

John M. Mola

MOVEMENT ECOLOGY · POLLINATOR ECOLOGY · POPULATION GENETICS

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Education

University of California Davis

PH.D. CANDIDATE IN ECOLOGY

Davis, CA

2014 - PRESENT

Humboldt State University

M.S. IN BIOLOGY

Arcata, CA

2014

Florida State University

B.S. IN ENVIRONMENTAL STUDIES

Tallahassee, FL

2011

Publications

LoPresti, E.F., J. VanWyk, **J. M. Mola**, K. Toll, T.E. Miller, & N.M. Williams. Effects of wildfire on floral display size and pollinator community reduce outcrossing rate in a plant with a mixed mating system. *Accepted at American Journal of Botany*

Mola, J.M. & N.M. Williams. 2018. Fire-induced change in floral abundance, density, and phenology benefits bumble bee foragers. *Ecosphere*. 9(1):e02056

Mola, J.M., J.M. Varner, E.S. Jules, & T. Spector. 2014. Altered community flammability in Florida's Apalachicola ravines and implications for the persistence of the endangered conifer *Torreya taxifolia*. *PLoS ONE* 9(8): e103933.

Kreye, J.K., J.M. Varner, J.K. Hiers, & **J.M. Mola**. 2013. Toward a mechanism for eastern North American forest mesophication: differential litter drying across 17 species. *Ecological Applications* 23:1976-1986.

OTHER PUBLICATIONS

Mola, J.M.. The role of native bees on organic farms in Humboldt County, California. 2014. Master's Thesis. Humboldt State University. <http://hdl.handle.net/2148/1956>

SUBMITTED, IN REVIEW, SUBMITTED

Mola, J.M. & N.M. Williams. Bumble bee movement ecology across life stages. *Submitted*

Funding

FELLOWSHIPS

2014 **University of California Davis, Graduate Group in Ecology Fellowship** \$43,000

2013 **National Science Foundation, Graduate Research Fellowship** \$133,500

2013 **Humboldt State University, Allistair and Judith McCrone Graduate Fellowship** \$3,000

Awarded to one student campus-wide annually

GRANTS AND AWARDS

2017 **BOMBUSS Conference, Logan, Utah. Student Scholarship** \$500

2017 **American Museum of Natural History, Theodore Roosevelt Memorial Grant** \$1,000

2016 **University of California Davis, Natural Reserve System Grant** \$1,750

2016 **Northern California Botanists Graduate Research Scholarship** \$1,600

2016 **University of California Davis, Henry A. Jastro Graduate Research Award** \$2,100

2016 **California Native Plant Society, Helen Sharsmith Award** \$400

2016 **University of California, Mathias Graduate Student Grant** \$3,000

2015 **University of California Davis, Henry A. Jastro Graduate Research Award** \$3,300

2015 **American Museum of Natural History, Theodore Roosevelt Memorial Grant** \$2,160

2015 **University of California Davis, Natural Reserve System Grant** \$2,400

- 2014 **California Native Plant Society, Callahan Scholarship** \$1,388
- 2013 **Humboldt State University, Master's Student Grant** \$300
- 2013 **Humboldt State University, Brusca Invertebrate Zoology Scholarship** \$1,000
- 2010 **National Science Foundation, Research Experience for Undergraduates** \$5,000
- 2010 **Florida State University, Student Star Award**

Presentations

CONTRIBUTED

- 2018 The effect of fire on bumble bees revealed via genetic mark-recapture. *Bay Area Society for Conservation Biology Symposium*, Davis, California.
- 2017 SNPs v. MSATs - a comparison of costs, utility, and error in sibship reconstructions. *BOMBUSS Conference*, Logan, Utah. **Awarded a student travel scholarship.**
- 2017 Bees benefit from fire due to a lengthened post-fire flowering season. *Ecological Society of America Annual Conference*, Portland, Oregon.
- 2017 Bees benefit from fire due to a lengthened post-fire flowering season. *Graduate Student Symposium in Ecology*, Davis, California. **Runner-up "best talk" at conference.**
- 2017 Motivational differences and co-foraging behaviors of bumble bee queens and workers. *Student Seminar Series*, Davis, California.
- 2014 The role of native bees on organic farms in Humboldt County, California. *Master's Thesis Defense, Humboldt State University*, Arcata, California.

INVITED

- 2013 Diverse crops and diverse pollinators. *Humboldt State University Sponsored Programs Foundation PI Celebration*, Arcata, California. **First-ever student invited to talk at this annual event.**
- 2013 The ecology and management of wild bees on Humboldt County organic orchards. *Alistair and Judith McCrone Awards Ceremony, Humboldt State University*, Arcata, California.

POSTERS

- 2018 Bumble bee movement and landscape genetics revealed via high-throughput sequencing. *Keeping Bees Healthy Symposium*, Davis, California. **First place in poster contest.**
- 2017 Fire-induced change in flowering phenology benefits bumble bees. *Keeping Bees Healthy Symposium*, Davis, California. **Third place in poster contest.**
- 2016 Fine-scale population genetic structure and movement ecology of the yellow-faced bumblebee (*Bombus vosnesenskii*). *Keeping Bees Healthy Symposium*, Davis, California. **Awarded cash prize in poster contest.**
- 2015 Constructing a dynamic map of bumblebee colony density and foraging movements. *Keeping Bees Healthy Symposium*, Davis, California.
- 2011 Contrasting flammability of adjacent plant communities: Florida's Apalachicola Bluffs and Ravines. *Ecological Society of America Annual Conference*, Austin, Texas.

Professional and Academic Service

MANUSCRIPT REVIEWER

- 2017 *Ecological Entomology, Explorations*
- 2016 *California Agriculture*

COLLEGE, PROGRAM, AND DEPARTMENTAL SERVICE

The Aggie Brickyard

<https://aggiebrickyard.github.io>

CREATOR, CO-FOUNDER, & EDITOR

2016 - PRESENT

- A quarterly student/faculty publication on ecology with an emphasis on the GGE community. In print and online.

UC Davis Graduate Group in Ecology Open Lab Meetings

Davis, CA

ORGANIZER, CO-FOUNDER

2015 - PRESENT

- Co-founded and hosted informal series where students could present new ideas, develop a talk, or practice for qualifying exams in a supportive environment.

College of Agriculture and Environmental Science Education Committee

STUDENT REPRESENTATIVE

Davis, CA

2017

UC Davis Graduate Student Association

REPRESENTATIVE

Davis, CA

2014 - Spring 2017

UC Davis Graduate Group in Ecology Admissions Committee

APPLICATION REVIEWER

Davis, CA

2015, 2016

UC Davis Graduate Student Symposium in Ecology

ORGANIZER

Davis, CA

2016-2017

UC Davis Ecology Graduate Student Association

CO-CHAIR

Davis, CA

2015-2016

UC Davis Graduate Group in Ecology

ORIENTATION LEADER

Davis, CA

2015, 2016

Teaching

Urban Bees: Conserving pollinators in human dominated lands

CO-INSTRUCTOR WITH NEAL WILLIAMS

University of California Davis

Spring 2018

- I conceptualized, designed, and taught this First-Year Seminar. Gave lectures, guided discussion, and facilitated students through group projects.

Fire and Forbs Weekly Seminar

CO-ORGANIZER WITH ERIC LOPRESTI

University of California Davis

Winter 2017

- Developed the scope and schedule of readings.

Plant Ecology

GUEST LECTURE

Humboldt State University

2015

- Led unit on plant-insect interactions.

General Botany

GUEST LECTURE

Humboldt State University

2014

- Led unit on floral morphology and pollination.

General Botany

TEACHING ASSISTANT

Humboldt State University

2012-2013

- Wrote lab quizzes and practicals. Lectures to introduce lab unit.

Mentoring

Maya Argaman

FIELD RESEARCH ASSISTANT

University of California Davis

Spring 2016

- Worked on plant quality following wildfire at UC McLaughlin Reserve.

Jared Borba

FIELD RESEARCH ASSISTANT

University of California Davis

Summer 2015

- Worked on plant use by bumble bees in Sierra Meadows.

Grace Blacker

FIELD AND LAB ASSISTANT

Humboldt State University

2013

- Assisted with field collections and pollen identification.

Corey Andrikoplous

FIELD RESEARCH ASSISTANT

Humboldt State University

2013

- Worked on pollinator visitation to crops in Humboldt County. *Currently MS student studying bees at Utah State University.*

Scientific Outreach & Communication

WRITING AND INTERVIEWS

- 2016, 2017 Several articles in *The Aggie Brickyard* available in print and online – <https://aggiebrickyard.github.io>
- 2017 Interview with The California Aggie “Better Bee-lieve it” – about the listing of *Bombus affinus*. <https://theaggie.org/2017/02/02/better-bee-lieve-it-uc-davis-entomologist-helped-list-bee-as-endangered/>
- 2013 The importance of native bees for agriculture – Presentation to Klamath-Trinity Resource Conservation District. *Hoop Valley Tribal Reservation*. Featured on KIDE radio.
- 2012 Ecology and management of *Osmia lignaria* on Diverse Humboldt County orchards. *Interview with KRFH Humboldt State’s Campus Radio*

TOURS, GUIDED TALKS, OUTDOOR INSTRUCTION

- 2018 Where do bees go and how do we know? *2nd Annual California Honey Festival* Woodland, California. **Invited Speaker**
- 2017 Tour Guide for Pollinator-friendly plantings. *Western Apicultural Society Meeting* Davis, California.
- 2015 Pollinator-friendly farming presentation. *Hoes Down Festival* Capay Valley, California
- 2014 Cavity nesting bee workshop (Open to general public. Self-designed and taught.) *Center for Appropriate Technology* Arcata, California
- 2011 Kid’s Camp Instructor, Pollination Week and Seed Dispersal and Plant Reproduction *Rocky Mountain Biological Laboratory* Gothic, Colorado