COURTNEY SILVER-PEAVEY

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OBJECTIVES

My main career objective is to be a Dean of a College of Natural Science. However, first I aim to be a college professor and have a career in research in the areas of Ecology and Herpetology. Within those areas I hope to focus mainly on sexual selection, mating systems, and bioacoustics.

EDUCATION

Ohio University 2024
Doctor of Philosophy, Biology
California State University Chico 2017
Master of Science, Biology
With Distinction, 4.0 GPA
California State University Chico 2014
Bachelor of Science, Biology (Ecology, Evolutionary, and Organismal Biology)

RELEVANT COURSEWORK

Ecology (lab)	Evolution
Entomology (lab)	Biometrics/ Statistical Analysis
Herpetology (lab)	Organic Chemistry
Zoology (lab)	Animal Behavior (lab)
Field Ecology (lab)	Vertebrate Physiology (lab)
Plant Biogeography (lab)	Aquatic Ecology (lab)
Topics in Ecology and Systematics (lab)	Population Ecology (lab)

RELEVANT FIELD TECHNIQUES

Vegetation Sampling	VIE Tagging
GPS and Compass	Insect Identification
Amphibian and Reptile ID	Radio Telemetry
Bat Capture and Data Collection	Mammal Trapping
Stream/River Water Quality Testing	Bioacoustics Recording and Analysis
Amphibian and Reptile Surveys	Bird Surveying

FELLOWSHIPS, INTERNSHIPS AND RESEARCH

Fellowships:

Graduate Equity Fellowship Program 2015- 2016
Graduate Research Fellow
CSU Chancellor's Office and California State University, Chico

Internships:

College of Natural Sciences, Biology Department 2009-2012
Researcher
Ecological Evolutionary Research on Plants
Supervisor: Chris Ivey

Wildlife on Wheels 2003-2006

Intern

Wild Life Care Taker
Feeding, Cleaning, Administered Medication, social exercises and games

Research:

"Population-Level Variation in Vocalizations of *Rana boylii*, The Foothill Yellow Legged Frog" (2014-2017)

This thesis examined variation in call types among populations of R. boylii and compared them for differences across three geographically isolated populations. Underwater vocalizations were recorded using a hydrophone and analyzed for spectral properties (dominant frequency and high frequency) and temporal properties (call duration, pulse number, pulse rate, pulse duration, note number, and note duration) using the bioacoustics software Raven Pro.

-Population sampling - Species identification -Capture and release - Marking (injectable elastomers) - Bioacoustic Analysis

**Wes Dempsey Field Research Grant, CSU Chico Research and Creativity Grant, and the Vesta Holt Field Studies Merit Project Award

** In the works for publication

"Foothill Yellow-legged Frog (*Rana boylii*) Population Enhancement for the Cresta Reach" (2015-current)

The objective of this study is to implement intervention activities to increase the existing population to achieve a viable, self-sustaining population. Intervention activities include several techniques such as head starting, field translocation, in situ rearing and captive rearing of egg masses and tadpole. (Supervisor and lead on the project: Dr. Amy Lind)

- Grant writing - Permit writing -Population sampling -Translocation -Captive and in situ*Awarded the

"Disturbance Effects on the Foothill Yellow-legged Frog, *Rana boylii*: A Comparison of Horse Creek and Three Forks Creek, Big Chico Creek Ecological Reserve" (2013-2014)

The objectives of this study were to see if the population in Horse Creek had rebounded and to see if there was any difference in activity and population dynamics between the two similar creeks that may be caused by a disturbance in the previous winter. *(Supervisor: Dr. Colleen Hatfield)*

-Population sampling - Species identification -Gender identification -Capture and release -Substrate identification (plant ID and rock formations)

*Awarded the Outstanding Scientist of the Year Award and won the 17th Annual Biology Poster Symposium at California State University, Chico with this research.

"Effects of Methyl Jasmonate and Inbreeding on Sex Allocation in *Mimulus guttatus*" (2012-current)

We tested the hypothesis that effects of herbivory on plant reproduction may be explained by resources allocated toward induced defenses. This was one of a series of experiments done by Dr. Chris Ivey on *Mimulus sp. (Supervisor: Dr. Chris Ivey)*

-Microscope use –Plant Physiology –Experimental Design –Field collection in Lassen National Forrest

"Selection for Mating System, Flowering Time, and Antiherbivore Defense Traits in *Mimulus guttatus*" (2009-2011)
The objective of this study was to test that natural selection favored combinations of traits that maximize individual fitness and whether traits associated with selfing vs. outcrossing taxa may reflect alternative adaptive peaks. *(Supervisor: Dr. Chris Ivey)*
-Plant dissection –Microscope use –Plant Physiology –ImageJ -NIST

"Maladaptive Copulatory Behaviors of *Hylephila phyleus*" (2011)
This study was to understand the common maladaptive behaviors of male Fiery Skipper butterflies, which is known to chase after inanimate objects for the purpose of copulation. *(Supervisor: Dr. Don Miller)*
-Butterfly Surveying –Butterfly Capture –Butterfly ID and Sex ID

AWARDS, GRANTS, AND RECOGNITIONS

Sacramento Zoo's Quarters for Conservation Grant 2017
Awarded for my *Rana boylii* reintroduction/population enhancement work on the Feather River

CSU Trustees' Award for Outstanding Achievement 2015
Awarded for superior academic performance, exemplary community service, and significant personal accomplishments. Sole CSU, Chico recipient.

Phillip A. Cothern Memorial Scholarship 2015
Awarded for my master's thesis project on *Rana boylii*

CSU Chico Research and Creativity Grant 2015
Awarded for my master's thesis project on *Rana boylii*

Wes Dempsey Field Research Grant 2015
Awarded for my master's thesis project on *Rana boylii*

Vesta Holt Field Studies Merit Project Award 2015
Awarded for my master's thesis project on *Rana boylii*

California Higher Education Sustainability Program Award 2014
Awarded for the creation and implementation of the Green Events Consulting Team at California State University, Chico.

Associated Students Employee of the Year 2014
Awarded for my years of work with AS Sustainability

Wes Dempsey Field Research Grant 2014
Awarded for my master's thesis proposal on *Rana boylii*

Michael Abruzzo Outstanding Scientist Award 2013
Awarded for my research on *Rana boylii* at the Annual Biological Sciences Student Research Symposium at California State University Chico

Student Sustainability Fund Allocation Committee Grant 2013
Awarded $5000 to purchase sustainable event waste bins for
The Green Event Consulting Team

Dean's List 2011, 2013, 2014
California State University, Chico

Excellence in Science Scholarship 2007
Awarded to a graduating senior who excelled in Science

CONFERENCE PRESENTATIONS

Biology Symposiums and Meetings, Conferences, and Posters:

"*In Situ* Population Enhancement of an At-risk Population of Foothill Yellow-legged Frogs, *Rana boylii*" **2017/2018**
-The Sacramento Zoo's Brown Bag Lunch Presentations
Sacramento, Ca
-California and Nevada Amphibian Population Taskforce Meeting
Auburn, Ca

"Lexicon of love: vocalizations in multiple populations of Rana boylii" 2016
-California and Nevada Amphibian Population Taskforce Meeting
UC Davis
- Western Section of The Wildlife Society Annual Meeting
Pomona, Ca

"Vocalization behaviors of *Rana boylii*, the foothill yellow-legged frog: a comparison of isolated populations" 2015
Graduate Research Seminar
California State University, Chico

"Disturbance Effects on the Foothill Yellow-legged Frog, *Rana boylii*: A Comparison of Horse and Three Forks Creeks, Big Chico Creek Ecological Reserve" 2013-2014
Annual Biological Sciences Student Research Symposium,
California State University, Chico

"Effects of methyl jasmonate and inbreeding on sex allocation in *Mimulus guttatus*" 2013
Meeting for the Society for the Study of Evolution
Snowbird, Utah
*Lead Author: Dr. Ivey

"Selection for Mating System, Flowering Time, and Antiherbivore Defense Traits in *Mimulus guttatus*" (2009-2011) 2011
Annual Meeting for the Ecological Society of America
Austin, Texas
*Lead Author: Dr. Ivey

Sustainability Conferences:

Campus Zero Waste Events 2014
California Higher Education Sustainability Conference

Sustainable Food Practices for Every Event 2014
This Way to Sustainability IX

Planning A Green Event Is Easier Then You Think! 2013
Let the Green Events Consulting Team Show You How
This Way to Sustainability VIII

It's Easy Being Green with the Green Events Consulting Team 2012
This Way to Sustainability VII

Greening Events at CSU Chico 2012
California Student Sustainability Coalition Convergence

WORK EXPERINCE

California State University, Chico – Biology Department 2016 - present
Introduction to Living Systems (BIOL 102) Lecture, Lab Coordinator, and Lab Instructor
- Lectures on evolution, ecology, and human health& disease (375 students)
- Manages a team of six lab instructors
- Coordinates lab times and schedules
- Redesigns and implements new labs
- Teaches labs

Evolution for non-majors -writing intensive (BIOL 302W) Lecture
- Lectures on topics of evolution
- Coordinate and runs field trips
- Runs interactive learning activities
- Monitors student success

California State University, Chico – Geological and Environmental Sci. Dept. 2018 - present
Environmental Science (GEOS 330W)
- Lectures on Human impact on life-support systems, ecology, environmental impacts, natural cycles, and land use
- Runs interactive learning activities
- Monitors student success

Plumas National Forest – Rock Creek Cresta Foothill Yellow Legged Frog Restoration and Population Enhancement Project 2015 - present

Biological Consultant/Herpetologist

- Permit and grant writing
- Method Development
- Field Work

AS Sustainability 2015 - 2016

Assistant Coordinator for Programming

- Acting interim coordinator in the absence of a fulltime coordinator
- Advisor to the Sustainability Fund Allocation Committee (SFAC)
- Voting Member of the Campus Conservation Committee
- Voting Member of the Campus Sustainability Committee
- Advisor to the Commissioner of Sustainability Affairs
- Help to maintain the internship program
- Manage/hire student staff

Government Affairs, California State University Chico 2014-2015

Commissioner of Sustainability Affairs

- Chaired the Sustainability Affairs Committee
- Chaired the Sustainability Fund Allocation Committee
- Committee Member of the Campus Conservation Committee
- Committee Member of the Arboretum Committee
- Sustainability liaison between the students, community, and the college

California State University Chico's Greenhouse 2013- 2017

Greenhouse Assistant

- Water and care for over 3000 species of plants
- Sort seeds, transplanted, and propagation

AS Sustainability 2011-2014

Assistant Sustainability Coordinator

Director and Creator of the Green Events Consulting Team

- Assistant to the Coordinator of the sustainability program
- Managed a team of green event consultants
- Managed an internship program of 15-60 interns
- Sustainably consulted and planned over 100 events at Chico State
- Designed and implement sustainability programs and campaigns

SKILLS

Microscopes, Common Lab Techniques and Etiquette, Compass and GPS Navigation, Insect ID, Reptile and Amphibian ID, Transect Surveying, Numerous Field Data Collection Techniques, Bioacoustics Recording and Analysis, Grant Writing, SPSS, Proficient in Excel and other Microsoft Office Programs, Competent in Mac and PC, Camping, Survival Skills, Communication Skills in Person and on Phone, Professional Correspondence, Event Planner, Organizational Skills, Quick Learner, Memorization, Defensive Driver Certified, Tireless work Ethic

REFERENCES

Viorel Popescu
PhD Graduate Advisor -Professor
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Dr. Donald Miller
Professor – Graduate Committee Member
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Dr. Tag Engstrom
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