

# Nuri Teresa Pierce

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## CONTACT INFORMATION

Population Health and Reproduction  
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## EDUCATION

**Scripps Institution of Oceanography, UCSD**, La Jolla, California

Ph.D., Marine Biology

June 20, 2017

*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

Mascuch, S.J., Boudreau, P.D., Carland, T.M., **Pierce, N.T.**, Olson, J., Hensler, M.E., Choi, H., Campanale, J., Hamdoun, A., Nizet, V., Gerwick, W.H., Gaasterland, T., and Gerwick, L. Marine Natural Product Honaucin A Attenuates Inflammation by Activating the Nrf2-ARE Pathway. *Journal of natural products* 81.3 (2017): 506-514. DOI: 10.1021/acs.jnatprod.7b00734

Lindström J. B., **Pierce N.T.** and Latz M. I. Role of TRP channels in dinoflagellate mechanotransduction. *The Biological Bulletin* 233.2 (2017): 151-167. DOI: <https://doi.org/10.1086/695421>

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 [O<sub>2</sub>]." *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.**, Navarro, M.O., Burton, R.S., Gaasterland, T. "Effect of low pH and low O<sub>2</sub> conditions on developmental gene expression and hatching of *Doryteuthis opalescens* embryos" *In Review*.

## HONORS & AWARDS

### Fellowships

National Science Foundation Postdoctoral Research Fellowship in Biology, 2017-2020, \$207,000

National Science Foundation Graduate Research Fellowship in Biology, 2010-2016

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-CO<sub>2</sub>, low-O<sub>2</sub> conditions” *Winner, best poster*

Ocean Global Change Biology Gordon Research Conference, Waterville Valley, NH, 2014. “Gene Expression Response of California Market Squid to high-CO<sub>2</sub>, low-O<sub>2</sub> 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-CO<sub>2</sub>/low-pH, low O<sub>2</sub> 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 - <i>Co-founder</i>	2015-Present
Software Carpentry - <i>Workshop Organizer and Instructor</i>	2014-Present
Ocean Discovery Institute - <i>Volunteer Scientist</i>	2011-Present
SIO Team for Inclusion, Engagement, and Diversity in Science (TIDES)	2010-Present
SIO 132: Intro to Marine Biology - <i>Teaching Assistant</i>	2016
SIO Diversity Initiatives Coordinator - <i>Designed Position; Hiring Committee Member</i>	2016
Expanding Your Horizons (EYH) STEM Conference for Girls - <i>Co-led Workshop</i>	2016
Intermediate RNA-Seq Workshop @ UC Davis - <i>Instructor &amp; Developer</i>	2015
Birch Aquarium at Scripps SEA Days - <i>Volunteer scientist</i>	2014
NOAA Climate Change Student Summit - <i>Volunteer Scientist</i>	2012
Stanford University, Biology 44Y: Core Biology Laboratory - <i>Course Assistant</i>	2009
Stanford University Center For Teaching and Learning - <i>Peer Tutor</i>	2004-2009

### SKILLS

*Add'l Languages:* Spanish *Computer programs and skills:* Python; R; Git; Bash; L<sup>A</sup>T<sub>E</sub>X