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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

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

***Sesbania vesicaria*, bladderpod, flowers.**
Photo credit: Larry Allain, U.S. Geological Survey

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

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

ACKNOWLEDGEMENTS

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

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

Thank you,

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

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

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***Porphyrosela minuta* Clark.**
Photo by Kevin Burnette, FDACS-DPI

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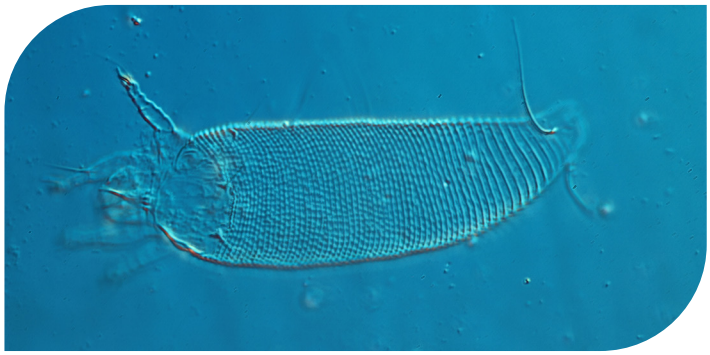
2 ***Ectomerus triquetrus*** **Flechtmann & Etienne, an eriophyoid mite, a new Continental USA record.** This is a rare mite that has, until this new record from Florida, been found only in Guadeloupe. This new record is from *Terminalia buceras*, which is the same host as one of the previous two records from Guadeloupe; the other record was a member of the same plant family, Combretaceae. There is no evidence that this mite is an important pest.

3 ***Xiphinemella esseri*** **Chitwod, 1957,** the dorylaimid nematode, was found associated with *Quercus virginiana* Mill., live oak, in Alachua, Florida. The potential plant parasitism of *X. esseri* remains unsolved and has yet to be demonstrated by field and microplot studies.

4 ***Physopella artocarpi*** **(Berk. & Broome) Arthur (breadfruit rust)** (Phakopsoraceae, Pucciniales, Basidiomycota) is a **new Continental USA record** found on tropical fruit tree *Artocarpus altilis* (Parkinson) Fosberg (breadfruit), collected from a residential property in southeastern Florida. *Physopella artocarpi* (formerly known as *Uredo artocarpi*) has been reported as a pathogen on *A. altilis* in the Cook Islands, Fiji, Guyana, Hawaii, Niue, Puerto Rico, Samoa, Tonga and the Virgin Islands. The taxonomy and systematics of this genus remain poorly understood, as is its detrimental impact on host health and crop yields.

1 - *Carex aureolensis*, southern Frank's sedge, inflorescence.
Photo by Alex de la Paz, FDACS-DPI



2 - *Ectomerus triquetrus* Flechtmann & Etienne, an eriophyoid mite.
Photo by Samuel Bolton, FDACS-DPI

4 - *Artocarpus altilis*, breadfruit, fruit and leaves of healthy tree.
Photo from Shutterstock

BOTANY

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

This section identifies plants for the Division of Plant Industry, as well as for other governmental agencies and private individuals. The Botany Section maintains a reference herbarium with over 15,000 dried plant specimens and 1,400 vials of seeds.

QUARTERLY ACTIVITY REPORT

	APRIL-JUNE	2021 - YEAR TO DATE
Samples Submitted by Other DPI Sections	1,680	**2,721**
Samples Submitted for Botanical Identification Only	209	**280**
Total Samples Submitted	1,889	**3,001**
Specimens Added to the Herbarium	135	**432**

Some of the samples submitted recently are described below.

1 ***Sesbania vesicaria*** **(Jacq.) Elliott (bladderpod; bag pod),** from a genus of about 60 species in the plant family Leguminosae/Fabaceae, native to warm regions of the world. This species has been documented throughout Florida in all but eight counties, and now this new county record for St. Lucie County reduces the number to seven. This annual plant typically grows in wet, disturbed sites, including fencerows and pastures. Beyond Florida, this species is found from North Carolina southward along the Atlantic coast, and westward along the Gulf coast to Texas and northward to Oklahoma and Arkansas. Bladderpod is a robust plant with an erect stem, sometimes up to 5 m tall but usually no more than 3 m in height. The compound leaves are alternate, 8-20 cm long, with 8-18 narrowly oblong to elliptic pairs of opposite leaflets. The inflorescence is a raceme (an unbranched spike) typically about 10 cm long with three to 10 separate flowers. Each flower has a bell-shaped calyx with five lobes and a sweetpea-like (papilionaceous) corolla, to 9 mm long, of variable colors: yellowish white, yellow tinged with pink or maroon, and sometimes, solid red or orange. The fruit is an inflated pod 3-6 cm long, containing two seeds. The seeds contain a concentration of sesbaimide, a plant chemical possibly toxic to livestock. (St. Lucie County; B2021-174; Jeanie Frechette and Teresa Ortelli; 14 May 2021.) (Mabberley, 2017; Perkins and Payne, 1978; Wunderlin and Hansen, 2011; Wunderlin and Hansen, 2016; http://ufdcimages.uflib.ufl.edu/UF/00/08/91/94/00001/FW03800.pdf [accessed 14 July 2021] https://www.cfsanappsexternal.fda.gov/scripts/plantox/detail.cfm?id=25328 [accessed 14 July 2021].)

1a - *Sesbania vesicaria*, bladderpod, flowers and leaves.
Photo by Shirley Denton, Atlas of Florida Plants

1b - *Sesbania vesicaria*, bladderpod, flowers.
Photo credit: Larry Allain, U.S. Geological Survey

1c - *Sesbania vesicaria*, bladderpod, fruit and leaves.
Photo by Graceteel, wikipedia

2 ***Carex aureolensis*** **Steudel (southern Frank's sedge, broad-scaled sedge)**, from a genus of about 2,000 species of cosmopolitan in distribution, especially in temperate and boreal regions, in the plant family Cyperaceae. *Carex aureolensis* is native to the central and eastern United States (VA, KY, IL and NE, south to FL, TX and NM), Mexico and South America where it typically grows in floodplain forests, margins of lakes and ponds, marshes and roadside ditches. In Florida, it is found in the northern peninsula and panhandle, and often flowers and fruits from May through July. The sample submitted for identification this reporting period is a new county record for Bradford County. Plants are perennial herbs with long, spreading, underground rhizomes, often forming dense colonies. The culms (stems) are erect with several light green leaves attached. The flowers are unisexual (male or female) and both forms occur on the same plant (monoecious). Male (staminate) flowers consist of one to three stamens subtended by a single scale. Female (pistillate) flowers consist of a single compound pistil of three fused carpels with a single three-branched style, all enclosed in a sac-like structure called a perigynium; a structure entirely closed except for a pore at the tip through which the style protrudes. Each perigynium is subtended by a scale with a distinct body and a long, scabrous awn at the apex. Both staminate and pistillate flowers have no perianth segments (sepals or petals). These reduced and inconspicuous flowers are arranged in four to six dense, narrowly elliptic spikes attached along the upper half of the stem. The lateral spikes are almost entirely pistillate, but have a few staminate flowers at the apex and rarely also at the base of the spike. The terminal spike is staminate or sometimes gynecandrous (female flowers situated above, male flowers below) or abortive. The perigynia are obconic, inflated, glabrous, minutely pustulate, abruptly beaked, ca. 3.2-5.6 mm long, 1.3-2.5 mm wide and spreading horizontally. The fruit is a trigonous-obovoid achene, less than two times as long as wide, with strongly concave sides, ca. 1.2-2.1 mm long and 0.9-1.5 mm wide. *Carex aureolensis* is closely related to *Carex frankii* and is sometimes considered a synonym of *C. frankii*. (Bradford County; B2021-141; Janie Echols; 28 April 2021.) (Ford and Reznicek, 2002; Weakley, 2020; Wunderlin and Hansen, 2011).

2 - *Carex aureolensis*, southern Frank's sedge, inflorescence.
Photo by Alex de la Paz, FDACS-DPI

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BOTANY IDENTIFICATION TABLE

The following table provides information about **new county** records submitted in the current volume's time period. The table is organized by collector name. The full version with more complete data is downloadable as a PDF or an Excel spreadsheet organized by collector name, except new county records are listed first.

NEW RECORD	COLLECTOR NAME	COUNTY	SAMPLE NUMBER	COLLECTION DATE	PLANT NAME
	Anna Gourlay	Orange	B2021-258	6/16/2021	*Passiflora ciliata*
	Anna Gourlay	Orange	B2021-257	6/16/2021	*Sansevieria trifasciata*
	Connor Kuppe	Volusia	B2021-278	6/29/2021	*Kallstroemia maxima*
	Connor Kuppe	Volusia	B2021-176	5/19/2021	*Thunbergia fragrans*
	Ethan Kelly	Santa Rosa	B2021-249	6/15/2021	*Ardisia crenata*
	Ethan Kelly	Santa Rosa	B2021-189	5/20/2021	*Triadica sebifera*
	Ethan Kelly	Holmes	B2021-86	4/5/2021	*Urtica chamaedryoides*
	M. Janie Echols	Bradford	B2021-141	4/28/2021	*Carex aureolensis*
	M. Janie Echols	Bradford	B2021-140	4/28/2021	*Imperata cylindrica*
	Nora V. Marquez, Jimmy Hernandez	Lake	B2021-244	6/9/2021	*Melaleuca quinquenervia*
	Teresa Ortelli, Jeanie P. Frechette	St. Lucie	B2021-174	5/14/2021	*Sesbania vesicaria*
	Victoria Benjamin	Brevard	B2021-149	4/30/2021	*Solanum carolinense*

ENTOMOLOGY

Compiled by Susan E. Halbert, Ph.D.

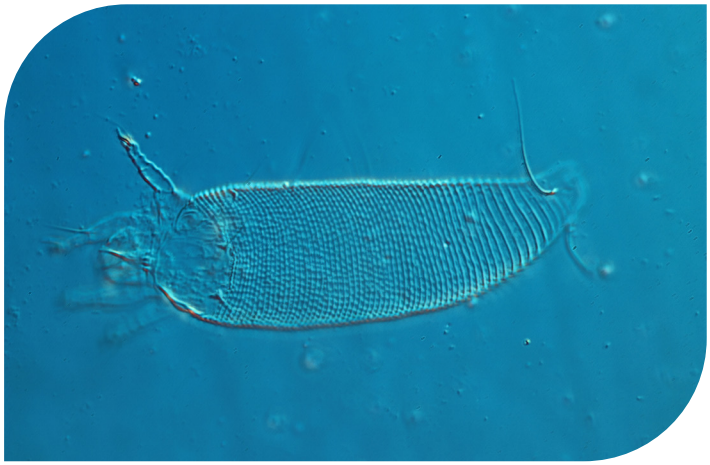
This section provides the division's plant protection specialists and other customers with accurate identifications of arthropods. The entomology section also builds and maintains the arthropod reference and research collection (the Florida State Collection of Arthropods with over 10 million specimens)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

QUARTERLY ACTIVITY REPORT

	APRIL-JUNE	2021 - YEAR TO DATE
Samples Submitted	1,943	**3,260**
Lots Identified	2,784	**4,577**
Specimens Identified	50,349	**75,224**

1 ***Ectomerus triquetrus*** **Flechtmann & Etienne, an eriophyoid mite, a new Continental USA record.** This is a rare mite found only in Guadeloupe until the new record from Florida. This new record is from *Terminalia buceras*, which is the same host as one of the previous two records from Guadeloupe; the other record was also in the plant family Combretaceae, from a closely related host, *Buchenavia capitata* (also known as *Buchenavia tetraphylla*). This mite is highly unlikely to feed on plants outside the Combretaceae. Eriophyoidea typically only feed on a single species or genus. *Ectomerus triquetrus* causes finger-like galls on leaves, but there is no evidence the mite is an important pest. Unfortunately, too little is known about this mite to be confident about its distribution. (Indian River County; E2021-1861; Alexander Tasi; 22 April 2021.) (Dr. Samuel Bolton.)

2 ***Acanthococcus lagerstroemiae*** **(Kuwana), crapemyrtle bark scale, a new Florida State record.** Several crape myrtle trees infested with crapemyrtle bark scale were found in a residential neighborhood in Pace, Florida. This scale insect is originally from Asia and has been in the United States since 2004, when it was found in Texas. Infestations have been confirmed in neighboring states, but this is the first time the pest has been seen in Florida. Crapemyrtle bark scale usually does not kill the trees, but it does cause unsightly sooty mold and sparse flowering. See the new Pest Alert on this species for more information. (Santa Rosa County; E2021-1999; Mary Salinas, University of Florida, IFAS Extension; 26 April 2021.) (Dr. Susan Halbert, Lily Deeter, Dr. Douglass Miller, FSCA Research Associate, and Matthew Moore.)



1 - *Ectomerus triquetrus* Flechtmann & Etienne, an eriophyoid mite.
Photo by Samuel Bolton, FDACS-DPI

2a - *Acanthococcus lagerstroemiae* (Kuwana), crapemyrtle bark scale, infestation.
Photo by Dyrana Russell, FDACS-DPI

3 ***Entomobrya unifasciata*** **Katz & Soto-Adames, 2015, a new Florida State record.** This is the first Florida state record for *Entomobrya unifasciata*. This species was recognized only recently as different from *Entomobrya ligata* (Katz *et al.*, 2015). This is a native species and is not a plant pest. *Entomobrya unifasciata* appears to be endemic to the southeastern United States and has been recorded previously only from Georgia, Kentucky, North Carolina and Tennessee. Thus, the Florida population represents the southernmost distribution of the species. Most specimens previously collected were extracted from leaf litter samples, but the collection of this specimen in a psyllid trap indicates the species also climbs vegetation. (St. Johns County; E2021-3109; Krystal Ashman, DPI/CAPS, and Robert Leahy, USDA; 17 June 2021.) (Dr. Felipe Soto-Adames.)

4 ***Phorodon cannabis*** **Passerini, cannabis aphid, a new Florida State record.** Cannabis aphids are native to the Old World. The species has been established in the United States for several years, and cannabis aphids have been intercepted on hemp plants imported into Florida since late 2019. All previous populations submitted for identification were in contained situations. This specimen, collected in an experimental 3-D printed psyllid trap, is the first indication this pest of cannabis is established in the Florida landscape. (Orange County; E2021-2925; Max Carfagno, DPI/CAPS; 7 June 2021.) (Dr. Susan Halbert.)

2b – *Acanthococcus lagerstroemiae* (Kuwana), crapemyrtle bark scale, ovisacs and newly hatched crawlers.
Photo by Lily Deeter, FDACS-DPI

3a – *Entomobrya unifasciata*, color pattern.
Photo by Aron Katz, CERL, US Army Corps of Engineers, Champaign, IL

3b – *Entomobrya unifasciata*, slide-mounted specimen.
Photo by Jessica Diaz and Ginamaría Echevarría-Román, FDACS-DPI

4 – *Phorodon cannabis* Passerini, cannabis aphid.
Photo by Whitney Cranshaw, Emeritus Professor, Colorado State University

5 ***Poryphyrosela minuta*** **Clark, a clover leafminer, a new Florida State record.** The larvae of this species make blotch mines in clover, *Trifolium repens*. The species was described from South America, and in the United States, it has been detected in several states other than Florida in recent years. It can be differentiated from its native relative *P. desmodiella* (Clemens) by wing pattern and host plant. (Sumter County; E2021-2949; Robert Leahy, USDA; 10 June 2021.) (Dr. James Hayden.)

6 ***Sinomegoura citricola*** **(van der Goot), an aphid, a new Florida State record.** This is an Asian polyphagous pest on mango, citrus, avocado and other plants. It is known previously in North America only from a single collection on residential citrus in California. Specimens matched those from Asia in the Florida State Collection of Arthropods and the United States National Museum as well as the ones from the California find. The identification was confirmed by Dr. Gary L. Miller, USDA-ARS. Molecular data revealed a 100 percent match with *S. citricola*. In Florida, the aphids were found on mango fruit. A follow-up survey revealed colonies on mangos at several residences in the vicinity, but not on neighboring citrus or *Murraya*. Colonies on mangos look very similar to those of *Aphis odinae* (van der Goot) (mango aphid), which is not found in the continental United States. Adult *S. citricola* have longer posterior appendages than *A. odinae*, especially a conspicuously large, black cauda (tail). This species is not known to transmit plant pathogens. Its economic impact in Florida is not known at this time. (Manatee County; E2021-2968; Prem Kumar, USDA-APHIS-PPQ; 10 June 2021.) (Dr. Susan Halbert and Matthew Moore).

5 - *Porphyrosela minuta* Clark.
Photo by Kevin Burnette, FDACS-DPI

6a - *Sinomegoura citricola* (van der Goot), an aphid.
Photo by Lyle Buss, University of Florida

6b - Colonies of *Sinomegoura citricola* (van der Goot) on mangos.
Photos by Prem Kumar, USDA-APHIS-PPQ and Susan Youngblood, FDACS-DPI

REFERENCES

Katz, A. D., Giordano, R. and Soto-Adames, F. (2015). Taxonomic review and phylogenetic analysis of fifteen North American *Entomobrya* (Collembola, Entomobryidae), including four new species. *Zookeys* 525: 1-75. Taxonomic review and phylogenetic analysis of fifteen North American Entomobrya (Collembola, Entomobryidae), including four new species (pensoft.net) [accessed 14 July 2021].

ENTOMOLOGY SPECIMEN REPORT

Following are tables with entries for records of new hosts or new geographical areas for samples identified in the current volume's time period as well as samples of special interest. An abbreviated table, with all the new records, but less detail about them, is presented in the body of this web page and another version with more complete data is downloadable as a PDF or an Excel spreadsheet.

The tables are organized alphabetically by plant host if the specimen has a plant host. Some arthropod specimens are not collected on plants and are not necessarily plant pests. In the table below, those entries that have no plant information included are organized by arthropod name.

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
Acalypha wilkesiana	Jacob's-coat; copperleaf; beefsteak plant	*Nipaecoccus viridis*	lebbeck mealybug	LeAnn West	NEW FLORIDA HOST RECORD
Acer rubrum	red maple	*Coccobaphes frontifer*	plant bug	Lyle Buss	NEW FLORIDA COUNTY RECORD
Acer sp.		*Coccobaphes frontifer*	plant bug	Connor Kuppe	NEW FLORIDA COUNTY RECORD
Apium graveolens	celery	*Cavariella aegopodii*	carrot aphid	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Apium graveolens	celery	*Myzus cymbalariae*	aphid	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Cannabis sativa	hemp	*Nipaecoccus viridis*	mealybug	Lance Osborne	NEW FLORIDA HOST RECORD
Cannabis sativa	hemp	*Saissetia miranda*	Mexican black scale	Lance Osborne	NEW FLORIDA HOST RECORD
Capsicum annuum	pepper	*Bactericera cockerelli*	potato psyllid	Victoria Benjamin	REGULATORY SIGNIFICANT
Capsicum annuum	pepper	*Bactericera cockerelli*	potato psyllid	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Capsicum annuum	pepper	*Bactericera cockerelli*	potato psyllid	Victoria Benjamin	REGULATORY SIGNIFICANT
Cichorium endivia	endive, escarole, frisee	*Ceratagallia californica*	leafhopper	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Cichorium endivia	endive, escarole, frisee	*Ceratagallia californica*	leafhopper	Logan Cutts, Ryan Brown	REGULATORY SIGNIFICANT
Cichorium endivia	endive, escarole, frisee	*Nasonovia ribisnigri*	currant-lettuce aphid	Logan Cutts, Ryan Brown	REGULATORY SIGNIFICANT
Cinnamomum verum	cinnamon	*Aulacaspis tubercularis*	armored scale	Pattanjalidal Bissoondial	NEW FLORIDA HOST RECORD
Cinnamomum verum	cinnamon	*Nipaecoccus nipae*	coconut mealybug	Pattanjalidal Bissoondial	NEW FLORIDA HOST RECORD
Cinnamomum verum	cinnamon	*Paraleyrodes bondari*	Bondar's nesting whitefly	Pattanjalidal Bissoondial	NEW FLORIDA HOST RECORD
Citrus aurantium	sour orange	*Acrolophus harparsen*	grass tubeworm moth	Steven Reams	NEW FLORIDA COUNTY RECORD
Citrus limon	lemon	*Hoplitimyia mutabilis*	soldier fly	Shasta Thomason	NEW FLORIDA COUNTY RECORD
Citrus x *paradisi*	grapefruit	*Atherigona reversura*	bermudagrass stem maggot	Liane Pizzo	NEW FLORIDA COUNTY RECORD
Citrus x *paradisi*	grapefruit	*Bactra priapeia*	tortricid moth	Alexander Tasi	NEW FLORIDA COUNTY RECORD
Colocasia esculenta	dasheen, wild taro, taro	*Tarophagus colocasiae*	taro planthopper	Chase Groninger, Victoria Benjamin, Alexander Tasi, Jeanie Frechette	NEW FLORIDA COUNTY RECORD
Cynara cardunculus	cardoon, artichoke	*Platyptilia carduidactyla*	artichoke plume moth	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Dodonaea viscosa	varnish leaf, hopseed bush	*Nipaecoccus viridis*	lebbeck mealybug	LeAnn West	NEW FLORIDA HOST RECORD
Dypsis lutescens	areca palm, yellow butterfly palm, golden cane palm, Madagascar palm	*Fiorinia phantasma*	phantasma scale	Pattanjalidal Bissoondial	NEW FLORIDA COUNTY RECORD
Echinodorus grisebachii	Amazon sword	*Opiconsiva anacharsis*	delphacid planthopper	Alexander Tasi	REGULATORY SIGNIFICANT
Eriobotrya japonica	loquat, Japanese plum	*Cenopis diluticostana*	leafroller	Connor Kuppe	NEW FLORIDA COUNTY RECORD
Fragaria x *ananassa*	garden strawberry	*Botocudo* sp.	seed bug	Eric Dougherty	REGULATORY SIGNIFICANT
Fragaria x *ananassa*	garden strawberry	*Ceratagallia californica*	leafhopper	Logan Cutts, Eric Dougherty, Dyrana Russell	REGULATORY SIGNIFICANT
Fraxinus pennsylvanica	green ash, red ash	*Aceria fraxiniflora*	eriophyoid mite	Douglas Restom-Gaskill	NEW FLORIDA COUNTY RECORD
Fraxinus sp.		*Chrysobothris scitula*	buprestid beetle	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
Ixora sp.		*Asiothrixus antidesmae*	ixora whitefly	Emily Safran	NEW FLORIDA COUNTY RECORD
Juniperus virginiana	eastern red cedar	*Eudociminus mannerheimii*	cypress weevil	Jeffrey Eickwort	NEW FLORIDA COUNTY RECORD; NEW FLORIDA HOST RECORD
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Acyrthosiphon lactucae*	lettuce aphid	Logan Cutts, Eric Dougherty, Dyrana Russell, Bryan Benson, Trevor R. Smith	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Acyrthosiphon lactucae*	lettuce aphid	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Ceratagallia californica*	leafhopper	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Ceratagallia californica*	leafhopper	Logan Cutts, Ryan Brown	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Deltocephalus fuscinervosus*	leafhopper	Logan Cutts, Ryan Brown	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Metopolophium dirhodum*	rose grass aphid	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Eric Dougherty, Noah Kolander	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Lactuca sativa	lettuce, romaine lettuce, leaf lettuce	*Nasonovia ribisnigri*	currant-lettuce aphid	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Lagerstroemia indica	crape myrtle	*Lopholeucaspis japonica*	Japanese maple scale	Logan Cutts, Eric Dougherty, Dyrana Russell, Anna Foran, Mary Salinas	NEW FLORIDA COUNTY RECORD
Lagerstroemia indica	crape myrtle	*Telamona woodruffi*	treehopper	Lisa Tyler	NEW FLORIDA COUNTY RECORD
Lagerstroemia sp.		*Acanthococcus lagerstroemiae*	crapemyrtle scale	Mary Salinas	NEW FLORIDA STATE RECORD
Lavandula sp.		*Eupteryx decemnotata*	Ligurian leafhopper	Tavia Gordon	REGULATORY SIGNIFICANT
Lavandula sp.		*Eupteryx decemnotata*	Ligurian leafhopper	Mary "Janie" Echols	QUARANTINABLE PEST
Lavandula sp.		*Eupteryx decemnotata*	Ligurian leafhopper	Mark Laurint	QUARANTINABLE PEST
Lavandula sp.		*Eupteryx decemnotata*	Ligurian leafhopper	Lisa Tyler	REGULATORY SIGNIFICANT
Lavandula sp.		*Eupteryx decemnotata*	Ligurian leafhopper	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Litchi chinensis	litchi, leechee	*Aceria litchii*	lychee erinose mite	Rafael Martinez	NEW FLORIDA COUNTY RECORD
Litchi chinensis	litchi, leechee	*Crocidosema longipalpana*	litchi budworm	Owner	NEW FLORIDA COUNTY RECORD
Macroptilium lathyroides	wild bushbean	*Megalurothrips usitatus*	Asian bean thrips	Daniel Nunez, Susan Halbert	NEW FLORIDA HOST RECORD
Mangifera indica	mango	*Asiothrixus antidesmae*	ixora whitefly	Chentelle Viloria	NEW FLORIDA HOST RECORD
Mangifera indica	mango	*Sinomegoura citricola*	aphid	Prem Kumar	NEW FLORIDA STATE RECORD
Matricaria chamomilla	chamomile	*Neotoxoptera oliveri*	aphid	Nicole Casuso	NEW FLORIDA HOST RECORD
Odontonema sp.		*Nipaecoccus viridis*	lebbeck mealybug	LeAnn West	NEW FLORIDA HOST RECORD
Passiflora sp.		*Chondrocera laticornis*	coreid bug	Shasta Thomason	NEW FLORIDA COUNTY RECORD
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Eric Dougherty, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Dyrana N. Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Logan Cutts, Ryan Brown, Dyrana Russell	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Ryan Brown	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Ryan Brown	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Ryan Brown	REGULATORY SIGNIFICANT
Persea americana	avocado, alligator pear; aguacate	*Davidsonaspis aguacatae*	armored scale	Eric Dougherty	REGULATORY SIGNIFICANT
Psychotria nervosa	wild-coffee, Seminole balsamo	*Mimorista* sp.	crambid moth	Stephen Brown	NEW FLORIDA HOST RECORD
Psychotria tenuifolia	shortleaf wild coffee	*Desmia ploralis*	crambid moth	Stephen Brown	NEW FLORIDA HOST RECORD
Pyrus calleryana	callery pear	*Scaphytopius elegans*	leafhopper	Connor Kuppe	NEW FLORIDA COUNTY RECORD
Quercus hemisphaerica	Darlington's oak, laurel oak	*Thelaxes suberi*	southern oak thelaxid	Mark Rothschild, Tavia Gordon, Jeffrey Eickwort, Greg Barton, Catherine White, Susan Halbert, Rachel Slocumb, Maxine Hunter	NEW FLORIDA HOST RECORD
Quercus nigra	water oak	*Thelaxes suberi*	southern oak thelaxid	Mark Rothschild, Tavia Gordon, Jeffrey Eickwort, Greg Barton, Catherine White, Susan Halbert, Rachel Slocumb, Maxine Hunter	NEW FLORIDA HOST RECORD
Quercus virginiana	live oak	*Tropidosteptes quercicola*	mirid plant bug	Jeffrey Eickwort	NEW FLORIDA COUNTY RECORD; NEW FLORIDA HOST RECORD
Rosmarinus officinalis	rosemary	*Eupteryx decemnotata*	Ligurian leafhopper	Mark Laurint	QUARANTINABLE PEST
Rosmarinus officinalis	rosemary	*Eupteryx decemnotata*	Ligurian leafhopper	Lisa Tyler	REGULATORY SIGNIFICANT
Rosmarinus officinalis	rosemary	*Eupteryx decemnotata*	Ligurian leafhopper	Lisa Tyler	REGULATORY SIGNIFICANT
Rosmarinus officinalis	rosemary	*Eupteryx decemnotata*	Ligurian leafhopper	Lisa Tyler	REGULATORY SIGNIFICANT
Rosmarinus officinalis	rosemary	*Eupteryx decemnotata*	Ligurian leafhopper	Diane McColl	QUARANTINABLE PEST
Rubus sp.		*Rhinacloa forticornis*	plant bug	Alexander Tasi	REGULATORY SIGNIFICANT
Salvia lyrata	lyreleaf sage	*Toxomerus boscii*	flower fly	Connor Kuppe	NEW FLORIDA COUNTY RECORD
Schinus terebinthifolia	Brazilian pepper tree, Florida holly, Christmas berry	*Eratoneura igella*	leafhopper	Angela Ortiz	NEW FLORIDA COUNTY RECORD
Solanum lycopersicum	garden tomato, tomate, jitomate	*Lepidocyrtus fimicolus*	springtail	Lilliam Otero Pujol	NEW FLORIDA COUNTY RECORD
Solanum lycopersicum	garden tomato, tomate, jitomate	*Leptothrips pini*	thrips	Sara Furgeson	NEW FLORIDA COUNTY RECORD
Solanum lycopersicum	garden tomato, tomate, jitomate	*Spissistilus festinus*	threecornered alfalfa hopper	Rafia Khan	NEW FLORIDA HOST RECORD
Tecoma capensis	cape honeysuckle	*Nipaecoccus viridis*	lebbeck mealybug	LeAnn West	NEW FLORIDA HOST RECORD
Terminalia buceras		*Ectomerus triquetrus*	an eriophyoid mite	Alexander Tasi	NEW US CONTINENTAL RECORD
Trifolium repens	white clover, Dutch clover	*Porphyrosela minuta*	clover leafminer	Robert Leahy	NEW FLORIDA STATE RECORD
Vaccinium sp.		*Nipaecoccus viridis*	mealybug	Lance Osborne	NEW FLORIDA HOST RECORD
Vigna unguiculata	cowpea, field pea, bean	*Megacopta cribraria*	kudzu bug	Owner	NEW FLORIDA HOST RECORD
Zanthoxylum fagara	wild-lime, lime prickly-ash	*Falconia maculipennis*	wild lime bug	Edmund Thralls	NEW FLORIDA COUNTY RECORD
Zea mays	corn, maize, Indian corn, elote	*Bactericera nigrilla*	willow psyllid	Lilliam Otero Pujol	NEW FLORIDA COUNTY RECORD
Zea mays	corn, maize, Indian corn, elote	*Delphacodes truncata*	delphacid planthopper	Lilliam Otero Pujol	NEW FLORIDA COUNTY RECORD
		Agrotis apicalis	cutworm moth	Connor Kuppe	NEW FLORIDA COUNTY RECORD
		Bactericera nigrilla	willow psyllid	Julien Beuzelin	NEW FLORIDA COUNTY RECORD

PLANT SPECIES	PLANT COMMON NAME	ARTHROPOD GENUS AND SPECIES	ARTHROPOD COMMON NAME	COLLECTOR	RECORD
		Bactericera nigrilla	willow psyllid	Robert Leahy	NEW FLORIDA COUNTY RECORD
		Blastopsylla occidentalis	eucalyptus psyllid	Sara Furgeson	NEW FLORIDA COUNTY RECORD
		Cistalia signoreti	seed bug	Monica Triana	NEW FLORIDA COUNTY RECORD
		Desoria flora	springtail	Matt Lollar	NEW FLORIDA COUNTY RECORD
		Ecdytolopha mana	redbud gallmaker	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Entomobrya unifasciata	springtail	Krystal Ashman, Robert Leahy	NEW FLORIDA STATE RECORD
		Erechthias sp.	tineid moth	Phellicia Perez	NEW FLORIDA COUNTY RECORD
		Gymnandrosoma desotanum	tortricid moth	Douglas Restom-Gaskill	NEW FLORIDA COUNTY RECORD
		Heterothrips vitis	thrips	Max Carfagno, Scott Weihman	NEW FLORIDA COUNTY RECORD
		Leptothrips pini	thrips	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Muellerianella meadi	delphacid planthopper	James Bouie, Joseph Hanus	NEW FLORIDA COUNTY RECORD
		Murgantia violascens	stink bug	Christina Urbina, Keith Zugar	NEW FLORIDA COUNTY RECORD
		Ophiderma pubescens	treehopper	Oscar Orta	NEW FLORIDA COUNTY RECORD
		Orchesella bulba	springtail	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Palpita kimballi	crambid moth	James Hayden	NEW FLORIDA COUNTY RECORD
		Phenacoccus solenopsis	solenopsis mealybug	Tavia Gordon	NEW FLORIDA HOST RECORD
		Phorodon cannabis	cannabis aphid	Max Carfagno	NEW FLORIDA STATE RECORD
		Pissonotus dentatus	delphacid planthopper	Monica Triana	NEW FLORIDA COUNTY RECORD
		Prokelisia marginata	delphacid planthopper	Krystal Ashman	NEW FLORIDA COUNTY RECORD
		Salina celebensis	Sulawesi grass springtail	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Scirtothrips citri	California citrus thrips	Phellicia Perez	NEW FLORIDA COUNTY RECORD
		Seira cryptica	springtail	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Sixeonotus tenebrosus	mirid bug	Max Carfagno	NEW FLORIDA COUNTY RECORD
		Sophonia orientalis	two-spotted leafhopper	Krystal Ashman, Robert Leahy	NEW FLORIDA COUNTY RECORD
		Sthenaridea vulgaris	plant bug	Max Carfagno	NEW FLORIDA COUNTY RECORD
		Trichosiphonaphis polygonifoliae	aphid	James Bouie, Joseph Hanus	NEW FLORIDA COUNTY RECORD
		Tytthus parviceps	predaceous plant bug	Douglas Restom-Gaskill	NEW FLORIDA COUNTY RECORD
		Xanthaciura chrysura	fruit fly	Connor Kuppe	NEW FLORIDA COUNTY RECORD

NEMATOLOGY

Compiled by Renato Inserra, Ph.D.; Janete Brito, Ph.D. and Silvia Vau, 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

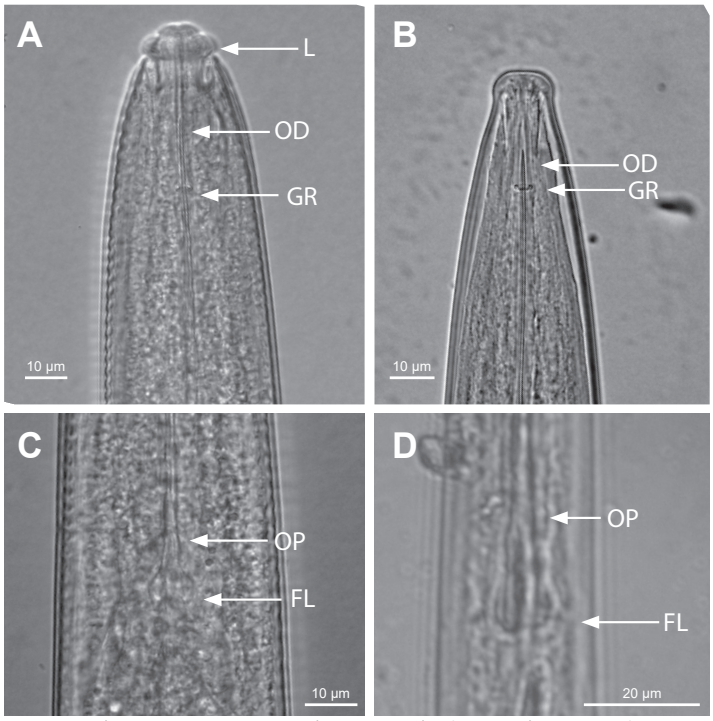
	APRIL-JUNE	2021 - YEAR TO DATE
Morphological Identifications	3,339	**6,704**
Molecular Identifications *	323	**554**
Total Identifications	3,662	**7,258**

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

Nematode of Special Interest

1 The dorylaimid nematode, ***Xiphinemella esseri* Chitwood, 1957,** was found associated with *Quercus virginiana* Mill., live oak, in Alachua, Florida (Alachua County**;** N20-00466; Charles Spriggs; May 2020).

A population of the dorylaimid nematode *Xiphinemella esseri* Chitwood, 1957, was found in regulatory samples collected from a tree farm in Alachua County. This species was found and described more than 60 years ago by B.G. Chitwood on *Quercus falcata* Michx. (southern red oak) in Gainesville, Florida. Species of the genus *Xiphinemella* Loos, 1950, have been reported in several continents; however, in the United States, this genus has been found only in Florida where it is represented by the single species *X. esseri*. *Xiphinemella* species are characterized by having a labial region with six well-defined lips and a hollow, protrusible spear, much like dagger and needle nematodes. This spear consists of a pointed odontostyle with an anterior guiding ring as in needle nematodes (such as *Longidorus* spp.) and a basal portion, called an odontophore, having flanges (ribs), for the attachment of protractor muscles as in dagger nematodes (such as *Xiphinema* spp.). The spear allows the nematode to perforate root cells and ingest their contents and may be used by the nematode to parasitize plants as suggested by Chitwood (1957) for *X. esseri*. However, there is no scientific evidence *Xiphinemella* species have plant parasitic habits. Despite the similarity of the spear of *Xiphinemella* species with dagger and needle nematodes, which belong to the family Longidoridae Thorne, 1935, the genus *Xiphinemalla* has been classified morphologically under the family Leptonchidae Thorne, 1935. The results of phylogenetic analyses using 18S rRNA gene sequences of this population of *X. esseri* indicated



1 - Photomicrographs of the spear in the anterior body region of female of *Longidorus longicaudatus*, *Xihinema setariae* and *Xiphinemella esseri* from Florida. A, C: *X. esseri*; B: *L. longicaudatus*; D: *X. setariae*. Note the similarities in the position of guiding ring (GR) and shape of odontostyle (OD) between X.*esseri* and L. *longicaudatus* and in the shape of the odontophore (OP) with flanges (FL) between X. *esseri* and X. *setariae*. L=lip. Photo by Silvia Vau and Scott Burton, FDACS-DPI

these sequences grouped together with several other genera of the family Leptonchidae, confirming the morphological classification (Álvarez-Ortega *et al.*, 2020). The potential plant parasitism of *X. esseri* remains unsolved and has yet to be demonstrated by field and microplot studies.

REFERENCES

Álvarez-Ortega, S., Subbotin, S. A. and Inserra, R. N. (2021). Morphological and molecular characterization of *Xiphinemella esseri* Chitwood, 1957 (Dorylaimida: Leptonchidae) from Florida, with the first molecular study of the genus. *Journal of Nematology* 53: 1-9. DOI: 10.21307/jofnem-2021-032.

Chitwood B. G. (1957). A new species of *Xiphinemella* Loos, 1950 (Nematoda) from Florida. *Proceedings of the Helminthological Society of Washington* 24: 53-56.

COLLECTORS

Collectors submitting five or more samples processed for nematological analysis during April-June 2021.

COLLECTOR NAME	SAMPLES PROCESSED
Alford, Brian	15
Anderson, James	7
Areingdale, Ricardo	5
Bentley, Michael	63
Berryman, Scott	8
Blanco, Rogelio	186
Bloom, Richard	5
Brown, David	13
Burgos, Frank	276
Clanton, Keith	119
Cutts, Logan	19
Daniel, Samantha	7
Desmarais, Sarah	184
Echols, Janie	26
Hart, Sam	24
Kelly, Ethan	7
Krueger, Scott	6
Lara, Milton	9
Laurint, Mark	5
Llanos, Jose	42
Marquez, Nora	62
Miller, Matthew	17
Paney, Abby	5
Rojas, Eric	167
Taylor, Donald	6
Violett, Larry	9
Wolfe, David	18
Yates, Johnny	5
Yu, Wangze	6

SAMPLES FOR MORPHOLOGICAL ANALYSIS

	APRIL-JUNE	2021 - YEAR TO DATE
Multistate Certification for National and International Export	2,075	**3,982**
California Certification	258	**702**
Pre-movement (Citrus Nursery Certification)	40	**118**
Site or Pit Approval (Citrus Nursery and Other Certifications)	84	**91**

OTHER PURPOSES

	APRIL-JUNE	2021 - YEAR TO DATE
Identifications (Other Organisms)	0	**0**
Nematology Investigation	0	**0**
Plant Problems	40	**63**
Intrastate Survey, Random	248	**467**
Total	2,745	**5,453**

SAMPLES FOR MOLECULAR ANALYSIS

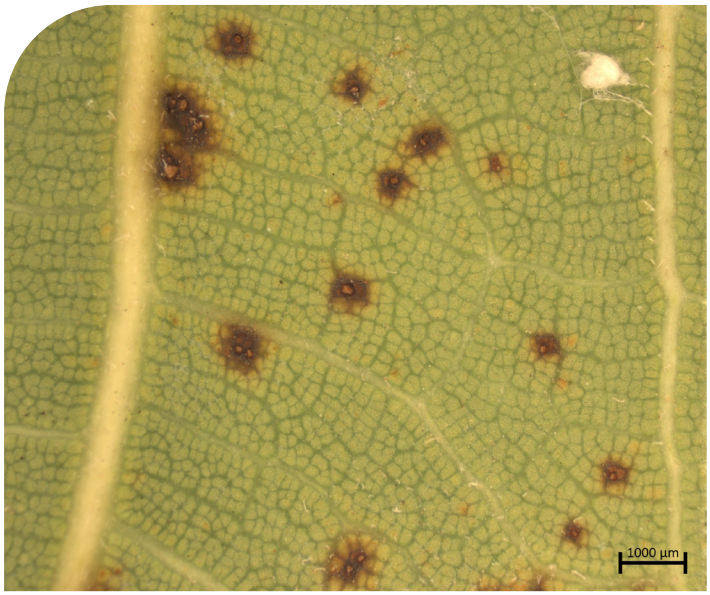
	APRIL-JUNE	2021 - YEAR TO DATE
Regulatory Purposes	323	**554**
Other Purposes	0	**0**
Identifications	0	**0**
Surveys	0	**0**
Total	323	**554**

PLANT PATHOLOGY

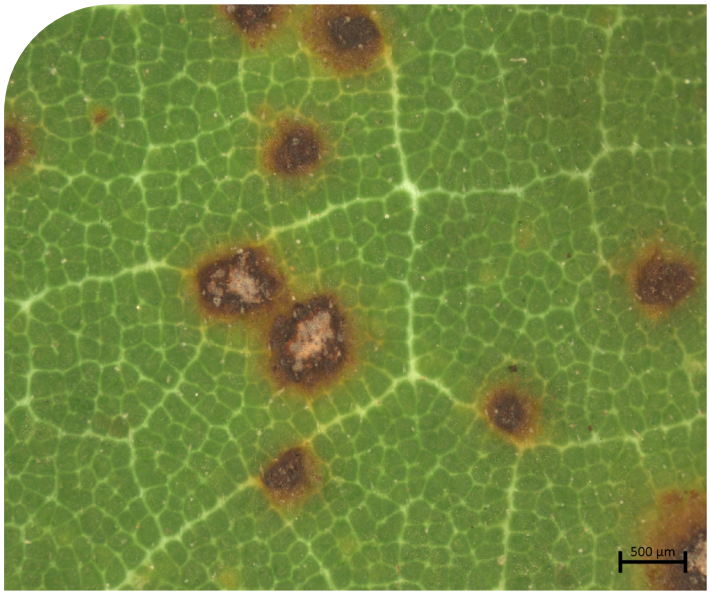
Compiled by Hector Urbina, Ph.D.; Jodi Hansen, M.S.; Taylor Smith, B.S.;
Kishore Dey, Ph.D.; Callie Jones, and Maria Velez-Climent, M.S.

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

1 ***Physopella artocarpi*** **(Berk. & Broome) Arthur (breadfruit rust)** (Phakopsoraceae, Pucciniales, Basidiomycota) is a **new Continental USA record** found on tropical fruit tree *Artocarpus altilis* (Parkinson) Fosberg (breadfruit) in the plant family, Moraceae, collected in a residential property in southeastern Florida. *Physopella artocarpi* (formerly known as *Uredo artocarpi*) has been reported as a pathogen on *A. altilis* in the Cook Islands, Fiji, Guyana, Hawaii, Niue, Puerto Rico, Samoa, Tonga and the Virgin Islands, as well as on other species of *Artocarpus* in several South American countries and on *Castilla elastica* (also Moraceae) in Cuba. Symptoms of the disease caused by *P. artocarpi* are characterized by minute (< 0.5 mm diam) erumpent pustules (known as uredinia), which may be discrete or in clusters and are produced only on the undersides of leaves, and by small (< 2.0 mm diam), flat, brown leaf spots on the upper sides. Seen under the microscope, spores (known as urediniospores) are approximately 20 µm in length, hyaline to yellowish, semi-globose to ovoid, thin-walled and echinulate. The genus *Physopella* is comprised of at least 28 accepted species, after the transfer of several species to the genera *Cerotecium* and *Phakaspora*; however, the taxonomy and systematics of this genus remain poorly understood, as is its detrimental impact on host health and crop yields. (Broward County; P-107619; Pattanjalid Bissoondial, USDA; 20 May 2021.)



1a – *Physopella artocarpi*, breadfruit rust, on breadfruit leaf underside, showing fresh uredinia.
Photo by Hector Urbina, FDACS-DPI



1b – *Physopella artocarpi*, breadfruit rust, on breadfruit leaf upper side, showing dry leaf spot.
Photo by Hector Urbina, FDACS-DPI

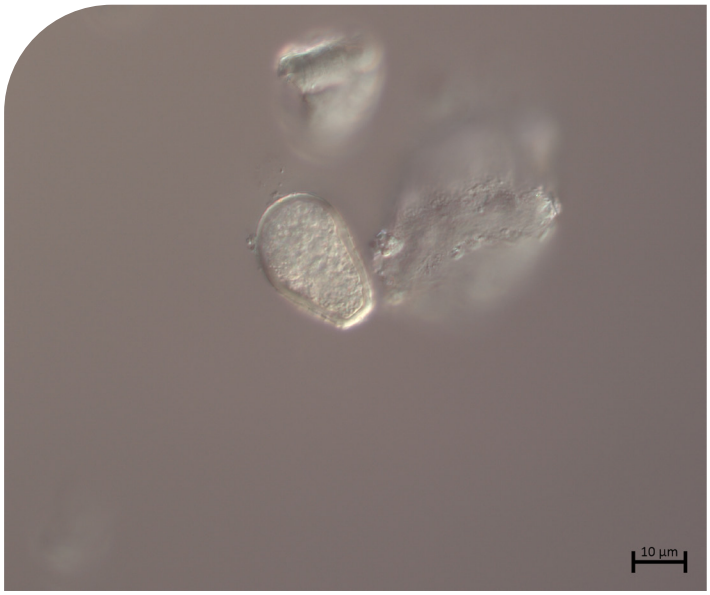
REFERENCES

Gardner, D.E. (1991). Occurrence of breadfruit rust, caused by *Uredo artocarpi*, in Hawaii. *Plant Disease* 75: 968. DOI: 10.1094/PD-75-0968A.

Farr, D.F. and Rossman, A.Y. (n.d.) Fungal Databases, U.S. National Fungus Collections, ARS, USDA. https://nt.ars-grin.gov/fungaldatabases/ [accessed 23 July 2021].

QUARTERLY ACTIVITY REPORT

	APRIL-JUNE	2021 - YEAR TO DATE
Budwood	0	**0**
Citrus black spot	31	**106**
Citrus canker	196	**228**
Citrus greening / HLB	95	**662**
HLB Certification for out of state shipping	4,783	**4,783**
Interdictions	81	**99**
Laurel wilt	1	**3**
Pathology, General	994	**1,317**
Soil	24	**38**
Sudden oak death	4	**4**
Sweet orange scab-like disease	1	**1**
Texas Phoenix palm decline	9	**15**
Water	1	**1**
Miscellaneous	1	**2**
Totals	6,221	**7,259**



1c – *Physopella artocarpi*, breadfruit rust, urediniospore.
Photo by Hector Urbina, FDACS-DPI

PLANT PATHOLOGY IDENTIFICATION TABLE

The following table provides information about samples identified between April-June 2021. The table is organized alphabetically by plant species, with new records listed on the right.

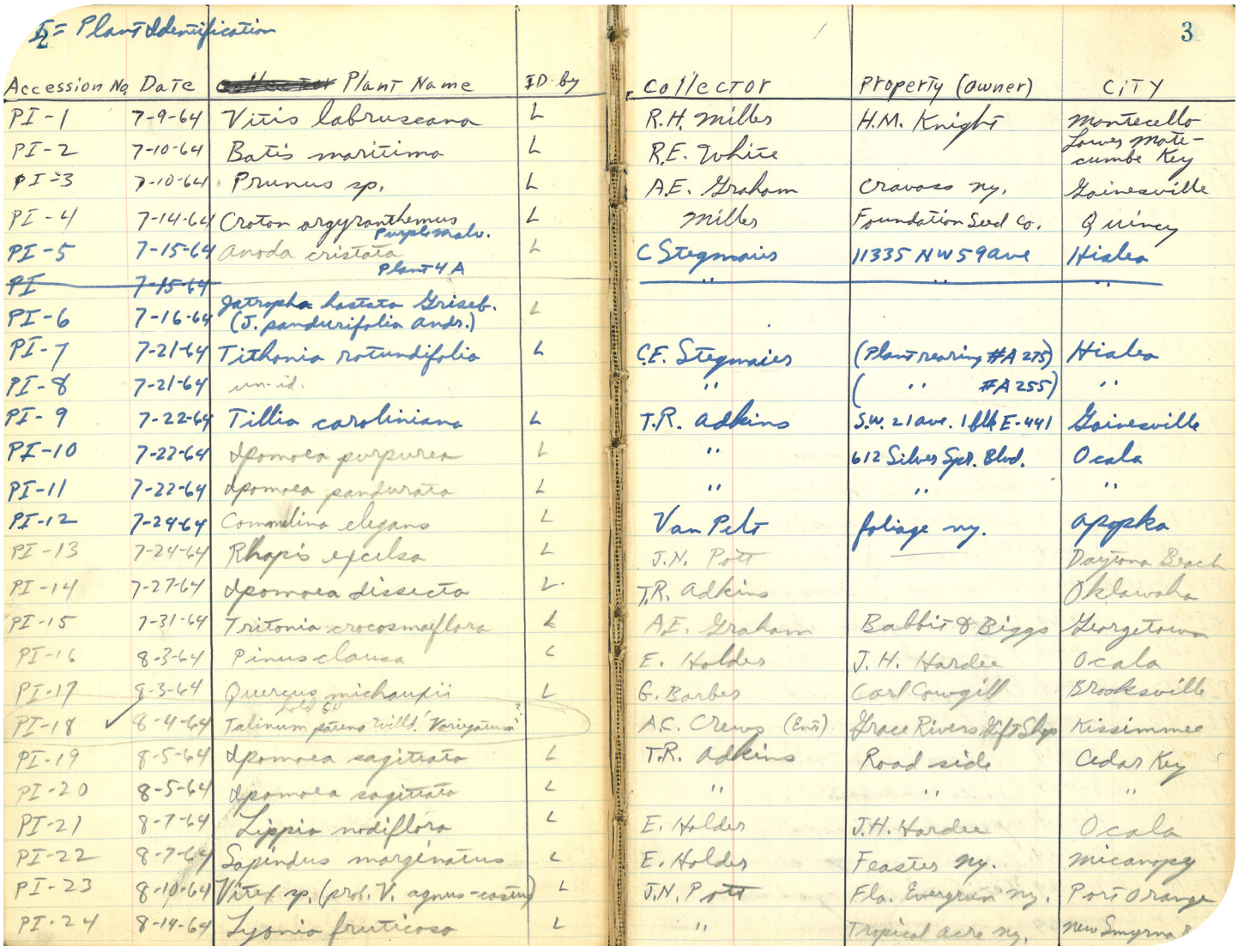
PLANT SPECIES	PLANT COMMON NAME	CAUSAL AGENT	DISEASE NAME	LOCATION TYPE	SPECIMEN NUMBER	COUNTY	COLLECTOR	DATE	NEW RECORDS
Artocarpus altillis	breadfruit	*Physopella artocarpi*	rust	residential	107619	Broward	Pattanjalid Bissoondial	5/20/2021	continental
Cucurbita maxima	pumpkin	*Begomovirus Sida golden mottle virus*	Sida golden mottle virus	community garden	106857	Sarasota	Doug Restom Gaskill	3/24/2021	host
Cucurbita pepo	field pumpkin and summer squash	*Begomovirus Sida golden mottle virus*	Sida golden mottle virus	community garden	106252	Lee	Doug Restom Gaskill	1/13/2021	county
Cucurbita pepo	field pumpkin and summer squash	*Begomovirus Sida golden mottle virus*	Sida golden mottle virus	community garden	106857	Sarasota	Doug Restom Gaskill	3/24/2021	host
Curcubita sp.	squash	*Begomovirus Sida golden mottle virus*	Sida golden mottle virus	agricultural site	106566	Collier	Claudia Torres	2/22/2021	county
Rubus sp.	blackberry	*Crinivirus blackberry yellow vein associated virus*	blackberry yellow vein associated virus	nature preserve	106871	Suwannee	Robert Leahy, Krystal Ashman	3/26/2021	state
Sabal palmetto	cabbage palm, palmetto	*Phytoplasma palmae*	Texas Phoenix Palm Decline	elementary school	108101	Union	Jeffrey M. Eickwort	6/17/2021	county
Zea mays	corn	*Phyllachora maydis*	Maize tar spot	agricultural site	106759	Miami-Dade	Lilliam Otero Pujol	3/17/2021	county

FROM THE EDITOR

By Patti J. Anderson

The Division of Plant Industry herbarium and Office of Systematic Botany began in 1964 under the direction of Dr. Kenneth Langdon, formerly of the Nematology Section in our bureau. During a recent search for information, a trove of historical treasures was found in the botany office. The first logbook for the botany section was resting on a high shelf. Seeing the entries for July 9, 1964, with the report numbers 1 – 24 led to the question of how much our work, and record-keeping, had changed over the years since that first page was written. As you can see from the image below, the page listed plant identifications from July 9 through August 14 and included 24 identifications. Just for an example of changes, a report of the plant identifications for the same period in 2014 (50 years later) included 87 plant identifications. The current reporting system is computerized, of course, and easy to read but lacks the charm of Dr. Langdon's handwritten records. And we still see many of the same plant species for identification…but none of the same people are sending them. An excerpt from the more recent report is also included below.

Dr. Langdon, born August 20, 1928, was an unusual herbarium curator, having studied Plant Pathology for a B.S. and M.S. from Oklahoma State University. His Ph.D. from the University of Florida was also in Plant Pathology, but with additional focus on Botany and Nematology. He was hired to work at DPI, as a nematologist, then as the Division's first botanist. He retired in 1991 and passed away in 2017.



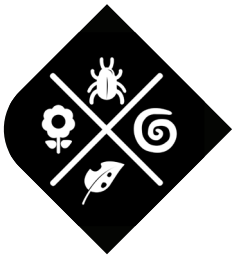
PI = Plant Identification — 3

Accession No.	Date	Plant Name	ID By	Collector	Property (owner)	City
PI-1	7-9-64	Vitis labruscana	L	R.H. Mills	H.M. Knight	Montecello
PI-2	7-10-64	Batis maritima	L	R.E. White		Lower Matecumbe Key
PI-3	7-10-64	Prunus sp.	L	A.E. Graham	Cravens ny.	Gainesville
PI-4	7-14-64	Croton argyranthemus Purple malv.	L	Mills	Foundation Seed Co.	Quincy
PI-5	7-15-64	Anoda cristata Plant 4A	L	C Stegmaier	11335 NW 59 ave	Hialea
~~PI~~	~~7-15-64~~			"	"	"
PI-6	7-16-64	Jatropha hastata Griseb. (J. pandurifolia Andr.)	L			
PI-7	7-21-64	Tithonia rotundifolia	L	C.E. Stegmaier	(Plant nearing #A 275)	Hialea
PI-8	7-21-64	un-id.		"	(" #A 255)	"
PI-9	7-22-64	Tillia caroliniana	L	T.R. Adkins	S.W. 21 ave. 1 blk E-441	Gainesville
PI-10	7-22-64	Ipomoea purpurea	L	"	612 Silver Spr. Blvd.	Ocala
PI-11	7-22-64	Ipomoea pandurata	L	"	"	"
PI-12	7-24-64	Commelina elegans	L	Van Pelt	foliage ny.	Apopka
PI-13	7-24-64	Rhapis ejcelsa	L	J.N. Pott		Daytona Beach
PI-14	7-27-64	Ipomoea dissecta	L	T.R. Adkins		Oklawaha
PI-15	7-31-64	Tritonia crocosmaeflora	L	A.E. Graham	Babbit & Biggs	Georgetown
PI-16	8-3-64	Pinus clausa	L	E. Holder	J.H. Hardee	Ocala
PI-17	8-3-64	Quercus michauxii	L	G. Barber	Carl Cowgill	Brooksville
PI-18	8-4-64	Talinum paniculatum Willd. Variegatum		A.C. Crews (Extr.)	Grace Rivers Hyt Shop	Kissimmee
PI-19	8-5-64	Ipomoea sagittata	L	T.R. Adkins	Road side	Cedar Key
PI-20	8-5-64	Ipomoea sagittata	L	"	"	"
PI-21	8-7-64	Lippia nodiflora	L	E. Holder	J.H. Hardee	Ocala
PI-22	8-7-64	Sapindus marginatus	L	E. Holder	Feasters ny.	Micanopy
PI-23	8-10-64	Vitex sp. (prob. V. agnus-castus)	L	J.N. Pott	Fla. Evergreen ny.	Port Orange
PI-24	8-14-64	Lysimia fruticosa	L	"	Tropical acre ny.	New Smyrna

Original plant identification ledger page from 1964.

BOTANY SAMPLE #	PLANT FAMILY	PLANT GENUS	PLANT SPECIES	COLLECTOR NAME	COLLECTED DATE	COUNTY
B2014-522	Lythraceae	Cuphea	hyssopifolia	Eduardo Varona, CAPS	6/27/2014	Miami-Dade
B2014-523	Myrtaceae	Syzygium	sp.	Andres Llanas, USDA	7/10/2014	Indian River
B2014-524	Rutaceae	Murraya	paniculata	Jake M. Farnum, Rosamaria Quiñones, Scott Shea	7/11/2014	Miami-Dade
AND SO ON…						
B2014-606	Amaranthaceae	Alternanthera	philoxeroides	Peter Carbon	8/14/2014	Lake
B2014-607	Guttiferae	Hypericum	crux-andreae	Mary C. Sellers, Christine A. Zamora, Stacey S. Simmons, Harry L. Morrison	8/7/2014	Lake
B2014-608	Verbenaceae	Clerodendrum	indicum	Mary C. Sellers, Christine A. Zamora, Stacey S. Simmons, Harry L. Morrison	8/7/2014	Lake

Example of plant identification log from 2014.



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