René D. Clark

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EDUCATION

Rutgers University, New Brunswick, NJ **Cumulative GPA:** 4.00/4.00
Ph.D. in Ecology & Evolution (Expected May 2022)
- **Advisor:** Malin Pinsky, Ph.D.

Saint Joseph's University, Philadelphia, PA **Cumulative GPA:** 3.95/4.00
M.S. in Biology – with Thesis (May 2017)
- **Thesis Title:** The Effect of Microtopography on Black Fly Larval Settlement & An Analysis of Female Postcopulatory Behavior in *Drosophila suzukii*
- **Thesis Advisor:** Jonathan Fingerut Ph.D.

Pennsylvania State University, University Park, PA **Cumulative GPA:** 3.98/4.00
B.S. in Biology – Ecology Option (May 2014)
- Graduated with Highest Honors (top 10 students in program)

PROFESSIONAL & RESEARCH EXPERIENCE

Ph.D. Student, Global Change Ecology & Evolution Lab 2017 – Present
Environmental & Natural Resource Sciences Building, Rutgers University
- Analyzed the population structure and identified signatures of local adaptation for three distinct clownfish populations from Japan, Indonesia, and the Philippines
- Conducted field work collecting various tropic marine fish species in the Philippines as part of an NSF-funded PIRE project
- Led portion of bioinformatics & genomics workshop on molecular ecology analyses

Graduate Student, Fingerut Lab 2015 – 2017
Science Center, Saint Joseph's University

Black Fly Larval Settlement Project
- Designed distinct microtopography surfaces and a system for their placement/rearrangement in a flume using a 3D printer
- Characterized the flow of water over the settlement plates using a Laser Doppler Velocimeter (LDV) to create boundary layer profiles
- Collected black fly larvae from field sites and was responsible for all incubation/maintenance in the laboratory
- Created a video monitoring system to observe all black fly larval settlement behavior

D. suzukii Postcopulatory Behavior Project
- Maintained active stocks for 3 distinct fly populations
- Conducted behavioral assays to determine the sexual attractiveness and receptiveness of virgin and mated flies

Research Assistant, Baums Lab August 2012 – January 2014
Biology Department, Pennsylvania State University
- Utilized image analysis to determine the relationship of coral, mussels, and triggerfish

- Analyzed DNA sequences of multiple coral colonies with microsatellite markers to identify clones
- Determined population structures of 4 reefs surrounding the Galapagos Islands

Animal Husbandry Intern, Sea Turtles & Seahorses June – August 2012
Pittsburgh Zoo & PPG Aquarium, Pittsburgh PA
- Maintained all tank filtration and life support systems for 6 different exhibits
- Designed enrichment opportunities/devices for sea turtle use
- Gained experience caring/working with penguins, pufferfish, coral, cuttlefish, and cownose rays

Laboratory Intern, Telecardia Inc. May – August 2011
Pittsburgh PA
- Fabricated and tested iridium oxide electrodes for use in pH meters
- Analyzed and assembled a review on competitor pH meters

TEACHING EXPERIENCE

Ecology Teacher, Little Owls Enrichment 2018-Present
Cranbury, NJ
- Led an after-school ecology hour engaging early elementary school children in ecology and natural life science-based topics

GeoKids Fellow, Saint Joseph's University 2015 – 2017
Philadelphia School District, Philadelphia PA
- Developed curriculum to educate elementary age students on topics including: wetland ecosystems, insect orders, ecology field methods, and cloud formation
- Taught 3RD & 4TH grade classrooms in science with an emphasis on ecosystems and earth science; lessons were brought into the students' regular classrooms and done on a weekly basis for 1.5 hrs. at a time
- Led field trips to Saint Joseph's and to field sites across the Greater Philadelphia Area to facilitate hands-on learning

Science Camp Teacher, Ross Twp. Summer Program June – July 2014, 2015 & 2017
Ross Township, Pittsburgh PA
- Developed lessons (incorporating a mixture of hands-on experiments, lectures, and games) to educate elementary age students on topics ranging from ocean ecosystems to sports science and astronomy
- Taught classrooms of 10-20 students ranging from 3RD to 6TH grade for 3 hrs., 4 days/week

AmeriCorps Member, City Year August 2014 – June 2015
Philadelphia School District, Philadelphia PA
- Dedicated one year of service to a low-income public middle school, focused on improving academic performance, decreasing behavioral incidents, and increasing student attendance
- Co-taught 6TH grade classroom (all subjects) 5 days/week and gave direct/individualized attention to 9 students with special education requirements
- Managed several school-wide events and initiatives to promote a more positive learning environment, including an Anti-Bullying event and a Math Jeopardy "tournament" (both with over 60 attendees)

Teaching Assistant, Biology 427 (Evolution) August – December 2013
Biology Department, Pennsylvania State University

- Held office hours 1 day/week to answer students' questions about course
- Wrote all midterms and the final exam questions
- Acted as a liaison between the students and the professor

GRANTS, HONORS, & AWARDS

Conference Travel Award ($500)	2019
Ecology & Evolution Small Grant ($1000)	2018
SEBS Graduate School Excellence Fellowship	2017 - 2018
Sigma Xi Honors Society	2017
Outstanding Student Presentation, NABFA	2017
Saint Joseph Travel Award ($300)	2017
GeoKids Fellowship, Saint Joseph's University	2015 – 2017
Phi Kappa Phi Honors Society	2013 – 2015
Evan Pugh Scholar Senior Award, Pennsylvania State University	2014
Undergraduate Research Grant, Pennsylvania State University	2013 & 2014
Evan Pugh Scholar Junior Award, Pennsylvania State University	2013
Dean's List, Pennsylvania State University	2010 – 2014

PAPERS

Rene Clark, Matthew Aardema, Jennifer Hoey, Akhihisa Hattori, Paul Barber, Peter Andolfatto, Molly Schumer & Malin Pinsky. (2019) Genomic signatures of spatially divergent selection in *Amphiprion clarkii* populations across a thermal gradient. *(in prep)*

Rene Clark, Marissa DiPiero, Jonathan T. Fingerut, & Scott P. McRobert. (2019) An analysis of female postcopulatory behavior in *Drosophila suzukii* and *Drosophila biarmipes*. *(in review)*

Rene Clark. (2017) The effect of micro-topography on *Simulium tribulatum* larval settlement and recruitment & An analysis of female postcopulatory behavior in *Drosophila suzukii* and *Drosophila biarmipes*. Saint Joseph's University, Philadelphia, PA. (Master's Thesis – print edition)

PRESENTATIONS

Rene Clark & Malin Pinsky. Genomic signatures of spatially divergent selection in *Amphiprion clarkii* populations across a thermal gradient. *Ecological Society of America Conference*, Louisville KY. August 2019 (poster presentation)

Rene Clark & Malin Pinsky. Genomic signatures of spatially divergent selection in *Amphiprion clarkii* populations across a thermal gradient. *Rutgers Ecology & Evolution Graduate Student Association Seminar*, New Brunswick NJ. April 2019

Rene Clark. A tale of two flies: The effect of micro-topography on *Simulium tribulatum* larval settlement and recruitment & An analysis of female postcopulatory behavior in *Drosophila suzukii* and *Drosophila biarmipes*. *Master's Thesis Public Defense,* Saint Joseph's University, Philadelphia, PA. June 2017 (presentation)

Rene Clark & Marissa DiPiero. Reproductive behavior in *Drosophila suzukii* (update). *Sigma Xi Research Symposium,* Saint Joseph's University, Philadelphia, PA. April 2017 (poster presentation)

Rene Clark. The effect of micro-topography on *Simulium tribulatum* larval settlement and recruitment. *North American Black Fly Association Conference*, Harrisburg, PA. March 2017 (student presentation)

Rene Clark, Nicole Sullivan, Mark Tingey. Small but powerful: what can we learn from flies, worms, and yeast? *Science on the Hill*, Saint Joseph's University, Philadelphia, PA. October 2016. (invited speakers)

Rene Clark, Hannah Bartling, Marissa Diorio, & Marissa DiPiero. Reproductive behavior in *Drosophila suzukii*. *Sigma Xi Research Symposium*, Saint Joseph's University, Philadelphia, PA. April 2016. (poster presentation)

Rene Clark. The effect of triggerfish and mussel interactions on coral reproduction. *Undergraduate Research Symposium*, Pennsylvania State University, University Park, PA. April 2013. (poster presentation)

ACADEMIC & COMMUNITY SERVICE

Treasurer, Ecology & Evolution Graduate Student Association Board 2018-Present

- Managed accounts to fund all graduate student body activities and events

Vice President, Biology Graduate Student Council 2016 – 2017
Saint Joseph's University, PA

- Planned and organized events for all biology graduate students and faculty
- Counseled incoming graduate students on courses, workload, and time management skills

Rules & Regulations Captain, IFC/Panhellenic Dance Marathon (THON) 2014
Pennsylvania State University

- Lead a committee of 50 volunteers in various events throughout the year
- Managed the fundraising of over $1,000 dollars to go to the total fundraising amount of $13,5 million
- Developed a Digital Line Management System to help over 10,000 guests enter and exit the Dance Marathon
- Worked with co-captains to protect volunteers, donors, and children at several major events leading up to the Dance Marathon Weekend

Rules & Regulations Committee Member, THON 2011 – 2013
Pennsylvania State University

- Acted as security to protect all attendees during the Dance marathon Weekend
- Facilitated flow of attendees into and out of the event

SKILLS & INTERESTS

Certified in Adult/Child CPR & AED Administration • Certified PADI Open Water Diver • Experienced in R, STRUCTURE, Unix, RegEx, ImageJ, GeneMapper, Plink1.9 & OpenBUGS • Member of Phi Kappa Phi Honors Society & Sigma Xi Honors Society