Nia S. Walker

Ph.D. Student in Ecology & Evolution
Department of Biology—Hopkins Marine Station, Stanford University
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Interests: Conservation genetics and genomics applications in coral reef ecosystems, coral thermal resilience, coral life cycle, acclimation and adaptation in keystone organisms sensitive to environmental shifts, molecular ecology, bioinformatics, conservation education and advocacy.

Education

Stanford University, *Palo Alto, CA* 09/2017 – present
Ph.D. (student)
Biology (Ecology & Evolution, Hopkins Marine Station)
Advisor: Stephen R. Palumbi

Harvard University, *Cambridge, MA* 2012 – 2016
A.B. *cum laude* with high honors
Organismic and Evolutionary Biology, Secondary Field in English

New Rochelle High School, *New Rochelle, NY* 2008 – 2012
Regents Diploma with Advanced Designation
National Merit Scholar (Commended), National Achievement Scholar, AP Scholar with Honor

Research Experience

Graduate Student, Palumbi Lab, Department of Biology, Stanford University 06/2017 – present
- Conservation genetics and genomics applications in coral reef ecosystems

Graduate Student, Hadly Lab, Department of Biology, Stanford University 09/2017 – 06/2018
- Genetics and genomics in big game animals (tigers, lions, and rhinos)

Undergraduate Student, Giribet Lab, 01/2015 – 08/2016
Department of Organismic and Evolutionary Biology, Harvard University
- Senior thesis research on differential gene expression mechanisms in probing and non-probing larvae of the coral species, *Porites astreoides*, in order to illuminate mechanisms for ocean substrate settlement at the molecular level.

Research Intern, Harvard Program for Research in Science and Engineering Summer 2015

Undergraduate Student, Extavour Lab, 08/2013 – 09/2014
Department of Organismic and Evolutionary Biology, Harvard University
- Examined gene expression during neurogenesis in the cricket species *Gryllus bimaculatus* for comparison to genetic elements essential for germ cell specification in the fruit fly *Drosophila melanogaster*.

Research Intern, Woods Hole (MA) Partnership Education Program (PEP) Summer 2013
- Ten-week program including course on Global Climate Change in marine management and policy and biological, chemical, physical, and geological oceanography.

Research Intern, Joel Smith Lab, Marine Biological Laboratory Summer 2013
- Studied regenerative capabilities in comparative sea anemone species (*Stomphia coccinea* and *Nematostella vectensis*) and ways to introduce new cnidarian and echinoderm organisms into the laboratory environment for spawning and embryology studies.

Other Experience

Stanford Biomedical Association for the Interests of Minority Students (member) 09/2017 – present
Association for Women in Science, Palo Alto Chapter (member) 09/2017 – present
Harvard Chapter of the Scientista Foundation 2012 – 2016
- Co-Director (2013 – 2015), Advisor (2015 – 2016)
- Achieved official recognition for Harvard College Scientista through the Harvard Office of Student Life and Harvard College Undergraduate Council.

Harvard College Conservation Society 2015 – 2016
- Co-founded a Women for Wildlife Chapter at Harvard

Harvard Relay for Life 2012 – 2016
- Fundraising Committee (2012 – 2016), Fundraising Co-Chair (2013 – 2014)

Harvard College Alzheimer's Buddies 2012 – 2016
- Paired with a nursing home resident with Alzheimer's and visited on Sundays during the academic year (2012 – 2016)
- Logistics Chair for the Harvard Alzheimer's Symposium (2013)

Harvard Society of Black Scientists and Engineers (member) 2012 – 2016
ART+BIO Collaborative *Puerto Rico and Cambridge, MA* 1/2014 and 4/2014
- Through the non-profit organization, traveled to Puerto Rico to accurately and beautifully capture the natural landscape.
- Created a 3-piece pastel abstract series focused on identifying human features in reef-building corals' shapes; these pieces were exhibited at "Voltage Coffee & Art" in Cambridge, MA for the Cambridge Science Fair.

Awards & Fellowships

National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) 2018
Stanford Graduate Fellowship (SGF), Morgridge Family Fellow 2017
- Supports outstanding graduate students in science and engineering; selected based on achievements and potential for success.

Thomas Temple Hoopes Prize 2016
- Awarded for one of the best undergraduate theses at Harvard. Thesis entitled "Characterizing Differential Gene Expression in Probing Larvae of the Caribbean Coral Species *Porites astreoides* Lamarck, 1816".

Harvard Program for Research in Science and Engineering (PRISE) 2015
- The PRISE Fellowship supports undergraduate research in the sciences. Received a Fellowship to conduct undergraduate senior thesis research.

Harvard College Research Program (HCRP) 2014 and 2015
- The HCRP Fellowship supports undergraduate research during the academic school year and summer. Received two separate Fellowship awards, sophomore and junior spring semesters.

Teaching

Teaching Assistant, Stanford University 01/08/18 – 03/23/18
- Bio 21: Science of the Extreme Life of the Sea
- Designed material for and taught two weekly discussion sections

Stanford Splash 11/2017, 05/2018
- Taught in Fall 2017 and Spring 2018.
- Two-day program for students in grades 7-12; classes taught by Stanford students and associates.
- Class included clips from the documentary "Chasing Coral", an introduction to basic coral biology and conservation, viewing live corals under a light microscope, an "ocean acidification in a cup" experiment, and a mock-coral heat stress demonstration.

Young Women in Science Program, Monterey Bay Aquarium 08/04/2017
- Co-taught three classes on coral bleaching when young women (grades 7-8) visited Hopkins Marine Station.

Part-Time Employee, Maritime Aquarium at Norwalk 09/2016 – present
- Science Educator for the Maritime Aquarium's classrooms, exhibits, and off-site education programs.
- Conducted research to construct lesson plans and exhibits regarding increasing environmental hazards education and resilience in Connecticut's communities along Long Island Sound. Research is supported by the National Oceanic and Atmospheric Association's (NOAA) 2016 Environmental Literacy Grants Program. Currently a consultant for the initiative.

Publications

Papers in Preparation

Walker, N, Fernandez, R., Paul, V., Sneed, J., Giribet, G., Combosch, D. (in prep). Differential Gene Expression during Substrate Probing in Larvae of the Caribbean Coral *Porites astreoides*.

Other Publications

Undergraduate Thesis: Characterizing Differential Gene Expression in Probing Larvae of the Caribbean Coral Species *Porites astreoides* Lamarck, 1816.

Talks

Hopkins Marine Station 1st Year PhD Students Symposium 06/14/2018
- Titled "Characterizing Differential Gene Expression in Probing Larvae of the Caribbean Coral Species *Porites astreoides*."

Dunster House Senior Theses Presentations Series 04/20/2016
- Titled "From Blob to Beauty: *Differential Gene Expression in Coral Larvae*"

Harvard Program for Research in Science and Engineering 08/10/2015
- Titled "Characterizing Differential Gene Expression in the Larval Stages of *Porites astreoides*"

Woods Hole Partnership Education Program Symposium 08/09/2013
- Titled "The Search for Cnidarian and Echinoderm Model Organisms in Regenerative Biology"

Poster Presentations

Harvard Organismic and Evolutionary Biology Thesis Poster Session 04/08/2016
- Titled "Characterizing Differential Gene Expression in Probing Larvae of the Caribbean Coral Species *Porites astreoides* Lamarck, 1816."

Women for Wildlife Symposium 03/05/2016
- Titled "Characterizing Differential Gene Expression in Probing Larvae of the Caribbean Coral Species *Porites astreoides* Lamarck, 1816."

Scientista Intercollegiate Research Symposium 04/05/2014
- Titled "Gene expression during neurogenesis in the cricket species *Gryllus bimaculatus*"

Attended Conferences & Workshops

Northern California Computational Biology Student Symposium, *Santa Cruz, CA* 10/07/2017

Women for Wildlife Symposium, *Cambridge, MA* 03/05/2016

Marine Resources Population Dynamics Workshop, *Long Key, FL* 03/01 – 03/07/2015
- All expenses paid, lecture and case study format focused on harvesting marine species and loggerhead sea turtle management. Led by faculty from the University of Florida and scientists from the National Marine Fisheries Service.

Scientista Intercollegiate Research Symposium, *Cambridge, MA* 04/05/2014