

FLORIDA ENTOMOLOGICAL SOCIETY ANNUAL MEETING PRESENTATIONS

MONDAY , JULY 26, 2004

GENERAL SESSION

R. Mankin, Presiding

Commodore Ballroom

8:30

Welcoming Remarks

8:40

Presidential Address -

R. Mankin

A Juggling Act--Balancing the International and Regional Missions of the Florida Entomological Society.

9:00

Pioneer Lecture -

“Ross H. Arnett, Jr.: A True Pioneer in Entomology.” Professor Charles W. O’Brien, Ph.D. Center for Biological Control, Florida A & M University, Tallahassee, FL.

9:50

Break -

10:15

Business Meeting

12:00

Lunch Break

12:00-1:30

Luncheon -- Graduate Students with C. O’Brien -- Harbour Lights Room

MONDAY, JULY 26, 2004

POSTER SESSION (Authors present from 2:00-3:00)

10:15 AM - 5:30 PM

State Room B

DSP A. (Florida State Science and Engineering Fair Senior Division, 2004 FES awardee) **Tyler Gary**, DeSoto County High School, Arcadia, FL. How far will the mole cricket nematode (*Steinernema scapterisci*) spread from its original infection plot in one year’s time?

DSP 1. Parasitoids of *Antichloris viridis* Druce, 1884 (Lepidoptera: Arctiidae) defoliator of plantain (*Musa* AAB, sub-group plantain cv. Hartón) in the eastern and southern region of lake Maracaibo, Venezuela. **Oscar Dominguez**, Raúl Ramírez, Eleodoro Inciarte, and María Burgos. Unidad Técnica Fitosanitaria, Facultad de Agronomía, La Universidad del Zulia, Maracaibo, Venezuela.

DSP 2. Establishment and range of parasitoids released for biological control of *Diaprepes abbreviatus* in Florida. **J. E. Peña**, D. Amalin, R. Duncan, D. Hall, C. McCoy, R. Nguyen, A. Hoyte, S. Lapointe, P. Stansly, and R. Adair. University of Florida/IFAS, Tropical Research and Education Center, 18905 SW 280th Street, Homestead, FL 33031.

DSP 3. Life cycle and development of *Quadrastichus haitiensis* (Hymenoptera: Eulophidae): A parasitoid of *Diaprepes abbreviatus*. **José Castillo** and J. E. Peña, University of Florida/IFAS, Tropical Research and Education Center, 18905 SW 280th Street, Homestead, FL 33031

DSP 4. Body weight and biochemical comparisons of field and laboratory populations of *Podisus maculiventris* (Heteroptera: Pentatomidae). **Jeffery E. Head**, Jesusa C. Legaspi, and Jeffrey P. Shapiro. USDA Center for Biological Control, 6383 Mahan Dr., Tallahassee, FL 32308.

DSP 5. A preliminary bibliographical survey of the Lepidoptera of the Henri Pittier National Park, Venezuela. María Fernanda Sandoval, Alberto Fernández Badillo, **Jorge M. González**. University of Georgia, Department of Entomology, Athens, GA 30602

DSP 6. Mass aggregations of *Polistes versicolor* (Oliver) (Hymenoptera: Vespidae) along the Northern Cordillera of Venezuela. **Jorge M. González**, José Piñango, Esteban Blanco D., and Robert W. Matthews. University of Georgia, Department of Entomology, Athens, GA 30602

DSP 7. Some aspects of the Natural History of *Melittobia sosui* Dahms, a Japanese parasitoid wasp (Hymenoptera: Eulophidae) and comparison with other *Melittobia* species. **Jorge M. González**, Jun Abe, and Robert W. Matthews. University of Georgia, Department of Entomology, Athens, GA 30602

DSP 8. Life cycle of *Anartia jatrophae* (Linnaeus 1763) (Lepidoptera : Nymphalidae), in semi-captivity conditions. **Esteban Blanco D.**, Jose Piñango, Juan C. Navarro, and Jorge M. González. Parque Zoológico El Pinar, El Paraiso,

Caracas, Venezuela.

DSP 9. Deforestation and mosquito distributions in the Peruvian Amazon. **Stephen P. Yanoviak**, L. P. Lounibos, S. C. Weaver, R. Tesh. Univ. of Florida Medical Entomology Lab, 200 9th Street SE, Vero Beach, FL 32962

DSP 10. Susceptibility of *Diaprepes abbreviatus* to novel isolates of *Bacillus thuringiensis*. **A. A. Weathersbee III** and S. L. Lapointe. USDA-ARS, US Horticultural Research Laboratory, Fort Pierce, FL

DSP 11. Sampling and behavioral response of sap beetles to strawberries. **Crystal A. Kelts** and Oscar E. Liburd. Entomology and Nematology Department, University of Florida, Gainesville, FL.

DSP 12. Hormone and protein supplement therapy to improve efficacy of SIT for tephritid fruit flies. Peter E. A. Teal, **Barbara D. Dueben**, Shelley R. Olson, Y. Gomez-Simuta and Timothy Holler. USDA/ARS, Center for Medical, Agricultural and Veterinary Entomology, Gainesville, FL

DSP 13. Herbivory by the Melaleuca psyllid, *Boreioglycaspis melaleucae*, induces premature leaf senescence of the invasive tree *Melaleuca quinquenervia*. **Shannon Morath**, Cressida Silvers, and Paul Pratt. USDA/ARS, Ft. Lauderdale, FL

DSP 14. Integrating biological and mechanical control methods for regrowth suppression of *Melaleuca quinquenervia* stumps. **M. Scott Wiggers**, Paul D Pratt, and Kirk Tonkel. USDA-ARS-IPRL, Ft. Lauderdale, FL

DSP 15. Biology and host plant preferences of the sugarcane beetle, *Euethola humilis* (Coleoptera: Scarabaeidae). Tara P. Smith and **Abner M. Hammond**. Department of Entomology, LSU Agricultural Center, Baton Rouge, LA.

DSP 16. Collection of *Mocis* spp. adults using floral volatile lures. **Robert L. Meagher, Jr.** USDA, ARS, CMAVE, Gainesville, FL.

DSP 17. Biology and management of *Phyllophaga* species that damage sweet potato in Louisiana. **Rick Story**, Aboubacar Diagne, and Abner Hammond. Entomology Department, LSU, Baton Rouge, LA.

DSP 18. Deployment of a female sex pheromone lure for the pink hibiscus mealybug in Florida. **Stephen L. Lapointe**, and David G. Hall. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

DSP 19. EST sequencing projects and their role in molecular-based IPM strategies. **Laura E. Hunnicutt**, Wayne Hunter and Jerry Mozoruk. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

DSP 20. Identification of plant defense genes induced in response to insect herbivory and their use in transgenic plant development. **Jerry Mozoruk** and Laura Hunnicutt. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

DSP 21. What do we know about the Florida bromeliad weevil, *Metamasius mosieri*? **Patrick S. Duetting**, Ronald D. Cave, Olan R. Creel, Natalie K. Balcer, and Celia L. Branch. University of Florida, Institute of Food and Agricultural Sciences, Indian River Research and Education Center, Ft. Pierce, FL.

MONDAY AFTERNOON, JULY 26, 2004

SYMPOSIUM: Whitefly-Plant Interactions

Cindy McKenzie, Organizer

State Room C

1:30

Introduction. **Cindy McKenzie**, USDA, ARS, U.S. Horticultural Research Laboratory, Ft. Pierce, FL

1:35

1. Arizona cotton: a whitefly odyssey. **Peter C. Ellsworth**, S. E. Naranjo, and L. Cañas. University of Arizona.

2:20

2. Recent advances in whitefly (*Aleurotrachelus socialis* Bondar; Homoptera; Aleyrodidae) resistance in cassava (*Manihot esculenta* Crantz). **A. C. Bellotti**, A. Bohórquez, B. Arias, J. Vargas, H.L. Vargas, C. Mba, M.C. Duque and J. Tohme. International Center for Tropical Agriculture (CIAT), Cali, Colombia.

2:45

3. A historical perspective on whiteflies in Florida. **Greg Hodges**. FDACS-DPI

3:05 Break

3:20

4. Squash silverleaf disorder and *Bemisia argentifolii*: etiology of the disorder, breeding for tolerance to zucchini squash, and effects on yield. **Heather J. McAuslane**. University of Florida, Gainesville, FL

3:45

5. Functional genomic analysis of tomato plant response to whitefly feeding. **C. L. McKenzie**, X. H. Sinisterra, C. A. Powell, M. G. Bausher, J. P. Albano, and R. G. Shatters, Jr. USDA-ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL

4:10

6. Whitefly (*Bemisia tabaci* B biotype) functional genomics: expressed sequence tag (EST) analysis of whitefly-begomovirus interactions. **R. G. Shatters, Jr.**, H. Czosnek, C. L. McKenzie, and J. K. Brown. USDA, ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL.

4:35

7. Differential transcriptional activity of plant pathogenic Begomoviruses in their whitefly vector, *Bemisia tabaci* Gennadius (Hemiptera: Aleyrodidae). **Xiomara H. Sinisterra**, C. L. McKenzie, W. B. Hunter, and R. G. Shatters, Jr. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

4:55

Closing comments and panel discussion: **Speakers**

MONDAY AFTERNOON, JULY 26, 2004

CONCURRENT SESSION: Student Paper Competition, Part 1

Gregg Nuessly and Marco Toapanta, Organizers

State Room D

2:00

Introduction and Instructions

2:05

8. Flower thrips dispersion and oviposition behavior in blueberry fields of Florida and southern Georgia. **H. Alejandro Arévalo** and Oscar E. Liburd. Entomology and Nematology Department, University of Florida, Gainesville, FL.

2:19

9. Age and light: effects of age of the house fly *Musca domestica* on its attraction to light traps. **Matthew Aubuchon**. University of Florida, Entomology and Nematology Department, Gainesville, FL.

2:33

10. Influence of male pheromones on sexual maturation in female Caribbean fruit fly. **Rui Pereira**. USDA, ARS, CMAVE, Gainesville, FL.

2:47

11. Pesticide compatibility and alternative flushing methods for monitoring nematode-infected mole crickets. **Kathryn A. Barbara** and Eileen A. Buss. University of Florida, Department of Entomology and Nematology, Gainesville, FL.

3:01 **Break**

3:30

12. The toxicity of fatty acid salts to cockroaches. **Rebecca Baldwin** and Philip G. Koehler. University of Florida, Department of Entomology and Nematology, Gainesville, FL.

3:44

13. Effects of living and synthetic mulches on the population dynamics of homopteran pests, their associated natural enemies, and insect transmitted diseases. **Daniel L. Frank** and Oscar E. Liburd. Entomology and Nematology Department, University of Florida, Gainesville, FL.

3:58

14. Evaluation of predatory mites and reduced-risk miticide for control of twospotted spider mites in north-central Florida. **Elena M. Rhodes** and Oscar E. Liburd. Entomology and Nematology Department, University of Florida, Gainesville, FL.

4:12

15. Monitoring and control tactics of grape root borer (GRB) in Florida vineyards. **Scott Weihman** and Oscar E. Liburd. Entomology and Nematology Department, University of Florida, Gainesville, FL.

6:30-8:30

Reception/Mixer B Harbour Lights Room

TUESDAY MORNING, JULY 27, 2004

7:00-8:00

Past Presidents' Breakfast

Bahia Mar Restaurant

TUESDAY MORNING, JULY 27, 2004
CONCURRENT SESSION 1
SYMPOSIUM: Weed Biological Control
Greg Wheeler, Organizer
Seafarer Room, Third Floor

8:25

Introduction. **Greg Wheeler**, USDA, ARS Invasive Plant Research Laboratory, Ft. Lauderdale, FL

8:30

16. An overview of the current weed biocontrol projects in the USDA/ARS South American Biological Control Laboratory (SABCL). **Willie Cabrera Walsh**. USDA/ARS/SABCL, Argentina

8:45

17. Effect of experimental field releases of the thrips *Pseudophilothrips ichini* (Thysanoptera: Phlaeothripidae) on the growth of Brazilian peppertree, *Schinus terebinthifolius*, in Southeastern Brazil. **Jim Cuda** and J.H. Pedrosa Macedo. University of Florida, Gainesville, FL.

9:00

18. Origin of the Florida population of *Dioscorea bulbifera* (air potato) and initial foreign exploration for potential biological control agents. **Bill Overholt** and C. R. Hughes. University of Florida, Ft Pierce, FL.

9:15

19. A case study using molecular phylogeny as a tool for assessing host specificity of a biological control agent: the Fergusobina/Fergusobia complex on *Melaleuca quinquenervia*. **Rob Giblin-Davis**. University of Florida, Ft Lauderdale, FL.

9:30

20. Maintenance of a narrow host range by *Oxyops vitiosa*, a biocontrol agent of the environmental weed *Melaleuca quinquenervia*. **Greg Wheeler**. USDA/ARS, Invasive Plant Research Lab, Ft. Lauderdale, FL.

9: 45 **Break**

10:15

21. Resource allocation and compensation for herbivory by *Melaleuca quinquenervia*, an invasive tree in South Florida. **Paul Pratt**. USDA/ARS, Invasive Plant Research Lab, Ft Lauderdale, FL.

10: 30

22. Biological control and herbivory resistance in the invasive tree *Melaleuca quinquenervia*. **Steve Franks**, P. D. Pratt, F. A. Dray, and E. L. Simms. Invasive Plant Research Lab, USDA/ARS Ft Lauderdale, FL.

10:45

23. Effects of temperature, relative humidity, and chemotype on the biology and life table parameters of *Boreioglycaspis melaleuca* Moore, a biological control agent of the invasive weed, *Melaleuca quinquenervia* (Cav.) S. T. Blake. **Robyn Chiarelli**. USDA/ARS Invasive Plant Research Lab, Ft Lauderdale, FL.

11:00

24. Comparative effects of the waterhyacinth weevils *Neochetina eichhorniae* and *N. bruchi* on competition between waterhyacinth (*Eichhorniae crassipes*) and waterlettuce (*Pistia stratiotes*). **Ted Center**, Thai K. Van, Teresa Rebelo, F. Allen Dray, Paul Pratt, and Min B. Rayamahji. USDA/ARS, Invasive Plant Research Lab, Ft Lauderdale, FL.

11:15

25. Ecology of common salvinia, *Salvinia minima*, in South Florida. **Phil Tipping**. USDA/ARS, Invasive Plant Research Lab, Ft Lauderdale, FL.

11:30

26. Withdrawn.

TUESDAY MORNING, JULY 27, 2004
CONCURRENT SESSION 2
SYMPOSIUM: Pests of the Caribbean
Susan Halbert and Mike Thomas, Organizers
State Room B

8:30

Introduction. **Michael C. Thomas**. Florida Department of Agriculture & Consumer Services, Gainesville, FL.

8:40

27. Pathways for introduction of Caribbean insects into Florida. **Fernando E. Lenis**. USDA, APHIS, PPQ.

9:05

28. Termites (Isoptera) and ants (Hymenoptera: Formicidae) of the Caribbean. **Rudolf H. Scheffrahn**. University of Florida, Ft. Lauderdale, FL.

9:30

29. Stinkbug (Hemiptera: Pentatomidae) pests in the Caribbean. **Joe Eger**. Dow Chemical Co.

9:50 **Break**

10:25

30. Agriculturally important weevils (Coleoptera: Curculionidae) of the West Indies. **C. W. O'Brien**. Florida A&M University, Tallahassee, FL.

10:50

31. Is the Caribbean a pathway for introduction of exotic psyllids (Hemiptera: Psyllidae) into Florida? **Susan Halbert**. Florida Department of Agriculture & Consumer Services, Gainesville, FL.

11:05

32. *Oxycarenus hyalinipennis* (Hemiptera) and other pest lygaeids of the Caribbean. **Julieta Brambila**. and Thomas T. Dobbs. Florida Department of Agriculture & Consumer Services, Gainesville, FL.

11:30

33. Mole crickets of the Caribbean. **J. H. Frank**. University of Florida, Gainesville, FL.

TUESDAY MORNING, JULY 27, 2004

CONCURRENT SESSION 3

Student Paper Competition - Part 2

Gregg Nuessly and Marco Toapanta, Organizers

State Room D

8:30

Introduction and Instructions

8:35

34. Effect of the immigrant weevil *Metamasius callizona* (Chevrolat) on the mortality of native bromeliads in Myakka River State Park, Sarasota County, Florida. **Teresa Cooper**. Entomology and Nematology Department, University of Florida, Gainesville, FL.

8:49

35. Indoxacarb toxicity to American and German roaches. **Linda McHerne**. University of Florida, Gainesville, FL.

9:03

36. Contamination of water in pipes by volatile organic compounds. **Justin Saunders** and Philip G. Koehler. University of Florida, Department of Entomology and Nematology, Gainesville, FL

37. Withdrawn

9:17

38. Fungal pathogens of the glassy-winged sharpshooter. **Samuel E. Breaux**, Drion G. Boucias, and Russell F. Mizell, III. University of Florida, NFREC-Quincy, Quincy, FL

9:45 **Break**

12:00-2:30

TUESDAY, JULY 27, 2004

AWARDS LUNCHEON: State Room C

TUESDAY AFTERNOON, JULY 27, 2004

CONCURRENT SESSION 1

SYMPOSIUM: Research in Insect Genetics

Wayne Hunter, Organizer

State Room B

2:30

Opening Remarks. Wayne Hunter. USDA-ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL.

2:35

39. Genetic/genomic dissection of how male fruit flies modulate the reproductive biology of their mates. **Mariana Federica Wolfner**, Dept. of Molecular Biology and Genetics, Cornell University, Ithaca NY.

3:00

40. Phylogenetic relationships of *Anastrepha suspensa* (Caribbean Fruit Fly) from Florida inferred from mitochondrial DNA sequence data. **Laura Boykin**, Robert Shatters, David Hall, Ken Hibbard, and Ann Fritz. USDA-ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL.

3:25

41. Molecular biology and population genetics. **Mike Caprio**. Insect Genetics, Dept. of Entomology, Mississippi State University, Mississippi State, MS.

3:50 Break

4:10

42. The use of RNAi in the suppression of a member of the calcium dependent protein kinase gene CDPK9: a specific member of a unique family of enzymes. **Catherine S. Katsar**. Department of Plant Pathology, Iowa State University, Ames, IA.

4:35

43. Potential uses of insect viruses to manage leafhopper vectors of Pierce's Disease. **Wayne Hunter**. USDA-ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL.

5:00

44. Vitellogenin of the glassy-winged sharpshooter. **Laura E. Hunnicutt** and Wayne Hunter. USDA-ARS, U. S. Horticultural Research Laboratory, Fort Pierce, FL.

5:10

45. Effects of herbivory by a xylem-feeding leafhopper, *Homalodisca coagulata*, on the vascular transcriptome of *Citrus sinensis*. **Jerry Mozoruk**, Laura Hunnicutt, Ronald Cave, Michael Bausher, and Wayne Hunter

5:20 General Discussion

TUESDAY AFTERNOON, JULY 27, 2004

CONCURRENT SESSION 2

SYMPOSIUM: Recent Industry Advances in Urban Pest Management

Rudi Scheffrahn, Organizer

State Room A

2:30

Opening Remarks. **Rudolf H. Scheffrahn**. University of Florida, IFAS, Fort Lauderdale, FL .

2:35

46 Termidor and Phantom research and labeling update. **Bob Hickman**. BASF, Orlando, FL

2:55

47. Current research in Syngenta professional products: a Vero Beach, Florida perspective. **Clark Lovelady**. Syngenta, Vero Beach, FL

3:15

48. From earth to air - control of structure-infesting pests with new technologies from Dow AgroSciences. **Ellen Thoms** and Joe Eger. Dow AgroSciences, Gainesville, FL

3:40 **Break**

4:20

49. Research and development update from Bayer Environmental Science. **John Paige III**. Bayer Environmental Science, Vero Beach, FL

4:40

50. ParadigmT: a novel treatment for the control of turf, greenhouse, and general household pests. **Dina Richman** and Bruce Ryser. FMC Corporation, Philadelphia, PA

TUESDAY AFTERNOON, JULY 27, 2004

CONCURRENT SESSION 3

Contributed Papers, General Entomology

<Moderator: Steve Lapointe>

State Room D

2:30 **Introduction**

2:35

51. New source of southern chinch bug resistance in a diploid selection of St. Augustinegrass. **Ron Cherry** and Russell Nagata. Everglades Res. & Ed. Ctr., 3200 E. Palm Beach Rd., Belle Glade, FL 33430

2:45

52. Gliding flight in neotropical arboreal ants. **Stephen P. Yanoviak**. University of Florida Medical Entomology Lab, Vero Beach, FL.

2:55

53. Mobility of the silky cane weevil (Coleoptera: Curculionidae) in a screen enclosure. **Helena Puche**, T. J. Weissling, R. Schnell, N. D. Epsky, and R. R. Heath. Subtropical Horticulture Research Station, USDA-ARS, Miami, FL.

3:05

54. Asian ambrosia beetle: biology, behavior and management tools. **Russell F. Mizell, III** and T. Charles Riddle. University of Florida, NFREC-Quincy, Quincy, FL

3:15

55. Oviposition and isolation of viable eggs from *Orius insidiosus* in a Parafilm⁷ and water substrate. **Jeffrey P. Shapiro** and Stephen M. Ferkovich. USDA, ARS, CMAVE, Gainesville, FL.

3:25

56. Effect of sample size on the accuracy and precision of citrus rust mite density estimates on citrus fruit. **David G. Hall**, Carl C. Childers, and Joseph E. Eger. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

3:35

57. Mating behavior and male reproductive success in the beetle, *Diaprepes abbreviatus*. **Laura K. Sirot**, H. Jane Brockmann, and Stephen L. Lapointe. Department of Zoology, University of Florida, Gainesville, FL.

3:45

58. Development of rearing methods and a synthetic female sex pheromone for the pink hibiscus mealybug. **Stephen L. Lapointe** and D. G. Hall. USDA, ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

3:55 **Break**

4:20

59. The impact of the European honey bee on an Australian native bee. **Dean Paini** and Dale Roberts. University of Florida (NFREC), Quincy, FL.

4:30

60. Population dynamics of fall armyworm in Florida. **Rod N. Nagoshi** and Robert L. Meagher. USDA, ARS, CMAVE, Gainesville, FL.

TUESDAY EVENING, JULY 28, 2004

5:30 B 7:00PM

Tour of the Bonnet House and tram tour of the grounds. Free. See sign-up sheet at registration.

Built in 1920 and listed on the National Register of Historic Places, Bonnet House & Gardens is a 35-acre tropical estate and historic house museum. The main house is filled with a collection of art and the personal treasures of the Birch/Bartlett families. The surrounding grounds of the estate range from a mangrove swamp to a coastal hammock, providing habitat for a variety of fish, birds, monkeys, and other wildlife.

WEDNESDAY MORNING, JULY 28, 2004

CONCURRENT SESSION 1

SYMPOSIUM: Coccoidea: Taxonomy, Biology, and Management

F. W. Howard, Gregory S. Hodges, Organizers

State Room C

8:25

Opening remarks. Greg Hodges and Bill Howard. Florida Department of Agriculture & Consumer Services, Division of Plant Industry, Gainesville, FL.

8:35

61. Scale insects: an overview of taxonomy and importance. **Michael Williams**. Auburn University, Department of Entomology.

8:55

62. *Duplacionaspis divergens*: a little known invasive armored scale on Florida's grasses. **Greg Hodges**. Florida Department of Agriculture & Consumer Services, Division of Plant Industry, Gainesville, FL.

9:05

63. *Palmicultor* spp. (Pseudococcidae) in Florida. **Amanda Hodges**. Florida Department of Agriculture & Consumer Services, Division of Plant Industry, Gainesville, FL.

9:15

64. Management of the cycad aulacaspis scale. **Catharine Mannion**. University of Florida, Tropical Research & Education Center, Homestead, FL.

9:25

65. Biocontrol of cycad aulacaspis scale. **Ronald D. Cave**. University of Florida, Indian River Research & Education Center, Ft Pierce, FL.

9:35 **Break**

10:00

66. The use of scale insect honeydew (*Stigmacoccus garmilleri*, family Margarodidae, tribe Xylococcini) by birds in Mexico. **Heather A. Gamper** and Susan Koptur. Florida International University, Miami, FL.

10:10

67. Bionomics of lobate lac scale, a recently introduced scale insect in Florida. **Bill Howard** and Bob Pemberton. University of Florida, Ft. Lauderdale Research & Education Center, Fort Lauderdale, FL.

10:20

68. Varietal susceptibility and spatial analysis of local distribution of the lobate lac scale. **Nancy D. Epsky**, Divina Amalin, Helena Puche, and Catharine M. Mannion. USDA, ARS, Subtropical Horticulture Research Station, Miami, FL.

10:30

69. A survey of the distribution of lobate lac scale in Florida. **Yvette Ogle**. Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Gainesville, FL.

10:40

70. Management of scale insects and mealybugs in home landscapes. **Adrian Hunsberger**. University of Florida, Miami-Dade Cooperative Extension Service, Homestead, FL.

10:50

71. Life cycle and management of Kermes scale in Florida. **Jay Cee Turner** and Eileen Buss. University of Florida, Department of Entomology and Nematology, Gainesville, FL.

11:00

72. The biology and management of the Madera mealybug. **Juang-Horng Chong** and Ronald D. Oetting. University of Georgia, Department of Entomology.

11:10

73. The status of the pink mealybug in Florida. **Lance Osborne**. University of Florida, Mid-Florida Research & Education Center.

11:20

74. Cochineal rearing: the revival of an ancient technology in Mexico. **Liberato Portillo**. University of Guadalajara, Mexico

WEDNESDAY MORNING, JULY 28, 2004

CONCURRENT SESSION 2

Contributed Papers, General Entomology

<Moderator-Rudi Scheffrahn>

State Room D

8:30

Introduction

8:35

75. Area-wide eradication program for the arboreal termite, *Nasutitermes costalis*, in southeastern Florida. **Rudolf H. Scheffrahn**, Steven Dwinell, Brian J. Cabrera, and William H. Kern, Jr. Fort Lauderdale Research and Education Center, University of Florida, Institute of Food and Agricultural Sciences, Fort Lauderdale, FL .

8:45

76. Reproductive diapause in the glassy-winged sharpshooter, *Homalodisca coagulata* (Say). **Christopher Tipping**, R. F. Mizell, III, and P. C. Andersen. University of Florida (NFREC), Quincy, FL 32351

8:55

77. Evaluation of Natural Liquid and Granular Repellents for Insect Management on Garden Vegetables. **Michael L. Miller** and Susan E. Webb. University of Florida/ IFAS, Entomology and Nematology Department, Gainesville, FL.

9:05

78. Overview of the USDA-ARS Subtropical Insects Research Unit, Ft Pierce, Florida. **David G. Hall**, W. B. Hunter, S. L. Lapointe, C.L. McKenzie, R. Shatters, and A. A. Weathersbee. USDA, ARS, U.S. Horticultural Research

Laboratory, Fort Pierce, FL.

9:15

79. Ant predation and biological control of the root weevil, *Diaprepes abbreviatus*, in Florida citrus: field manipulations. **Robin J. Stuart**, Ian W. Jackson, and Clayton W. McCoy

9:25 **Break**

10:00

80. Cyanogenesis in *Heliconius erato* (Nymphalidae: Heliconiinae) and *Passiflora* plants. **Mirian Medina Hay-Roe**. University of Florida, Entomology and Nematology Department, Gainesville, FL.

10:10

81. Elucidating the gall-maker and natural enemy complex on containerized live oak trees. **Eileen Buss** and Lois Wood. University of Florida, Entomology and Nematology Department, Gainesville, FL. University of Florida, Entomology and Nematology Department, Gainesville, FL.

10:20

82. *Scirtothrips dorsalis* (Hood), a new threat to the greater Caribbean region. **D. R. Seal**, M. Ciomperlik, T. L. Skarlinsky, and W. Klassen. Tropical Research and Education Center, UF/IFAS, Homestead, FL.

10:30

83. Efficacy of Envidor™, a new acaricide from BayerCropscience, against Eriophyidae mites on Florida citrus. **Marco A. Toapanta**, John Bell, Joby Sherrod, Roy Morris, and Richard Rudolph. Bayer CropScience, Tampa, FL.

ACKNOWLEDGMENTS

The Program Committee and the Florida Entomological Society express their appreciation to the following for their support of the Eighty-Seventh Meeting:

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Sustaining Members, Florida Entomological Society (<http://www.flaentsoc.org/susmem04.htm>)

Exhibitors

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