

Alyssa Hernandez

Harvard University
Department of Organismic & Evolutionary Biology
Museum of Comparative Zoology, 4th Floor
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EDUCATION

PhD Student, Department of Organismic and Evolutionary Biology August 2015-Present
Harvard University, Cambridge MA

Bachelor of Science in Natural Resources, Applied Ecology August 2006-August 2010
Cornell University, Ithaca NY

RESEARCH EXPERIENCE

Laboratory Assistant II December 2012-July 2015
UC Berkeley-Van Steenwyk Laboratory, Berkeley CA

Major Accomplishments

- Played a key role in a large-scale project examining the use of neonicotinoid insecticides in California and its relationship to European honey bee (*Apis mellifera*) decline
- Managed two different projects focusing on the control of codling moth (*Cydia pomonella*) in English walnut (*Juglans regia*) using different combinations of low-risk insecticides
- Directed a project that involved testing the attractiveness of different trap/lure combinations for monitoring walnut husk fly (*Rhagoletis completa*) in English walnut
- Performed various laboratory experiments testing the susceptibility of different English walnut cultivars to walnut husk fly infestation

Collections Volunteer October 2012-December 2012 & March 2015-July 2015
UC Berkeley-Essig Museum of Entomology, Berkeley CA

Major Accomplishments

- Organized portions of the unidentified Coleoptera collection, as well as sorted them into family groups
- Worked within a specific family of unidentified beetles (Family Chrysomelidae) within the collection and identified them to the genus level

Laboratory Assistant I April 2012-October 2012
UC Berkeley-Kremen Laboratory, Berkeley CA

Major Accomplishments

- Performed insect-oriented field collection for the Kremen Lab's primary research project focusing on native pollinator occupancy within established hedgerows in Yolo County, California
- Contributed to a PhD study that examined the emergence of nesting bees along agricultural field settings in Yolo County, California.
- Performed laboratory work that involved extensive preparation and database entry of various insect specimens for the Kremen Lab's research collection

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Undergraduate Research Lab Assistant

January 2007-September 2008

Ecology and Evolutionary Biology Department, Cornell University, Ithaca NY

Major Accomplishments

- Maintained a simulated ocean system containing living coral samples
- Performed water analysis tests on both ocean system water and isotope laced water
- Helped to construct water test facility to provide setting for various water quality experiments
- Participated in a project that examined how nutrient enrichment in sea water can advance the spread of a fungal disease, aspergillosis, in sea fan corals

Research Intern

May 2008-August 2008

Harvard Forest, Harvard University, Petersham, MA

Major Accomplishments

- Developed a research project examining how various forest canopy densities affect the competition dynamics of carabid beetles
- Collected soil respiration measurements on a biweekly basis
- Provided statistical analysis assistance to lead researcher
- Performed laboratory work involving extensive invertebrate identification and preservation

PROFESSIONAL/INTERNSHIP EXPERIENCE

AmeriCorps Member

October 2010-August 2011

USDA/Resource Conservation District Local Partnership Office, Half Moon Bay, CA

Major Accomplishments

- Worked with District Conservationist to educate local farmers about beneficial insects and increased implementation of integrated pest management of farms
- Helped local partnership office build capacity to provide entomological technical assistance to landowners
- Led in field-based entomology instruction for local high school and adult students
- Developed and implemented a written insect monitoring protocol (involving both pest and beneficial insects) for San Mateo County organic farms
- Assisted RCD Conservation Associate with weekly freshwater and ocean water quality monitoring

Student Conservation Intern

May 2009-August 2009

US FWS Rachel Carson National Wildlife Refuge, Wells, ME

Major Accomplishments

- Helped to implement and provide field assistance on a project involving the biological control of Purple Loosestrife (*Lythrum salicaria*) through *Galerucella* beetles
- Delivered weekend environmental education programs
- Provided technical assistance in marsh and invasive plant studies
- Worked with and helped manage the summer Youth Conservation Corps program

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TEACHING EXPERIENCE

Undergraduate Teaching Assistant

August 2009-December 2009

Natural Resources Department, Cornell University, Ithaca, NY

Major Accomplishments

- Spent 8 hours a week teaching field biology skills to undergraduate students (e.g. map reading, plant identification)
- Taught identification of over 300 Northeastern plant, animal and bird species
- Organized and supervised weekend field trips at Arnot Teaching and Research Forest, Ithaca NY

PRESENTATIONS

Research presenter, Orchard Pest and Disease Management Conference, Portland, OR January 2015

- Presentation: Hernandez (2015) *Temperature and Time Requirements for Walnut Husk Fly Emergence*

Research presenter, Orchard Pest and Disease Management Conference, Portland, OR January 2015

- Presentation: Hernandez (2015) *Efficacy of Intrepid Edge for the Control of Codling Moth in Walnuts*

Research presenter, Orchard Pest and Disease Management Conference, Portland, OR January 2014

- Presentation: Hernandez (2014) *Walnut Husk Fly Trap Type and Lure Evaluations*

Research presenter, Orchard Pest and Disease Management Conference, Portland, OR January 2014

- Presentation: Hernandez (2014) *Insecticide Evaluations for Control of Codling Moth in Walnut*

Guest presenter, Pie Ranch, Pescadero, CA September 2013

- Presentation: Hernandez (2013) *Identifying beneficial insects within your hedgerows*

Guest presenter, Portrero Nuevo Farm, San Gregario, CA July 2011

- Presentation: Hernandez (2011) *Identifying beneficial insects within your hedgerows*

Guest presenter, Pie Ranch, Pescadero, CA November 2010, January & April 2011

- Presentation: Hernandez (2011) *Identifying beneficial insects within your hedgerows*

Guest presenter, Camp Glenwood, La Honda, CA October & November 2010

- Presentation: Hernandez (2010) *Identifying aquatic macroinvertebrates in Northern California streams*

Research presenter, Harvard Forest REU Research Symposium, Petersham, MA August 2008

- Presentation: Hernandez (2008) *Forest canopy loss affects the competition dynamics of carabid beetles (Carabidae)*

PUBLICATIONS

R.A. Van Steenwyk, C.R. Wise, A.M. Hernandez, R. Poliakon (2015) "Control of Peach Twig Borer in Almonds". *Arthropod Management Tests*, 40 (*Under review*).

R.A. Van Steenwyk, A.M. Hernandez, R. Poliakon, A.L. Taylor (2015) "Control of Codling Moth with Intrepid Edge in Walnuts". *Arthropod Management Tests*, 40 (*Under review*).

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PUBLICATIONS

R.A. Van Steenwyk, C.R. Wise, A.M. Hernandez, R. Poliakon, A.L. Taylor (2015) "Control of Codling Moth in Walnuts". *Arthropod Management Tests*, 40 (*Under review*).

R.A. Van Steenwyk, W.W. Coates, A.M. Hernandez, R. Poliakon, A.L. Taylor (2015) "Control of Walnut Husk Fly in Walnuts". *Arthropod Management Tests*, 40 (*Under review*).

R.A. Van Steenwyk, A.M. Hernandez (2014) "Evaluation of Intrepid Combined with Delegate for Control of First Generation Codling Moth Control in Walnuts". *Arthropod Management Tests*, 39.

R.A. Van Steenwyk, A.M. Hernandez (2014) "Control of Codling Moth with Intrepid Edge in Walnuts". *Arthropod Management Tests*, 39.

R.A. Van Steenwyk, A.M. Hernandez (2014) "Control of Codling Moth in Walnuts". *Arthropod Management Tests*, 39.

A.M. Hernandez, J. Howard (2012) "Hedgerow Monitoring and IPM for San Mateo County Organic Farms". USDA Natural Resource Conservation Service (*In press*).