Michelle E. St. John
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EDUCATION

University of California
Berkeley, CA
Ph.D. Candidate, Biology
Advisor: Dr. Chris Martin
2017-Present

University of Illinois
Urbana-Champaign, IL
Master of Science,
Animal Biology
Advisor: Dr. Becky Fuller
2017

University of Illinois
Urbana-Champaign, IL
Bachelor of Science,
Integrative Biology
2012

PUBLICATIONS

St. John, M. E., J. Dunker*****, E.J. Richards, C. H. Martin. 2021. The shared genetic architecture of novel tropic specialization in an adaptive radiation of pupfish. *In Prep*. ***Undergraduate Author**

Richards, E. J., J. A. McGirr, J. R. Wang, **M. E. St. John**, J. W. Poelstra, M. J. Solano, D. C. O'Connell, B. J. Turner, C. H. Martin. 2021. A vertebrate adaptive radiation is assembled from an ancient and disjunct spatiotemporal landscape. PNAS., *In Press*.

St. John, M. E., and R. C. Fuller. 2020. Asymmetric reinforcement in Lucania killifish: assessing reproductive isolation when both sexes choose. Curr. Zool., doi: 10.1093/cz/zoaa049.

St. John, M. E., K. Dixon*****, and C. H. Martin. 2020. Oral shelling within an adaptive radiation of pupfishes: testing the adaptive function of novel nasal protrusion and behavioral preference. J. Fish Biol. 1–9. doi: 10.1111/jfb.14344 ***Undergraduate Author**

St. John, M. E., R. Holzman, and C. H. Martin. 2020. Rapid adaptive evolution of scale-eating kinematics to a novel ecological niche. J. Exp. Biol. jeb.217570.

Martin, C.H., J. McGirr, E. Richards, **M.E. St. John**. 2019. How to investigate the origins of novelty: insights gained from genetic, behavioral, and fitness perspectives, Integrative Organismal Biology, doi: 10.1093/iob/obz018

St. John, M. E., J. A. McGirr, and C. H. Martin. 2018. The behavioral origins of novelty: did increased aggression lead to scale-eating in pupfishes? Behav. Ecol., doi: 10.1093/beheco/ary196.

St. John, M. E., and R. C. Fuller. 2018. The effects of experimental design on mating preferences and reproductive isolation in killifish. Behav. Ecol., doi: 10.1093/beheco/ary150.

TEACHING AND MENTORING EXPERIENCE

Teaching Assistant

University of California, Berkeley

Fall 2020 IB177LF **Ichthyology**
“Michelle was extremely knowledgeable about course material. She was always very patient, willing to answer questions, and meet with students outside of class to help. She was also enthusiastic and made labs more engaging. I would not have made it through the course if it wasn't for her.”

-Anonymous Student Evaluation FA2020

University of North Carolina

Spring 2018 **Ichthyology**
“Michelle was incredibly helpful and willing to go above and beyond to make sure that I understood the material. She essentially taught me how to write code in R, which enabled me to do my own statistical analysis of the data my team collected. Instead of simply analyzing my data for me, Michelle taught me how to use the software and write code, a skill that will likely be useful in the future.” -Anonymous Student Evaluation SP2018

Fall 2017 **Genetics**
“Michelle is so great. Best TA I've had at UNC. BY FAR. She is always so willing to help students who don't understand and stays after EVERY recitation to go over confusing problems with students. She remembers students' names and when I see her around, she always stops to talk. She makes a big classroom feel small and makes students feel valued. I really appreciated Michelle, and she made this great class even better. Michelle was also very confident and took her job seriously which showed that she wanted to be a good resource for students to come to for help. Also, she has a great sense of humor which was great.” -Anonymous Student Evaluation FA2017

University of Illinois

Spring 2016 **Evolution**
“Michelle is amazing at explaining concepts and really makes sure we understand something. Goes above and beyond to make sure we are learning the material and understand what we are learning. Very enthusiastic about instructing.”

-Anonymous Student Evaluation SP2016

Fall 2015 **Animal Biology**
“It was amazing to get tons of one-on-one time with the instructor and get to feel extremely comfortable asking questions throughout the class. It was also great that she circled around to every table constantly during the lab. She would stay at a table for as long as they needed to make sure every person understood.

-Anonymous Student Evaluation FA2015

Research Assistant 2016-2017
University of Illinois

Developed biology curricula for grades K-12 aligned with the Next Generation Science Standards for the *Progressing through the Ages: Global change, Evolution and Societal well-being* program. Development of this material involved creating teacher lessons plans, collecting and organizing real-life scientific data for use in the classroom, in-person training with teachers, and beta testing the curriculum with students. Ultimately, we produced a curriculum for high school students that explored various facets of animal communication called “Why so showy?”.

Website: *https://impact.education.illinois.edu/projects/pages/units-in-development*

Mentorship
Expanding you Horizon’s workshop leader 2020,2021
University of California

Developed and implemented a hands-on research experience for middle-school girls investigating animal behavior. During 2020, myself and other members of the workshop lead an in-person experiment investigating boldness differences between pupfish species. Students gained experience handling fish, setting up and running experiments, and analyzing data. During the 2020-21 global pandemic we moved this hands-on workshop completely online. We provided students access to videos of pupfish where we observed aggressive behaviors, recorded data, performed data analysis and made conclusions about why fish may need to be aggressive.

YouTube recording of workshop: https://youtu.be/4KdDTYXw8H8

SURF/SMART Summer Research Fellowship 2020
University of California

Served as a graduate student mentor, under the Student Mentoring and Research Teams program (SMART), to a summer undergraduate research fellow (SURF). I mentored a SURF conducting a QTL analysis with the goal of investigating the genetic basis of adaptive craniofacial traits in pupfish. During the 10-week program I met with my SURF daily, teaching them about: bash scripting, how to use a computing cluster, the R programming language, how to phenotype fish using DLTdv8, how to perform a QTL analysis using the R/qtl package, and data interpretation. This research project culminated in a 12-minute research presentation at annual SURF conference and an authorship for the SURF on the resulting publication (*In Prep*). My SURF and I worked so well together that they decided to continue research with me in

the lab this year, and we are now working on two additional projects together.

Message from SURF: https://surf.berkeley.edu/fellows/julia-dunker/

Animal Biology Summer Research Fellowship 2016
University of Illinois

Served as a graduate student mentor for the Access and Achievement Program—a program aimed at retaining and supporting students who are members of historically underrepresented groups. As a graduate student mentor, I guided an undergraduate researcher through their first research experience. I aided them in experimental design, running experiments, and data analysis, and ultimately the summer project culminated in a 15-minute research presentation to the department.

GRANTS & AWARDS

2021	Annie M. Alexander Fellowship	$13,500
	Karl Koford Fund	$1500
2020	SMART Fellowship	$5000
	Karl Koford Fund	$2000
	GRAC Research Grant	$300
2018	ComSciCon-Triangle	Awarded Attendance
2017	Thomas Frazzetta Award for Outstanding Teaching in Animal Biology	$400
	The Francis M. and Harlie M. Clark Research Support Grant	$1000
	The Odum-Kendeigh Award	$1000
	Best Presentation (Student and Faculty Award)	
2016	Named to the list of teachers ranked as excellent by their students	
2015	Named to the list of teachers ranked as excellent by their students	

PRESENTATIONS

St. John ME, Martin CH; *The Society for Integrative and Comparative Biology,* Virtual Conference, 2021. **YouTube recording: https://youtu.be/seH9B99V6cs**
St. John ME, Martin CH; *The Society for Integrative and Comparative Biology,* Houston, TX, 2020.
St. John ME, Martin CH; *Animal Behaviour,* Chicago IL, 2019.
St. John ME, Martin CH; *The Society for Integrative and Comparative Biology,* Tampa FL, 2019.
St. John ME; *Graduate Students in Ecology and Evolution*, Urbana-Champaign IL, 2017

Service

DEI Administrative Committee 2020-21
This committee oversees timelines and assess the progress of all other DEI initiatives within the Museum of Vertebrate Zoology.

Undergraduate Recruitment Working Group 2020-21
Increased visibility for research opportunities within the Museum of Vertebrate Zoology to better recruit undergraduate students from traditionally underrepresented groups.

Interactions Working Group 2020-21
Promoted healthy community interactions within the Museum of Vertebrate Zoology by hosting both formal and informal platforms for interaction between undergraduate students, graduate students, and faculty within the museum

Integrative Biology Graduate Student Association 2020-21
Provided professional, social, and personal support for current Integrative Biology graduate students by organizing and hosting career panels, mental health workshops, and providing professional resources.