

## BOTANY SECTION Compiled by Richard E. Weaver, Jr., Ph.D.

For this period, 166 specimens were submitted to the Botany Section for identification, and 1,120 were received from other sections for identification/name verification for a total of 1,286. Also during this period, 56 specimens were added to the herbarium. Some of the samples sent in for identification are discussed below.

*Amianthium muscitoxicum* (Walt.) A. Gray. (A monotypic genus native to the eastern United States from Florida and Oklahoma to New York) Liliaceae (or Melanthiaceae). **Fly-poison.** The Liliaceae has traditionally included a diverse, cosmopolitan assemblage of plants, but some recent researchers have split the family, limiting it in the strict sense to *Lilium* and a few of its close Northern Hemisphere relatives such as *Tulipa*, *Erythronium*, and *Fritillaria*. Under their classification, *Amianthium* would be placed in the Melanthiaceae, along with genera such as *Zigadenus* and *Veratrum*. For the time being at least, we will be conservative and recognize the Liliaceae in the broad sense. Fly-poison is a slender herb with mostly basal, narrow, grass-like leaves, growing from a rudimentary bulb. The centimeter-wide flowers with six creamy white tepals and a conspicuous three-parted ovary are borne in a dense raceme which starts out ovate in outline, but eventually elongates to become cylindrical. The tepals persist until the fruit is mature, when it turns from green to brown. The inflorescence is borne on an erect scape 50-80 cm tall, with a few reduced leaves on the lower portion. Several cases of fatal livestock poisoning have been attributed to this species. All parts of the plant, especially the bulb, are seriously poisonous if ingested. (Santa Rosa County; B2005-304; Andrea Van Loan; 27 May 2005) (Fernald 1950; Kingsbury 1964)

*Averrhoa bilimbi* L. (A genus of two species, probably native to what is now Indonesia). Oxalidaceae (or Averrhoaceae) **Bilimbi, cucumber tree.** This is a close relative of the much more familiar carambola or star fruit (*Averrhoa carambola*), and like that species, it is native to Indonesia, probably the Moluccas. Although it is commonly planted and has naturalized widely throughout the Asian tropics, it is not common in the New World. In southern Florida, it is grown only as an occasional curiosity. This attractive and long-lived tree grows 5-10 m tall and has alternate, odd-pinnately compound leaves that are usually clustered at the tips of the branches. Unlike those of the carambola, with 5-11 nearly opposite leaflets, the leaves of the bilimbi have 11-37 usually alternate leaflets. Small fragrant flowers resembling those of an oxalis are borne in panicles directly on the trunk and large branches. The fruits, 10-15 cm long and pale yellow when mature, are ellipsoid and somewhat five-sided, but without the prominent ridges of the carambola. For most people, they are too acid to be eaten raw and are used primarily in relishes, pickles, jams and chutney. (Miami-Dade County; B2005-220; Edward T. Putland; 26 April 2005) (Morton 1987)

*Avicennia germinans* L. (A genus of four to seven species native to tropical and subtropical regions around the world) Verbenaceae (or Avicenniaceae). **Black mangrove.** This is a widely distributed and familiar plant, inhabiting coastal habitats from Louisiana and Florida through the Bahamas and the Caribbean islands to South America as far south as Brazil. A barely distinguishable species occurs in West Africa. In Florida, it is found along the coast from St. Johns County on the Atlantic to Franklin County in the Panhandle. It is the most widespread of

Florida's three mangrove species and the most cold-hardy, although it occasionally freezes back severely at the northern extremes of its range. While it very seldom does so, the black mangrove can grow equally as well in fresh as in salty or brackish water. Within the coastal zone, it occupies a position at a slightly higher tidal elevation than the red mangrove (*Rhizophora mangle*). The tree produces an extensive, but shallow, root system from which are produced a carpet of slender, upright, aerial pneumatophores. These structures are spongy and porous and thought to provide air to the roots, an adaptation for growing in waterlogged soils. In South Florida, the black mangrove may form a large tree as much as 20 m tall. At its northern limit, it is often only a shrub. The 5-8 cm long opposite, evergreen leaves, borne on square twigs, are conspicuously paler beneath, oblong to elliptic in shape, rounded at the apex and tapered to the base. Salt is excreted from microscopic glands in the leaves, and salt crystals are often found encrusted on both surfaces of the leaves. The conspicuous, centimeter-wide fragrant flowers, with four white corolla lobes are borne in terminal, leafy inflorescences. Upon pollination, usually by bees, the fruit develops rapidly, with the "seed" germinating and remaining inside the fruit. When the fruit falls, the wall splits, releasing the fully developed embryo to float about, eventually taking root when it encounters a patch of sand. (Flagler County; B2005-344; Stacey S. Simmons; 10 June 2005) (Sargent 1949; Tomlinson 1980; <http://www.plantatlas.usf.edu>)

*Brachychiton acerifolius* F.J. Muell. (A genus of 31 species native to Australia and New Guinea.) Sterculiaceae. **Flame bottle tree.** This tree is widespread in eastern Australia, in wet forests or in coastal scrub, and is often considered one of the most spectacular of that continent's many ornamental trees. In the wild, it may reach 40 m tall, but is generally much shorter, especially when cultivated in cooler areas. The tree often develops a somewhat swollen trunk, giving rise to the common name "bottle tree." The large (up to 20 cm long and 25 cm wide) alternate leaves are somewhat variable in shape, usually palmately lobed as in a maple tree, but sometimes broadly ovate and unlobed. The small, bright red, five-parted flowers, borne in very large terminal panicles, are bell-shaped and apetalous, with the showy parts being the sepals. Flowering is variable depending on the season. If it has been wet, the tree defoliates only partially, and the flowers are somewhat sparse and hidden by the leaves. If it has been dry, all the leaves are shed, and the tree is completely covered with the bright red blooms. The flame bottle tree can take some frost, but does not seem to be widely grown in the United States. Although it is occasionally cultivated in Florida, this species probably blooms best in the dry climate of southern California. (Pinellas County; B2005-358; William J. Salway; 14 June 2005) (Elliot and Jones 1982)

*Canna x generalis* L.H. Bailey. (A genus of ten species native to tropical America, with one species extending into the southeastern United States.) Cannaceae. **Garden canna, canna lily.** With their brightly colored flowers and bold foliage, cannas have long been a mainstay of the sunny garden in many parts of the United States. The garden cannas are hybrids between the small red-flowered *C. indica* and several of the larger flowered species including our native *C. flaccida*. The first hybrids appeared around 1860, and at present there are hundreds of named cultivars ranging in height from 60 cm to more than 2 m. The plants grow from a fleshy, branching rhizome which can be divided or cut up as a means of propagation. The broad banana-like leaves with sheathing petioles are arranged alternately on an erect, unbranched stem. The leaves are normally green, but in some cultivars they are purplish or variegated. The

flowers are borne in a spike which elongates with age. They are oddly constructed in that the petals and sepals are relatively inconspicuous, with the showy parts being three to five greatly expanded staminodes (sterile or antherless stamens). Color varies widely, from red and yellow through salmon to pink, and may be solid or variegated. Although at their best in full sun and a rich, moist soil, cannas are easy to grow in most home landscapes. The foliage is frost sensitive, but the rhizomes survive cold weather in the ground in most of the Southeast. Further north, the rhizomes must be dug up and stored indoors over the winter. The foliage is also badly disfigured by a leaf-rolling caterpillar, but it can be controlled with insecticides. (Marion County; B2005-320; Floyd J. McHenry; 7 June 2005) (Bailey 1951)

*Clerodendrum chinense* (Osb.) Mabberley. (A genus of perhaps 400 species, primarily in the Old World tropics and subtropics.) Verbenaceae (or Lamiaceae). **Stickbush, glory bower.** This plant has had a confusing nomenclatural history and is often still erroneously known as *C. fragrans* or *C. philippinum*. Although native to Southeast Asia, this species has naturalized widely in the tropics and subtropics, including scattered localities in central and southern Florida. It should be planted with caution, since it spreads rapidly and is difficult to eradicate. The type most commonly seen is double-flowered and essentially sterile (cv. Pleniflorum), but it spreads rapidly and widely by means of elongate rhizomes. The stems are four-angled, usually unbranched, and 1-2 m tall. The opposite leaves are broadly ovate, coarsely serrate along the margins, subcordate or truncate at the base, to 25 cm long and broad and with a petiole often almost as long as the blade. When crushed, the leaves emit the unpleasant smell typical of *Clerodendrum* species. The flowers are white or pale pink, fragrant and borne in a dense terminal corymb. This is an attractive plant, commonly cultivated in shady gardens throughout Florida, but it freezes to the ground each winter in northern Florida. (Hillsborough County; B2005-317; Richard A. White; 26 May 2005) (Huxley 1992; Mabberley 1997)

*Gordonia lasianthus* (Ellis) (A genus of perhaps 70 species distributed in eastern and southeastern Asia with a single species in southeastern United States. Recently some researchers have placed the Asian species in the genus *Polyspora* Sweet, leaving our species as the sole member of the genus *Gordonia*.) Theaceae. **Loblolly bay.** This is one of our most beautiful native flowering trees and one of the few that blooms in the summer. It is common and conspicuous in bay swamps and other wet forests from southeastern North Carolina through peninsular Florida nearly to Lake Okeechobee and west along the Gulf Coast to Louisiana. The national champion tree, in the Ocala National Forest, is nearly 30 m tall, but most individuals are less than half that height. The loblolly bay blooms from June into August, but is never covered with flowers as a dogwood might be; rather the blossoms are relatively sparse and scattered, much like on a *Magnolia grandiflora*. The 6-8 cm wide flowers resemble those of a single white camellia, and indeed *Camellia* and *Gordonia* are in the same family. As in single-flowered camellias, the five petals of *Gordonia* are fused at the base, the numerous yellow stamens are fused to the petals and the whole unit falls intact. The petals themselves are delicately crisped or fringed along their edges and are silky-hairy on the underside. The simple, alternate, leathery, elliptic leaves, with shallowly-toothed margins, are 8-16 cm long. The trees are evergreen and are ornamental all year round. This is a beautiful tree well worthy of cultivation and is occasionally available from specialty nurseries. To succeed, it needs full sun or light shade, and the soil around it must not be allowed to dry out. (St. Johns County; B2005-380; Roderick S. Grills; 24 June 2005. (Godfrey 1988).

*Piper nigrum* L. (A nightmarish genus for taxonomists, consisting of more than 2000 species distributed throughout the tropics of both hemispheres.) Piperaceae. **Black pepper, white pepper.** This is a vigorously climbing, tropical, perennial evergreen vine, native to India and Bangladesh. The glossy, alternate, ovate leaves are 7-9 cm long, with five to seven conspicuously arching longitudinal veins. The nodes are characteristically swollen. The tiny whitish flowers are densely arranged in arching, catkin-like spikes as long as 7 cm. These spikes are borne singly at the nodes, opposite the leaves, and they droop as the fruits mature. The fruits themselves are sessile, dark red drupes with a thin flesh (pericarp). The fruits turn black upon drying, and these are the peppercorns familiar to all of us. Two distinct spices are derived from this plant. Black pepper, by far the most widely used spice in the world, is ground from the fully mature fruits, including the once-fleshy coating. White pepper, the somewhat milder and more delicately flavored spice, is ground from immature fruits after the coating has been removed. This vine has been cultivated for millennia, and pepper has been used in the West since at least 300 B.C. Today, India and Indonesia are the primary producers of black and white pepper. (Suwannee County; B2005-341; W. Wayne Bailey; 13 June 2005). (Brouk 1975; Mabberley 1997).

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## ENTOMOLOGY SECTION

### Compiled by Susan E. Halbert, Ph.D.

For the month of May, there were 729 samples, consisting of 25,809 + specimens. In June, there were 732 samples, consisting of 27,024 + specimens. Some of the samples are listed below:

#### ORNAMENTALS, WOODY PLANTS, AND PALMS:

*Clerodendrum splendens* (flaming glorybower) -- *Maconellicoccus hirsutus* (Green), **pink**

**hibiscus mealybug:** A moderate infestation was found on two of 20 plants at a residence in Wellington (Palm Beach County; E2005-3714; Michael L. Cartrett; 5 July 2005). NEW DPI HOST RECORD.

*Cordia boissieri* (anacahuita, Texas wild olive) -- *Diceratalebra sanguinolinea* (Baker), **a**

**leafhopper:** A moderate infestation was found at Chapman Field (Miami-Dade County; E2005-2533; Susan E. Halbert, David C. Ziesk, Edward T. Putland; 13 May 2005). NEW DPI HOST RECORD.

*Graptophyllum pictum* (caricature plant) -- *Paratachardina lobata* (Chamberlin), **lobate lac scale:**

A moderate infestation was found at a residence in Miami (Miami-Dade County; E2005-3167; Haydee L. Escobar; 7 June 2005). NEW DPI HOST RECORD.

*Phoenix roebelenii* (pygmy date palm) -- *Phyllophaga hondura* Saylor, **a May beetle:** A specimen was found at a nursery in Miami (Miami-Dade County; E2005-2697; Edward T. Putland and Eduardo G. Camero; 18 May 2005).

#### ORNAMENTALS, FOLIAGE PLANTS:

*Bambusa* sp. (bamboo) -- *Kuwanaspis bambusicola* (Cockerell), **a bamboo thread scale:** An infestation was found at the University of Florida, IFAS Tropical Research and Education Center (Miami-Dade County; E2005-2227; Holly B. Glenn, University of Florida, IFAS; 26 April 2005). NEW USA CONTINENTAL RECORD. Very little is known about this scale insect. It is native to Asia, but also reported from Afrotropical, Neotropical, Oriental and Palearctic regions. The host range is restricted to bamboo. No information is available about the pest status of this scale (Dr. Greg S. Hodges).

*Epipremnum pinnatum* (pothos) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug:** A severe infestation was found on a plant at a residence in Key West (Monroe County; E2005-3558; Lynn D. Howerton; 20 June 2005). NEW DPI HOST RECORD.

*Ficus benjamina* (weeping fig) -- *Greenidea ficicola* Takahashi, **an Asian Ficus aphid:** A slight infestation was found on one plant in Tampa (Hillsborough County; E2005-3064; Julieta Brambila, USDA/APHIS/PPQ; 6 June 2005). NEW DPI COUNTY RECORD.

#### ORNAMENTALS, FLOWERING PLANTS:

*Hibiscus rosa-sinensis* (hibiscus) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug:** A severe infestation on two plants was found at a residence in Homosassa (Citrus County; E2005-3693; Bruce M. Ide, University of Florida; 29 June 2005). NEW DPI COUNTY RECORD.

#### FOREST AND SHADE TREES:

*Celtis laevigata* (hackberry, sugarberry) -- *Shivaphis celti* Das, **Asian woolly hackberry aphid:** A severe infestation on one of four plants was found at a botanical garden in Ft. Myers (Lee

County; E2005-2972-201; David L. Renz, USDA/APHIS/PPQ; 30 May 2005). NEW DPI COUNTY RECORD.

*Tetragonocephala flava* Crawford, **hackberry lerp psyllid**: Several lerps were found on leaves of plants from a botanical garden in Ft. Myers (Lee County; E2005-2972-202; David L. Renz; 30 May 2005). NEW DPI COUNTY RECORD. We have not seen living populations of this psyllid for several years, but the lerps are unmistakable. Hackberry lerp psyllid caused serious problems for sugarberry trees in Louisiana, but apparently not in Florida (Dr. Susan E. Halbert).

*Magnolia grandiflora* (southern magnolia) -- *Toxoptera aurantii* (Boyer de Fonscolombe), **black citrus aphid**: A slight infestation was found on a plant at a nursery in Plant City (Hillsborough County; E2005-2493; Terri L. Gater; 13 May 2005). NEW DPI HOST RECORD.

*Swietenia mahagoni* (West Indian mahogany, mahogany, Madeira redwood) -- *Conchaspis cordiae* Mamet, **Caribbean mahogany scale**: A moderate infestation was found on a plant along a roadside in Boca Raton (Palm Beach County; E2005-3242; Bryan Steinberg, University of Florida, IFAS; 14 June 2005). NEW DPI HOST RECORD.

*Taxodium distichum* (bald cypress) -- *Leptoglossus zonatus* (Dallas), **a leaffooted bug**: A specimen was found in Gainesville (Alachua County; E2005-3331; Lyle J. Buss, University of Florida, Department of Entomology and Nematology, Gainesville; 6 June 2005). NEW DPI STATE RECORD. *L. zonatus* can be found in the western United States and southward to Brazil. It is a pest of many cultivated plants and transmits several plant pathogens. During the past 10 years, it has become established as a pest in Louisiana, where it is reported to transmit a yeast that rots satsumas. In Brazil, it carries plant pathogenic trypanosomatids. We have a number of other *Leptoglossus* species in Florida, several of which are minor to moderate pests of vegetable crops. (Dr. Susan E. Halbert).

### FOOD AND CROP PLANTS:

*Cajanus cajan* (pigeonpea, gandules, Congo bean) -- *Melanagromyza obtusa* (Malloch), **pigeonpea pod fly**: A severe infestation was found on two plants at a park in Homestead (Miami-Dade County; E2005-2521; Edward T. Putland; 12 May 2005).

*Glycine max* (soybean) -- *Euschistus quadrator* Rolston, **a stinkbug**: A slight infestation was found on a farm in Jennings (Hamilton County; E2005-3285; James W. Walker, CAPS; 17 June 2005). NEW DPI COUNTY RECORD.

*Lycopersicon esculentum* (garden tomato, tomate, ajitomate) -- *Leptoglossus zonatus* (Dallas), **a leaffooted bug**: A moderate infestation was found on 20 plants at a residence in Gainesville (Alachua County; E2005-3282; Susan E. Halbert and Lyle J. Buss, University of Florida, Department of Entomology and Nematology; 17 June 2005). Mating pairs of bugs were found in home-garden tomatoes. Please see entry under *Taxodium distichum* (Forest and Shade Trees) for more information on this bug.

*Olea europaea* (olive) -- *Saissetia oleae* (Olivier), **black scale**: A slight infestation was found on one of two plants at a park in Homestead (Miami-Dade County; E2005-2508; Edward T. Putland; 12 May 2005). NEW DPI HOST RECORD.

*Psidium guajava* (common guava, apple guava) -- *Greenidea psidii* van der Goot, **an Asian aphid**: A moderate infestation was found on a plant at Chapman Field in Miami (Miami-Dade County; E2005-2534; Edward T. Putland, Susan E. Halbert, and David C. Ziesk; 13 May 2005). NEW DPI COUNTY RECORD.

**WEEDS AND GRASSES:**

*Blechnum pyramidatum* (Browne's blechnum) -- *Pulvinaria urbicola* Cockerell, **urbicola soft scale**: A slight infestation was found on 20 plants along a roadside in Coconut Grove (Miami-Dade County; E2005-2545; Edward T. Putland and Olga Garcia; 14 May 2005). NEW DPI HOST RECORD.

*Oxalis corniculata* (creeping oxalis, creeping wood sorrel) -- *Aculops* sp., **an eriophyid mite**: A slight infestation was found in Miami (Miami-Dade County; E2005-3038; Edward T. Putland; 6 June 2005). NEW DPI HOST RECORD for the genus. This could be a new mite species (Dr. W. C. 'Cal' Welbourn).

*Solanum diphyllum* (twoleaf nightshade) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug**: An infestation was found in Miami Springs (Miami-Dade County; E2005-3580; Hevys Guerrero; 22 June 2005). NEW DPI HOST RECORD.

*Sporobolus virginicus* (seashore dropseed) -- *Haliaspis nakaharai* Howell, **Nakahara scale**: A slight infestation was found on weeds at Bahia Honda State Park (Monroe County; E2005-2555; Trevor R. Smith, University of Florida graduate student, and Ronald D. Cave, University of Florida, IFAS; 14 May 2005). NEW DPI STATE RECORD. This scale probably occurs throughout the range of its host, *Sporobolus virginicus*, which occurs throughout the coastal areas of the Gulf states (Dr. Greg S. Hodges).

*Talipariti tiliaceum* (mahoe, beach hibiscus) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug**: A severe infestation was found along a roadside in Pompano Beach (Broward County; E2005-3476; Paul Moeser, USDA/APHIS/PPQ; 24 June 2005). NEW DPI HOST RECORD.

**NATIVE AND NATURALIZED PLANTS:**

*Coreopsis* sp. (coreopsis) -- *Phaedon desotonis* Balsbaugh, **a chrysomelid beetle**: A heavy infestation was found at a residence in De Funiak Springs (Walton County; E2005-2824; homeowner; 25 May 2005). NEW DPI STATE RECORD. This is a known pest of coreopsis, and it may be quite destructive in commercial plantings (Dr. Michael C. Thomas).

*Duranta erecta* (golden dewdrop, pigeonberry, skyflower) -- *Aleurotrachelus dugesii*, **giant whitefly**: A severe infestation was found at a residence in Coral Springs (Broward County; E2005-2861; Eileen A. Buss, University of Florida, Department of Entomology and Nematology, Gainesville; 25 May 2005). NEW DPI HOST RECORD.

*Aleurotrachelus trachoides* (Back), **a whitefly**: A slight infestation was found in Miami (Miami-Dade County; E2005-2563; Lyle J. Buss, University of Florida, Department of Entomology and Nematology, Gainesville; 10 May 2005). NEW DPI HOST RECORD.

*Guajacum sanctum* (lignum vitae, holywood lignum vitae, roughbark lignum vitae) -- *Mycetaspis personatus* (Comstock), **masked scale**: A slight infestation was found at Fairchild Tropical Botanical Garden in Coral Gables (Miami-Dade County; E2005-2115; Julieta Brambila, USDA/APHIS/PPQ; 22 April 2005). NEW DPI HOST RECORD.

*Helianthus* sp. (sunflower) -- *Homaemus proteus* Stål, **a scutellerid bug**: A specimen was found on the University of Florida campus in Gainesville (Alachua County; E2005-3419; Adam J. Silagyi, CAPS; 11 June 2005). NEW DPI STATE RECORD. This species occurs in California, Arizona, New Mexico, and Texas, south to Central America. It is unlikely to become a pest (Dr. Susan E. Halbert and Dr. Joseph E. Eger, Dow AgroSciences).

*Myrcianthes fragrans* (Simpson's stopper, twinberry) -- *Paratachardina lobata* (Chamberlin), **lobate lac scale**: A moderate infestation was found along a roadside in Miami (Miami-Dade County; E2005-2511; Olga Garcia; 12 May 2005). NEW DPI HOST RECORD.

*Peperomia obtusifolia* (baby rubberplant, Florida peperomia, blunt-leaved peperomia) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug**: A slight infestation was found on a plant at a residence in Naples (Collier County; E2005-2845; Scott D. Krueger; 24 May 2005). NEW DPI HOST RECORD.

*Sideroxylon salicifolium* (white bully, willow bustic) -- *Maconellicoccus hirsutus* (Green), **pink hibiscus mealybug**: A moderate infestation was found at a nursery in Homestead (Miami-Dade County; E2005-3061; Mario Jose Hernandez; 7 June 2005). NEW DPI HOST RECORD.

*Stylosanthes* sp. (pencil-flower) -- *Paratachardina lobata* (Chamberlin), **lobate lac scale**: A slight infestation was found on three plants at a residence in Miami (Miami-Dade County; E2005-3008; Haydee L. Escobar; 2 June 2005). NEW DPI HOST RECORD.

### **BENEFICIAL INSECTS:**

*Gynaikothrips uzeli* (weeping fig thrips) -- *Montandoniola moraguesi* (Paton), **an anthocorid predator**: Bugs were found feeding on thrips on *Ficus benjamina* (weeping fig) in Gainesville (Alachua County; E2005-3686; Julieta Brambila, USDA/APHIS/PPQ; 3 July 2005). NEW DPI COUNTY RECORD.

### **FEDERAL AND STATE PLANT PROTECTION AND QUARANTINE PROGRAMS:**

*Citrus reticulata* (tangerine) -- *Cryptophlebia leucotreta* (Meyrick), **false codling moth**: Tangerines infested with larvae were found in 38 pallets of tangerines from South Africa at a warehouse in Macclenny (Baker County; E2005-3431, 3435, 3437, 3438; Laura L. Ooms, Christine A. Zamora, Susan E. Halbert, W. Wayne Bailey, and Flewellyn W. Podris; 23 June 2005). More larvae were found in tangerines from South Africa at a warehouse in Jacksonville (Duval County; E2005-3440; Sol F. Looker and Flewellyn W. Podris; 23 June 2005), a distribution center in Lakeland (Polk County; E2005-3467; Terri L. Gater and Richard A. White; 23 June 2005), at a discount store in Sanford (Seminole County; E2005-3501; Tirzah M. Lyons; 23 June 2005), and at a grocery store in Palm City (Martin County; E2005-3562; Jorge P. Gomez; 24 June 2005). Typical damage, but without insects, was found in tangerines from South Africa in discount stores in Ocoee (Orange County; E2005-3502; Serena Stornaiuolo; 23 June 2005), Sanford (Seminole County; E2005-3496; Tirzah M. Lyons; 23 June 2005), and Orlando (Orange County; E2005-3499; Serena Stornaiuolo; 23 June 2005). This exotic lepidopteran is a pest of corn, cotton, and many fruits and vegetables. As of January 2008, no additional interceptions have been made (Dr. John B. Heppner).

### **ARTHROPOD DETECTION:**

*Aculepeira packardi* (Thorell), **an orbweaver**: A specimen was intercepted in a box of raspberries from California in Tallahassee (Leon County; E2005-3455; homeowner; May 2005). This species is native to western North America and is not established in Florida (Dr. G.B. Edwards).

*Anasa scorbatica* (Fabricius), **a squash bug**: A specimen was found in a multi-lure trap in *Citrus x paradisi* (grapefruit) in Winter Haven (Polk County; E2005-3293; Martha A. Simpson, USDA/APHIS/PPQ; 15 June 2005). NEW DPI COUNTY RECORD.



- Blissus arenarius maritimus* Leonard, **a chinch bug**: A specimen was collected in sand dunes at Anastasia State Park near St. Augustine (St. John's County; E2005-3270; Trevor R. Smith; 5 May 2005). NEW DPI COUNTY RECORD.
- Cyrtophora citricola* (Forsk.) **a tentweb weaver**: A specimen was found on oak in Boynton Beach (Palm Beach County; E2005-2973; Eduardo Solis; 3 June 2005). NEW DPI COUNTY RECORD.
- Falconina gracilis* (Keyserling), **a spider**: A slight infestation was found at a USDA office in Sarasota (Sarasota County; E2004-2959; Michael Patterson; 1 June 2005). NEW DPI COUNTY RECORD.
- Fulvius brevicornis* Reuter, **a plant bug**: A specimen was found under bark of a dead tree in St. Lucie River State Preserve (St. Lucie County; E2005-3506; Kenneth L. Hibbard; 23 June 2005). NEW DPI COUNTY RECORD. This is a predator (Dr. Susan E. Halbert).
- Leptoglossus zonatus* (Dallas), **a leafhopper**: A specimen was found in a multilure trap in Lakeland (Polk County; E2005-3518; Sylvia Duffy, USDA/APHIS/PPQ; 21 June 2005). NEW DPI COUNTY RECORD. Please see entry under *Taxodium distichum* (Forest and Shade Trees) for more information on this bug.
- Metacyrba punctata* (Peckham & Peckham), **a jumping spider**: A specimen was captured on *Citrofortunella microcarpa* (calamondin) in Ft. Myers (Lee County; E2005-3483; David L. Renz; 22 June 2005). NEW DPI STATE RECORD. A couple of immatures resembling this species have been collected previously in the state, but this is the first adult, confirming that the species now is established in Florida. This species is native from south Texas to Ecuador.
- Oxyopes apollo* Gracy, **lynx spider**: A specimen was found on a *Celtis laevigata* (sugarberry) tree in a botanical garden in Fort Myers (Lee County; E2005-3294; David L. Renz; 16 June 2005). NEW DPI COUNTY RECORD.
- Pachymerus nucleorum* (Fabricius), **a bruchid beetle**: A specimen was found at a mercury vapor light in Lake Worth (Palm Beach County; E2005-2682; Vince Golia, Florida State Collection of Arthropods Research Associate; 30 April 2005). NEW USA RECORD. This exotic pest reportedly feeds on several South American palm species, including *Acrocomia*, *Attalea*, *Cocos*, *Elaeis*, *Orbignya*, and *Syagrus* (Dr. Michael C. Thomas).
- Rhytidops floridensis* (Aldrich), **a ropalomerid fly**: A specimen was found in a multi-lure trap in *Eugenia uniflora* (Surinam-cherry, cayenne-cherry) in unincorporated Lake Suzy near Arcadia (DeSoto County; E2005-2740; Gary J. Moore, USDA/APHIS/PPQ; 17 May 2005). This fly probably is widespread in Florida but rarely collected. This is the first specimen added to the Florida State Collection of Arthropods since 1965. Larvae are reported to feed in decaying wood of *Sabal palmetto* and *Sabal minor* (Dr. Gary J. Steck).
- Scatophaga stercoraria* (Linnaeus), **golden dung fly**: A specimen was found in a multi-lure trap in *Coccoloba uvifera* (seagrape) in Cape Canaveral (Brevard County; E2005-3024; Carmen J. Waldo, USDA/APHIS/PPQ; 23 May 2005). NEW DPI COUNTY RECORD. This species is common in the northern United States, Europe and other temperate areas, but it rarely is collected in Florida (Dr. Gary J. Steck).

**NEMATODOLOGY SECTION**

**Compiled by Janete A. Brito, Ph.D., and Renato, N. Inserra, Ph.D.**

A total of 3,908 samples (3,572 for morphological and 336 for molecular identifications) were processed in May and June 2005. Details are shown below:

<p><b>Certification and Regulatory Samples:</b></p> <p>Multi-state Certification for National and International Export..... 2,185</p> <p>California Certification..... 955</p> <p>Burrowing nematodes..... 23</p> <p>Pre-movement (Citrus Nursery Certification) ..... 82</p> <p>Site or Pit Approval (Citrus Nursery and Other Certifications)..... 44</p>	<p><b>Other Samples:</b></p> <p>Plant Problems..... 72</p> <p>Intrastate Survey, Random ..... 211</p> <p><b>Molecular Identifications*</b> ..... 336</p> <p><small>*The majority of these analyses involved root-knot nematode species.</small></p>
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**Nematodes of Special Interest**

*Ficus carica* (common edible fig) -- *Heterodera fici* Kirjanova, 1954, **fig cyst nematode** was extracted from roots of this deciduous fruit tree (Osceola County; N05-00541; William D. Terrence; 30 March 2005). Young fig plants were smuggled into Florida from Italy. This fig cyst nematode occurs in Florida on ornamental figs.

*Xiphinema index* Thorne & Allen, 1950, a **dagger nematode** was extracted from the rhizosphere of this deciduous tree (Osceola County; N05-00541; William D. Terrence; 30 March 2005). *Xiphinema index* is a serious nematode pest of grapevine and a vector of the grapevine fan-leaf virus. This nematode is not established in Florida and is included on the list of nematode pests which are regulated by the state.

**COLLECTORS SUBMITTING FIVE OR MORE SAMPLES THAT WERE PROCESSED FOR NEMATOLOGICAL ANALYSIS DURING MAY AND JUNE 2005:**

Anderson, James L. .... 93	Qiao, Ping ..... 161
Bailey, W. Wayne ..... 6	Robinson, William L. .... 20
LeBoutillier, Karen W. .... 347	Salisbury, Thomas L. .... 354
Ochoa, Ana L. .... 388	Spriggs, Charles L. .... 141
Pate, Jo Ann ..... 70	Stone, Carrie S. .... 103
Pickens, Eric M. .... 15	Wheldon, Mark A. .... 9
Podris, Flewellyn W. . .... 38	Zamora, Christine A. .... 8

## PLANT PATHOLOGY SECTION

### Compiled by Robert M. Leahy

For this period, the Plant Pathology Section received and processed 2,943 specimens. These included 1,150 pathology, 23 miscellaneous, 21 soil and four bee samples. Full pathogenicity tests for citrus canker were performed on 13 samples. Visual examination for canker was also carried out on 2,013 samples from Southeast Florida, 253 from Central Gulf Coast Florida, 923 from Southwest Gulf Coast Florida, 412 from Central Florida and 144 from North Florida.

#### ORNAMENTALS, WOODY PLANTS AND PALMS:

- Callistemon viminalis* (weeping bottlebrush) -- *Puccinia psidii*, **rust**: Collected at a garden center in Melbourne, Brevard County (28 April 2005, Angelina M. Toral, P2005-01501).
- Callistemon viminalis* (weeping bottlebrush) -- *Puccinia psidii*, **rust**: Collected at a home and garden center in Lady Lake, Sumter County (5 May 2005, Juanita Nichols, P2005-01728).
- Callistemon viminalis* (weeping bottlebrush) -- *Puccinia psidii*, **rust**: Collected at a home and garden center in Zephyrhills, Pasco County (6 May 2005, Daniel Merced, P2005-01800).
- Ficus* sp. (fig) -- *Agrobacterium tumefaciens*, **crown gall**: Collected at a nursery in Lake Mary, Seminole County (20 May 2005, Lance A. Brown, P2005-02224).
- Phoenix canariensis* -- (Canary Islands date palm) *Serenomyces phoenicis*, **rachis blight**: Collected at a nursery in Jacksonville, Duval County (3 June 2005, Flewellyn W. Podris, P2005-02260).
- Rhododendron* sp. (azalea) -- *Phytophthora* sp., **leaf blight**: Collected at a nursery in Ruskin, Hillsborough County (7 June 2005, Karyn L. Pipenger, P2005-02295).

#### ORNAMENTALS, FOLIAGE PLANTS:

- Arisaema dracontium* (green dragon) -- *Uromyces ari-triphylli*, **rust**: Collected at a state park, Bristol, Liberty County (27 April 2005, Timothy S. Schubert, David A. Davison, Robert M. Leahy, and Jodi L. Hansen, P2005-01362).

#### ORNAMENTALS, FLOWERING PLANTS:

- Asclepias curassavica* (scarlet milkweed) -- *Uromyces asclepiadis*, **rust**: Collected at a nursery in Brooker, Bradford County (2 May 2005, nursery employee, P2005-01515).
- Adenium obesum* (desert rose) -- *Aristastoma* sp., **leaf spot**: Collected at a dooryard in St. Petersburg, Pinellas County (25 May 2005, Gabriela M. Bernard, P2005-02203).
- Alpinia* sp. (ginger) -- *Cephalophora tropica* (saprophyte), **fungus**: Collected at a nursery in Miami, Miami-Dade County (23 May 2005, Gwen H. Myres, P2005-02168). NEW HOST RECORD.
- Bougainvillea* sp. (bougainvillea) -- *Pseudomonas andropogonis*, **leaf spot**: Collected at a nursery in Miami, Miami-Dade County (3 June 2005, Rosamaria M. Quinones, P2005-02269).
- Hemerocallis* sp. (daylily) -- *Puccinia hemerocallidis*, **rust**: Collected at a home and garden store in Oviedo, Seminole County (3 June 2005, Anthony Puppelo, P2005-02305).
- Tabebuia caraiba* (yellow tabebuia) -- *Corynespora cassiicola*, **leaf spot**: Collected at a nursery in Orlando, Orange County (17 June 2005, Charles A. Williams, P2005-02514).

**FOREST AND SHADE TREES:**

*Acer saccharinum* (silver maple) -- *Septoria aceris*, **leaf spot**: Collected at a state park, Bristol, Liberty County (27 April 2005, Timothy S. Schubert, David A. Davison, Robert M. Leahy, and Jodi L. Hansen, P2005-01355).

*Ocotea coriacea* (lancewood) -- *Phyllachora catesbyana*, **rust**: Collected at DPI in Gainesville, Alachua County (1 May 2005; Julieta Brambila, USDA/APHIS/PPQ; P2005-01806).

**FOOD AND CROPS:**

*Cucumis sativus* (cucumber) -- *Pseudoperonospora cubensis*, **downy mildew**: Collected at a store in Gainesville, Alachua County (16 June 2005, Christina A. Zamora, P2005-02540).

*Cucurbita maxima* (winter squash) -- *Phoma cucurbitacearum*, **gummy stem blight**: Collected at a dooryard in High Springs, Alachua County (29 June 2005, José D. Diaz, P2005-02603).

*Diospyros montana* (Bombay ebony, mountain persimmon) -- *Agrobacterium tumefaciens*, **crown gall**: Collected at a dooryard in Homestead, Miami-Dade County (12 May 2005, Edward T. Putland, P2005-02165).

*Syzygium jambos* (rose apple) -- *Puccinia psidii*, **rust**: Collected at a dooryard in Lauderhill, Broward County (27 April 2005, Mario J. Hernandez, P2005-01510).

*Vaccinium corymbosum* (highbush blueberry) -- *Exobasidium vaccinii*, **leaf gall**: Collected at a dooryard in Gainesville, Alachua County (1 May 2005; Julieta Brambila, USDA/APHIS/PPQ; P2005-01565).

**WEEDS AND GRASSES:**

*Bromus catharticus* (rescue grass) -- *Erysiphe graminicola*, **powdery mildew**: Collected at a nursery in Alachua, Alachua County (10 May 2005, Christina A. Zamora, P2005-01802).

*Medicago lupulina* (black medic) -- *Uromyces striatus* var. *medicaginis*, **rust**: Collected at a nursery in Gainesville, Alachua County (15 May 2005, Timothy S. Schubert, P2005-01996).

*Muhlenbergia* sp. (muhly grass) -- *Puccinia schedonnardi*, **rust**: Collected at a nursery in Ocala, Marion County (2 June 2005, Floyd J. McHenry, P2005-02311).

**NATIVE OR NATURALIZED:**

*Bidens pilosa* (Spanish needles) -- *Entyloma* sp., **leaf smut**: collected at a dooryard in Goulds, Miami-Dade County (18 May 2005, Eduardo G. Camero and Edward T. Putland, P2005-02095).

*Lyonia* sp. (fetterbush) -- *Exobasidium vaccinii*, **leaf gall**: Collected at a dooryard in Port St. Lucie, St. Lucie County (25 May 2005, Kenneth L. Hibbard, P2005-02200).

*Myrcianthes fragrans* (Simpson's stopper, twinberry) -- *Puccinia psidii*, **rust**: Collected at nursery in Goulds, Miami-Dade County (18 May 2005, Eduardo G. Camero and Edward T. Putland, P2005-2126).

*Taxus floridana* (Florida yew) -- *Colletotrichum acutatum*, **stem dieback**: Collected at a state park in Bristol, Liberty County (22 April 2005, Timothy S. Schubert, David A. Davison, Robert M. Leahy and Jodi L. Hansen, P2005-01363). NEW HOST RECORD.

-- *Phyllosticta* sp., **stem dieback**: Collected at a state park in Bristol, Liberty County (22 April 2005, Timothy S. Schubert, David A. Davison, Robert M. Leahy and Jodi L. Hansen, P2005-01305).

*Torreya taxifolia* (Florida torreya, gopherwood -- *Phyllosticta* sp., **stem dieback**: Collected at a state park in Bristol, Liberty County (28 April 2005, Timothy S. Schubert, David A. Davison, Robert M. Leahy and Jodi L. Hansen, P2005-01307).