**Matthew L. Klein**

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Collaborative and creative professional with a background in entomology and soil science and a passion for understanding the role of animal agriculture in determining environmental quality. Proven ability to conduct research, troubleshoot problems, and initiate progress. Expert at communicating ideas in a concise and understandable way and consistently working to meet demands with energy that inspires others.

**EDUCATION**

**M.S. Crop Science, Oregon State University** Dec 2016

Entomology option, Statistics minor. GPA 3.76

**B.S. Environmental Science & Policy, University of Maryland** May2012

Biodiversity & Conservation Biology concentration, Soil Science minor

**WORK HISTORY**

**Faculty Research Assistant** Feb 2017 – Aug 2019

Department of Crop & Soil Science, Oregon State University, Corvallis, OR

* Research lead on developing effective bio-pesticides against *D. reticulatum*.
* Lead author on an OSU-ARF grant to study the role of slugs as a pasture pest. Funds awarded in full.
* Published four papers (as of August 2019), several more expected on current projects.
* Extensive communication with fieldmen and growers, established producer collaboration network.
* Data analysis and graphics in R: mixed model regressions, probit/logit, nonparametric tests.

**Graduate Teaching Assistant** Jan 2016 – Dec 2016

Department of Crop & Soil Science, Oregon State University, Corvallis, OR

*Agricultural and Environmental Predicaments: A Case Study Approach* (CROP 325)

*Introductory Soil Science Lab* (SOIL 206)

*Introduction to Environmental Science and Sustainability* (SUS 102)

* Demonstrated topic mastery and maintained an openness for discussion.
* Conveyed new information and original lectures in straightforward language.
* Experienced and comfortable working with large or small groups of peers.

**National Needs Graduate Fellow, USDA-NIFA** Sept 2013 – Dec 2015 Department of Crop & Soil Science Oregon State University, Corvallis, OR

* Two papers published, one accepted with minor revisions.
* Developed skills in insect ecology, field, and lab techniques.
* Presentations at academic (ESA, PNW-IPM) and extension meetings.
* Conducted educational activities with local elementary school students.

**Technical Assistant** April 2013 – Aug 2013

Department of Entomology, University of Maryland: College Park, College Park, MD.

* Collected data from insect traps, maintained field and vegetable crops.
* Conducted ELISA bioassays on Western corn rootworm to quantify toxicity of Bt protein.
* Maintained a brown marmorated stink bug colony and trained a new colony technician.
* Produced successful field experiments through teamwork and organization.

**Biological Science Technician, GS-0404** June 2012 – Mar 2013

U.S. Department of Agriculture, Agricultural Research Service, Invasive Insect Biocontrol and Behavior Laboratory. Beltsville, MD.

* Reared colonies of five insect species for use in multiple lab and field experiments.
* Demonstrated patience and attention to detail in the identification of field collected insects.
* Managed greenhouse space to produce plants for insect colonies and field studies.

**GRANTS**

**Klein ML, Mc Donnell RJ, Ates S (2019)** Host preference of the pest slug *Deroceras reticulatum* among key pasture grasses, legumes, and herbs. Total $12,500; awarded to ML Klein; $12,500. Oregon State University Agricultural Research Foundation. 2019 to 2021.

**PAPERS**

**Klein ML, Chastain TG, Garbacik CJ, Qian YPL and Mc Donnell RJ (2019)** Acute toxicity of essential oils to the pest slug *Deroceras reticulatum* in laboratory and greenhouse bioassays. J Pest Sci. doi.org/10.1007/s10340-019-01154-0

**Rondon SI, Thompson DI, Klein ML and Mc Donnell RJ (2019)** First report of the presence of slugs in a commercial potato storage facility in the United States. Am J Potato Res. doi.org/10.1007/s12230-019- 09728-5

**Klein ML, Chastain TG, Garbacik CJ and Mc Donnell RJ (2018)** Can essential oils be used to control the grey field slug? Seed Production Research; Oregon State University Press. pp 29-32 https://cropandsoil.oregonstate.edu/sites/agscid7/files/2018\_seed\_production\_combined\_final\_report. pdf

**Klein ML and Rondon SI (2019)** Captures of *Bactericera cockerelli* (Šulc) (Hemiptera: Triozidae) adults affected by the presence of volunteer potatoes (*Solanum tuberosum* L.). Am J Potato Res. 96:285-293. doi.org/10.1007/s12230-019-09715-w

**Rondon SI, Klein ML and Thompson DI (2018)** *Thrips tabaci* (Thysanoptera: Thripidae) Control in the Columbia Basin of Oregon. Arthropod Manag Tests. 43:1-2. doi.org/10.1093/amt/tsy091

**Klein ML, Rondon SI, Walenta DL, Zeb Q and Murphy AF (2017)** Spatial and temporal dynamics of aphids (Hemiptera: Aphididae) in the Columbia Basin and Northeastern Oregon. J Econ Entomol. 110:1899–1910. doi.org/10.1093/jee/tox134

**PRESENTATIONS**

**Klein ML, Chastain T, and Mc Donnell RJ (2019)** Acute toxicity of essential oils to the pest slug *Deroceras reticulatum* in laboratory and greenhouse bioassays. 2nd Annual International Branch Virtual Symposium. Entomological Society of America, April 8, 2019.

**Klein ML, Chastain T, and Mc Donnell RJ (2019)** Acute toxicity of essential oils to adults of the pest slug *Deroceras reticulatum* in laboratory and greenhouse bioassays. Poster session. 78th Annual Pacific Northwest Insect Management Conference, Portland, OR. January 7, 2019, and 58th Annual Oregon Ryegrass Growers Association Meeting. Albany, OR. January 16, 2019.

**Klein ML, Chastain T, and Mc Donnell RJ (2018)** Laboratory screening of plant extracts (essential oils and caffeine) for their toxicity towards the pest slug species *Deroceras reticulatum*. Poster session. 57th Annual Oregon Ryegrass Growers Association Meeting. Albany, OR. January 17, 2018.

**Klein ML, Chastain T, and Mc Donnell RJ (2017)** Laboratory screening of plant extracts (essential oils and caffeine) for their toxicity towards the pest slug species *Deroceras reticulatum*. Crop and Soil Science Department Poster Session. Corvallis, OR. November 13, 2017.

**Mc Donnell RJ, Cordoba M, Klein ML, Colton A, Dreves A, and Sullivan C (2017)** Life history of *Deroceras reticulatum* in annual ryegrass (*Lolium multiflorum*) fields in Oregon and implications for pest management. 83rd Meeting of the American Malacological Society, University of Delaware, July 17 to 21, 2017.

**Klein ML, Rondon SI (2016)** Spatial and temporal analysis of aphids in Eastern Oregon. Student Presentation. 75th Annual Pacific Northwest Insect Management Conference, Portland, OR. January 11, 2016.

**Klein ML, Rondon SI (2015)** Crop diversity and sampling method impact observed distributions of potato psyllid, *Bactericera cockerelli*, and the larger insect community. 10-minute student presentation. 63rd Annual Meeting of the Entomological Society of America, Minneapolis, MN. November 16, 2015.

**Klein ML, Rondon SI (2015)** The effects of crop diversity on potato psyllid (*Bactericera cockerelli*) distribution. 10 minute student presentation. 62nd Annual Meeting of the Entomological Society of America, Portland, OR. November 17, 2014.

**EVENT ORGANIZING**

**Rondon SI, Klein ML, Vinchesi A (2015)** Moderators and organizers for: “Member Symposium: Beyond corn and soybeans: Challenges to integrated pest management in specialty crops.” 63rd Annual Meeting of the Entomological Society of America, Minneapolis, MN, November 15 to 18, 2015.

**AWARDS**

* 1st Place, Student Competition. PNW Insect Management Conference, Portland, Oregon. 2016.
* Rod and Ruby Frakes Scholarship, Oregon State University, 2015.
* Student Travel Award, Pacific Branch of the Entomological Society of America, 2015.
* College of Agricultural Sciences Scholarship Awards. Oregon State University, 2014.