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.; 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: 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

Luso-American Education Foundation Scholarship 2018-2019
$1,000

Pinto-Fialon Fellowship, UCB 2017-2018
$7,735

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

American Bryological and Lichenological Society 2018, 2016
Annual Meeting Travel Award
$600

Integrative Biology Summer Research Award (UCB) 2018, 2017
$1,750

California Botanical Society 2017
Graduate Student Symposium Travel Award
$200

Berkeley Fellowship, UCB 2016-2018

Graduate Student Research Allocations Committee Research Award 2016-2017
Integrative Biology Graduate Student Research Funds (UCB)
$300

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 Nederland, CO, USA, 2018
"UV Tolerance in Mojave Desert Mosses"
Awarded ABLS Student Travel Award

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 & HIGH SCHOOL STUDENTS MENTORED

Angela Sacramento, Mishler Lab, Oakland Technical High School	2018
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

Conference for First-Time Graduate Student Instructors, UCB 2018
Course: Biological Sciences Discipline-Cluster Workshop
Responsibilities: Developed and taught a workshop for first-time UCB Graduate Student Instructors to prepare them for their first class.

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

Software Carpentry Workshop Helper, UCB 2018
Course: Introduction to Genomics Data Wrangling
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