macrophyllus</i>	Japanese yew	<i>Neophyllaphis podocarpi</i>	blue podocarpus aphid	Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo	First in county
<i>Podocarpus macrophyllus</i>	Japanese yew	<i>Neophyllaphis varicolor</i>	multicolored podocarpus aphid	Yamiley Guia Riquenes, Maria Leyva, Reinaldo Casanas, Susan Halbert, Ariadna Gonzalez, Robert Denoux, Jennifer McKeever, Larry 'Mo' Violet, Ayiana Rivera Robles, Abby Bartlett, Sara Restrepo	First in county
<i>Portulaca oleracea</i>	purslane	<i>Thrips parvispinus</i>	short-spine thrips	Scott Krueger	New Florida host record; regulatory significance
<i>Psidium cattleianum</i>	strawberry guava	<i>Prepops insitivus</i>	mirid plant bug	Eduardo Solis	First in county
<i>Pteridium aquilinum</i>	western bracken fern	<i>Mastopoda pteridis</i>	footless fern aphid	Paola Ramos Perez	First in county
<i>Pyrus</i> sp.	pear	<i>Aphis eugeniae</i>	aphid	Caroline Pride	First in county
<i>Quercus virginiana</i>	live oak	<i>Karnyothrips flavipes</i>	thrips	Alyssa Lucas, Nicole Benda	First in county
<i>Richardia brasiliensis</i>	tropical Mexican clover	<i>Euschistus quadrator</i>	stink bug	Logan Cutts	First in county
<i>Rosmarinus officinalis</i>	rosemary	<i>Clastoptera xanthocephala</i>	sunflower spittle bug	Scott Krueger	New Florida host record
<i>Rosmarinus officinalis</i>	rosemary	<i>Liorhyssus hyalinus</i>	scentless plant bug	Scott Krueger	New Florida host record
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	aphid	Jeanie Frechette	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	aphid	Chase Groninger	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	aphid	Alexander Tasi, Caroline Pride	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	blackberry aphid	Victoria Benjamin, Alexander Tasi	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	aphid	Jeanie Frechette, Alexander Tasi	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Amphorophora</i> sp.	aphid	Twylah Morelli	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Aphis ruborum</i>	permanent blackberry aphid	Chase Groninger	Regulatory significance
<i>Rubus</i> sp.	blackberry	<i>Lygus hesperus</i>	western lygus bug	Jakira Davis, Justin Anto	Regulatory significance
<i>Rubus</i> sp.	raspberry	<i>Rhinacloa forticornis</i>	western plant bug	Dyrana Russell, Logan Cutts, Renee Shiska	Regulatory significance
<i>Salix caroliniana</i>	coastal plain willow, Carolina willow	<i>Bactericera nigrilla</i>	black headed willow psyllid	Mark Zenoble	First in county
<i>Salix caroliniana</i>	coastal plain willow, Carolina willow	<i>Chaitophorus longipes</i>	aphid	Chase Groninger	First in county
<i>Salix caroliniana</i>	coastal plain willow, Carolina willow	<i>Idiocerus nervatus</i>	leafhopper	Mark Zenoble	First in county
<i>Salix caroliniana</i>	coastal plain willow, Carolina willow	<i>Karnyothrips flavipes</i>	thrips	Mark Zenoble	First in county

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
<i>Sarracenia</i> sp.	pitcher plant hybrid	<i>Selenothrips rubrocinctus</i>	redbanded thrips	Robert Beiriger	New Florida host record
<i>Solanum lycopersicum</i>	tomato	<i>Phenacoccus miruku</i>	mealybug	Victoria Benjamin, Alexander Tasi	New Florida host record
<i>Taraxacum officinale</i>	dandelion	<i>Uroleucon ambrosiae</i>	aphid	Lisa Tyler	New Florida host record
<i>Ulmus parvifolia</i>	Chinese elm	<i>Aphidounguis mali</i>	Chinese elm - apple root aphid	Logan Cutts, Dyrana Russell, Renee Shiska, Justin Anto, Jakira Davis, Twylah Morelli	Regulatory significance
<i>Yucca</i> sp.	yucca	<i>Bulimulus bonariensis sporadicus</i>	ghost snail, peanut snail	Logan Cutts	First in county
		<i>Aethus</i> sp.	burrower bug	Robert Shim	Regulatory significance
		<i>Archasia belfragei</i>	treehopper	Patricia Bussell	First in county
		<i>Atrachelus cinereus</i>	assassin bug	Mark Zenoble	First in county
		<i>Bactrocera dorsalis</i>	oriental fruit fly	James Zapko	Regulatory significance
		<i>Bakerella minuta</i>	delphacid planthopper	Joseph Hanus, James Bouie	First in county
		<i>Balclutha rubrostriata</i>	red streaked leafhopper	Paul Skelley	First in county
		<i>Ceratopsus punctulatus</i>	mirid plant bug	Robert Leahy	First in county
		<i>Ceratopsus punctulatus</i>	mirid plant bug	Carly Dodgen	First in county
		<i>Crocosema unica</i>	tortricid moth	Carly Dodgen, Krystal Ashman	First in county
		<i>Cyrtolobus fenestratus</i>	treehopper	Leann West	First in county
		<i>Froeschneria piligera</i>	seed bug	Douglas Restom-Gaskill	First in county
		<i>Halyomorpha halys</i>	brown marmorated stink bug	Robert Shim	Regulatory significance
		<i>Hamana valeka</i>	leafhopper	Antonio Demien	New Continental USA record
		<i>Limotettix striolus</i>	leafhopper	De-fen Mou	First in county
		<i>Microparsus singularis</i>	aphid	Daniel Carrillo	First in county
		<i>Nothodelphax slossonae</i>	delphacid planthopper	Alexander Tasi	First in county
		<i>Osbornellus clarus</i>	leafhopper	Douglas Restom-Gaskill	First in county
		<i>Pnirontis modesta</i>	assassin bug	Monica Triana	First in county
		<i>Prepops cruciferus</i>	plant bug	Mark Zenoble	First in county
		<i>Pseudoxenetes regalis</i>	mirid plant bug	Douglas Restom-Gaskill	First in county
		<i>Rhinacloa clavicornis</i>	plant bug	Mark Zenoble	First in county
		<i>Siskiwitia</i> sp. 1	cosmopterigid moth	Douglas Restom-Gaskill	First in county
		<i>Sparganothis pulcherrimana</i>	leafroller	Randi Shreve	First in county
		<i>Stobaera pallida</i>	delphacid planthopper	Robert Leahy	First in county
		<i>Telamona excelsa</i>	treehopper	Lisa Tyler	First in county
		<i>Telamona subfalcata</i>	treehopper	Teresa Ortelli	First in county
		<i>Trioza myresae</i>	<i>Ficus aurea</i> psyllid	Douglas Restom-Gaskill	First in county
		<i>Tytthus parviceps</i>	predatory mirid bug	Carly Dodgen	First in county
		<i>Xyonysius basalis</i>	seed bug	Monica Triana	First in county



NEMATOLOGY

Compiled by Renato N. Inserra, Ph.D., Sergio Álvarez Ortega, Sergei A. Subbotin,
Silvia Vau, Ph.D. and Janete A. Brito, Ph.D.

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

QUARTERLY ACTIVITY REPORT

	APRIL - JUNE	2024 - YEAR TO DATE
Morphological Identifications	3,684	6,354
Molecular Identifications *	165	228

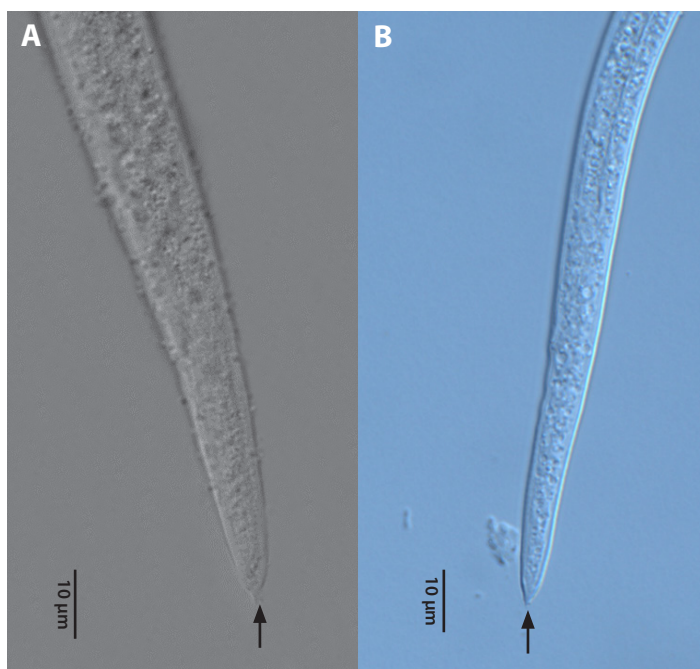
* The majority of these analyses involved root-knot nematode species.

Nematode of Special Interest

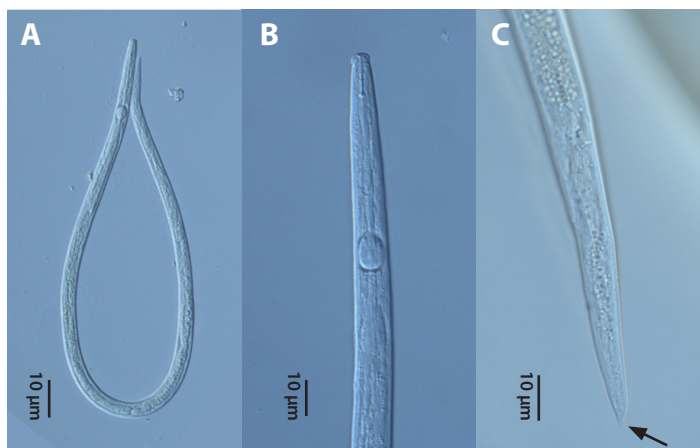
1 *Aphelenchoides fragariae* (Ritzema Bos, 1891) Christie, 1932, the spring crimp nematode, was detected in the leaves of the ornamental plant *Coleus* sp. (St. Johns County; 04262024-04242; Robert Leahy, USDA; 26 April 2024.)

In Florida, infestations of foliar nematodes (*Aphelenchoides* sp.) on ornamental plants are very common and are caused primarily by *Aphelenchoides pseudobesseyi*, Subbotin et al. 2021, *A. fragariae* (Ritzema Bos, 1891) Christie, 1932, and *A. ritzemabosi* (Schwartz, 1911) Steiner & Buher, 1932 (Lehman, 2002; Subbotin et al., 2020). These species can be separated morphologically by the shape of their tail terminus which is brush-like or star-like (stellate) in *A. pseudobesseyi* and *A. ritzemabosi*, and like a simple spike without processes in *A. fragariae*. Both *A. fragariae* and *A. ritzemabosi* have a post uterine sac (PUS) filled with sperm and extending for more than half the distance between the vulva and anus; whereas, in *A. pseudobesseyi*, the PUS extends for less than half the distance between the vulva and anus (Siddiqi, 1974; 1975).

In spring 2024, *Coleus* plants in a St. Johns County landscape showed symptoms of infestation by foliar nematodes with their tails ending in a mucro without processes like *A. fragariae*, but a PUS shorter than half the distance between the vulva and anus like *A. pseudobesseyi*. In 19 specimens, the average length of PUS was 78.9 μm and the average length of half the distance between the vulva and anus was 85.7 μm . Four specimens of the 19 exhibited PUS longer than half the distance between the vulva and anus. Because these characters overlap with both *A. fragariae* and *A. pseudobesseyi*, identification of this population based only on morphology is unreliable. This complicated diagnosis was resolved by using molecular analyses of DNA sequences from these foliar nematodes. The genetic analyses



1a - *Aphelenchoides pseudobesseyi* (A) and *A. fragariae* (B), posterior body. Note the brush-like tail terminus (arrowed) in *A. pseudobesseyi* (A) compared to the spike-like terminus (arrowed) in *A. fragariae* (B). Photo by Silvia Vau, FDACS-DPI and Scott Burton, FDACS-DPI



1b - *Aphelenchoides fragariae* (A) Entire body (B) Anterior body (C) Posterior body. Photo by Silvia Vau, FDACS-DPI and Scott Burton, FDACS-DPI



showed these foliar nematodes were specimens of *A. fragariae*. The symptoms induced by the nematode infestation on *Coleus* were localized on the leaves and consisted of necrotic spots on the blades and chlorotic areas delineated by the leaf veins. Scarification of the leaf epidermis with a needle dislodged the nematodes from the leaf tissues indicating *A. fragariae* was behaving as a migratory endoparasite. Infestations of *A. fragariae*, like those of other foliar nematodes, are encouraged by high moisture conditions and a standing film of water on the leaves. We cannot exclude the possibility of *Coleus* propagative material infested with *A. fragariae* having been transplanted at the site we sampled.

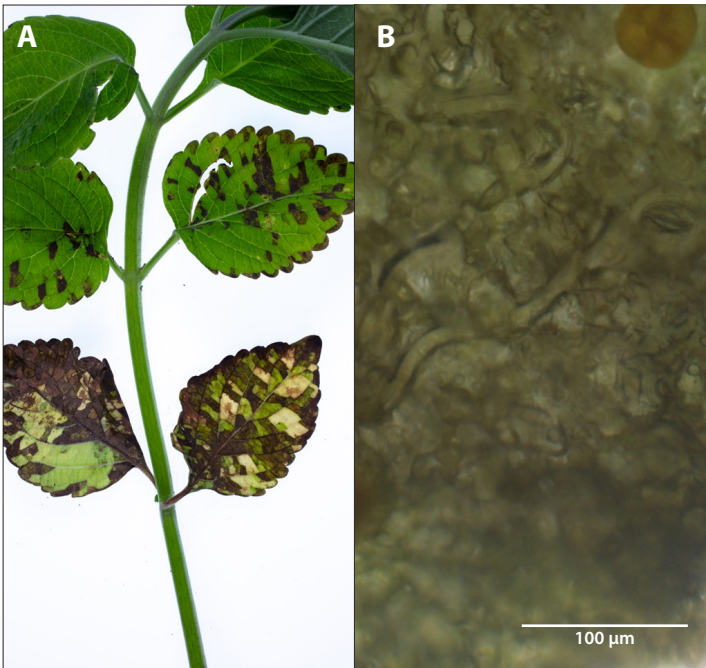
REFERENCES

Lehman, P.S. (2002). *Phytoparasitic nematodes reported from Florida*. Nematology booklet. Gainesville, Florida, USA, Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Bureau of Entomology, Nematology and Plant Pathology, Nematology Section.

Siddiqi, M.R. (1974). *Aphelenchoides ritzemabosi*. In: *CIH descriptions of plant-parasitic nematodes*. Set 3. No.32. Commonwealth Institute of Helminthology, St. Albans, Hertfordshire, United Kingdom.

Siddiqi, M.R. (1975). *Aphelenchoides fragariae*. In: *CIH descriptions of plant-parasitic nematodes*. Set 5. No.74. Commonwealth Institute of Helminthology, St. Albans, Hertfordshire, United Kingdom.

Subbotin, S.A., Oliveira, C.J., Alvarez-Ortega, S., Desaegeer, J., Crow, W., Overstreet, C., Leahy, R., Vau, S. and Inserra, R.N. (2020). The taxonomic status of *Aphelenchoides besseyi* Christie, 1942 (Nematoda: Aphelenchoididae) populations from the southeastern USA, and description of *Aphelenchoides pseudobesseyi* sp. n. *Nematology*, 23: 381-413. <https://doi.org/10.1163/15685411-bja10048>



1c - *Coleus* sp. shoot with leaves infested by the spring crimp nematode, *Aphelenchoides fargariae*. (A) Dark and necrotic spots adjacent to chlorotic areas delineated by the leaf veins are noticeable on the upper surface of the leaf blade. (B) Nematode specimens were made visible in the leaf tissues after tearing the leaf epidermis with a needle.
Photo by Jeffrey Lotz, FDACS-DPI and Silvia Vau, FDACS-DPI

SAMPLES FOR MORPHOLOGICAL ANALYSIS
Certifications and Regulatory Purposes

	APRIL - JUNE	2024 - YEAR TO DATE
Regulatory Purposes	23	38
Other Purposes	0	0
Identifications	142	190
Surveys	0	0
Total	165	228

	APRIL - JUNE	2024 - YEAR TO DATE
Multistate Certification involving California	1,084	2,058
Multistate Certification excluding California Certification	2,340	3,920
Citrus Certification (Citrus Nursery Certification, Site or Pit Approval)	66	98
Total	3,490	6,076

Other Purposes

	APRIL - JUNE	2024 - YEAR TO DATE
Identification (other organisms)	0	0
Interdiction Station (AIS)	96	120
Plant Problems	32	50
Survey	66	108
Total	194	278





PLANT PATHOLOGY

Compiled by Jodi Hansen, M.S.; Hector Urbina, Ph.D.; Kishore Dey, Ph.D.; Patricia Soria, M.S.,
Shelby Kernahan, B.S; Claudia Paez, Ph.D. and Vishal Negi, Ph.D.

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 Jasmine virus C (JaVC, Genus: *Carlavirus*), a new Continental USA record, was detected on *Jasminum sambac* (plant family *Oleaceae*) at a residential site in Sarasota County, Florida. The submitted samples exhibited severe yellow mosaic and distortions on the leaves. Jasmine virus C was first identified in *J. sambac* from Taiwan (Chang et al., 2018) and has previously been identified in *Jasminum officinale* in Italy (Amoia et al., 2022). However, this is the first time the virus has been found in *J. sambac* in the United States. The virus is transmissible through mechanical means, such as vegetative propagation and grafting, which creates economic challenges for growers investing in horticultural varieties of *Jasminum*. The most notable impacts include reduced growth and flowering, decreased propagation success and diminished aesthetic appeal to consumers. Preliminary viral testing for *Jasminum* propagative material and surveying for affected plants in the field will be crucial for mitigating further spread of Jasmine virus C and protecting these valuable landscape plants for the industry. (Sarasota County; 05132024-04986; Prem Kumar, USDA; 13 May 2024.)



1a - Jasmine virus C on *Jasminum sambac*, showing severe symptoms on newest growth.
Photo by Patricia Soria, FDACS-DPI

REFERENCES

- Amoia, S.S., Minafra, A., Nicoloso, V., Loconsole, G. and Chiumenti, M. (2022).** A new jasmine virus C isolate identified by nanopore sequencing is associated to yellow mosaic symptoms of *Jasminum officinale* in Italy. *Plants*, 11: 309. Retrieved from <https://doi.org/10.3390/plants11030309>.
- Chang, C.A., Lin, Y.C., Lin, Y.Y. and Wang, S.M. (2018).** Etiological study of viruses associated with yellow mosaic disease in jasmine. *Acta Horticulturae*, 1193: 47-54. Retrieved from https://www.actahort.org/books/1193/1193_7.htm.



1b - Jasmine virus C on *Jasminum sambac*, close view of severe yellow mosaic symptoms on distorted leaves.
Photo by Patricia Soria, FDACS-DPI



QUARTERLY ACTIVITY REPORT

	APRIL - JUNE	2024 - YEAR TO DATE
Citrus black spot	0	248
Citrus canker	191	305
Citrus greening / HLB	83	102
HLB certification for out-of-state shipping	2,864	3,960
Import inspections	4	11
Interdictions	59	84
Palm phytoplasma	18	22
Pathology, General	1,180	2,256
Soil	79	110
Totals	4,478	7,095

🔍 PLANT PATHOLOGY IDENTIFICATION TABLE

The following table provides information about samples identified between April - June 2024. 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>Cartrema americana</i>	american olive, devilwood, wild olive	<i>Parvodontia relampaga</i>	relampago blight	natural area	P1422-05102024-04965	Liberty	Jeffrey Eickwort	4/18/24	county
<i>Jasminum sambac</i>	Arabian jasmine	<i>Carlavirus Jasmine C</i>	yellow mosaic	residence	P1429-05132024-04986	Sarasota	Prem Kumar	4/22/24	Continental USA
<i>Moringa oleifera</i>	horseradish tree, drumstick tree	<i>Ravenelia</i> sp.	rust fungus	residence	P1627-05292024-05699	Broward	Mark Zenoble	5/23/24	host
<i>Pteridium aquilinum</i>	bracken fern	<i>Phyllachora</i> sp.	tar spot	hunting land	P1591-05232024-05495	Nassau	Twylah Morelli	5/23/24	





TRI-LOGY

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

1-888-397-1517

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