Nuri Teresa Pierce

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EDUCATION

Scripps Institution of Oceanography, UCSD, La Jolla, California

Ph.D. Candidate, Marine Biology

June 2017 (exp)

Advisors: Terry Gaasterland, Ron Burton

Specialization: Interdisciplinary Environmental Research

Dissertation Topic: Transcriptome Resource Development for Doryteuthis opalescens and Embryonic Gene Expression Response to Low Oxygen and Low pH Conditions

Stanford University, Stanford, California

M.S., Biology

2009

Advisor: Fiorenza Micheli

B.S. with Honors, Biological Sciences

2009

Advisor: William Gilly

Honors Thesis: Venom Synthesis and Gene Expression Analysis of Toxins in the Venom Ducts of Conus californicus Maintained in Tissue Culture

RESEARCH Interests

Adaptation; evolution; genomics; genetic response to climate change stressors; bioinformatics; open science; global change; ocean acidification; marine conservation biology

PUBLICATIONS

Navarro, M.O., Kwan, G.T., Batalov, O., Choi, C., **Pierce, N.T.**, Levin, L.A. "Development of embryonic market squid, *Doryteuthis opalescens*, under chronic exposure to low environmental pH and [O2]." *PloS One* (2016).

Pereira, R.J., Barreto, F.S., **Pierce, N.T.**, Carneiro, M., Burton, R.S. "Transcriptome-Wide Patterns of Divergence During Allopatric Evolution." *Molecular Ecology* (2016).

Elliger, C.A., Richmond, T.A., Lebaric, Z.N., **Pierce, N.T.**, Sweedler, J.V., Gilly, W.F. "Diversity of conotoxin types from *Conus californicus* reflects a diversity of prey types and a novel evolutionary history." *Toxicon.* 57 (2): 311-322 (2011).

SUBMITTED / IN PREP

Pierce, N.T., Hartwick, N., Burton, R.S., Gaasterland, T. "Automated *De Novo* Transcriptome Analysis Using an Integrative Python Framework" *Nearing Submission; Intended for Molecular Ecology Resources*. Software available at https://github.com/bluegenes/MakeMyTranscriptome

Pierce, N.T., Navarro, M.O., Burton, R.S., Gaasterland, T. "Effect of low pH and low O2 conditions on developmental gene expression and hatching of *Doryteuthis opalescens* embryos" *Nearing Submission; Intended for Ocean Global Change Biology*.

Honors & Awards

Fellowships

National Science Foundation Graduate Research Fellowship, 2013-2016

National Science Foundation Integrative Graduate Education and Research Traineeship (IGERT): Global Change, Marine Ecosystems and Society 2010-2013

San Diego Fellowship, 2010-2012

UCSD Center for Marine Biodiversity and Conservation Diversity Fellowship, 2010-2012

Research Grants and Awards

Center for Marine Biodiversity and Conservation Mentoring Award \$500, 2014, 2015

Ocean Global Change Biology Gordon Research Conference: Carl Storm Underrepresented Minority Fellowship \$520, 2014

Scripps Institution of Oceanography Graduate Student Excellence Travel Award \$700, 2014 Center for Marine Biodiversity and Conservation IGERT Research Grant,\$11,500, 2012 Stanford University VPUE Summer Research Grant, \$5200, 2008

Stanford University Howard Hughes Medical Institute Summer Research Grant, \$5200, 2007 Chicano & Latino Community Awards, Stanford University, 2005/6/7/8/9

Invited Talks & Conference

Presentations

Ocean To Table Fish and Fisheries Event by SIO-UCSD, NOAA Southwest Fisheries, August 2016. "Biology of the California Market Squid, *Doryteuthis opalescens*" *Invited talk*

SIO 242C: Big Data Analysis in Computational Molecular Biology, 2015. "Techniques for Differential Expression Analysis of de novo RNA-Seq Data" Invited lecture

Plant and Animal Genome Conference, San Diego, CA, 2015. Waksmunski, A., **N.T Pierce**, Gaasterland, T. "Automated *de novo* Transcriptome Analysis of Eukaryotic Organisms" *Poster*

Scripps Institution of Oceanography Student Symposium, San Diego, CA 2014. "Gene Expression Response of California Market Squid to high-CO2, low-O2 conditions" Winner, best poster

Ocean Global Change Biology Gordon Research Conference, Waterville Valley, NH, 2014. "Gene Expression Response of California Market Squid to high-CO2, low-O2 conditions" *Poster*

Scripps Institution of Oceanography, La Jolla, CA, 2013. "Gene Expression Response of California Market Squid to Ocean Acidification and Hypoxia Conditions" *Invited talk*

CSU Fullerton English as a Second Language Marine Science Symposium. "Global Change Impacts to Marine Organisms" 2012 Invited lecture

Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), Seattle, WA, 2012. **N.T Pierce**, M.O. Navarro, and R.S. Burton. "Gene Expression Response of California Market Squid, *Doryteuthis opalescens*, to high-CO2/low-pH, low O2 conditions" *Poster*

Evolution, Ottawa, Canada, 2012. **N.T. Pierce** and R.S. Burton. "Variation-Aware Transcriptome Alignment Improves Gene Expression Analyses in *Tigriopus californicus*" *Poster*

Evolution, Norman, OK, 2011. **N.T Pierce** and R.S. Burton. "High Resolution Melting (HRM) Genotyping in *Tigriopus californicus*: An Application to Heat Stress Response" *Poster*

SELECTED	
Service,	
Outreach,	&
Teaching	

SIO Bioinformatics Users Group - Co-founder	2015-Present
Software Carpentry - Workshop Organizer and Instructor	2014-Present
Ocean Discovery Institute - Volunteer Scientist	2011-Present
SIO Team for Inclusion, Engagement, and Diversity in Science (TIDES)	2010-Present
SIO 132: Intro to Marine Biology - Teaching Assistant	2016
SIO Diversity Initiatives Coordinator - Designed Position; Hiring Committee Mem	aber 2016
Expanding Your Horizons (EYH) STEM Conference for Girls - Co-led Workshop	2016
Intermediate RNA-Seq Workshop @ UCDavis - $Instructor \ \mathcal{C}$ Developer	2015
Birch Aquarium at Scripps SEA Days - Volunteer scientist	2014
NOAA Climate Change Student Summit - Volunteer Scientist	2012
Stanford University, Biology 44Y: Core Biology Laboratory - Course Assistant	2009
Stanford University Center For Teaching and Learning - Peer Tutor	2004-2009

Skills

Add'l Languages: Spanish (fluent) Computer programs and skills: Python; R; Git; Bash; LATEX