

**Curriculum Vitae**  
**ANNIKA S. NELSON**

Ecology and Evolutionary Biology  
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**EDUCATION**

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2015-present      **Ph.D. Candidate, Ecology & Evolutionary Biology**, University of California, Irvine (UC Irvine); Advisor: Dr. Kailen Mooney  
2015-2018        **M.S. Ecology & Evolutionary Biology**, UC Irvine  
2011-2015        **B.A. Biology**, Oberlin College, Oberlin, Ohio

Additional studies:

Summer 2014      Rocky Mountain Biological Laboratory, Gothic, Colorado  
Summer 2013      Texas A&M University, College Station, Texas  
2009-2011        Texas Woman's University, Denton, Texas

**PUBLICATIONS**

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- [3] Nell, C.S., M.M. Meza-Lopez, J.R. Croy, **A.S. Nelson**, X. Moreira, J.D. Pratt, and K.A. Mooney. 2018. Relative effects of genetic variation sensu lato and sexual dimorphism on plant traits and associated arthropod communities. *Oecologia* DOI: [dx.doi.org/10.1007/s00442-018-4065-y](https://doi.org/10.1007/s00442-018-4065-y).
- [2] **Nelson, A.S.**, T. Scott, M. Barczyk, T.P. McGlynn, A. Avalos, E. Clifton, A. Das, A. Figueiredo, L. Figueroa, M. Janowiecki, S. Pahlke, J.D. Rana, and S. O'Donnell. 2018. Day/night upper thermal limits differ within *Ectatomma ruidum* ant colonies. *Insectes Sociaux* 65: 183-189.
- [1] Mooney, E.H., J.S. Phillips, C.V. Tillberg, C. Sandrow, **A.S. Nelson**, and K.A. Mooney. 2016. Abiotic mediation of a mutualism drives herbivore abundance. *Ecology Letters* 19: 37-44.

**In progress (manuscripts available upon request):**

**Nelson, A.S.**, C.T. Symanski, M.J. Hecking, and K.A. Mooney. *In review*. Elevational cline in herbivore abundance on aspen driven by altered ant protection mutualism. *Journal of Animal Ecology*.

**Nelson, A.S.**, R.T. Pratt, J.D. Pratt, R.A. Smith, C.T. Symanski, C. Prenot, and K.A. Mooney. *In review*. Ant-aphid mutualism stronger at low elevations due to both increased ant activity and natural enemy abundance. *Oikos*.

**GRANTS & FELLOWSHIPS**

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2016-19    \$138,000    Graduate Research Fellowship Program, National Science Foundation  
2018        \$650        Snyder Endowment Graduate Student Fellowship, Rocky Mountain

		Biological Laboratory (RMBL)
2017	\$500	Travel Award, Dept. of Ecology & Evolutionary Biology, UC Irvine – to attend the 2017 Ecological Society of America Annual Meeting
2017	\$800	Graduate Student Fellowship, Colorado Mountain Club Foundation
2017	\$870	Graduate Student Fellowship, RMBL
2017	\$700	Scholarship to attend the Biology of Neotropical Social Insects Course, Organization for Tropical Studies (OTS)
2017	\$500	Travel Award, Dept. of Ecology & Evolutionary Biology, UC Irvine – to attend the Biology of Neotropical Social Insects Course, OTS
2016	\$660	Graduate Student Fellowship, RMBL
2015	\$15,000	Francisco J. Ayala Graduate Fellowship, School of Biological Sciences, UC Irvine – for academically superior doctoral students exhibiting outstanding promise as scientists, researchers, and public leaders
2015	\$1,600	Krakauer Returning Student Fellowship, RMBL
2015	\$325	Leo S. Millar Memorial Prize, Dept. of Biology, Oberlin College – for academic excellence and future promise in the field of biological sciences
2014	\$250	Scholarship for Undergraduate Research, RMBL
2014	\$2,500	Scholarship in Zoology, Dept. of Biology, Oberlin College – for undergraduate research at a field station
2013	\$5,800	Research Experience for Undergraduates (REU), National Science Foundation – Dept. of Entomology, Texas A&M University
2011-15	\$48,000	John F. Oberlin Scholarship
2011	\$500	Erik Anthony Shelton Scholarship

### **ACADEMIC AWARDS**

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2015 Election to Phi Beta Kappa, Oberlin College

### **RESEARCH POSITIONS**

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2016-18 Graduate Student Researcher, Rocky Mountain Biological Laboratory (RMBL), Advisor: Dr. Kailen Mooney. Research: Variation in the effects of ant mutualists on aphid populations across environmental gradients and community contexts.

2015 Research Assistant, RMBL, Advisor: Dr. Kailen Mooney. Research: Elevational variation in an ant-aphid mutualism.

2014 Undergraduate Researcher, Summer Education Program for Undergraduates, RMBL, Advisor: Dr. Kailen Mooney. Research: Light dependency of an ant-aphid mutualism.

2014-15 Research Assistant, Dept. of Biology, Oberlin College, Advisor: Dr. Mary Garvin. Research: Ecology of West Nile virus.

2013 Research Assistant, Dept. of Biology, Oberlin College, Advisor: Dr. Christopher Anderson. Research: Damsel fly evolutionary biology and disease ecology.

2013 Undergraduate Researcher, NSF REU-EXCITE, Dept. of Entomology, Texas A&M University, Advisor: Dr. Micky Eubanks. Research: Ant-plant protection mutualisms.

2013 Intern, B.B. Harris Botanical Collection, Elm Fork Natural Heritage Museum, University of North Texas, Advisor: Dr. James Kennedy. Cataloged herbarium specimens.

2010 Research Assistant, Dept. of Biology, University of North Texas, Advisor: Dr. James Kennedy. Research: Stream ecology.

## PROFESSIONAL PRESENTATIONS (\* presenter)

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### Contributed talks:

- Nelson, A.S.\***, C.T. Symanski, M.J. Hecking, and K.A. Mooney. 2017. Elevational cline in herbivore abundance driven by altered protection mutualism with ants. Ecological Society of America, August 6-11, Portland, Oregon, USA.
- C.S. Nell, Meza-Lopez\*, M.M., J.R. Croy, **A.S. Nelson**, A. Katsanis, J.D. Pratt, and K.A. Mooney. 2017. Plant genotypic variation and sex influence *Baccharis salicifolia* trait variation and plastic response to precipitation. Ecological Society of America, August 6-11, Portland, Oregon, USA.
- Nelson, A.S.\***, C.T. Symanski, M.J. Hecking, and K.A. Mooney. 2017. Elevational cline in herbivore abundance driven by altered protection mutualism with ants. Graduate Student Seminar Series, Rocky Mountain Biological Laboratory, Gothic, Colorado, USA.
- Nelson, A.S.\***, C.T. Symanski, M.J. Hecking, and K.A. Mooney. 2017. Elevational cline in herbivore abundance driven by altered protection mutualism with ants. Biology of Neotropical Social Insects Course, Organization for Tropical Studies, Costa Rica.
- Nelson, A.S.\*** and K.A. Mooney. 2015. The effects of light on ant-aphid mutualisms. Senior Symposium, Oberlin College, Oberlin, Ohio, USA.
- E.H. Mooney, J.S. Phillips, C.V. Tillberg, C. Sandrow, **A.S. Nelson**, and K.A. Mooney\*. 2014. Abiotic and multitrophic determinants of geographic distribution in an herbivorous insect. Ecological Society of America, August 10-15, Sacramento, California, USA.
- Nelson, A.S.\*** and K.A. Mooney. 2014. The effects of light intensity on ant-aphid mutualisms on osha (*Ligusticum porteri*). Symposium for Undergraduate Research, Rocky Mountain Biological Laboratory, Gothic, Colorado, USA.
- Nelson, A.S.\*** and M.D. Eubanks. 2013. The effects of *Chamaecrista fasciculata* extrafloral nectar production on the distribution of ants, spiders, and herbivores. Entomology REU-EXCITE Research Symposium, Texas A&M University, College Station, Texas, USA.

### Posters:

- Nelson, A.S.\***, G. Radulski\*, C. Hoffman\*. 2013. 45-acre forest sequesters carbon at an increasing rate, offsetting a small percentage of annual campus carbon emissions. Systems Ecology Poster Symposium, Oberlin College, Oberlin, Ohio, USA.
- Nelson, A.S.\*** and M.D. Eubanks. 2013. The effects of *Chamaecrista fasciculata* extrafloral nectar production on the distribution of ants, spiders, and herbivores. Summer Undergraduate Research Poster Symposium, Texas A&M University, College Station, Texas, USA.

## TEACHING

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### Independent teaching & curriculum development:

- Summer 2017 “Making Observations” workshop, Summer Education Program for Undergraduates, Rocky Mountain Biological Laboratory – field workshop for undergraduates
- Spring 2015 “Feces: A Cultural and Scientific Excursion,” Oberlin Experimental College – Co-designed and co-taught a semester-long course examining the profound ways in which human excrement impacts our environment and society, by altering climates, spreading diseases, and shaping cultural norms

### Teaching assistantships:

- Spring 2016 Global Sustainability, UC Irvine
- Winter 2016 Organisms to Ecosystems, UC Irvine
- Fall 2015 Field Biology, UC Irvine
- 2013-2015 Organismal Biology Laboratory, Oberlin College, 5 semesters
- Fall 2012 Genetics, Evolution, and Ecology Laboratory, Oberlin College

### Pedagogical training:

- Winter 2018 Certificate in Course Design, Division of Teaching Excellence and Innovation, UC Irvine
- Fall 2016 Mentoring Excellence Certificate, Graduate Professional Success Program, UC Irvine
- Fall 2016 Education Seminar in Ecology and Evolutionary Biology, UC Irvine – designed a course syllabus

### Tutoring:

- 2016 and 2017 Writing Tutor, NSF GRFP Proposal Writing Workshop, School of Biological Sciences, UC Irvine, – graduate students
- 2014-2015 Quantitative Skills Tutor, Drop-In Center for Learning, Education, and Research in the Sciences, Oberlin College,
- 2014 Science and Math Tutor, Guyer High School, Denton, Texas – 9 high school students
- 2013 Biology Tutor, Oberlin College – 3 undergraduate students
- 2013 Chemistry Tutor, Oberlin College – 2 undergraduate students
- 2012 Discrete Math Tutor, Oberlin College – 1 undergraduate student

## STUDENT MENTORING & OUTREACH

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### Student mentoring:

Rocky Mountain Biological Laboratory:

- Keegan Sentner (Summer 2017; undergraduate independent research)
- Guillermo Zapata (Summer 2018; NSF-REU)
- Parker Hawk (Summer 2018; high school research assistant)

### K-12 education:

Exam Writer and Event Supervisor, Science Olympiad regional academic competition, 2016 and

- 2017 – Ecology and “Dynamic Planet” oceanography categories, middle and high school levels
- Volunteer Scientist, “Ask-A-Scientist Night,” Rancho San Joaquin Middle School, 2016 – advised students on science fair projects
- Presenter, Climate, Literacy, Empowerment, and Inquiry (CLEAN) Education Organization, UC Irvine, 2016 – taught local middle school students about renewable energy
- Presenter, NSF REU-EXCITE program, Texas A&M University, 2013 – discussed entomology research with eighth grade students
- Junior Teaching Assistant, Elm Fork Environmental Education Center, University of North Texas, 2006-2010 – environmental education camps for children (ages 7-13), including X-Stream Adventure; Creative Science; Homes, Habits, and Habitats; Critter Camp; Astro-Kid Academy; Suburban Safari; Just Beneath the Surface; Chem-2-Kids
- Volunteer, Kids Nature Camp, Rocky Mountain Biological Laboratory, 2009 – environmental education camps for children (ages 4-8), including Fantastic Fossils and Magnificent Marmots

## **ACADEMIC, SCIENTIFIC, & COMMUNITY CITIZENSHIP**

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### **Peer referee:**

*Ecology and Evolution* (x2), *Insectes Sociaux*, *Proceedings of the Royal Society B*

### **Rocky Mountain Biological Laboratory:**

- Member, RMBL Diversity Committee, 2018
- Seminar Assistant, 2017 and 2018
- Panel Member, “Graduate School in Ecology,” 2016 and 2017
- Hike Leader, Student Orientation Hike, 2017
- Volunteer, “Open House” Event, 2016 – discussed research with the general public
- Participant, “Meet the Scientists” Event, 2014 – discussed research with the general public

### **University of California, Irvine:**

- Member, Ecology Assistant Professor Search Committee, Department of Ecology and Evolutionary Biology, 2017-2018
- Member, “What can I do with my PhD?” Jobs Symposium Planning Committee, Department of Ecology and Evolutionary Biology, 2017-2018
- Volunteer Scientist, “Ask-an-ecologist” event, Department of Ecology and Evolutionary Biology, 2017 – advised undergraduate students on independent research projects
- Member, Graduate Student Recruitment Planning Committee, Department of Ecology and Evolutionary Biology, 2016-2017
- Panelist, “Tacos with TAs” event, 2016 – provided information to undergraduates about how to apply to graduate school
- Panelist, REU Information Session, 2015 - provided information to undergraduates about applying to and participating in NSF-REU programs

### **Community service:**

- Certified Trail Guide, Irvine Ranch Conservancy, 2016-2018 – participated in citizen science monthly butterfly surveys
- Site Leader, Oberlin College Day of Service, 2013

Volunteer, Cloud Forest School, Monteverde, Costa Rica, 2012 – assisted with gardening and building maintenance and construction while living with a host family

**Memberships in professional organizations:**

Ecological Society of America

Evolutionary Demography Society

American Association for the Advancement of Science

American Alpine Club

**ADVANCED COURSEWORK & TRAINING**

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| 2017 | Integral Projection Models: Demography in a Continuous World Course, Transmitting Science, Barcelona, Spain   |
| 2017 | Biology of Neotropical Social Insects Course, Organization for Tropical Studies, La Selva and Las Cruces Biological Stations, Costa Rica  |
| 2016 | Data Science Initiative Workshops, UC Irvine – Introduction to R, Advanced Topics in R  |
| 2016 | Graduate Certificate, Public Speaking: Activate to Captivate, UC Irvine   |
| 2015 | Quantitative Methods in Ecology & Evolutionary Biology, UC Irvine – ten-week graduate course  |
| 2014 | Methods in Field Ecology, RMBL – undergraduate course   |
| 2013 | Systems Ecology, Oberlin College – undergraduate course, group research project quantifying carbon sequestration in a college-owned forest, provided groundwork for further research projects and carbon offset policy decisions at Oberlin College |

**First aid training:**

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| 2016 | Certificate, CPR, AED, and Adult and Child First Aid, Irvine Ranch Conservancy – EMS Safety Services |
| 2016 | Certificate, Wilderness First Aid course, UC Irvine – the American Safety and Health Institute       |