

Colleen Lee Partida

Formerly Colleen Lee Smith
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EDUCATION

Humboldt State University, Arcata, CA

- BS in Forestry: Soils, minor in Geospatial Analysis
• Degree Honors: Magna Cum Laude
• Overall GPA: 3.76/4.0
• Total Semester Units: 75

Jan 2016 – May 2019

College of the Redwoods, Eureka, CA

- AA in Science Exploration
• Degree Honors: High Honors
• Overall GPA: 3.81 / 4.00
• Total Semester Units: 72

Aug 2014 – Dec 2016

COURSEWORK & CERTIFICATIONS

Humboldt State University

- General Geology | Origin & Classification of Soils | Soil Fertility | Soil Microbiology | Forest & Rangeland Soil Mgmt | Cartography | Intermediate Remote Sensing | Forest Measurements & Biometry
Forest Mensuration & Growth | Hydrology & Watershed Mgmt | Silviculture

College of the Redwoods

- Intro to Chemistry | Dendrology | General Botany | Intro to GIS | Intro to Wildland Fire
Forest Health & Protection | Differential Calculus

ALPINE Summer Institute - 2021

- Completion of the ALPINE Summer Institute program in large landscape conservation. The program is staffed by experts in the field of land conservation from the Lincoln Institute, the Harvard Forest, Highstead, and the Schoodic Institute. The program selects up to 12 students for participation annually.

NOLS Wilderness First Responder - June 2025 valid 2 years

- 10 day wilderness medicine course earning certification as a Wilderness First Responder (WFR), in Adult, Child, Infant CPR, AED, and Airway Management, and Epinephrine Auto-injector

EXPERIENCE

Woodwell Climate Research Center | Falmouth, MA | Full-time

- Research Assistant III
- Research Assistant II
- Research Assistant I
 - Soil carbon monitoring
 - Soil spectroscopy and statistical modeling
 - Analyzing data, compiling reports and publications
 - Coordinating laboratory and field work
 - Supervisor: Dr. Jonathan Sanderman

Oct 2024 – present
Sep 2022 – Oct 2022
Jun 2021 – Sep 2022

TerraCorps - AmeriCorps | Falmouth, MA | Full-time, temporary appointment

- Land Stewardship Coordinator
 - Fostered relationships with land owners and community members
 - Created trail maps for properties
 - Worked to update website in HTML
 - Created and implemented training for land monitors in the Landscape land conservation software
 - Coordinated and managed volunteers
 - Supervisor: Alexandra Zollo, The 300 Committee Land Trust

Aug 2020 – Jun 2021

Humboldt State University | Arcata, CA | Full-time, temporary appointment

- Field Research Technician
 - Studied drought effects on various conifer species in the Klamath, CA ecoregion
 - Worked as part of a 5-person crew, backpack camped and navigated rough terrain
 - Tree identification, coring, measurements, and plant species inventory
 - Contributed to and implemented field sampling strategy
 - Advisors: Drs. Lucy Kerhoulas & Rosemary Sherriff

Aug 2019 – May 2019

North Carolina State University | Raleigh, NC | Full-time, temporary appointment

Basic and Environmental Soil Science (BESST) REU

■ Research Intern

Aug 2018 – May 2018

- Collected and processed soil core and leaf litter samples
- Pipetted and microplated samples
- Performed chloroform fumigation extraction on soil and leaf litter samples
- Studied the impacts of intensive forest management on soil microbial biomass and functional diversity in a loblolly pine plantation
- Presented a poster presentation of findings at a summer research symposium
- Advisors: Drs. Rachel Cook & Zakiya Leggett

Harvard University | Petersham, MA | Full-time, temporary appointment

Harvard Forest Summer REU in Ecology

■ Research Intern

Aug 2017 – May 2017

- Studied light availability and size-abundance scaling of saplings
- Identified, tagged, and recorded all woody species over 1cm diameter in our research plots
- Meticulously maintained spreadsheets in Excel, and processed data using R programming language
- Presented a PowerPoint presentation of findings at a summer research symposium
- Advisors: Drs. Sydne Record & John Grady

PUBLICATIONS

- [1] Sanderman, J., Partida, C., Safanelli, J.L., Shepherd, K., Ge, Y., Mitu, S.M. and Ferguson, R. (2025). Application of a Handheld Near Infrared Spectrophotometer to Farm Scale Soil Carbon Monitoring. *Eur J Soil Sci*, 76: e70053. <https://doi.org/10.1111/ejss.70053>
- [2] Partida, C., Safanelli, J.L., Mitu, S.M., Murad, M.O.F., Ge, Y., Ferguson, R., Shepherd, K., Sanderman, J. (2025). Building a near-infrared (NIR) soil spectral dataset and predictive machine learning models using a handheld NIR spectrophotometer. *Data in Brief*, Volume 58, 111229, ISSN 2352-3409, <https://doi.org/10.1016/j.dib.2024.111229>.
- [3] Haig, J., Sanderman, J., Zwart, C., Smith, C., Bird, M. (2024). Impact of fire return interval on pyrogenic carbon stocks in a tropical savanna, north Queensland, Australia. *International Journal of Wildland Fire* 33, WF24006 <https://doi.org/10.1071/WF24006>
- [4] Mitu, S. M., Smith, C., Sanderman, J., Ferguson, R. R., Shepherd, K., and Ge, Y. (2024). Evaluating consistency across multiple NeoSpectra (compact Fourier transform near infrared) spectrometers for estimating common soil properties. *Soil Science Society of America Journal*, 88(4), 1324-1339. <https://doi.org/10.1002/saj2.20678>
- [5] Sanderman, J., Smith, C., Safanelli, J.L., Morgan, C.L.S., Ackerson, J., Looker, N., Mathers, C., Keating, R., Kumar, A.A. (2023) Diffuse reflectance mid-infrared spectroscopy is viable without fine milling. *Soil Security*, Volume 13, 100104, ISSN 2667-0062, <https://doi.org/10.1016/j.soisec.2023.100104>.
- [6] Madurapperuma, B., Lamping, J., McDermott, M., Murphy, B., McFarland, J., Deyoung, K., Smith, C., MacAdam, S., Monroe, S., Corro, L., Magstadt, S., Dellysse, J., Mitchell, S. (2020) Factors Influencing Movement of the Manila Dunes and Its Impact on Establishing Non-Native Species. *Remote Sensing*, 12(10):1536, <https://doi.org/10.3390/rs12101536>

PRESENTATIONS

- [1] Smith, C.L., Sanderman, J., Safanelli, J.L., Shepherd, K., Ge, Y., Mannan Mitu, S., Ferguson, R. (2023, November). Application of a Handheld Near Infrared Spectrophotometer to Farm-Scale Soil Monitoring. Poster presentation at the 2023 ASA, CSSA, SSSA International Annual Meeting. St. Louis, Missouri, USA.
- [2] Sanderman, J., Smith, C.L., Shepherd, K., Ge, Y., Mannan Mitu, S., Ferguson, R. (2022, August). Development of an open soil spectral estimation service with a handheld near infrared spectrophotometer. Poster presentation at the 2022 World Congress of Soil Science. Glasgow, Scotland, UK.
- [3] Smith, C.L., Hinojosa, E., Madrigal, J. (2019, May). The Culturing and Identification of Fungal Colonies Present in Bear Damage Wounds to Coast Redwood (*Sequoia sempervirens*) Trees. Oral presentation of capstone research at Humboldt State University. Arcata, CA.

- [4] Smith, C.L., Cook, R., Leggett, Z., Gardner, T. (2018, October). An Evaluation of Intensive Management Effects on Soil Microbial Biomass and Functional Diversity. Poster presentation at the Society of American Foresters National convention. Portland, OR.
- [5] Smith, C.L., Cook, R., Leggett, Z., Gardner, T. (2018, September). An Evaluation of Intensive Management Effects on Soil Microbial Biomass and Functional Diversity. Poster presentation at the INRSEP/CNRS Research Symposium. Arcata, CA.
- [6] Lamping, J., Murphy, B., McFarland, J., Porteous, Z., Smith, C.L., Monroe, S., ... Fleming, S. (2018, September). UAV Photogrammetry for Surveying Dune Habitats: A Review of Research Needs of the Friends of the Dunes Land Trust. Poster presentation at the INRSEP/CNRS Research Symposium. Arcata, CA.
- [7] Smith, C.L., Cook, R., Leggett, Z., Gardner, T. (2018, July). An Evaluation of Intensive Management Effects on Soil Microbial Biomass and Functional Diversity. Poster presentation at the 17th Annual NC State University Summer Undergraduate Research & Creativity Symposium. Raleigh, NC.
- [8] Smith, C.L. (2017, August). Light availability and size-abundance scaling of saplings at Harvard Forest. Oral presentation at the 25th Annual Harvard Forest Student Symposium. Petersham, MA.

AWARDS

- Dean's List, Fall 2017 through Spring 2019, Humboldt State University 2017 – 2019
For attaining a semester GPA of at least 3.50.
- Presidential Scholar, Spring 2017, Humboldt State University 2017
For attaining a semester GPA of at least 3.85.
- President's Honors, Fall 2015 through Fall 2016, College of the Redwoods 2015 – 2016
- Vice President's Honors, Spring 2015, College of the Redwoods 2015

SCHOLARSHIPS

- CAMBIO Scholarship, Humboldt State University 2018
\$5,000
- Dillard Bailey Undergraduate Scholarship, Humboldt State University 2018
\$500
- NC-CWIT Scholarship, North Coast Chapter of California Women in Timber 2017 & 2018
\$1,000 each year
- Robert Cary Forestry Scholarship, Humboldt State University 2017
\$500
- Emanuel Fritz Memorial Scholarship, Redwood Region Logging Conference 2017
\$2,500
- Holmgren Memorial Scholarship, Redwood Region Logging Conference 2016
\$1,000

SKILLS

Data Analysis

- R | ArcGIS | Excel | Google Cloud Computing

Field

- Extensive field experience | Soil and leaf litter sampling | Handheld NIR Spectral Scanner | Tree Identification | Laser Rangefinder/Hypsometer | Total Station | Clinometer | Increment Borer | GPS

Laboratory

- Significant laboratory experience | NIR & MIR Spectroscopy | Soil processing | Elemental Analyzer | Hydrofluoric Acid demineralization of soils | Pipetting | DNA extraction | PCR | Fungal Culture

General

- Organized | Quick Learner | Enthusiastic | Word | \LaTeX | Adobe Illustrator | Google Suite

PROFESSIONAL AFFILIATIONS	Soil Science Society of America (SSSA)	
	▪ Member	2023– present
	The 300 Committee Land Trust, Falmouth,MA	
	▪ Stewardship Committee Member	2020– 2023
	North Coast Chapter of California Women in Timber, Humboldt County, CA	
	▪ Member	2016 – 2020
	▪ Vice President	2017 – 2018
	▪ Secretary	2016 – 2017
	Society of American Foresters	
	▪ Student Member	2018 – 2019