

Casey D. Butler
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Work Address

Department of Entomology
University of California, Riverside
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3456 Avocado St
Riverside, CA 92507
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OBJECTIVE

- To obtain a Doctor of Philosophy in Entomology and work in the field of pest management

RESEARCH INTERESTS

- Theory and practice of biological control
- Integrated pest management
- Host plant resistance

EDUCATION

University of California, Riverside, CA

Doctor of Philosophy Candidate

Dissertation: Management strategies for the potato psyllid in California

Advisor: John T. Trumble

GPA: 3.75/4.00

Course highlights: Insect-Plant Interactions, Directed Studies in Biological Control, Host-Parasite Relationships, Statistics for Biological Science, Design of Experiments, Analysis of Ecological Communities, Fundamental Toxicology

Purdue University, West Lafayette, IN

Master of Science in Entomology-Biological Control

May 2006

Thesis: Life history characteristics of the insidious flower bug fed soybean aphid and an alternative prey, soybean thrips

Advisor: Robert J. O'Neil

GPA: 3.70/4.00

Course highlights: Biological Control, Ecology, Insect Ecology, Insect Behavior, Statistics for Biology and Applied Regression Analysis

Purdue University, West Lafayette, IN

Bachelor of Science in Entomology

May 2003

GPA: 3.57/4.00, Dean's List and Semester Honors

Secondary area:

University of Krakow, Poland-Spring 2000

Lincoln University, New Zealand-Fall 2002

RESEARCH EXPERIENCE

Graduate Student Researcher, Department of Entomology, University of California, Riverside, CA

June 2006 – Present

- Conducted research regarding the development of sampling plans, management strategies such as natural enemies and host plant resistance, and insect behavioral studies in response to insecticides for the potato psyllid in California

Research Assistant, Biological Control Laboratory, Department of Entomology, Purdue University, West Lafayette, IN

August 2003 – May 2006

- Conducted experiments to study the life history characteristics of *Orius insidiosus* (Say) fed focal prey, soybean aphids and alternative prey, soybean thrips
- Assisted with field work and maintained insect colonies

WORK EXPERIENCE

Biological R&D Intern, Syngenta Crop Protection, Inc., Eastern Technical Center, Hudson, NY

May 2003-August 2003

- Field research technician assisting with applied agricultural research with herbicides, fungicides, insecticides and growth regulators on a wide range of agronomic and horticultural crops

Insect Survey Scout, Indiana Department of Natural Resources, Division of Entomology and Plant Pathology

May 2001-June 2002 (Summer employee)

- Collected target gypsy moth (*Lymantria dispar* L.) and non-target insects at state parks and nature preserves for research purposes

Assistant Curator, Department of Entomology, Purdue University, West Lafayette, IN

August 2000-May 2003

- Assisted and maintained the Purdue Entomological Research Collection by preparing, identifying, and accessioning new specimens

HONORS/AFFILIATIONS

Entomological Society of America
Ecological Society of America
International Organization for Biological Control
Ohio Valley Entomological Association
The Society of Sigma Xi
BEPAR – Behavioral Ecology of Insect Parasitoids
American Chemical Society
Society of Environmental Toxicology and Chemistry (SETAC)
Purdue Graduate Student Government (Senator: 2004 – 2005, Student Affairs Committee)
Entomology Graduate Student Association (UCR)

Graduate Student Association (UCR) - Entomology Representative, Courses Committee
Phi Eta Sigma Honor Fraternity
Gamma Delta Sigma Honor Fraternity
National Society of Collegiate Scholars
Linnaean Team (National Championship Team-2008; Purdue University and UCR-First place team [Pacific Branch-2007, 2008])
Entomology Graduate Organization (Purdue University)
Thomas Say Entomological Society (Undergraduate-Vice President 2002, Purdue University)

AWARDS/SCHOLARSHIPS/FELLOWSHIPS

- State 4-H Club Fee Tuition Remission Scholarship
- 4-H Foundation Scholarship
- 10-Year 4-H Member Scholarship
- Esther Singer Memorial Scholarship
- Purdue Club of St. Joseph Co. Scholarship
- Vanderhoff Family Scholarship
- Farm Bureau Scholarship
- George E. Gould Scholarship
- School of Agriculture Award of Excellence
- School of Agriculture Merit Scholarship
- J.T. Eaton and Company Scholarship
- Oser Family Scholarship
- Runkle Family Scholarship
- William Brehm Memorial Scholarship
- Walter Pugsley Scholarship Award
- Gruel Memorial Scholarship
- C.C. Alexander Memorial Scholarship
- SSACI Higher Education Award
- Dean's Distinguished Fellowship Award, University of California, Riverside
- EGSA Travel Grant Award
- Harry Scott Smith Biological Control Award
- Robert and Peggy van den Bosch Memorial Scholarship
- James and Margaret Lesley Annual Prize
- Gunther Davies Scholarship

PUBLICATIONS

1. Butler, C. D. (2006) Life history characteristics of the insidious flower bug fed soybean aphid and an alternative prey, soybean thrips. M. S. Thesis. Purdue University, West Lafayette.
2. Butler, C. D., and R. J. O'Neil. (2006) Defensive response of the soybean aphid (Hemiptera: Aphididae) to predation by insidious flower bug (Hemiptera: Anthocoridae). *Ann. Entomol. Soc. Amer.* 99: 317-320.
3. Butler, C. D., and R. J. O'Neil. (2007a) Life history characteristics of *Orius insidiosus* (Say) fed *Aphis glycines* Matsumura. *Biol. Control.* 40: 333-338.
4. Butler, C. D., and R. J. O'Neil. (2007b) Life history characteristics of *Orius insidiosus* (Say) fed diets of soybean aphid, *Aphis glycines* Matsumura and soybean thrips, *Neohydatothrips variabilis* (Beach). *Biol. Control.* 40: 339-346.
5. Butler, C. D., and R. J. O'Neil. (2008) Voracity and prey preference of insidious flower bug (Hemiptera: Anthocoridae) for immature stages of soybean aphid (Hemiptera: Aphididae) and soybean thrips (Thysanoptera: Thripidae). *Environ. Entomol.* 37: 964-972.
6. Butler, C. D., and J. T. Trumble. (2008) Effects of pollutants on bottom-up and top-down processes in insect-plant interactions. *Environ. Pollut.* 156: 1-10.
7. Trumble, J. T., and C. D. Butler. (2009) Climate change will exacerbate California's insect pest problems. *Calif. Agr.* 63: 73-78.
8. Butler, C. D., N. E. Beckage, and J. T. Trumble. (2009) Effects of terrestrial pollutants on insect parasitoids. *Environ. Toxicol. Chem.* 28: 1111-1119.
9. Butler, C. D., and J. T. Trumble. (2010) Predicting population dynamics of the parasitoid *Cotesia marginiventris* (Hymenoptera: Braconidae) resulting from novel interactions of temperature and selenium. *Biocontrol Sci. Techn.* 20: 391-406.
10. Butler, C. D., F. J. Byrne, M. L. Keremane, R. F. Lee, and J. T. Trumble. (2011) Effects of insecticides on behavior of adult *Bactericera cockerelli* (Hemiptera: Triozidae) and transmission of *Candidatus Liberibacter psyllae*. *J. Econ. Entomol.* (in press).
11. Butler, C. D., B. Gonzalez, M. L. Keremane, R. F. Lee, R. G. Novy, J. C. Miller, and J. T. Trumble. (2011) Behavioral responses of adult potato psyllid, *Bactericera cockerelli* (Hemiptera: Triozidae), to potato germplasm and transmission of *Candidatus Liberibacter psyllae*. *Crop Prot.* (submitted).

PRESENTATIONS

1. Butler, C. D. and R. J. O'Neil. (2005) Selected life history characteristics of nymphal and adult *Orius insidiosus* (Say) fed soybean aphids, *Aphis glycines* Matsumura. 60th Annual Meeting, North Central Branch, Entomological Society of America. West Lafayette, IN
* First Place Award (BS/MS) Poster Presentation
2. Butler, C. D. (2005) Insect Defenses: Defensive response of soybean aphid, *Aphis glycines* Matsumura, to predation. Department of Entomology, Purdue University. West Lafayette, IN
3. Butler, C. D. and R. J. O'Neil. (2005) Soybean aphid, *Aphis glycines* Matsumura, exhibits defensive response to predation by *Orius insidiosus* (Say). The Society of Sigma Xi. West Lafayette, IN
4. Butler, C. D. and R. J. O'Neil. (2005) Life history characteristics of nymphal and adult *Orius insidiosus* fed soybean aphids and soybean thrips. Ohio Valley Entomological Association. Cincinnati, OH
5. Butler, C. D. and R. J. O'Neil. (2005) Life history characteristics of adult *Orius insidiosus* fed soybean aphids and soybean thrips. Graduate Student Symposium. Department of Entomology, Purdue University. West Lafayette, IN
6. Butler, C. D. and R. J. O'Neil. (2005) Life history characteristics of nymphal and adult *Orius insidiosus* fed soybean aphids and soybean thrips. The 53rd Annual Meeting of the Entomological Society of America. Fort Lauderdale, FL
* First Place Award, President's Prize Student Competition
7. Desneux, N., H. J. S. Yoo, C. D. Butler and R. J. O'Neil. (2005) Impacts of predators on the soybean aphid, *Aphis glycines* Matsumura. 7th International Aphid Symposium. Fremantle, Western Australia, Australia
8. Butler, C.D. and R. J. O'Neil (2006) Defensive response of *Aphis glycines* Matsumura to predation by *Orius insidiosus* (Say). 61st Annual Meeting, North Central Branch, Entomological Society of America. Bloomington, IL
9. Butler, C. D. and R. J. O'Neil (2006) Life history characteristics of *Orius insidiosus* (Say) fed soybean aphids and an alternative prey, soybean thrips. The 61st Annual Meeting, North Central Branch, Entomological Society of America. Bloomington, IL
* Invited Speaker
10. Butler, C. D. (2007) Field use of pheromones in IPM. 91st Annual Meeting, Pacific Branch, Entomological Society of America. Portland, OR

11. Butler, C. D. and J. T. Trumble. (2007) Predicting parasitoid population dynamics resulting from novel interactions of climate change and anthropogenic pollution. The 55th Annual Meeting of the Entomological Society of America. San Diego, CA
12. Butler, C. D. and J. T. Trumble. (2008) Predicting parasitoid population dynamics resulting from novel interactions of climate change and anthropogenic pollution. The 92nd Annual Meeting, Pacific Branch, Entomological Society of America. Napa, CA
13. Butler, C. D. and J. T. Trumble. (2008) Effects of metal contamination on bottom-up and top-down processes in insect-plant interactions. The 93rd Annual Meeting of the Ecological Society of America. Milwaukee, WI
14. Butler, C. D. and J. T. Trumble. (2008) Predicting parasitoid population dynamics resulting from novel interactions of climate change and anthropogenic pollution. The 55th Annual Meeting of the Entomological Society of America. Reno, NV
15. Butler, C. D. and J. T. Trumble. (2009) Sampling and IPM of psyllids on potatoes. Citrus Huanglongbing (HLB) and Potato Zebra Chip (ZC) Conference. McAllen, TX
16. Butler, C. D., F. J. Byrne, and J. T. Trumble. (2010) Effects of insecticides on potato psyllid (Hemiptera: Psyllidae) behavior. The 94th Annual Meeting, Pacific Branch, Entomological Society of America. Boise, ID
17. Butler, C. D., and J. T. Trumble. (2010) Distribution and phenology of the potato psyllid in southern California. 2010 Zebra Chip Annual Meeting. Dallas, TX
18. Butler, C. D., R. G. Novy, J. C. Miller, and J. T. Trumble. (2010) Alternative strategies: plant resistance and biological control. 2010 Zebra Chip Annual Meeting. Dallas, TX
19. Miller, J. C., D. Scheuring, J. Koym, S. Turner, R. Novy, J. Trumble, C. D. Butler, C. Nansen, K. Vaughn, T. X. Liu, J. Munyaneza, B. Pierson, C. Rush, J. Jifon, R. French, C. Tamborindeguy, D. Rowland, and P. Porter. (2010) Progress in identifying host plant tolerance/resistance to ZC in potato germplasm. 2010 Zebra Chip Annual Meeting. Dallas, TX
20. Novy, R. G., J. Whitworth, J. Alvarez, J. Trumble, C. D. Butler, and J. Munyaneza. (2010) Unique tri-species germplasm with multiple insect resistance and its uses in breeding for resistance to psyllid/ZC. 2010 Zebra Chip Annual Meeting. Dallas, TX
21. Butler, C. D., F. J. Byrne, K. L. Manjunath, R. F. Lee, G. P. Walker, and J. T. Trumble. (2010) Effects of insecticides on behavior of adult *Bactericera cockerelli* (Hemiptera: Trioziidae) and transmission of "*Candidatus Liberibacter psyllaeus*". 2010 Zebra Chip Annual Meeting. Dallas, TX

22. Butler, C. D., G. P. Walker, K. L. Manjunath, R. F. Lee, and J. T. Trumble. (2010)
Effects of imidacloprid on potato psyllid, *Bactericera cockerelli* (Sulc), feeding behavior
and disease transmission to potatoes. The 58th Annual Meeting of the Entomological
Society of America. San Diego, CA

TEACHING ACTIVITY

Conservation Biological Control: Framework and Techniques. Invited lecturer for ENTM
555 - Biological Control, Purdue University, Spring 2006

Teaching Assistant. Entomology 10 – Natural History of Insects, University of
California, Riverside, Spring 2008 and Fall 2008

* Outstanding Teaching Assistant Award for Entomology (2008-09)

SPECIAL TRAINING

Short Courses

Midwest Institute for Biological Control-Insect Pathology

July 2004

Midwest Institute for Biological Control-Techniques for Evaluating Natural Enemies

June 2005