

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 – Environmental Biology

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.**; Fisher, Kirsten M. Photosynthesis through quartz: Hypolithic mosses in the Mojave Desert. (In review).
2. **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: 10.3732/ajb.1700045
3. 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.; Srouf, 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: 10.1002/jcb.25380
*Contributed equally

4. 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: 10.1002/jcb.25430

FUNDING

Current

Berkeley Fellowship, UCB	2016-2018
Luso-American Education Foundation Scholarship \$1,000	2018-2019
Pinto-Fialon Fellowship, UCB \$7,735	2017-2018
American Bryological and Lichenological Society Anderson & Crum Field Bryology Research Award \$750	2017

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 Graduate Student Symposium Travel Award \$200	2017
American Bryological and Lichenological Society Annual Meeting Travel Award \$600	2016
Integrative Biology Summer Research Award (UCB) \$1,750	2017
Graduate Student Research Allocations Committee Research Award Integrative Biology Graduate Student Research Funds (UCB) \$300	2016-2017
Graduate Student Research Allocations Committee Research Award	2015-2016

Integrative Biology Graduate Student Research Funds (UCB)
\$300

Graduate Student Research Allocations Committee Research Award 2015-2016
Integrative Biology Graduate Student Conference Travel Funds (UCB)
\$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)
\$3,000

HONORS & AWARDS

- Luso-American Education Foundation (2018-2019)
- Berkeley Fellowship, UCB (2016-2018)
- Pinto-Fialon Fellowship, UCB (2017)
- NSF National Research Traineeship, Environment and Society: Data Sciences for the 21st 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)
- 13th Annual IUPUI Top 100 Outstanding Students, IUPUI (2012)
- Ronald E. McNair Post-Baccalaureate Achievement Scholar, IUPUI (2009-2012)
- 12th Annual IUPUI Top 100 Outstanding Students, IUPUI (2011)

SELECTED PRESENTATIONS

Oral Presentations

California Botanical Society Graduate Symposium Santa Barbara, CA, USA, 2017
“Adaptation, facilitation, and refugia in Mojave Desert mosses”
Awarded Cal. Bot. Soc. Travel Award

Biocrust3 Moab, UT, USA, 2016
Early Career Scientists Symposium
“Natural desert terraria: Characterization of hypolithic Mojave Desert moss community”
Awarded 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”

Awarded Biocrust3 Complimentary Registration Award

Botany

Savannah, GA, USA, 2016

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

Awarded ABLS Travel Award

Botany

Savannah, GA, USA, 2016

“Males of the Mojave Desert moss *Syntrichia caninervis* (Pottiaceae) are rare and shy”

Awarded ABLS Travel Award

California Botanical Society Graduate Symposium

Claremont, CA, USA, 2015

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

Awarded 1st Place, Completed Research Category

Poster Presentations

International Molecular Moss Society (iMOSS) Meeting

St. Petersburg, FL, USA,

2018

“UV Tolerance in Mojave Desert Soil Mosses”

Awarded 1st Place Student Posters

Awarded iMOSS Trainee Fellowship

California Native Plant Society Conservation Conference

San Jose, CA, USA, 2015

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

Awarded 1st Place Student Posters

SYNERGISTIC ACTIVITIES

- Reviewer for *Plant and Soil*, *American Journal of Botany*, *Annals of Botany*, and *Plant Biology*.
- Social Media Chair, California Native Plant Society, Bryophyte Chapter
- Student Representative, International Molecular Moss Society

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: Bryophyte Station, University & Jepson Herbaria, UCB 2018
- 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

California Native Plant Society – Bryophyte Chapter – Social Media Chair
 American Bryological and Lichenological Society
 Botanical Society of America
 Society of Systematic Biologists

TEACHING

Software Carpentry Workshop Helper, UCB 2018
Course: Introduction to Shell, Git, and R
Responsibilities: Helped learners with installation and coding.

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