

Jenna T. Baughman  
CURRICULUM VITAE

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EDUCATION

**Ph.D. Candidate**

Department of Integrative Biology, Brent Mishler Lab  
University of California, Berkeley (UCB)  
Present

**M.S. – Environmental Science – Biology Option**

**Thesis:** “Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae)”  
California State University, Los Angeles (CSULA)  
2015

**B.S. – Biology, Chemistry Minor**

Purdue University, Indiana University—Purdue University—Indianapolis (IUPUI)  
2012

**B.A. – Religious Studies**

Indiana University, IUPUI  
2012

RESEARCH AND PROFESSIONAL EXPERIENCE

2015-2020 PhD Research, UCB

**Project:** Investigating biochemistry, genomics, and evolutionary history of UV-tolerance in desert mosses

2018-2019 Graduate Student Researcher, UCB

2015-2016 Graduate Student Instructor, UCB

2014-2015 Teaching Assistant, CSULA

2009-2012 Research Intern, Orthopaedic Laboratories, Indiana University School of Medicine (IUSM)

PUBLICATIONS

1. **Baughman, Jenna T.**; Payton, Adam C.; Paasch, Amber E.; Fisher, Kirsten M.; McDaniel, Stuart F. Multiple factors influence population sex ratios in the Mojave Desert moss *Syntrichia caninervis*. *American Journal of Botany* 104(5):1-10 (2017), DOI:
2. Meijome, Tomás E.\*; **Baughman, Jenna T.\***; Hooker, R. Adam; Cheng, Ying-Hua; Ciovacco, Wendy A.; Balamohan, Sanjeev A.; Srinivasan, Trishya L.; Chitteti, Brahmananda R.; Eleniste, Pierre P.; Horowitz, Mark C.; Srour, Edward F.; Bruzzaniti, Angela; Fuchs, Robyn K.; Kacena, Melissa A. C-Mpl is expressed on osteoblasts and osteoclasts and is important in regulating skeletal homeostasis. *Journal of Cellular Biochemistry* 117:959-969 (2016), DOI: \*Contributed equally
3. Eleniste, Pierre P.; Patel, Vruti; Posritong, Sumana; Zero, Odette; Largura, Heather; Cheng, Ying-Hua; Himes, Evan R.; Hamilton, Matthew; **Baughman, Jenna**; Kacena, Melissa A.; Bruzzaniti,

Angela. Pyk2 and megakaryocytes regulate osteoblast differentiation and migration via distinct and overlapping mechanisms. *Journal of Cellular Biochemistry* 9999:1-11 (2015), DOI:

## FUNDING

### Current

Berkeley Fellowship, UCB 2016-2018

Pinto-Fialon Fellowship, UCB 2017-2018  
\$7735.00

American Bryological and Lichenological Society 2017  
Anderson & Crum Field Bryology Research Award  
\$750

### Contributions to ongoing funded research

NSF Division of Environmental Biology #163856

Title: Collaborative Research: Dimensions: Desiccation and Diversity in Dryland Mosses

PI: Brent Mishler, UCB

Role: Contributed data

### Previous

California Botanical Society 2017  
Graduate Student Symposium Travel Award  
\$200

American Bryological and Lichenological Society 2016  
Annual Meeting Travel Award  
\$600

Graduate Student Research Allocations Committee Research Award 2016-2017  
Graduate Student Research Funds  
\$300

Graduate Student Research Allocations Committee Research Award 2015-2016  
Graduate Student Research Funds  
\$300

Graduate Student Research Allocations Committee Research Award 2015-2016  
Graduate Student Conference Travel Funds  
\$250

NSF Research Coordination Network, Evo-Devo-Eco Network 2014  
Research Exchange Grant  
Title: Sex or survival? The genetic impacts of environment and energetic trade-offs for the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae)  
Amount: \$3,000

## HONORS &amp; AWARDS

- Berkeley Fellowship, UCB (2016-2018)
- Pinto-Fialon Fellowship, UCB (2017)
- NSF National Research Traineeship, Environment and Society: Data Sciences for the 21<sup>st</sup> Century, UCB (2015-2017)
- Outstanding Graduate Student Instructor, UCB (2016)
- Minority Biomedical Research Support (MBRS) Research Initiative for Scientific Enhancement (RISE), MS-to-Ph.D. Graduate Research Fellowship, CSULA (2014-2015)
- Tutor of the Month, Tutor Doctor of San Gabriel Valley (2013)
- Rowland A. Sherrill Outstanding Religious Studies Student Award, Department of Religious Studies, IUPUI (2012)
- Christine Jakacky Mentor of the Year, IUPUI (2012)
- 13<sup>th</sup> Annual IUPUI Top 100 Outstanding Students, IUPUI (2012)
- Ronald E. McNair Post-Baccalaureate Achievement Scholar, IUPUI (2009-2012)
- 12<sup>th</sup> Annual IUPUI Top 100 Outstanding Students, IUPUI (2011)

## SELECTED PRESENTATIONS

**Oral Presentations**

California Botanical Society Graduate Symposium Santa Barbara, CA, USA, 2015  
"Adaptation, facilitation, and refugia in Mojave Desert mosses"  
*Cal. Bot. Soc. Travel Award*

Biocrust3 Moab, UT, USA, 2016  
Early Career Scientists Symposium  
"Natural desert terraria: Characterization of hypolithic Mojave Desert moss community"  
*Biocrust3 Complimentary Registration Award*

Biocrust3 Moab, UT, USA, 2016  
Molecular Frontiers Symposium  
"Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy"  
*Biocrust3 Financial Assistance Award*

Botany Savannah, GA, USA, 2016  
"Natural desert terraria: Characterization of hypolithic Mojave Desert moss community"  
*ABLS Travel Award*

Botany Savannah, GA, USA, 2016  
"Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy"  
*ABLS Travel Award*

California Botanical Society Graduate Symposium Claremont, CA, USA, 2015  
"Natural desert terraria: Characterization of hypolithic Mojave Desert moss community"

*Awarded 1<sup>st</sup> Place, Completed Research Category*

### **Poster Presentations**

California Native Plant Society Conservation Conference

San Jose, CA, USA, 2015

“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”

*Awarded 1<sup>st</sup> Place Student Posters*

### SYNERGISTIC ACTIVITIES

- Reviewer for *Plant and Soil*

### UNDERGRADUATE STUDENTS MENTORED

Heloise Carion, Mishler Lab, UCB

2017-2018

Easha Sagar, Mishler Lab, UCB

2017-2018

Brittanie Rodriguez, Fisher Lab, CSULA

2015

Katelyn Millette, Fisher Lab, CSULA

2014

### OUTREACH

- Cal Day: Bryophytes & Ferns Station, University & Jepson Herbaria, UCB 2016
- “Be a Scientist” Mentor, Community Resources for Science 2016
- Logistics Volunteer, Expanding Your Horizons Conference 2016
- Field Researcher—Mission Mojave, Blueprint Earth 2014, 2015
- Naturalist: Marine Mammals, Indianapolis Zoo 2012
- Advanced Canine Companion, Humane Society of Indianapolis 2012
- Youth Mentor “Big Sister,” Big Brothers Big Sisters of Central Indiana 2010-2011

### PROFESSIONAL ASSOCIATIONS

American Bryological and Lichenological Society

Botanical Society of America

~~Ecological Society of America~~

American Society of Naturalists

Society for the Study of Evolution

Society of Systematic Biologists

~~American Society of Plant Biologists~~

~~American Geophysical Union~~

California Native Plant Society

### TEACHING

Graduate Student Instructor, UCB

2015, 2016

Course: BIO 1B, Introductory Biology Laboratory

*Responsibilities:* Prepared and co-taught weekly 3-hour laboratories for sections of 30 freshman-level undergraduates. Held weekly office hours. Graded quizzes, assignments, and lab exams.

*\*2015-2016 Outstanding Graduate Student Instructor Award*

Graduate Teaching Assistant, CSULA

2014

*Course:* BIOL 360, Ecology

*Responsibilities:* Prepared and taught weekly 3-hour laboratories for sections of 30 junior- and senior-level undergraduates. Held weekly office hours. Graded quizzes, assignments, and lab exams.

Graduate Teaching Assistant, CSULA

2014

*Course:* BIOL 156, Plant Biology for Non-Majors

*Responsibilities:* Prepared and taught weekly 3-hour laboratories for sections of 30 undergraduates from any level. Held weekly office hours. Graded quizzes, assignments, and lab exams.

Peer-Led Team Learning, Program Coordinator, IUPUI

2009-2012

*Course:* CHEM-C496, Methods in Teaching Chemistry

*Responsibilities:* Prepared and co-taught weekly 2-hour classes for sections of 30 undergraduates from any level. Held weekly office hours and graded assignments. Also included administrative responsibilities to organize and run the IUPUI Chemistry Peer-Led Team Learning program. Prepared scholarship authorizations, room reservations, interviewed and hired peer mentors, and helped existing mentors with course content and pedagogical development.

Workshop Leader, Peer-Led Team Learning, IUPUI

2008-2012

*Course:* CHEM-C105, General Chemistry I

*Responsibilities:* Prepared and taught weekly 2-hour classes for sections of 10 freshman-level undergraduates. Wrote and graded quizzes.

Recitation Mentor, Bepko Learning Center, IUPUI

2009

*Course:* BIOL-K103, Concepts of Biology II

*Responsibilities:* Prepared and taught weekly 1.5-hour classes for sections of 15-30 freshman-level undergraduates. Wrote and graded quizzes.

## LANGUAGES

English – Native

Spanish – Intermediate

Portuguese – Intermediate