

Curriculum vitae of

LAURA VAN DER POL

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EDUCATION

Colorado State University, Fort Collins, CO

Ph.D. Candidate

2018-Present

Graduate Degree Program in Ecology & Soil & Crop Sciences Department

Anticipated graduation 2022

Colorado State University, Fort Collins, CO

Summer Soil Institute

2016

Wellesley College, Wellesley, MA

Bachelor of Arts in Environmental Studies, science concentration

2007

GPA: 3.6/4.0 Studied: terrestrial and aquatic ecology, chemistry, & Spanish

AWARDS & GRANTS

Graduate School Council Professional Development and Supply Award,

2021

Colorado State University, One-time \$100 award

School of Global Environmental Sustainability Fellowship, Colorado State University

2020-2021

Provides training to communicate science to media and the public to early career scientists

Graduate Degree Program in Ecology Spring Travel Grant, Colorado State University

2019

One-time \$1068 award

Programs of Research and Scholarly Excellence Fellow, Colorado State University

2018

One-time \$2000 award

Graduate Research Fellowship Program, National Science Foundation

2018 – 2023

Annual stipend and tuition coverage over 3 of 5 years of fellowship.

Climate Heroes Grant, CREDO Action

2015

One-time \$500 grant

Amgen Fellowship Grant, Amgen Foundation for promising science educator

2013

\$1000 one-time award plus \$2,000 over two years for classroom materials

Achievement Medal, US Coast Guard Sector New England

2010

Commandant's Letter of Commendation, US Coast Guard Cutter OAK (WLB 211)

2009

Excellence in Service Award, Wellesley College Center for Work & Service

2007

Best Shipmate Award, US Coast Guard Company MIKE-171

2005

PROFESSIONAL EXPERIENCE

RESEARCH

Natural Resource Ecology Lab, Colorado State University, Fort Collins, CO

Ph.D. Student**2018-present**

- Research how incorporating a legume into annual and perennial grain cropping systems influence persistent soil organic matter formation, microbial community structure, and soil quality. Methods include field and lab study for both applied and mechanistic research.

*Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA***Terrestrial Ecology Research Assistant****2011 – 2012**

- Field season lab manager; led 5-person field crew for study photosynthesis of arctic shrub canopies at the Arctic LTER at the Toolik Field Station in AK.

*Ecosystems Center, Marine Biological Laboratory, Woods Hole, MA***Teaching & Residential Assistant****Fall 2011**

- Instructed 23 students in field and lab techniques (*nutrient analyses, biomass, C flux, etc*) for analyzing terrestrial and aquatic ecology in the Semester in Environmental Science program.

TEACHING EXPERIENCE*Research Skills for Ecosystem Science, Colorado State University, Fort Collins, CO***Graduate Assistant Teacher****2018-2019**

- Mentor to 17 students in developing research projects they will conduct under guidance of researcher.
- Lead or co-teach several classes and provide all student feedback on assignments and grading.

*Research & Extension Experience for Undergraduates, Colorado State University Skills for Undergraduate Participation in Research, Colorado State University***Mentor****2018-Present**

- Each semester mentored one undergraduate student to learn lab techniques and data analyses techniques for soils sciences leading to a culmination of student presentations of independent research project; three students mentored thus far. One student will present her work at the National Conference for Undergraduate Research in April 2021.

*Colorado Springs Community Night School, District 11, Colorado Springs, CO***High School Science Teacher****2014 – 2017**

- Courses taught include: chemistry, biology, astronomy, environmental science (2 semesters), physical earth science (2 semesters), introduction to science, anatomy & physiology, zoology & forensic science.
- Designed courses and lab work that emphasizes scientific inquiry, experiential, and team-based learning.

*Mountain Vista Community School, Harrison School District 2, Colorado Springs, CO***6th Grade Science Teacher****2013 – 2014**

- Led 93+ 6th graders to master diverse scientific concepts based in physics, biology, and chemistry with an emphasis on experiential and team-based learning.

U.S. COAST GUARD*U.S. Coast Guard Sector Northern New England, Portland, ME***Waterways Management Division Chief****2009 – 2010**

- Directed waterways management & aids to navigation (buoys, lighthouses, day-beacons) missions over four states including 5100 miles of coastline & 1050 aids.
- Oversaw complex large-scale events such as an emergency bridge demolition, ice-breaking flood relief, and marine events. Communication, foresight, and direction ensured public safety.

*U.S. Coast Guard Cutter OAK (WLB 211), Charleston, SC***Deck Watch Officer****2007 – 2009**

- Responsible for safety & security of ship & 50-person crew, including vessel maneuvering, servicing aids, & rescuing those in distress.
- Oversight of 3-person staff \$14K annual budget as Administrative Officer led to \$3500/yr savings & exceptional unit performance through four compliance inspections.

SELECTED PUBLICATION AND PRESENTATIONS

van der Pol, L., Tibbets, C.A., Lin Hunter, D. E. Removing barriers and creating opportunities for climate-resilient agriculture by optimizing federal crop insurance. (2021) *Journal of Science Policy & Governance*. (Manuscript in press).

van der Pol, L., Robertson, A. Schipanski, M., Calderon, F., Wallenstein M.D., Cotrufo, M.F. (2021, April) Addressing the soil carbon dilemma: Legumes in intensified rotations regenerate soil carbon in semi-arid dryland wheat farms. (Manuscript pending submission)

van der Pol, L., Cotrufo, M.F. (2019, Oct) With or without legumes? Exploring how to build organic matter while sustaining fertility. Ecosphere Workshop. The Land Institute, Salina, KS. (Oral Presentation)

van der Pol, L., Even, R., Calderon, F., Schipanski, M. Wallenstein, M., Cotrufo, M.F. (2019, May) Rhizosphere *versus* bulk soil microbial processes under contrasting crop rotations. Soil Ecology Society Biannual Conference, Toledo, OH, USA. (Poster Presentation)

van der Pol, L. (2019, Jan) Crop Growth Influences Microbial Activity in the Rhizosphere but not Bulk Soils of Dryland Wheat. International Soil Science Society of America Meeting, San Diego, CA, USA. (Poster Presentation)

van der Pol, L., Calderon, F., Schipanski, M. Wallenstein, M., Cotrufo, M.F. (2018, Nov) Can cultivating connectivity solve the soil carbon dilemma? Colorado State University Graduate Student Showcase, Fort Collins, CO, USA. (Poster Presentation)

van der Pol, L. (2017, Feb) What determines microbial communities' ability to form stable soil organic matter (SOM) and interact with plants? Front Range Student Ecology Symposium poster presentation. Colorado State University, Fort Collins, CO. (Poster Presentation)

Williams, M., Rastetter, E. B., **van der Pol, L.** and Shaver, G. R. (2014), Arctic canopy photosynthetic efficiency enhanced under diffuse light, linked to a reduction in the fraction of the canopy in deep shade. *New Phytologist*, 202: 1267–1276. doi: 10.1111/nph.12750

van der Pol, L., Beverage, L., Drysdale, J., Gratton, Z., Jevon, F., Rastetter, E., Shaver, S., Williams, M. (2012)
How do arctic shrub canopies respond to changes in the diffuse light fraction of solar radiation? LTER
 Conference, Estes Park, CO, USA. (Poster Presentation)

VOLUNTEER ACTIVITIES & MENTORING

Invited Speaker , NREL Soup & Science	<i>Mar 2021</i>
Session Moderator & Day-of volunteer , Front Range Student Ecology Symposium	<i>2021</i>
Mentor , Wellesley/ES Mentoring Program	<i>2021-present</i>
Mentor , Ecology & Evolutionary Biology Mentorship Program	<i>2018-present</i>
Vice President & Day-of-Committee Chair , Front Range Student Ecology Symposium	<i>2020</i>
Invited Speaker , CSU Agronomy Club	<i>Sep 2019</i>
Workshop leader , Expanding Your Horizons	<i>2019, 2020</i>
Volunteer Editor , NSF GRFP Workshop	<i>2018-present</i>
Volunteer , Denver Maker Faire	<i>Oct 2018</i>
Invited Panelist , NSF GRFP Information Session	<i>Aug 2018</i>
3rd Grade Science Activity , Poudre School District	<i>Apr 2018</i>
Board Member & Volunteer , 350 Colorado	<i>2014-2016</i>
English language tutor , Pueblo County Library	<i>2013</i>
After-school tutor , LearningWorks	<i>2011</i>
Peace & Social Concerns Committee Member , Portland Friends Meeting	<i>2009 – 2011</i>
Fundraiser/rider , BP MS 150, National Multiple Sclerosis Society	<i>2010</i>
“Big” , Big Brothers, Big Sisters of Southern Maine	<i>2009 – 2011</i>
Tutor , St. Julian’s Divine Community Center	<i>2007 – 2009</i>

LICENSURES:

Colorado Professional Teaching License: Science Education (7-12) (# 200806)
 Adult and Pediatric First Aid/CPR/AED through American Red Cross (ID: GQOY02)

PROFESSIONAL MEMBERSHIPS:

- Rocky Mountain Farmers Union
- Soil Ecology Society
- Soil Science Society of America, Crop Science of America