

LILIANA K. RANGEL-PARRA

M.S. Student in Forest Ecology | Harvey Lab | University of Washington
lkrp@uw.edu | 925-325-5398

EDUCATION

Appalachian State University, Boone, NC

Spring 2020

B.S. with Honors in Ecological, Evolutionary, and Environmental Biology
Honors Thesis: Winter Ecophysiology of a Broadleaf Evergreen Angiosperm
Research Advisor: Dr. Howard S. Neufeld

RESEARCH EXPERIENCE

Honors Thesis

Spring 2017- Spring 2020

Appalachian State University, Department of Biology – Boone, NC
Dr. Howard S. Neufeld

- Researched plant physiology parameters of the holly, *Ilex x Nellie R. Stevens*, using gas exchange, water relations, fluorescence, and spectrophotometric chlorophyll analysis.
- Gained experience with LI-6400 and 6800 gas exchange systems, Handy PEA fluorometer, Scholander Pressure Chamber, and UV/VIS spectrophotometry instrumentation.
- Collaborated on multiple lab projects with other students in Neufeld lab.

Individual Research Project

Spring 2019

Appalachian State University, Biology Department – Boone, NC
Dr. Lynn Siefferman

- Researched community interaction effects on the egg dimorphism of the salamander, *Ambystoma maculatum* using freshwater night-light trapping

Research Intern for NSF Research Experience for Undergraduates

Summer 2018

Marine Biological Laboratory – Woods Hole, MA
Dr. Loretta M. Roberson

- Designed an experiment to expose the coral, *Astrangia poculata*, to stressful conditions to better understand its symbiosis with its algae symbionts.
- Produced the first successful culture of its symbionts, *Breviolum psygmophilum*.
- Gained experience with Zeiss microscopy instrumentation
- Acquired skills in aquaculture set-up and care

Research Intern for Marine Conservation and Tropical Ecology

Fall 2017

Universidad Veritas, BioMol – San José, Costa Rica
Dr. Sebastian Hernandez

- Collaborated in multiple marine conservation field and lab projects for sharks, sea turtles, and rays.
- Researched the field of phytotropy through the case of the *Ficus spp.*, strangling figs

ABSTRACTS AND PRESENTATIONS

Liliana Rangel-Parra, Anthony Percival, Erica Pauer, Kathryn Young, Fernando Alejo-vann, and Howard Neufeld. Rapid Measurements of Gas Exchange in an Evergreen Angiosperm: Plant and Gas Exchange System Responses to Rapid Environmental Changes.

Poster. *Association of Southeastern Biologists 2019*. Memphis, Tennessee.

Liliana Rangel-Parra, Mayra Sánchez-Garcia, and Loretta Roberson. Cold shocks induce asymbiotic colonies in *A. poculata*, an emerging coral model.

Poster. *Association for the Sciences of Limnology and Oceanography: Aquatic Sciences 2019*. San Juan, Puerto Rico. *Society for Advancement of Chicanos/Hispanics and Native Americans in STEM 2018*. San Antonio, Texas. *MBL Undergraduate Symposium 2018*. Woods Hole, Massachusetts.

Oral. *Appalachian State University Biology Department Weekly Seminar, Sep. 2018*. Boone, North Carolina. *Astrangia Research Workshop 2018*. Bristol, Rhode Island.

INTERNATIONAL EXPERIENCE

New Zealand and Australia - Faculty-Led Education Abroad

Summer 2019

- Conducted biodiversity assessments over most of New Zealand's north and south islands, and Queensland, Australia, through the use of a variety of ecological field techniques.
- Researched the Daintree Rainforest (AU) and the Little Blue Penguin (NZ).

Costa Rica - Independent Study

Fall 2017

- Studied Spanish, tropical ecology, ecological photography, and sustainable development.
- Interned in the *BioMol* molecular marine conservation lab.
- Worked with different local communities to aid in conservation efforts and permaculture development

APPLICABLE SKILLS

- LI-6800 and LI-6400 gas exchange and fluorescence systems
- Measuring xylem water potentials with Scholander Pressure Chamber
- Handy PEA Meter
- Fluorescence Chlorophyll Analysis
- Competent with SPSS Statistics software and Microsoft data-processing software
- Skilled in field transects in a diversity of biomes
- Comfortable with photo-editing and data-measuring programs (Photoshop and Fiji)
- Skilled in ecological photography
- Sustainable projects and conservation development in Costa Rican communities
- Strengthening Spanish fluency

UNIVERSITY SERVICE

Undergraduate Research Assistant

Spring 2019

Department of Biology - Dr. Howard S. Neufeld

- Trained undergraduate students and aided in collaborative projects.
- Assisted Anthony Percival with field research on the American Chestnut at Mt. Jefferson State Natural Area.

LEAD Tutor

Spring 2016 - Spring 2019

University Tutoring Services

- Tutored an introductory organic chemistry course of around 150 students.
- Provided lecture-styled sessions with weekly practice sets and individualized study sessions with extra practice sets and study material.
- Small-group and individual tutoring for genetics and introductory biology.

Student Manager

Fall 2016 - Spring 2019

Food Services

- Worked at McAlister's Deli in both the front and back of house.

WORK EXPERIENCE

Barista

Winter 2019 - Summer 2020

Espresso News - Boone, NC

- Created craft coffee and tea drinks through multi-tasking under fast-paced environments, while still encouraging a relaxing, productive, and clean space.

Assistant Grower

Spring 2019 - present

Old Globe Cultivation Company - Globe, NC

- Skilled in managing and maintaining multiple greenhouses for a large-scale industrial CBD and hemp farm.
- Collaborated in projects with NC State Specialty Crops and Organics, investigating technological and regional methods and practice for improving hemp cultivation.

Professional Cleaner

Spring 2016 - Spring 2018

Employment by Rubisel Sanchez - Hendersonville, NC

- Professionally-detailed cleaning of the interior and exterior of private and public properties.
- Capable of general yard work, including gardening, mulching, weeding, and mowing.

Farmhand

Summer 2015 - Summer 2016

Employment by Kari Fields - Fletcher, NC

- Aided in private farm management of over 100 animals and multiple large gardens.
- Provided pet-sitting, house-sitting, and baby-sitting services.
- Worked early morning shifts (4 am - 9 am) before school hours.

Private Tutor

Fall 2013 - Spring 2015

Self-employment - Brentwood, CA

- Tutored high-school peers and younger students in science and math courses.

MEMBERSHIPS

- Association of Southeastern Biologists (ASB)
- Society for Advancement of Chicanos/Hispanics and Native Americans in STEM (SACNAS)
- Southern Appalachian Botanical Society (SABS)

FELLOWSHIPS AND AWARDS

Gates Millennium Scholarship Recipient	2016 - 2029
GO-MAP Graduate Excellence Award	2020
Achievement Rewards for College Scientists	2020
Wayne Vandevender Award (for GPA: 4.0)	2020
Biology Department's Outstanding Senior	2020
Academic Excellence Scholarship Recipient	2016 - 2020
Appalachian State's Chancellor's List (for GPA of >3.85)	2016 - 2020
International Education Scholarship Recipient	2019
Office of Student Research Research Grant Recipient	2019
Office of Student Research Travel Grant Recipient	2019
Southern Appalachian Botanical Society Travel Grant Recipient	2019
T. Marvin Willamsen Study Abroad Scholarship Recipient	2017
Arthur R. Hill Memorial Scholarship Recipient	2016 - 2017

LEADERSHIP AND EXTRACURRICULARS

Vice-President	Fall 2018 - Spring 2019
Secretary	Fall 2017 - Spring 2018

Appalachian State Snowboard Team

- Managed a large sports team of sixty individuals, communicating between advisors, federations, ski resorts, and local businesses.
- Organized all team information, meetings, officer events, and stood as the main communicator liaison between all hierarchies.

Volunteer	Spring 2018 - present
<i>Watauga Humane Society</i>	

Member	Spring 2018 - present
<i>Gardening Club</i>	Spring 2017 - Fall 2018
<i>Equity in STEM</i>	

Science Education Coordinator	Fall 2015 - Spring 2016
<i>Hands On! Children's Museum</i>	

PERSONAL WEBSITES, HOBBIES, AND INTERESTS

Blog: <https://themillennialperennial.wordpress.com/>

New Zealand/Australia ePortfolio: <https://appstate.digication.com/liliana-nz-oz-exploration>

Hobbies and Interests: Gardening, cooking, baking, hiking, camping, backpacking, snowboarding, running, yoga, soccer, photography, painting, writing, reading