# Nuri Teresa Pierce

# **Graduate Research Fellow**

Scripps Institution of Oceanography, University of California, San Diego

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# **EDUCATION**

UCSD Scripps Institution of Oceanography, San Diego, CA

Ph.D. Fall 2010-ongoing

Marine Biology Research Division

Emphasis on functional genomics and response to climate change

Advisors: Ron Burton, Terry Gaasterland

Cumulative GPA

3.9/4.0

**Stanford University**, Stanford, CA **MS in Biology**, June 2009

Advisor: Fiorenza Micheli

**Emphasis on Marine Protected Areas** 

3.5/4.0

BS with Honors in Biological Sciences, June 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

Including study and research at:

Stanford University's Hopkins Marine Station, Monterey, CA

Field and lab marine biology program

**AAUS Certification 2008** 

# FELLOWSHIPS, GRANTS, AWARDS

# **Fellowships:**

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

2010-2012 San Diego Diversity Fellowship, UCSD

2010-2012 Center for Marine Biodiversity and Conservation Diversity Fellowship

2013-2016 National Science Foundation Graduate Research Fellowship

# **Research Grants:**

2012 Center for Marine Biodiversity and Conservation IGERT Mini-Grant \$11.532 2008 Stanford University VPUE Summer Research Grant, \$5200 2007 Howard Hughes Medical Institute Summer Research Grant, \$5200

#### Awards:

2008, 09 El Centro Chicano Community Awards for Honors, Academic Achievement

#### RESEARCH INSTERESTS

Adaptation, genomics, genetic response to climate change stressors, ocean acidification, evolution, bioinformatics, marine conservation biology

# RESEARCH EXPERIENCE

## Scripps Institution of Oceanography, Burton Lab, PhD Student

Fall 2010 - present

Doryteuthis (Loligo) opalescens, transcriptome response to high-CO2 and low-O2 conditions during development

Bioinformatics pipeline development for both *D. opalescens* and *T. californicus* analyses

# UCSD Genome Information Sciences, Frazer Lab, visiting student

June 2011 - January 2012

Developed a pipeline for analyzing microRNA expression in time course samples from patients with Chronic Lymphocytic Leukemia, with the goal of developing biomarkers of disease progression (http://frazer.ucsd.edu)

## Hopkins Marine Station, Micheli Lab, Student Researcher

2008-2009

Extensive field work deploying, maintaining, and gathering data from Relative Swell Kinetics Instruments; conducted fish surveys

Used population genetic methods to study abalone connectivity near a marine reserve in Baja California

#### Hopkins Marine Station, Gilly Lab, Honors Research

2006-2008

Conducted gene expression analysis of peptide toxins in *Conus californicus* for an Honors thesis (completed June 2008)

# Jasper Ridge Biological Preserve, Volunteer Docent

2005-2009

Give tours to students, faculty, community members interested in learning about the purpose and importance of the preserve and the research being conducted, particularly the Jasper Ridge Global Change Experiment

# Wildlife Research Institute, Golden Eagle Monitoring, Team Leader

2002-2005

Monitored two Golden Eagle pairs in San Diego County, coordinated team meetings and organized Eagle data

Participated in two tagging expeditions of Golden Eagle chicks

#### LEADERSHIP AND TEACHING EXPERIENCE

# UCSD, Biology, "Principles of Genomics"

January - June 2011

Designed and led a seminar course evaluating seminal papers in genomics and the methods that have come to define the field

# Stanford University, Biology, Ecology Lab Course Assistant

January – June 2008

Reorganized and taught an independent research projects course designed to teach students laboratory principles; focused on grassland woody encroachment at Stanford's Jasper Ridge Biological Preserve

# Stanford University, Center For Teaching and Learning, Peer Tutor

2006-2009

Provided one-on-one tutoring to Stanford undergraduates in the introductory biology core courses, introductory psychology, and some upper-division biology courses

2006-2007

Stanford University, Toyon Hall, Head Peer Academic Counselor

Directed academic events and aided students with academic issues, including declaring a major, finding research opportunities or jobs. Organized Faculty-student dinners and a Majors night involving faculty

from 30 departments and 500+ undergraduate students

## Stanford Pre-Orientation Trip, Leader

September 2005

Co-led 12 incoming freshmen on a backpacking trip in Desolation Wilderness, CA

#### **PUBLICATIONS**

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

# **CONFERENCE PRESENTATIONS**

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

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

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

## ENGAGEMENT AND SERVICE

2013 Scripps Institution of Oceanography Fellowship Donor Brunch

"Gene Expression Response of California Market Squid to Ocean Acidification and Hypoxia Conditions"

- 2012 CSU Fullerton, Marine Science Symposium for 'English as a Second Language' Students "Global Change Impacts to Marine Organisms"
- 2011 Wrote and directed "Old Spice," an ocean acidification outreach short http://www.youtube.com/watch?v=nd9FZPj1SRU
- 2009-present **Birch Aquarium, Scripps Institution of Oceanography,** *Volunteer* Volunteer naturalist and marine science instructor
- 2009 **Bike and Build,** *Ride from Boston to Santa Barbara*Raised \$5,000 for affordable housing issues in America
  Cycled 4,000 miles, built at affordable housing sites, gave presentations on sustainable housing