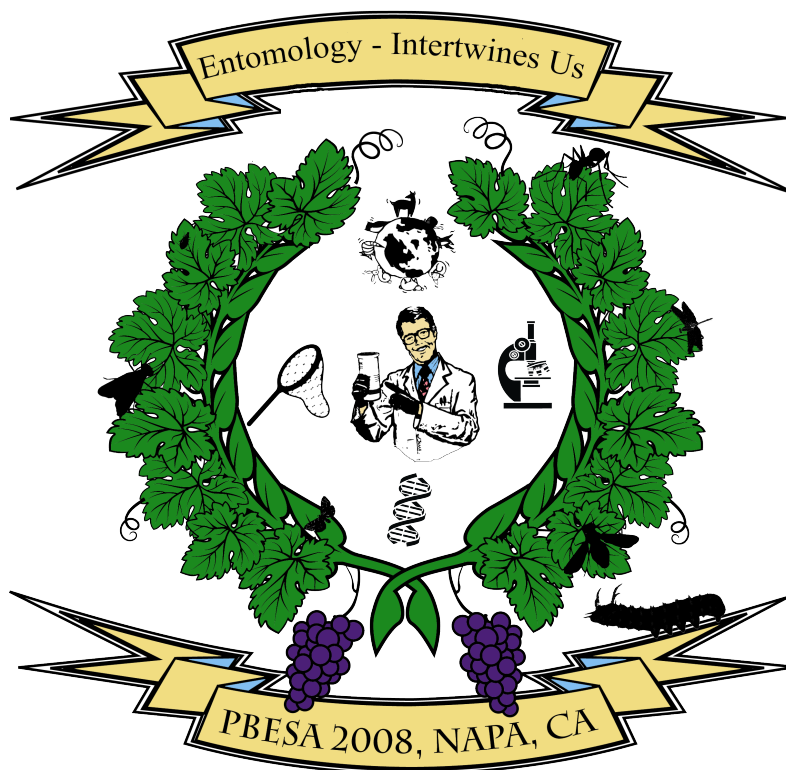


PACIFIC BRANCH ENTOMOLOGICAL SOCIETY OF AMERICA

92nd Annual Meeting



**March 30 – April 2, 2008
Embassy Suites Napa Valley
Napa, CA**



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ENTOMOLOGICAL SOCIETY OF AMERICA**

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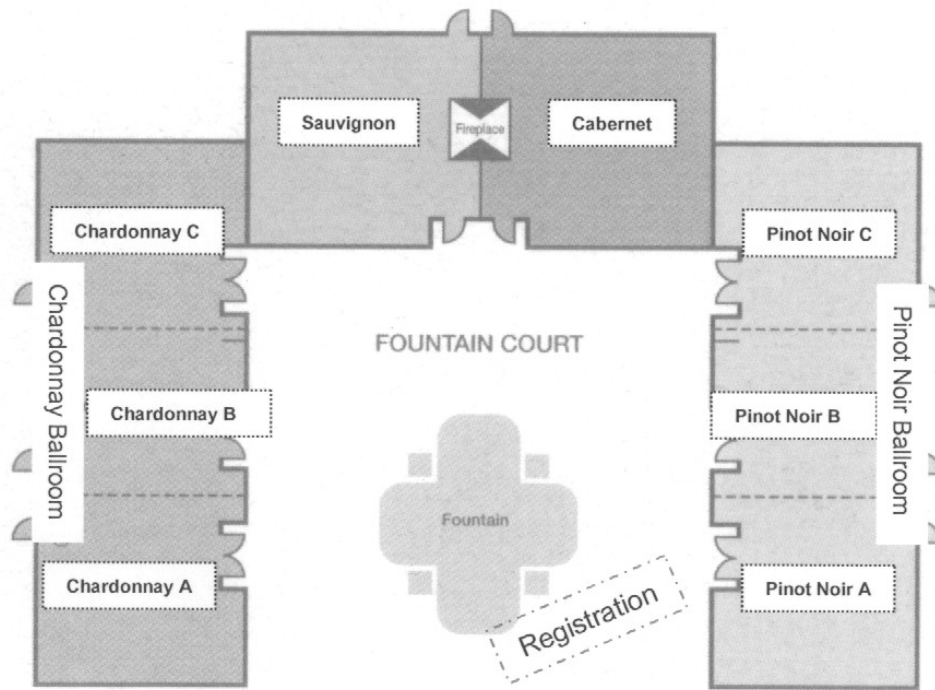
2010 PB-ESA meeting

Utah, Montana, Idaho states

Larry Godfrey, 2007-08, PB-ESA President



MEETING SPACE FLOOR PLANS



Boardroom - Upstairs

Lobby →

PROGRAM

Sunday Afternoon, March 30

- | | |
|-------------------|--|
| 2:00 – 6:00 pm | Registration
<i>Fountain Court P</i> |
| 5:00 pm – 7:00 pm | Executive Committee Meeting
<i>Sauvignon</i> |
| 5:00 pm – 6:00 pm | Judges Meeting
<i>Boardroom</i> |
| 2:00 pm – 6:00 pm | Audio Visual Preview/Presentation Upload
<i>Fountain Court P</i> |

Monday Morning, March 31

- | | |
|-------------------|---|
| 7:00 am – 5:00 pm | Registration
<i>Fountain Court P</i> |
| 7:00 am – 8:30 am | Audio Visual Preview/Presentation Upload
<i>Fountain Court P</i> |
| 8:30 am– 11:30 am | Session A: Opening Session and Business Meeting
<i>Chardonnay A, B, C</i> |
| 8:30 am | <u>Welcome and Opening Remarks</u>
<i>Larry Godfrey, President of the Pacific Branch of the
Entomological Society of America
University of California, Davis, CA</i> |

- 8:35 am Report from the Entomological Society of America
Michael Gray, *President of Entomological Society of America*
University of Illinois, Urbana, IL
- 8:45 am Report from the National Organization
Robin Kriegel, *Executive Director*
Entomological Society of America
- 8:55 am Report from the Pacific Branch Entomological Society of America Governing Board Representative
Michael Parrella
University of California, Davis, CA
- 9:05 am Report from the Entomological Foundation
Nick Toscano
University of California, Riverside, CA
- 9:10 am Report from Board Certified Entomologist (BCE)
Patrick Weddle
Pacific Branch BCE Representative
- 9:15 am Putting ESA's New Sections to Work -- A View for Plant-Insect Ecosystems
Robert Wiedenmann, *President, Plant-Insect Ecosystems Section, Entomological Society of America*
University of Arkansas, Fayetteville, AR
- 9:25 am Introduction of the C. W. Woodworth Award
Larry Godfrey *President of the Pacific Branch of the Entomological Society of America*
University of California, Davis, CA
- 9:30 am "Memories and Family Photos of C. W. Woodworth from People Who Knew Him"
Brian Holden, *Great-Grandson of C. W. Woodworth, and Family Members*
- 9:40 am 2008 C. W. Woodworth Award Winner Presentation

Molecular Strategies for Enhancing Biological Control

Brian Federici

University of California, Riverside, CA

10:10 am

2008 John Henry Comstock Award Winner Presentation

Spatiotemporal Modeling of *Culex tarsalis* (Diptera: Culicidae) Abundance in California Using Meteorologic and Edaphic Predictors

Chris Barker

University of California, Davis, CA

10:40 am

BREAK

11:00 am

Preliminary Business Session

Larry D. Godfrey, *President of the Pacific Branch of the
Entomological Society of America*

University of California, Davis, CA

11:30 am

ADJOURN

Monday Afternoon, March 31

1:00 pm – 5:00 pm **Audio Visual Preview/Presentation Upload**
Fountain Court P

1:30 pm – 3:42 pm **Session A: M.S. and Ph.D. 10-Minute Paper Competition**
Chardonnay C

Moderators:

Brian Bret

Dow AgroSciences, Roseville, CA

Holly Ferguson

Washington State University, Prosser, WA

M.S. 10-Minute Paper Competition

- | | |
|---------|---|
| 1:30 pm | 1. Improved Management of Cucumber Beetles in California Melons. A. Pedersen ¹ , L. Godfrey ¹ , C. Pickel ² , ¹ Department of Entomology, University of California, Davis, Davis, CA; ² UCCE, Sutter County, Yuba City, CA. |
| 1:42 pm | 2. Patterns of Insect Caused Cutting Failure Within an Irrigated Perennial Crop. R. Rodstrom , J. Brown and J. Rodstrom, Department of Entomology, Washington State University, Pullman, WA. -- CANCELLED |

Ph.D. 10-Minute Paper Competition

- | | |
|---------|---|
| 1:54 pm | 3. Predicting Parasitoid Population Dynamics Resulting from Novel Interactions of Climate Change and Selenium Pollution. C. Butler and J. Trumble, Dept. of Entomology, University of California, Riverside, CA. |
| 2:06 pm | 4. Is There Interference Among Mealybug Sex Pheromones Used in Pheromone-Baited Traps for Monitoring Mealybugs? R. Waterworth , J. Millar, J. McElfresh, |

and J. Bethke, Department of Entomology, University of California, Riverside, CA.

2:18 pm

5. Shutting Down The Cooling System: Water Stress, Leaf Temperature and Spider Mite Outbreaks in Vineyards. **M. Stavrinides** and N. Mills, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.

2:30 pm

BREAK

2:42 pm

6. Spider Diversity and Herbivore Suppression in California Wine Vineyards. **B. Hogg** and K. Daane, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.

2:54 pm

7. Pupation Sites of *Scirtothrips citri* and Infectivity of *Beauveria bassiana* to *S. citri* in Laboratory Studies. **D. Zahn** and J. Morse, Department of Entomology, University of California, Riverside, CA.

3:06 pm

8. Intrafield Spatial Distribution and Precision Sampling of Thrips in Timothy. **D. Reisig**¹, L. Godfrey¹ and D. Marcum², ¹Department of Entomology University of California, Davis, CA; ²UCCE, Shasta County, McArthur, CA.

3:18 pm

9. Investigating Host Plant Acceptance in Establishment Success of *Diorhabda elongata* for Biological Control of Saltcedars. **H. Thomas**, Department of Entomology, University of California, Davis, CA.

3:30 pm

10. Predicting *Hyposoter exiguae* Presence and Biocontrol Activity in Vegetable Fields: Farm-Scale Versus Landscape-Scale Influences. **S. Bothwell** and D. Letourneau, Department of Environmental Studies, University of California, Santa Cruz, CA.

1:30 pm – 3:30 pm **Session B: Ph.D. 10-Minute Paper Competition**

Pinot A

Moderators:

Theresa Pitts-Singer

USDA, ARS, Bee Biology and Systematics Laboratory, Utah
State University, Logan, UT

Doug Walsh

Washington State University, Prosser, WA

- | | |
|---------|--|
| 1:30 pm | 11. Conservation of Insect Diversity in an Alpine Ecosystem. S. Schoville and G. Roderick, Department of Environmental Science, Policy, and Management, University of California, Berkeley. |
| 1:42 pm | 12. The Influence of Relative Abundance and Taxonomic Identity on the Effectiveness of Generalist Predators as Biological Control Agents. C. Moreno ¹ and P. Barbosa ² , ¹ Department of Environmental Studies, University of California, Santa Cruz, CA; ² Department of Entomology, University of Maryland, College Park, MD. |
| 1:54 pm | 13. Heat Induces Diploid Male Production in the <i>Wolbachia</i> -Infected Chalcidoid Wasp, <i>Trichogramma kaykai</i> . G. Tulgetske and R. Stouthamer, Department of Entomology, University of California, Riverside, CA. |
| 2:06 pm | 14. Odorant Binding Proteins (OBPs) from Malaria Mosquito <i>Anopheles funestus</i> . W. Xu , A. Cornel, and W. Leal, Department of Entomology, University of California, Davis, CA. |
| 2:18 pm | 15. Effects of Vegetation on the Efficacy of Larval Mosquito (Diptera: Culicidae) Control by a Native Larvivorous Fish. J. Henke and W. Walton, Department of Entomology, University of California, Riverside, CA. |
| 2:30 pm | BREAK |
| 2:42 pm | 16. The Effectiveness of Pyriproxyfen on Obliquebanded |

Leafroller, *Choristoneura rosaceana* (Lepidoptera: Tortricidae). **A. Sial** and J. Brunner, Department of Entomology, Washington State University Tree Fruit Research and Extension Center Wenatchee, WA.

2:54 pm

17. Diversification on Islands: Microsatellites Shed Insight Into a Radiating Lineage of Hawaiian Planthoppers (*Nesosydne chambersi*: Hemiptera: Delphacidae). **K. Goodman**, S. Welter, and G. Roderick, Department of Environmental Science, Policy and Management, University of California, Berkeley, CA.

3:06 pm

18. Systematics, Biogeography and Conservation of the *Pheidole roosevelti*-group (Hymenoptera: Formicidae) in Fiji. **E. Sarnat**, Department of Entomology, University of California, Davis, CA. -- CANCELLED

3:18 pm

19. Systematics and Biogeography of *Callobius* (Araneae, Amaurobiidae), a Spider Genus Diverse in the California Floristic Province. **S. Lew**, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.

11:00 am – 5:00 pm

Poster Session – M.S. and Ph. D. Competition

Fountain Court

M.S. Poster Competition

20. Seed Preferences of the Harvester ant *Pogonomyrmex rugosus* in Coastal Sage Scrub. **C. Briggs** and R. Redak, Department of Entomology, University of California, Riverside, CA.
21. Can Pollen-Foraging Bumblebees Recognize Which Rose Flowers Are More Rewarding? **B. Como** and E. Rodriguez, Whitman College, Walla Walla, WA
22. Role of Vision and Olfaction in Host Flower Recognition by the Bee *Chelostoma rapunculi*. **G. Liu** and H. Dobson, Whitman College, Walla Walla, WA.

23. Selection of Body Size in Foraging Bees.
D. Hinojosa, G. Withers and H. Dobson, Whitman College, Walla Walla, WA.

Ph.D. Poster Competition

24. *Coccobius* and the Pustulate Pleuron: Placing the Unplacable. **J. Mottern** and J. Heraty, Department of Entomology, University of California, Riverside, CA.
25. Shared Parasitism Amongst Two Leafminer Species: A Quantitative Food Web Approach. **E. Blitzer** and S. Welter, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.
26. Potato Virus Y (PVY) (Potyviridae: Potyvirus) Strain Reactions in Hairy Nightshade and Potato Upon Aphid Inoculation with *Myzus persicae* (Sulzer). **F. Cervantes** and J. M. Alvarez, Aberdeen Research and Education Center, University of Idaho, Aberdeen, ID

1:30 pm – 4:50 pm **Session C: Symposium – Insect Conservation Biology**
Chardonnay A

Organizer and Moderator:

Stephen Welter

Department of Environmental Science, Policy and Management, University of California, Berkeley, CA

1:30 pm Introduction. **S. Welter**, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.

1:35 pm 27. Crop Pollination by Native Bees: A Tale of Two Landscapes. **C. Kremen**, Department of Environmental Sciences, Policy and Management, University of California, Berkeley, CA.

- | | |
|---------|---|
| 2:00 pm | 28. The Genetic and Chemical Basis of Altered Social Structure in a Widespread Invasive Ant.
N. Tsutsui , Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA. |
| 2:25 pm | 29. Transforming Taxonomy for Effective Biodiversity Assessment of Arthropods in Madagascar.
B. Fisher , California Academy of Sciences, San Francisco, CA. |
| 2:50 pm | 30. Conservation of Hawaiian Drosophila using Phylogenetic, Ecological and Population Genetic Data.
P. O'Grady , Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA. |
| 3:15 pm | BREAK |
| 3:30 pm | 31. Using Phylogeny to Examine the Optimal Scale of Insect Conservation in Regions With High Levels of Endemism. D. Rubinoff , Department of Plant and Environmental Protection Sciences, University of Hawaii, Honolulu, HI. |
| 3:55 pm | 32. Terrestrial Arthropod Diversity of Moorea: A Model Ecosystem. G. Roderick and R. Gillespie, Department of Environmental Science Policy and Management and Essig Museum of Entomology, University of California, Berkeley, CA. |
| 4:20 pm | 33. Potential Habitat for Quino Checkerspot Butterfly Under Altered Climate Conditions: Importance of Biotic Interactions. R Redak ^{1,2} and K. Preston ² ,
¹ Department of Entomology, University of California, Riverside, CA; ² Center for Conservation Biology, University of California, Riverside, CA |
| 4:40 pm | Discussion and Questions |

1:30 pm – 4:30 pm **Session D: Symposium – Colony Collapse Disorder**

Chardonnay B

Organizers and Moderators:

Larry Godfrey and Eric Mussen

Department of Entomology, University of California, Davis,
CA

- 1:30 pm Introduction. **E. Mussen**, Department of Entomology,
University of California, Davis, CA.
- 1:35 pm 34. Honey Bees and Colony Collapse – What is it?
E. Mussen, Department of Entomology, University of
California, Davis, CA.
- 1:55 pm 35. Imidacloprid and the Neonicotinoid Insecticides –
Aspects Relating to Honey Bees and Colony Collapse.
A. Chalmers¹, D. Fischer¹, C. Maus², R. Schmuck² and
D. Rogers¹, ¹Bayer CropScience, Research Triangle
Park, NC; ²Bayer Crop Science, Monheim, Germany.
- 2:15 pm 36. Accumulation of Systemic Insecticides in Nectar.
J. Charles-Tollerup and T. Paine, Department of
Entomology, University of California, Riverside, CA.
- 2:35 pm 37. A Center for Disease Control for Managed Bees.
¹**Jerry Bromenshenk**, ¹Colin Henderson, ²David
Wick, ³Charles Wick, ³Evan Skowronski, ⁴Robert
Cramer, ⁵Joseph DeRisi, ¹The University of Montana
—Missoula, ²BVS, Inc.; ³US Army Edgewood
Chemical and Biological Center (ECBC),
⁴Montana State University, ⁵University of California,
San Francisco.
- 2:55 pm **BREAK**
- 3:15 pm 38. A study of colony health in a western migratory
beekeeping operation, B. **Kahkonen** and W. S.
Sheppard, Department of Entomology, Washington
State University, Pullman, WA.

- 3:35 pm 39. Observations on and Impact of Colony Collapse from the Apiculture Industry. **G. Brandi**, Legislative Chairman, California State Beekeepers Association, Sacramento, CA.
- 3:55 pm 40. Research Projects Conducted by Almond Grower and Beekeeper Stakeholders. **C. Heintz**, Almond Board and Project Apis m, Chico, CA.
- 4:15 pm Discussion and Questions

Monday Evening, March 31

- 5:30 pm – 7:30 pm **Pacific Branch Mixer and President's Reception**
Fountain Court P,C
- 7:30 pm – 9:00 pm **Linnaean Games**
Chardonnay A, B

Tuesday Morning, April 1

- 7:00 am – 5:00 pm **Registration**
Fountain Court P
- 7:00 am – 11:00am **Audio Visual Preview/Presentation Upload**
Fountain Court P

8:00 am – 11:36 am **Session A: Submitted 10-Minute Papers**

Sauvignon

Moderators:

Jesse Richardson

Dow AgroSciences, Hesperia, CA

Victoria Yokoyama

USDA-ARS, San Joaquin Valley Agricultural Research Center, Parlier, CA

- 8:00 am 41. Phylogeny of Pterostichine Ground Beetles: Australian Lineages and the Origins of Brooding Behavior. **K. Will**¹ and F. Turco², ¹Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA; ²Queensland Museum, Entomology, Brisbane, Queensland, Australia.
- 8:12 am 42. Identification of Chemostimuli From Natural Host Substrates and Their Receptors For Navel Orange Worm Adult Moths, *Amyelois transitella* (Walker) (Lepidoptera: Pyralidae). **Z. Syed** and W. S. Leal, Department of Entomology, University of California, Davis, CA.
- 8:24 am 43. Navel Orangeworm Dispersal and Abundance in Almonds and Pistachios. **B. Higbee**¹ and C. Burks², ¹Paramount Farming Company, Bakersfield, CA; ²USDA, ARS, Parlier, CA.
- 8:36 am 44. Tales from a County Entomologist: Entomology from a Regulatory Perspective. **B. Cabera** and G. Tingos, Agricultural Commissioner's Office, Santa Barbara County, Santa Barbara, CA.
- 8:48 am 45. A New Whitefly-Transmitted Disease in California: Cucurbit Yellow Stunting Disorder. **E. Natwick**,¹ W. Wintermantel², R Gilbertson³, Y-W. Kuo³, T. Turini⁴ and J. Dessert⁵, ¹UCCE, Imperial County, Holtville, CA; ²USDA, ARS, Salinas, CA; ³University of California, Davis, CA; ⁴UCCE, Fresno County, Fresno, CA; ⁵Imperial County Agricultural Commissioner's Office, Imperial County, El Centro, CA.

- 9:00 am 46. Effects of Pre-Wintering and Wintering Durations on Adult Emergence of Alfalfa Leafcutting Bees. **T. Pitts-Singer** and R. James, USDA, ARS Bee Biology and Systematics Laboratory, Utah State University, Logan, UT.
- 9:12 am 47. Susceptibility of Olive Fruit in Relation to Olive Fruit Fly Development and Ovipositional Period in California. **V. Yokoyama**, USDA-ARS, San Joaquin Valley Agricultural Research Center, Parlier, CA.
- 9:24 am 48. Development of Management Programs For Citrus Thrips in California Blueberries. **S. Rill** and D. Haviland, UCCE, Kern County, Bakersfield, CA.
- 9:36 am 49. Hawaiian Prospects For Thrips Control Using White Muscardine Fungus. **R. Hollingsworth**, A. Lysy, and T. Matsumoto-Brower, USDA, ARS, U.S. Pacific Basin Agricultural Research Center, Hilo, HI.
- 9:48 am 50. *Lygus hesperus* Movement at the Landscape Level: Are Our “Traditional” Concepts Accurate? **P. Goodell** and D. Cary, UCCE, Kearney Agricultural Center, Parlier CA.
- 10:00 am **BREAK**
- 10:12 am 51. Effect of Delayed Female Mating on Reproductive Biology of Codling Moth and Obliquebanded Leafroller. **V. Jones**, N. Wiman, and J. Brunner, Department of Entomology, Tree Fruit Research and Extension Center, Washington State University, Wenatchee, WA.
- 10:24 am 52. Site-Specific Codling Moth Management In Tree Fruits. **A. Knight**, USDA, ARS, Wapato, WA
- 10:36 am 53. Native Hedgerows Provide Conservation and Agricultural Benefits. **R. Long**¹, L. Morandin², and C. Pease³, ¹UCCE, Yolo County, Woodland, CA, ²Department of Environmental Science, Policy and Management, University of California, Berkeley, CA, ³Department of Entomology, University of California, Davis, CA

- 10:48 am 54. Managing *Scirtothrips* species in California and Arizona with Spinetoram, a New Spinosyn Insecticide. **J. Richardson**¹, B. Bisabri², J. Morse³, D. Kerns⁴, D. Haviland⁵, J. Palumbo⁶, and J. Dripps⁷, ¹Dow AgroSciences, Hesperia, CA; ²Dow AgroSciences, Orinda, CA; ³Department of Entomology, University of California, Riverside, CA; ⁴Texas A&M University, Lubbock, TX; ⁵UCCE, Kern County, Bakersfield, CA; ⁶University of Arizona, Yuma, AZ; ⁷Dow AgroSciences, Indianapolis, IN.
- 11:00 am 55. Seasonal Flight Patterns and Geographic Distribution of Click Beetles From Potatoes in Alaska. **A. Pantoja**, A. Hagerty, and S. Emmert, USDA, ARS, Subarctic Agricultural Research Unit, Fairbanks, AK
- 11:12 am 56. Interactions Between The Potato Aphid and Its Host Plants in Idaho's Potato Ecosystem. **R. Srinivasan** and J. Alvarez, Aberdeen Research and Extension Center, University of Idaho, Aberdeen, ID.
- 11:24am 57. Effects of Seed Treatment Insecticides on Cereal Leaf Beetle in Wheat. **D. Bragg**¹, P. Carr¹, and K. Tetrick², ¹Central Ferry Research Station, Washington State University, Pomeroy, WA; ²USDA, ARS, Central Ferry Research Station, Pomeroy, WA.

8:00 am – 11:25 am **Session B: Symposium – Grape IPM**
Chardonnay A, B

Organizers and Moderators:

Nick Toscano¹ and **Beth Stone-Smith**²

¹Department of Entomology, University of California, Riverside, CA

²USDA, APHIS, PPQ, Bakersfield, CA

8:00 am Introduction. **N. Toscano**, Department of Entomology, University of California, Riverside, CA.

8:05 am 58. Glassy-Winged Sharpshooter, *Homalodisca vitripennis*, in Napa Valley. **D. Whitmer**, Agricultural

Commissioner's Office, Napa County, Napa, CA.

- 8:25 am 59. Glassy-Winged Sharpshooter Area-Wide Management in the San Joaquin Valley, CA. **B. Stone-Smith**, USDA, APHIS, PPQ, Bakersfield, CA.
- 8:45 am 60. Managing the Glassy-Winged Sharpshooter and the Vine Mealybug in Vineyards With Neonicotinoid Insecticides. **N. Toscano** and F. Byrne, Department of Entomology, University of California, Riverside, CA
- 9:05 am 61. Connecting the Dots: Vector Transmission of *Xylella fastidiosa* and Pierce's Disease Epidemiology. **R. Almeida** and M. Daugherty, Department of Environmental Science, Policy and Management, University of California, Berkeley, CA
- 9:25 am 62. Mapping Post-Winter Glassy-Winged Sharpshooter Populations in California. **M. Johnson**¹, H. Nadel¹, K. Lynn-Patterson², M. Sisterson³, R. Groves⁴,
¹Department of Entomology, University of California, Riverside, CA; ²University of California Kearney Agricultural Center, Parlier, CA; ³San Joaquin Valley Agricultural Sciences Center, USDA, ARS, Parlier, CA; ⁴Department of Entomology, University of Wisconsin, Madison, WI
- 9:45 am 63. Non-Target Impacts of the Glassy-Winged Sharpshooter Parasitoids: Good News For Grapes? **E. Boyd**¹ and M. Hoddle², ¹Kearney Agricultural Center, Parlier, CA, ²UC-Riverside, Department of Entomology, Riverside, CA.
- 10:05 am **BREAK**
- 10:25 am 64. Conventional and Organic Mite Management in Winegrape Vineyards. **F. Zalom** and C. Pease, Department of Entomology, University of California, Davis, CA
- 10:45 am 65. Biology and IPM of Eriophyid Mites in Oregon Vineyards. **V. Walton**¹, A. Dreves¹, D. Gent², D. James³, R R. Martin⁴, U. Chambers¹ and P. Skinkis¹, ¹Department of Horticulture, Oregon State University, Corvallis, OR; ²USDA, ARS, Forage Seed and Cereal Research Unit, Corvallis, OR;

³Irrigated Agriculture Research and Extension Center,
Washington State University, Prosser, WA;

⁴USDA, ARS, Horticultural Crops Research
Laboratory, Corvallis OR

- 11:05 am 66. No Rain, Cold Winter. The Terroir of Successful IPM in Washington Vineyards. **D. Walsh**¹ and G.Grove²,
¹Department of Entomology, Washington State University, Prosser, WA; ²Department of Plant Pathology, Washington State University, Prosser, WA

Please note that this symposium will continue on Tuesday afternoon beginning at 1:30 pm.

8:00 am –
12:00 noon

**Session C: Symposium – Biological Control of Yellow
Starthistle: Accomplishments and Future Prospects**

Chardonnay C

Organizers and Moderators:

Steve Clement¹ and Lincoln Smith²

¹USDA, ARS, Plant Germplasm Introduction and Testing
Research Unit, Pullman, WA

²USDA, ARS, Exotic Invasive Weeds Research Unit Albany,
CA

- 8:00 am Introduction. **L. Smith**, USDA, ARS, Exotic Invasive Weeds
Research Unit, Albany, CA.

- 8:05 am 67. Yellow Starthistle: A Biocontrol Project With Many
Twists and Turns. **S. Clement**, USDA, ARS, Plant
Germplasm Introduction and Testing Research Unit,
Pullman, WA

- 8:25 am 68. Are Seed-Feeding Insects Adequately Controlling
Yellow Starthistle, *Centaurea solstitialis*, in the
Western U.S.? **M. Schwarzländer**¹ and R.
Winston², ¹University of Idaho, PSES Department,
Moscow ID; ²MIA Consulting, Boise ID

- 8:45 am 69. Biological Control as a Management Tool for Plant

Communities Infested With Yellow Starthistle.
R. Winston¹ and M. Schwarzlander², ¹MIA
Consulting, Boise ID; ²University of Idaho, PSES
Department, Moscow ID

- 9:05 am 70. Population-Level Compensation by an Invasive Thistle
Thwarts Biological Control from Seed Predators.
S. Strauss and J. Garren, Department of Evolution and
Ecology, University of California, Davis, CA.
- 9:25 am 71. Distribution, Abundance, and Impact of
Chaetorellia australis and *C. succinea* on *Centaurea*
spp. in Washington. **G. Piper**¹ and K. Tonkel²,
¹Department of Entomology, Washington State
University, Pullman, WA; ²USDA-ARS Exotic and
Invasive Weeds Research Unit, Reno, NV.
- 9:45 am 72. Nontarget Risks of *Chaetorellia succinea*, an
Accidentally Released Natural Enemy of Yellow
Starthistle. **J. Balciunas**¹ and B. Villegas², ¹Exotic &
Invasive Weed Research Unit, USDA, ARS, Albany,
CA; ²Biological Control Program, California
Department of Food and Agriculture, Sacramento, CA.
- 10:05 am **BREAK**
- 10:25 am 73. Observations on the Biological Control of Yellow
Starthistle at Two Long-Term Field Sites.
M. Pitcairn¹, D. Woods¹, V. Popescu¹, and D.
Joley², ¹Biological Control Program, California
Department of Food and Agriculture, Sacramento,
CA; ²Seed Diagnostic Laboratory, California
Department of Food and Agriculture, Sacramento, CA.
- 10:45 am 74. Geographic Analysis of the Distribution and Abundance
of Insect Biological Control Agents of Yellow
Starthistle. **R. Yacoub**¹, R. Plant², M. Pitcairn¹, and D.
Spencer³, ¹California Department of Food and
Agriculture, Sacramento, CA; ²University of
California, Davis, CA; ³USDA, ARS, Davis, CA.
- 11:05 am 75. Establishment and Impact of the Yellow Starthistle
Rust, *Puccinia jaceae* var. *solstitialis*. **D. Woods**¹ and
A. Fisher², ¹California Department Food and
Agriculture, Sacramento, CA; ²USDA-ARS, Albany,

CA.

- 11:25 am 76. Discovery and Evaluation of New Prospective Biological Control Agents for Yellow Starthistle. **L. Smith**¹ and M. Cristofaro², ¹USDA, ARS, Invasive Exotic Weeds Research Unit, Albany, CA; ²ENEA C.R. Casaccia, Rome, Italy,

11:45 am Discussion and Questions

9:00 am – 5:00 pm **POSTER SESSION**

Fountain Court

77. Size-Specific Predation Rates of the Beautiful Hawaiian Damselfly on the Southern House Mosquito Under Three Different Temperatures. L. Tango¹, Stephanie Willis² and **David Foote**³, ¹U. S. Geological Survey Hawai'i Cooperative Studies Unit, Hawai'i National Park, HI; ²Pacific Internship Programs for Exploring Science, University of Hawaii at Hilo, Hilo, HI; ³U. S. Geological Survey, Pacific Island Ecosystems Research Center, Hawai'i National Park, HI.
78. Differential Predation of Stink Bug Eggs by the Red Imported Fire Ant. **L. Williams, III**¹, J. Chen², J. Vogt², and S. Castle³, ¹USDA, ARS, Exotic and Invasive Weeds Research Unit, Reno, NV; ²USDA, ARS, Biological Control of Pests Research Unit, Stoneville, MS; ³University of Idaho, Dept. of Plant, Soil, and Entomological Sciences, Moscow, ID.
79. Proposed Protocol for Testing the Elemental Defense Hypothesis. **J. Trumble** and M. Sorensen, Department of Entomology, University of California, Riverside CA.
80. Keynote: A Novel Plant Extract Based Product for Pest Management. **P. Walgenbach**, B. Highland, and D. Jimenez, AgraQuest, Inc., Davis, CA.
81. Implementing Codling Moth Mating Disruption in Pear Orchards Using Pheromone Puffers. **P. Van**

Buskirk¹, R. Hilton¹, and L. Hawkins², ¹Oregon State University, Southern Oregon Research and Extension Center, Central Point, OR; ²Bear Creek Orchards, Inc. Medford, OR.

82. Attraction of Male Summerform Pear Psylla to Volatiles From Female. **C. Guédot**, D. Horton, and P. Landolt, USDA, ARS Yakima Agricultural Research Laboratory, Wapato, WA.
83. Hymenoptera Parasitoids Associated With Insectary Plants on the Central Coast of California. **T. Glik**¹ and H. Smith², ¹UCCE - Monterey County, Salinas, CA; ²UCCE, Santa Barbara County, Santa Maria, CA.
84. Insectary Plants for Pest Control in Spruce Nursery Yards. **R. Rosetta**¹, J. Lee², K. Elliot¹, M. Ambrosino³, ¹North Willamette Research Education Center, Oregon State University, Aurora, OR; ²Horticultural Crops Research Laboratory, USDA, ARS, Corvallis, OR; ³Integrated Plant Protection Center, Oregon State University, Corvallis, OR.
85. Flower- and Pollen- Specificity of Shrub-Visiting Bees in the California Chaparral. **H. Dobson**, Department of Biology, Whitman College, Walla Walla, WA.
86. Integrated Management of the Honey Bee Parasite *Varroa destructor* in Western Washington State, USA. **S. Hapke**, and S. Sheppard, Department of Entomology, Washington State University, Pullman, WA.
87. Pollinator Bee Pesticide Safety Trials on Alfalfa Seed, 2006-2007. **H. Ferguson**¹, T. Waters², S. O'Neal¹, and D. Walsh¹, ¹Irrigated Agriculture Research and Extension Center, Washington State University, Prosser, WA; ²Washington State University Extension, Pasco, WA.
88. A Survey of Predacious Mites (Acari: Phytoseiidae) in North Coast California Vineyards. **L. Varela**, University of California Cooperative Extension, Santa Rosa, CA.

89. Determining the Impact of Often Used Pesticides on Natural Enemies in Northwest Oregon Vineyards, **A. Dreves**¹, A. Gadino¹, V. Walton¹ and D Gent²,
¹Oregon State University, Corvallis, OR;
²USDA, ARS, Forage Seed and Cereal Research Unit, Corvallis, OR.
90. Large Panel Trap Provides High Efficiency and Large Capacity for Moth Field Research. **L. Kuenen**, USDA, ARS, SJVASC, CPQ, Parlier, CA.
91. Performance of Methyl Eugenol and Cue-Lure Detection Traps With and Without Insecticides, With a Reduced Risk Insecticide, and With a Farma Tech Solid Lure and Insecticide Dispenser for Captures of Oriental and Melon Fruit Flies (Diptera: Tephritidae). R. Vargas¹, R. Mau², J. Stark³, P. Cook⁴, J. Piñero² and **M. Diaz**¹, ¹U.S. Pacific Basin Agricultural Research Center, USDA, ARS, Hilo, HI; ²University of Hawaii at Manoa, College of Trop. Agric. & Human Resources, Honolulu, HI; ³Washington State University, Puyallup Research and Extension Center, Puyallup, WA; ⁴Farma Tech International, South Bend, WA.
92. Caspase 3 Isolation and Activity Within Sterile Male *Ceratitis capitata* Weidemann. **J. Poon** and C. Lauzon, Department of Biological Sciences, California State University - East Bay, Hayward, CA.
93. Auditing Microbial Diversity Within Mosquitoes: A Prelude to Using Symbionts to Combat Animal Pathogens. **O. Sultan** and C. Lauzon, Department of Biological Sciences, California State University East Bay, Hayward, CA.
94. Management of Cotton Aphids, *Aphis gossypii*, with Insecticides in San Joaquin Valley Cotton. **Steve Wright**¹, Larry Godfrey², Gerardo Banuelos¹, and Treanna Pierce², ¹University of California Cooperative Extension, 4437B S. Laspina St., Tulare, CA; ² Department of Entomology University of California, Davis, CA.

12:00 noon –
1:30 pm

Awards Luncheon

Pinot A, B, C

Tuesday Afternoon, April 1

1:30 pm – 4:06 pm

Session A: Submitted 10-Minute Papers

Sauvignon

Moderators:

Paul Walgenbach

AgraQuest, Inc., Davis, CA

Lucia Varela

UCCE, Sonoma County, Santa Rosa, CA

1:30 pm

95. Concentration of Imidacloprid in Melons and Lettuce: Are There Differences Among Commercial Products?
S. Castle¹ and J. Palumbo², ¹USDA, ARS, ALARC, Maricopa, AZ; ²University of Arizona, Yuma Agricultural Center, Yuma, AZ.

1:42 pm

- 96 Within-Field Movement of Billbugs in Utah Turfgrass.
E. Hodgson, Biology Department, Utah State University, Logan, UT.

1:54 pm

97. Chemical Control of the Invasive Erythrina Gall Wasp on Native and Landscape Erythrina Trees.
A. Hara¹, C. Jacobsen¹, T. Xu² and Q. Li³, ¹Beaumont Agricultural Research Center, University of Hawaii at Manoa, Keaau, HI; ²College of Resource and Environment Sciences, China Agricultural University, Beijing, China; ³Department of Molecular Biosciences and Bioengineering, University of Hawaii at Manoa, Honolulu, HI.

2:06 pm

98. Impact of Delegate™ WG Insecticide on Tetranychid and Predatory Mites in Apples. **H. Yoshida**¹ and J. Dripps², ¹Dow AgroSciences, Richland, WA; ²Dow AgroSciences, Indianapolis, IN.

2:18 pm

99. Keynote: Field Performance of a Novel, Contact Insecticide Based on an Extract of *Chenopodium ambrosioides*. **P. Walgenbach** and B. Highland,

AgraQuest, Inc., Davis, CA.

- 2:30 pm 100. Modeling Evolution of Codling Moth Resistance to a Virus. **D. Onstad**, Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL.
- 2:42 pm 101. Impact of Argentine Ant (*Linepithema humile*) Foraging on Developing Mealybug Parasitoids in Vineyards. **M. Cooper**, E. Smith, and K. Daane, Department of Environmental Science, Policy and Management, University of California, Berkeley, CA.
- 2:54 pm 102. Platinum and Actara for the Control of Key Pests in Grapes. **J. Sanders**¹, C. Savinelli¹, and D. Vitolo², ¹Syngenta Crop Protection, Greensboro, NC; ²Syngenta Crop Protection, Sacramento, CA
- 3:06 pm 103. Seasonality Drives Pierce's Disease Epidemiology in California Vineyards. **M. Daugherty** and R. Almeida, Department of Environmental Sciences, Policy, & Management, University of California, Berkeley, CA.
- 3:18 pm **BREAK**
- 3:30 pm 104. Transmission Mechanism of *Xylella fastidiosa* by Sharpshooter Vectors and a Model for Quantifying Vector Efficiency. **E. Backus**¹ and D. Morgan², ¹USDA, ARS, Parlier, CA; ²California Department of Food and Agriculture, Riverside, CA.
- 3:42 pm 105. Epidemiology of Xylella Diseases in the San Joaquin Valley of California: The Role of Alfalfa. **M. Sisterson**¹, K. Daane², S. Thammiraju², and R. Groves³, ¹USDA, ARS, San Joaquin Valley Agricultural Sciences Center, Parlier, CA; ²Division of Insect Biology, University of California, Berkeley, CA; ³Department of Entomology, University of Wisconsin, Madison, WI.
- 3:54 pm 106. Assessing Post-Winter Threat of Glassy-Winged Sharpshooter Populations in California. **H. Nadel**¹, M. Johnson¹, K. Lynn-Patterson², M. Sisterson³, and R. Groves⁴, ¹Department of Entomology, University of California, Riverside, CA; ²University of California, Kearney Agricultural Center,

Parlier, CA; ³ USDA, ARS, San Joaquin Valley
Agricultural Sciences Center, Parlier, CA;
⁴ Department of Entomology, University of Wisconsin,
Madison, WI.

1:30 pm – 2:30 pm **Session B: Symposium – Grape IPM continued**
Chardonnay A, B

Organizers and Moderators:

Nick Toscano¹ and Beth Stone-Smith²

¹Department of Entomology, University of California,
Riverside, CA

²USDA, APHIS, PPQ, Bakersfield, CA

- 1:30 pm 107. Mealybug Pheromones: Curious Chemistry to
Practical Applications. **J. Millar¹**, K. Daane², S.
McElfresh¹, J. Moreira¹, B. Figadere¹, and W.
Bentley³, ¹Dept. of Entomology, University of
California, Riverside CA; ²Dept. of Environmental
Science, Policy, and Management, University of
California, Berkeley CA; ³Kearney Agricultural
Research and Education Center, Parlier CA.
- 1:50 pm 108. Vine Mealybug – How Invasive Species Have
Changed Grape IPM. **K. Daane**, Department of
Environmental Science, Policy, and Management,
University of California, Berkeley, CA.
- 2:10 pm 109. Integrated Pest Management of Vine Mealybug,
Planoccocus ficus (Signorete) in Three Grape
Production Systems. **W. Bentley**, University of
California, Kearney Agricultural Research and
Extension Center, Parlier, CA.

1:30 pm – 4:40 pm **Session C: Symposium – Plant Compensation For Insect Herbivory**

Chardonnay C

Organizer and Moderator:

Jay Rosenheim

Dept. of Entomology, University of California, Davis, CA

- 1:30 pm Introduction. **J. Rosenheim**, Department of Entomology, University of California, Davis, CA.
- 1:35 pm 110. Tolerance of Leaf Removal and Root Damage: Mechanisms and Agricultural Applications. **A. Gassmann**, S. Kadlicko, and J. Tollefson, Department of Entomology, Iowa State University, Ames, IA.
- 2:00 pm 111. Understanding the Effects of Plant Domestication on Tri-Trophic Interactions in Two Cropping Systems. **S. Welter**¹, Y. Chen², C. Nerney¹, and S. Rao³, ¹Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA; ²International Rice Research Institute, Manila, Philippines; ³Department of Crop and Soil Science, Oregon State University. Corvallis, OR.
- 2:25 pm 112. The Bio-Economic of Plant – Insect Interactions. **A. Gutierrez**, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA.
- 2:50 pm **BREAK**
- 3:10 pm 113. Cotton Compensation for Lygus Herbivory? an Experimental Approach. **P. Ellsworth**, Department of Entomology and Arizona Pest Management Center, University of Arizona, Maricopa, AZ.
- 3:35 pm 114. Compensation of Lygus-Induced Fruit Loss in Cotton: Effect of Plant Phenological Stage. **M. Parajulee**,

Texas AgriLife Research and Extension Center,
Lubbock, TX.

- 4:00 pm 115. Cotton Compensation for *Lygus* herbivory: An
Ecoinformatics Approach. **J. Rosenheim**, Department
of Entomology, University of California, Davis, CA.

4:25 pm Discussion and Questions

2:45 pm – 4:45 pm **Session D: Symposium – Challenges of Ant Control In
Agricultural Settings**

Chardonnay A, B

Organizers and Moderators:

Mike Rust and John Klotz

Department of Entomology, University of California,
Riverside, CA

- 2:45 pm Introduction. **J. Klotz**, Department of Entomology,
University of California, Riverside, CA.

- 2:50 pm 116. Monitoring and Control of Invasive Ant Pests in
Agricultural Settings. **L. Greenberg**, K. Tollerup, J.
Klotz, and M. Rust, Department of Entomology,
University of California, Riverside CA.

- 3:10 pm 117. From Development to Practice: Labeling
New Bait Technology for Agriculture. **K.
Dorschner**, IR-4 Project Headquarters, Rutgers
University, Princeton, NJ.

- 3:30 pm 118. Comparing Argentine Ant Invasions in Preserves and
Agricultural Settings. **J. Shors** and D. Gordon,
Department of Biological Sciences, Stanford
University, Stanford, CA.

- 3:50 pm 119. Controlling Ants with Toxic Baits and its Impact on
Vine Mealybug Infestations in Coachella Valley
Vineyards. **K. Tollerup**¹, M. Rust¹, C. Gispert², and J.
Klotz¹, ¹Department of Entomology, University of
California, Riverside, CA; ²UCCE, Riverside County,
Indio CA.

4:10 pm 120. Virtual Baits – The Role of Horizontal Transfer of Insecticides. **D. Choe** and M. Rust, Department of Entomology, University of California, Riverside, CA

4:30 pm Discussion and Questions

5:00 pm – 6:15 pm **Employment Opportunity Workshop for Graduate Students**

Sauvignon

Organizers and Moderators:

David Cox
Syngenta Crop Protection
Madera, CA

Speakers will be present to represent various employment sectors within entomology. They will discuss these important areas of the employment search process:

- Resumes and CVs- Communicating what's important
- Education and Experience- What are employers looking for
- Making the Connection: How, What and When
- Interviewing: Determining if Worlds will Merge

Speakers will include:

- John Trumble Univ. of California, Riverside, CA; representing *Academia*
- Victoria Yokoyama, USDA ARS SJVASC, Parlier, CA; representing *USDA and Federal Government*
- Tad Gantenbein, John Taylor Fertilizers/Wilbur-Ellis, Sacramento, CA; representing *Pest Control Advisors*
- Mike Pitcairn, California Dept. of Food and Agriculture, Biological Control Program, Sacramento, CA; representing *State Government*
- David Cox, Syngenta Crop Protection, Madera, CA; representing *Industry/Manufacture*

Tuesday Evening, April 1

6:30 pm – 7:30pm **Photo Salon**
Sauvignon

Wednesday Morning, April 2

7:30 am – 8:00 am **Final Business Meeting**
Chardonnay A

***Larry Godfrey**, President of the Pacific Branch of the
Entomological Society of America
University of California, Davis, CA*

8:30 am – 11:40 am **Session A: Symposium – Natural Enemy Diversity
Effects: Mechanisms and Applications for
Biocontrol**
Chardonnay A

Organizers and Moderators:

**Tobin Northfield, Ricardo Ramirez, Gretchen Snyder,
and Shawn Steffan**
Department of Entomology, Washington State University,
Pullman, WA

8:30 am Introduction. **T. Northfield**, Department of Entomology,
Washington State University, Pullman, WA

8:35 am 121. Cascading Effects of Predator Diversity on the
Functioning of Food-Webs: A Review. **B.
Cardinale**, Department of Ecology, Evolution, and
Marine Biology, University of California, Santa
Barbara, CA

8:55 am 122. Enemy Diversity and the Success of Classical
Biological Control. **N. Mills**, Department of
Environmental Science, Policy and Management,
University of California, Berkeley, CA.

9:15 am 123. Natural Enemy Diversity Enhances the Top-Down Suppression of Herbivore Communities. **W. Snyder**, Washington State University, Pullman, WA.

9:35 am 124. Scales of Space and Time and the Benefits of Enemy Diversity. **E. Evans**, Department of Biology, Utah State University, Logan, UT.

9:55 am 125. Natural **Enemy Diversity** Does Not Necessarily Enhance Weed Biological Control Efficacy. **M. Schwarzländer**¹ and H. Hinz², ¹University of Idaho, Center for Research on Invasive Species and Small Populations, Moscow ID; ²CABI Europe – Switzerland, Switzerland

10:15 am 126. Community-Based Conservation Biological Control: Successful Employment in Four Agroecosystems. **D. James**, Department of Entomology, Washington State University, Prosser, WA.

10:35 am **BREAK**

10:45 am 127. Cascading Effects of Predator-Pathogen Complementarity. **R. Ramirez** and W. Snyder, Department of Entomology, Washington State University, Pullman, WA.

11:05 am 128. Enemy Diversity Amplifies the Cascading Effects of Fear. **S. Steffan** and W. Snyder, Department of Entomology, Washington State University, Pullman, WA.

11:25 am Discussion and Questions

8:30 am – 11:50am **Session B: Symposium – The Broad Impacts of Graduate Student Research Within the Fields of Biology and Other Areas of Science (Graduate Student Symposium)**

Chardonnay C

Organizers:

Dominic Reisig¹ and Melissa Scherr²

¹Department of Entomology, University of California, Davis,
CA

²Department of Entomology, Oregon State University,
Corvallis, OR.

Moderators:

Peter Goodell¹, Hillary Thomas², and Wei Xu²

¹University of California, Kearney Agricultural Center,
Parlier, CA

²Department of Entomology, University of California, Davis,
CA

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| 8:30 am | 129. Conservation and Restoration of an Ecosystem, the Roles of Pollination and Invasion. P. Aldrich , Department of Zoology, University of Hawaii, Manoa, HI. |
| 8:50 am | 130. Sharpshooters Caught in Biological Crossfire: Implications for Host-Specificity Tests in Future Biocontrol Programs. E. Boyd and M. Hoddle, Department of Entomology, University of California, Berkeley, CA. |
| 9:10 am | 131. The Breadth, Benefit, and Fun of Insect Systematics: An Example With the Ant Genus <i>Stenamma</i> . M. Branstetter , Department of Entomology, University of California, Davis, CA. |
| 9:30 am | 132. Tales from the Marsh: Controlling Mosquitoes and Conserving Fish. J. Henke . Department of Entomology, University of California, Riverside, CA. |
| 9:50 am | 133. Survey of Predatory Mites in California Agriculture. M. Murrieta and D. Headrick, Crop Sciences Department, California Polytechnic State University, San Luis Obispo, CA. |
| 10:10 am | BREAK |
| 10:30 am | 134. A New Methodology For Testing For Niche Partitioning in Insect Predator Communities. T. Northfield , G. Snyder, and W. Snyder, Department of Entomology, Washington State University, Pullman, WA |

- 10:50 am 135. Phylogenetics and Evolutionary Trends in Leiodidae (Coleoptera: Staphylinoidea). **A. Seago**, Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA .
- 11:10 am 136. Toxicological Studies of Novel Reduced-Risk Insecticides on Obliquebanded Leafroller. **A. Sial** and J. Brunner, Department of Entomology, Washington State University Tree Fruit Research and Extension Center Wenatchee WA.
- 11:30 am 137. Controlling Ants with Toxic Baits and its Impact on Vine Mealybug Infestations in Coachella Valley Vineyards. **K. Tollerup**¹, M. Rust¹, C. Gispert², and J. Klotz¹, ¹Department of Entomology, University of California, Riverside, CA; ²UCCE, Riverside County, Indio CA.

8:30 am – 11:45 am **Session C – Symposium – Exotic Insects – Those That Make It – Those That Don't**

Chardonnay B

Organizers and Moderators:

Kris Godfrey and Baldo Villegas

California Department of Food and Agriculture,
Biological Control Program, Sacramento, CA

- 8:30 am Introduction. **K. Godfrey**. California Department of Food and Agriculture, Biological Control Program, Sacramento, CA.
- 8:35 am 138. Is the Potato Tuberworm an Exotic or Invasive Pest That Threatens the Pacific Northwest's Agricultural Area? **S. Rondon**, Oregon State University, Hermiston Agricultural Research and Extension Center, Hermiston, OR.
- 8:55 am 139. Research and Observations on Cereal Leaf Beetle in SE Washington State. **D. Bragg**, Washington State University, Central Ferry Research Station, Pomeroy, WA.

- 9:15 am 140. Variability in the Invasiveness, or Lack Thereof, of the Exotic Mealybug *Ferrisia gilli* Into California's Trees and Vines. **D. Haviland**¹, K. Godfrey², and K. Daane³, ¹UCCE, Kern County, Bakersfield, CA; ²California Department of Food and Agriculture, Biological Control Program, Sacramento, CA; ³Department of Environmental Science, Policy and Management, University of California, Berkeley CA.
- 9:35 am 141. Olive Fruit Fly: A Highly Successful Invasive Species in California. **M. Johnson**¹, H. Nadel¹, K. Daane², K. Sime², X. Wang¹, K. Lynn-Patterson³, and C. Pickett⁴, ¹Department of Entomology, University of California, Riverside, CA; ²Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA; ³ Kearney Agricultural Research and Education Center, Parlier, CA; ⁴California Department of Food and Agriculture, Biological Control Program, Sacramento, CA.
- 9:55 am 142. LBAM in California: Biology and Management of a New Invader. **N. Mills**, Department of Environmental Science, Policy and Management, University of California, Berkeley, CA.
- 10:15 am 143. Erythrina Gall Wasp: A Threat to California and Beyond. **R. Messing**¹, M. Wright², and D. Rubino², ¹ Kauai Agricultural Research Center, University of Hawaii, Kapaa HI; ²Univeristy of Hawaii, Honolulu HI.
- 10:35 am **BREAK**
- 10:45 am 144. The Californian Source of Hawaii's Aster Leafhopper (*Macrostelus*) and Potential Future Threats For Both Regions. **D. Rubino** and J. Le Roux, Department of Plant and Environmental Protection Sciences, University of Hawaii, Honolulu, HI.
- 11:05 am 145. Using Monitoring Data to Manage Yellowjacket Wasps in Hawaii. **D. Foote**¹, and C. Hanna², ¹U. S. Geological Survey, Pacific Island Ecosystems

Research Center, Hawai'i National Park, HI;
²U. S. Geological Survey Hawai'i Cooperative
Studies Unit, Pacific Aquaculture and Coastal
Resource Center, University of Hawai'i at Hilo,
Hawai'i National Park, HI.

11:25 am

146. Protecting California From Invasive Arthropods:
The Importance of Exclusion and Early Detection.
K. Hoffman, California Department of Food and
Agriculture, Pest Detection and Emergency
Projects, Sacramento, CA

**Thank you for attending the 92nd Annual meeting of the Pacific Branch of the
Entomological Society of America. Safe Travels.**

92nd Annual Meeting of the Pacific Branch of the Entomological Society of America

The 92nd annual meeting of the Pacific Branch of the Entomological Society of America will begin with on-site registration on Sunday, March 30 and end at noon on Wednesday, April 2. This year's theme, "Entomology – Intertwines Us", acknowledges the key industry and commodity in the Napa Valley and California Wine Country which, of course, is wine. The intertwining, tangled grape vines represent the unifying entity that brings us all together as entomologists, that being the fascination with insects and related arthropods. No matter what our subdiscipline is within the field of entomology, those "jointed foot" organisms keep the work interesting and exciting. I welcome you to this conference to hear the results of these studies and to continue our fascination with Entomology. The relaxed "air" of the Napa area should set the tone for excellent discussions both in the conference rooms and "hallways". Napa is an excellent location for such a meeting as it has the amenities of a large city, i.e., excellent facilities, restaurants, museums, etc., while still having the "atmosphere of a small, country community. Please take advantage of the opportunity to sample world-class wines and culinary treats and to visit outstanding wineries while still experiencing the natural settings offered by the hills, parks, and ecological reserves. Opportunities abound for hiking and bicycling adventures. Please stay an extra day or two to enjoy what the California Wine Country and the surrounding area have to offer. The scientific program will feature nine symposia with 73 presentations, including a graduate student symposium on "The Broad Impacts of Graduate Student Research within the Fields of Biology and Other Areas of Science ", 29 submitted papers and 18 posters, 19 student papers and 7 posters in competitions. Enjoy a Monday evening mixer followed by the Linnaean Games. An Awards Luncheon will be held on Tuesday at noon. Features of the Tuesday afternoon and evening program include an Employment Opportunity Workshop for Graduate Students and the Insect Photo Salon with examples of creative arthropod photography.

PROGRAMS:

Printed programs will be available at the meeting and electronically at <http://groups.ucanr.org/pbesa/index.cfm>.

ABSTRACTS:

Abstracts will be available at <http://groups.ucanr.org/pbesa/index.cfm>. Feel free to download and print abstracts at your convenience because paper copies will not be available at the meeting.

AUDIO/VISUAL:

PowerPoint File uploading- Symposia

Presentations that are part of a symposium should be sent to the symposium organizer and or moderator. It is the responsibility of the symposium moderator or organizer to collect all of the presentations, upload them to a laptop computer, ensure that they work properly, and bring the computer to the symposium. A projector will be provided.

PowerPoint File uploading- Submitted Ten-minute papers and Student Competition

Presentations for ten-minute papers should be brought to the meeting on a CD or flash drive (memory stick). Speakers should bring their PowerPoint files to the Audio Visual / File Upload desk in the *Fountain Court P* area near the Registration desk. This desk will be staffed on

Sunday 2:00 - 6:00 PM
Monday 7:00 - 8:30 AM and 1:00 - 5:00 PM
Tuesday 7:00 - 11:00 AM.

Anybody who can't make those times should send the presentation by e-mail to David Haviland at dhaviland@ucdavis.edu by 5:00 PM on Thursday, March 27th. When naming files, please use your last name and first initial as file name for your presentation, i.e. HavilandD.ppt. If you have more than one presentation, number them in sequence, i.e. HavilandD1.ppt; HavilandD2.ppt. Anybody requiring special accommodations should contact David Haviland by e-mail prior to the meeting.

Supported File Formats (especially for Mac, Vista, and Office 07 users)

The PBESA meeting will be run using Windows-based laptop computers of Society members. As such we cannot ensure that all file formats, such as .pptx files, will be compatible with the computers. Mac users need to ensure that their files have a .ppt file extension so that they can be read on a Windows-based system. Vista and other Office 07 users need to save their files as a PowerPoint 97-2003 format that runs on Windows XP. Digital videos as part of presentations are also discouraged as there is no guarantee that supporting video software will be installed on all laptop computers.

Moderator Training

There will be no formal group moderator trainings at this meeting. Instead we ask that all session moderators report to their session room 30 minutes prior to the beginning of the session. At this time instructions will be given regarding equipment operation, lighting, troubleshooting problems, etc., as well as the opportunity to check out equipment such as laser pointers and timers.

POSTER DISPLAY PRESENTATIONS:

Student competition poster displays will be presented in the Fountain Court on Monday, March 31 from 11:00 A.M. to 5:00 P.M. The general poster session will be presented in the Fountain Court on Tuesday, April 1, from 9:00 A.M. to 5:00 P.M. The Fountain Court will be available for authors to set up their displays in advance on both days from 7:30-8:30 AM. Displays should be taken down by 5:00 PM. on the day of the presentation. Posters should not exceed 4 ft. x 4 ft. in size. Authors need to bring their own pushpins. Authors are expected to be present at their posters from 1:30-2:30 P.M. on the day of their presentation or at another time, as preferred and as indicated on the posterboard.

MODERATORS:

Session moderators are responsible for keeping speakers on schedule. If a presentation is completed early, or cancelled, the moderator must ensure that the next presentation begins at the scheduled time.

MEETING INFORMATION AND SCHEDULE CHANGES:

Notices, meeting schedule changes and general information will be posted throughout the meeting at the Registration Desk in the Fountain Court. Information on points of interest, dining, and entertainment will be available at the Registration Desk or in the Hotel lobby area.

REGISTRATION:*Fountain Court P*

Sunday, March 30, 2:00-6:00 P.

Monday, March 31, 7:00 AM-5:00 PM.

Tuesday, April 1, 7:00 AM. -5:00 PM.

Wednesday, April 2, 7:00-9:00 AM.

Everyone attending the Pacific Branch Meeting must register. The Registration Desk will be located in the Fountain Court P Area. Those who are pre-registered may pick up registration materials there. On-site registration is \$160.00 for members, \$190.00 for non-members, and \$60.00 for students, emeritus, honorary, and guests. A one-day registration of \$75 will be available. Credit cards cannot be accepted.

EXECUTIVE COMMITTEE:

The Pacific Branch Executive Committee will meet Sunday evening, March 30, from 5:00-7:00 P.M. in the Sauvignon Room.

BUSINESS MEETINGS:

The Preliminary Business Meeting will be held at the end of the Opening Session at 11:00 AM on Monday, March 31 in Chardonnay A, B, C rooms. The Final Business Meeting will be held from 7:30-8:00 A.M. on Wednesday, April 2 in Chardonnay A room. Plan to attend to vote for new officers and other important Pacific Branch business. Agendas for the business meetings are posted on the 2008 Pacific Branch Meeting website <http://groups.ucanr.org/pbesa/index.cfm> and on the bulletin board near the Registration Desk.

GRADUATE STUDENT PAPER AND POSTER COMPETITIONS:

Competitions include oral paper presentations and poster displays. Senior authors must be student members of the Pacific Branch and be registered for the meeting. First and second place prizes will be awarded at the Awards Luncheon for Master's and Ph.D. oral presentations and Master's and Ph.D. posters. Judging will be based on scientific merit; organization, clarity, and format. Please contact James Barbour, University of Idaho, Parma, ID; jbarbour@uidaho.edu for questions about this contest.

MIXER & PRESIDENT'S RECEPTION AND AWARDS LUNCHEON:

A Pacific Branch Mixer and President's Reception will be held Monday, March 31, 5:30 - 7:30 P.M. in the Fountain Court P & C area with light fare and cash bar. Entry to the mixer is included in the registration fee and access to the mixer is by name tag. There is a fee of \$20.00 for the mixer for non-registered guests with tickets available at the registration desk. The Awards Luncheon is scheduled for Tuesday noon in Pinot A, B, C rooms. Admission is covered by the registration fee for those who register by noon on Monday. Please wear your name tag for entry to the Awards Luncheon. Lunch tickets for non-registered guests will be available for \$30.00 if purchased at the registration desk before noon on Monday.

LINNAEAN GAMES:

The Linnaean Games will be held on Monday, March 31 from 7:30-9:00 P.M. in Chardonnay A, B room. The winning team will be eligible to compete in the 2008 National ESA Linnaean Games at

the Annual Meeting in Reno, NV. Contact Michael Costello; Cal Poly State University; mcostell@calpoly.edu for more information.

PHOTO SALON:

“IN LIVING COLOR” is the theme specifically for the Insect Photo Salon – 2008. A projected showing of digital images of insects will occur on Tuesday, April 1 at 6:30 PM in the Sauvignon room. ESA members and non-members were invited to participate in the Photo Salon and digital image submissions were solicited. Two awards: one for “Best of Show” among all entries, and the other for “Best of Show by a Student ESA Member” will be presented. For any questions concerning the Photo Salon, contact the Photo Salon Chair, Marshall W. Johnson, UC Kearney Agricultural Center, Parlier, CA; mjohnson@uckac.edu.

EMPLOYMENT OPPORTUNITIES:

A significant effort was made at the 2008 PB-ESA meeting to try to inform students and others about the types of positions available in the field of Entomology as well as to provide information about preparing for these positions. On Tuesday, April 1 from 5:00 – 6:15 PM in the Sauvignon room a Workshop/Roundtable discussion will be held with experts from several employment “fields” in Entomology. Each participant will make a short presentation followed by a discussion period. In addition, a ring binder with current job openings and CVs of those seeking employment in entomology or related fields is available at the registration desk area (Fountain Court P). If you have on the Employment Opportunities area, please contact David Cox at david.cox@syngenta.com.

LODGING:

The 2008 Pacific Branch ESA meeting will be held at Embassy Suites Napa Valley, 1075 California Blvd, Napa, California. This is a beautiful hotel and grounds with considerable open space for mingling and interacting. Guests of the Embassy Suites Napa Valley hotel stay in spacious two-room suites and receive a complimentary cooked-to-order breakfast and a nightly manager's reception. Napa, while having all the amenities of a first-class city (restaurants, shopping, spas, etc.) is small enough to allow guests to quickly escape to the country and to enjoy the open space, fresh air, and abundant wineries.

AIRPORTS AND GROUND TRANSPORTATION: The cities of San Francisco, Oakland and Sacramento are all just a short drive away, as well as international airports at those cities. The Embassy Suites Napa Valley is 50 miles from Metropolitan Oakland Intl Airport, 60 miles from San Francisco Intl Airport, and 70 miles from Sacramento Intl Airport. A wide range of airlines serve one or more of these airports. Directions from these airports and shuttle information from the airports can be found in the FAQ (frequently asked questions) section of the PB-ESA web site. From the San Francisco International Airport: Take Highway 101 North, take the Golden Gate Bridge exit, turn left on South Van Ness, turn left on Lombard Street (also Highway 101), continue on Highway 101 and cross the Golden Gate Bridge, exit Highway 101 at Highway 37 (Napa/Vallejo), turn left on Highway 121 North (Napa/Sonoma), follow 121 North until the stoplight. Turn right (Hwy. 12/121), turn left on Highway 29 North, take the First Street/Central Napa exit, turn right at the bottom of the exit, turn left at the light (California Blvd.).

From the Oakland International Airport: Take Hagenberger Road to 880 North, continue on 880 North – Downtown Oakland, 980 to 580 West (Sacramento/San Francisco), turn right onto Highway 29 North, DO NOT exit Napa/Berryessa, continue on Highway 29 towards Calistoga, take the First Street/Central Napa exit, turn right at the bottom of the exit, turn left at the light (California Blvd.)

From the Sacramento International Airport: Head North on Airport Blvd, merge onto I-5 South via the ramp to Yuba City/Sacramento, take exit 522 to merge onto I-80 West toward San Francisco, take exit onto I-80 West toward San Francisco, exit onto CA-12/Jameson Canyon Road toward Napa/Sonoma, turn right at CA-12 West/CA-20 North, continue to follow CA-29 North, take the Lincoln Avenue exit, keep right at the fork, follow signs for Lincoln Ave East and merge onto Lincoln Avenue, turn right at the light (California Blvd.).

Parking: Outdoor complimentary self-parking is available at the hotel.

WEATHER:

Spring in the Napa Valley is very pleasant. Lows average in the mid-40's °F with daily highs approaching 70°F. Rain is possible but not likely (the entire month of April averages slightly more than 1 inch precipitation).

LOCAL ATTRACTIONS:

Napa, California is in the heart of the California wine country with over 400 wineries within 25 miles of the city. The Napa Valley itself is also small – about 30 miles long and a few miles wide. Fourteen subappellations (geographically-based regions believed to show unique characteristics of soil, climate and more) exist within the Napa Valley. The wineries range from the major vintages that everyone has heard of to small boutique wineries. Many of the “rich and famous” have recently gotten into the wine business so that clientele is also present in the wine country of the Napa and Sonoma valleys. Many of these wineries have tours, tasting rooms, spacious grounds, etc. for visitation. The city of Napa is quite small (~75,000) and the hotel is located on the outskirts of the city. The valley and surrounding hills offer real opportunities for hiking, bicycling, and for getting out of the city.

The cities of Yountville, Rutherford, St. Helena, and Calistoga along with Napa are filled with interesting shops and restaurants. The City of Napa has what might be called an "embarrassment of riches" when it comes to restaurants. The Downtown area alone boasts more than 40 dining establishments, with 17 of these Zagat rated. There are several more fine restaurants outside the Downtown area that are equally popular. The Downtown area is about eight blocks from the Embassy Suites. In addition there is a trolley with stops across the street from the Embassy Suites to the Downtown area (although the trolley does have limited evening hours). The Sonoma Valley and city of Sonoma (west about 20 miles of Napa) also has an ample numbers of wineries and attractions. For those wanting to venture even farther away, San Francisco, Oakland, ocean attractions of Bodega Bay, Point Reyes, and Muir Beach, and UC-Berkeley and UC-Davis are about an hour away. Before or after the meeting, please stay an extra day or two to enjoy what Napa and the surrounding area have to offer.

ASSISTANCE:

If you have questions or need help please contact Larry Godfrey, 2008 ESA Pacific Branch President at ldgodfrey@ucdavis.edu ; 530-752-0473 or Lucia Varela, Local Arrangements at lgvarela@ucdavis.edu or visit the Pacific Branch website at <http://groups.ucanr.org/pbesa>.

PACIFIC BRANCH NOMINATION

The Pacific Branch Nominations Committee composed of Keith Pike (Chair), Eric Natwick and Ross Miller, recommends Doug Walsh for President-Elect of the Pacific Branch. Doug is an Associate Professor in the Department of Entomology at Washington State University. He is stationed at the Irrigated Agriculture Research and Extension Center in Prosser, Washington.

Doug is the Coordinator of Integrated Pest Management in Washington State. Doug has an active research and Extension program in the Pacific Northwest that includes development of IPM technologies on food, feed, spice, fiber, and flavor crops. He has recently initiated a program on livestock IPM too. For his efforts Doug received the WSU College of Agriculture, Human and Natural Resource Science Individual Integration of Research and Extension Award in 2007. Doug received his B.S. Degree in Plant Science from the University of California at Santa Cruz and his Ph.D. in Entomology from the University of California at Davis. Doug has been an active member of the PBESA and has not missed a meeting since 1990. He served as Chair of the Awards Canvassing Committee from 2001 through 2005. He now serves as the Branch's representative on the ESA National Awards Committee. Doug was appointed in 2007 for a 3 year term on the PBESA Executive Committee.

Doug received the Pacific Branch Award for Excellence in Regulatory Entomology in 2006. Doug was a member of the Pacific Northwest Hybrid Poplar Team that won both the PBESA and Entomological Foundation IPM Team Award in 2006. Doug was the leader of the PNW Vineyard IPM Team that won both the PBESA and Entomological Foundation IPM Team Award in 2007.

AWARDS:

Recipients of the prestigious C.W. Woodworth Award and John Henry Comstock Graduate Student Award will receive their awards during the Opening Session on Monday morning, March 31. The ESA National Recognition Awards; graduate student paper and poster contest awards; and winning insect images of the Photo Salon will be presented at the Awards Luncheon Tuesday, April 1, 12 Noon-1:30 P.M., in Pinot A, B, C rooms.

C.W. WOODWORTH AWARD

Professor Brian A. Federici is Distinguished Professor of Entomology in the Department of Entomology at the University of California, Riverside (UCR). He is also a member of UCR's interdepartmental programs in Genetics, Microbiology, and Cell, Molecular, and Developmental Biology. He received his B.S. (1966) at Rutgers University, and his M.S. (1967) and Ph.D (1970) at the University of Florida, after which he was a NIH Post-Doctoral Fellow at the Boyce Thompson Institute in Yonkers, New York. Professor Federici joined the faculty at UC Riverside in 1974.

Professor Federici's research has focused on the biology of pathogens that attack insects, with emphasis on understanding their basic biology and then using this knowledge to improve their insecticidal properties, especially through the use of genetic engineering techniques. Over his career, he has researched many different types of insect pathogens, including fungi, viruses, and bacteria. As a result of his breadth of experience and combination of classical and modern research techniques, Professor Federici is widely regarded as among the best of the insect pathologists active today. His work is most typically characterized by changing the concepts in fashion at the time, and providing experimental evidence in support of new concepts that he and his colleagues develop. Early in his career, he resolved a controversy over the structure of baculoviruses, and proposed a model for these complex viruses that remains the standard today. He later showed that viruses known as iridoviruses, thought to be restricted to insects, actually occurred widely in invertebrates. Today this group of viruses is known to occur throughout the animal kingdom. In his studies of *Coelomomyces* fungi, pathogens of mosquito larvae, he proposed that an unknown phase existed in the life cycle. Though controversial at the time, he later provided experimental evidence for this unknown phase, which was subsequently discovered to take place in copepods.

Professor Federici's most recent research has emphasized studies of viruses belonging to the family Ascoviridae, a new family of double-stranded DNA viruses that he discovered, and the molecular biology of *Bacillus thuringiensis* and *B. sphaericus*, insecticidal bacteria used for environmentally friendly mosquito control. Work in his laboratory on ascoviruses led to the discovery of the first caspase encoded by a virus. The virus apparently uses the caspase to induce cell death, which assists the transmission of progeny virions. Based in part on his studies of ascoviruses, Professor Federici proposed years ago that polydnviruses, particles injected into hosts by parasitic wasps to suppress their hosts defensive responses, are not viruses but rather wasp organelles that originated from viruses by the evolutionary process of symbiogenesis. This hypothesis remains very controversial even today, but evidence in its support, coming now primarily from the field of genomics, is overwhelming. With respect to studies on insecticidal bacteria, Professor Federici and his UCR colleagues have constructed recombinant bacilli that are at least ten-fold more effective than wild type strains against mosquitoes, including species of the genus *Culex*, which are major vectors of West Nile Virus, and important anopheline vector of malaria, such as *Anopheles gambiae*. These recombinant strains have been patented by UC and are currently undergoing commercial evaluation by industry with support from the National Institutes of Health.

Since 1993, Professor Federici's research has been recognized through more than 150 invitations to present symposium papers, departmental seminars, or invited lectures. About half of these were presented in the United States, and the others in 17 different countries around the world. During this period, he has been awarded extramural funding of slightly more than \$5.0 million from agencies such as the NIH, NSF, USDA, and industry. In addition, he was elected a Fellow of the American Association for the Advancement of Science, and an Honorary Professor at the Guangzhou University, PRC. He was the Griswold Lecturer at Cornell University, and the Society for Invertebrate Pathology Founders' Memorial Lecturer for the year 2000. In 1998, Dr. Federici was selected by Elsevier as Editor-in-Chief of the *Journal of Invertebrate Pathology*. For many years, he served as a member of the World Health Organization's Expert Panel on Vector Biology and Control. Based upon his research on *Bacillus thuringiensis*, the U.S. Environmental Protection Agency appointed Dr. Federici during 2002-05 to four Scientific Advisory Panels on genetically engineered crops including Bt cotton and Bt corn. A recent highlight of Professor Federici's career is his receipt in June 2003 of the USDA Secretary's Individual Honor Award in Washington, D.C., presented to him by Ann Veneman, then Secretary of the United States Department of Agriculture. The citation for this award read "For research on insect pathogens, especially *Bacillus thuringiensis*, that has led to a novel biocontrol product and has significantly enhanced understanding of biological control agents." A renowned lecturer and teacher, Professor Federici received the campus-wide Distinguished Teaching Award at UCR in 1989, and the National Distinguished Teaching Award in 1991 from the Entomological Society of America.

Aside from his teaching and research activities, Professor Federici has been very active in university and professional service. As chair of UCR Committee on Educational Policy (1987-89), he chaperoned the proposal for UCR's College of Engineering through the Academic Senate. Subsequently, he chaired the UC Systemwide Committee on Educational Policy (1989-90) and served on the UC Academic Council (1989-90). During this period, he developed UC Senate legislation for the "Transfer Core Curriculum" that eased the transfer of Community College and California State University students to UC, as well as the transfer of UC students from one campus

to another. He has served on many campus and UC-wide administrative committees over the years, and is currently interim chair of the executive committee for the Biotechnology component of the UC Discovery Program, which funds collaborations between UC and industrial research in agriculture and medicine. With respect to professional service activities, Professor Federici served in 1996-97 as President of the Society for Invertebrate Pathology.

Abstract for C. W. Woodworth Award Presentation

“Molecular Strategies for Enhancing Biological Control”

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Biological control, the regulation of pest populations by natural enemies, is the most cost-effective control strategy known. With native pest species, the parasites, predators, and pathogens that attack these are often effective in keeping damage below economic thresholds. With invasive species, importation and re-establishment of natural enemy populations can provide effective control. Nevertheless, many native and introduced pests continue to cause economic damage or disease outbreaks when natural enemies prove unable to maintain pest populations below economic thresholds, resulting in the use of broad spectrum synthetic chemical insecticides. Over the past 20 years, studies of the molecular biology of insect pests and pathogens that cause disease in these has led to new concepts and methods for controlling pests and disease vectors, directly and indirectly enhancing biological control. Direct methods include the use of recombinant DNA technology to introduce insecticidal peptides into, for example, insect-pathogenic viruses, which enables these to halt feeding and kill insects much faster than wild type viruses. The efficacy of these viruses is comparable to chemical insecticides. By using genetic engineering techniques, we have been able to combine insecticidal proteins from different bacteria, and increase the levels of synthesis in these, resulting in bacteria that are ten-fold more effective than the strains used in current commercial bacterial insecticides. Indirect enhancement of biological control is found in the use of transgenic Bt crops, especially Bt cotton and Bt corn, which have been engineered to produce the insecticidal proteins derived from the insecticidal bacterium, *Bacillus thuringiensis*. Use of these “narrow spectrum” crops greatly reduces the amount of chemical insecticides applied, preserving natural enemy populations, thereby enhancing biological control. The economic and environmental benefits demonstrated by these new technologies has opened even newer avenues of research, of which I will give several examples, that in all probability will lead to even more novel, more effective, and more environmentally friendly pest control technologies in the future.

JOHN HENRY COMSTOCK AWARD



This year's winner of the John Henry Comstock Graduate Student Award for the Pacific Branch of the Entomological Society of America is Christopher M. Barker. Chris obtained his B.S. in Biology and his M.S. in Entomology from Virginia Tech. His M.S. research under Dr. Sally Paulson examined habitat preferences and phenology of two mosquito species, *Aedes triseriatus* and *Aedes albopictus*, in La Crosse virus transmission foci in Virginia. He also used remote sensing and GIS to relate abundance of these two mosquito species to land cover. After completing his M.S. research, Chris moved to Bakersfield, California, where he worked with Dr. William Reisen on a NASA-funded project to study the influence of climate on California's mosquito abundance and arbovirus transmission and gained additional experience in the field and laboratory. He moved to Davis, California in 2003 to begin work on a Ph.D. in Entomology and a M.S. in Epidemiology under Dr. Bruce Eldridge. He completed his degree in epidemiology in 2005 and plans to complete his degree in entomology later this year. Using Bayesian statistical methods that account for spatial and temporal dependence among trap counts, Chris has developed statewide models that address regional differences in phenology and predictor responses of two mosquitoes of public-health importance, *Culex tarsalis* and the *Culex pipiens* complex. Using these models, he has examined the effects of early-season meteorological conditions and the extent of adjacent larval habitat on the abundance of adult female mosquitoes. His research also will consider long-term trends in vector abundance and their relation to arboviral transmission in California. Chris has received a number of awards, including the William C. Reeves New Investigator Award from the Mosquito and Vector Control Association of California, the Hazeltine Student Research Fellowship from UC Davis, and a Travel Award from the American Society of Tropical Medicine and Hygiene. He has published 6 peer-reviewed papers and 10 proceedings papers. Chris has been a member of ESA and participated in annual meetings since 2000.

**Pacific Branch of the Entomological Society of America
Committees – 2007-08**

Program: Jay Rosenheim (Chair), Kris Godfrey, Steve Welter

Registration: Eric Mussen (Chair), Silvia Rondon

Local Arrangements: Lucia Varela

Operations: David Haviland

Awards Canvassing: Carolyn Pickel

Awards Selection Committee: Anonymous members

C. W. Woodworth Award Sponsor: Brian Holden

Nominations Committee: Keith Pike (Chair), Eric Natwick, Ross Miller

Membership: Juan Alvarez

Graduate Student Symposium Committee: Dominic Reisig (Chair), Melissa Scherr

Linnaean Games: Michael Costello

Student Paper/Poster Competition: James Barbour

ESA Student Affairs Committee, Pacific Branch Rep.: Melissa Scherr

Photo Salon: Marshall Johnson

Employment Opportunities: David Cox

Auditing: Tad Gantenbein

Resolutions: Luis Espino

Plaques: Douglas Walsh

Pacific Branch 2008 Meeting Website: Wade Pinkston

Pacific Branch 2008 Logo Design: Melanie Gentles

Site Selection Committee for 2009 Meeting: Marshall Johnson

Site Selection Committee for 2010 Meeting: Diane Alston, Erin Hodgson

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Plan to attend the:

**2009 Pacific Branch Entomological Society of America meeting -
March 29 to April 1, 2009**

Walter Bentley, President

BAHIA
RESORT HOTEL
998 W. Mission Bay Drive, San Diego, CA



2008 Annual Meeting of the Entomological Society of America
Reno, Nevada - November 16-19, 2008

