

Gary Charles Longo

NOAA, Northwest Fisheries Science Center
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CURRENT

2017-Present NRC Postdoctoral Fellow
NOAA, Northwest Fisheries Science Center

EDUCATION

2010-2016 PhD Ecology and Evolutionary Biology
University of California Santa Cruz

2010-2013 MA Ecology and Evolutionary Biology
University of California Santa Cruz

2003-2008 Double Major *with Honors*
BS Marine Biology
BS Molecular, Cell, and Developmental Biology
University of California Santa Cruz

PUBLICATIONS

Longo GC, Bernardi G (*In prep*) Genomic signatures of parallel selection in surfperches (Embiotocidae)

Bernardi G, **Longo GC**, Quiros TA (*In review*) *Altrichthys alelia*, a new brooding damselfish (Teleostei, Perciformes, Pomacentridae) from Busuanga Island, Philippines. *ZooKeys*.

Bernardi G, Crane NL, **Longo GC**, Quiros TA (2016) The biology of *Altrichthys azurelineatus* and *A. curatus*, two damselfishes that lack a pelagic larval phase. *Environmental Biology of Fishes*.

Longo GC, O'Connell B, Green RE, Bernardi G (2016) The complete mitochondrial genome of the black surfperch, *Embiotoca jacksoni*: selection and substitution rates among surfperches (Embiotocidae). *Marine Genomics*.
doi.org/10.1016/j.margen.2016.03.006

Tariel J, **Longo GC**, Bernardi G (2016) Tempo and mode of speciation

in *Holacanthus* angelfishes based on RADseq markers. *Molecular Phylogenetics and Evolution*. doi:10.1016/j.ympev.2016.01.010

Longo GC, Bernardi G (2015) The evolutionary history of the embiotocid surfperch radiation based on genome-wide RAD sequence data. *Molecular Phylogenetics and Evolution*. doi:10.1016/j.ympev.2015.03.027

Kück P, **Longo GC** (2014) FASconCAT-G: extensive functions for multiple sequence alignment preparations concerning phylogenetic studies. *Frontiers in Zoology*, **11**, 81.

Poortvliet M, **Longo GC**, Selkoe K *et al.* (2013) Phylogeography of the California sheephead, *Semicossyphus pulcher* : the role of deep reefs as stepping stones and pathways to antitropicality. *Ecology and Evolution*, **3**, 4558–4571.

Longo G, Beldade R, Cudney-Bueno R, Raimondi P, Bernardi G (2011) Isolation and characterization of 13 polymorphic microsatellites for the black murex, *Hexaplex nigrinus*. *Marine Genomics*, **4**, 69–70.

TEACHING EXPERIENCE

2016

Instructor UCSC, Ichthyology, summer quarter

Teaching assistant UCSC, Ecology and Evolution, spring quarter

2015

Teaching assistant UCSC, Ichthyology, fall quarter

Instructor UCSC, Ichthyology, summer quarter

Teaching assistant UCSC, Animal and Plant Physiology, spring quarter

Teaching assistant UCSC, Animal and Plant Physiology, winter quarter

2014

Teaching assistant UCSC, Marine Ecology Field quarter, fall quarter

Instructor UCSC, Ichthyology, summer quarter

Teaching assistant UCSC, Animal and Plant Physiology, winter quarter

2013

Teaching assistant UCSC, Ichthyology, fall quarter

Teaching assistant UCSC, Evolution, summer quarter

Teaching assistant UCSC, Ecology and Evolution, spring quarter

Teaching assistant UCSC, Population Genetics, winter quarter

2012

Teaching assistant UCSC, Marine Ecology Field quarter, fall quarter

Teaching assistant UCSC, Animal and Plant Physiology, spring quarter

Teaching assistant UCSC, Marine Ecology, winter quarter

2011

Teaching assistant UCSC, Ichthyology, fall quarter

Teaching assistant UCSC, Animal and Plant Physiology, spring quarter

Teaching assistant UCSC, Ecology and Evolution, winter quarter

2010

Teaching assistant UCSC, Cell and Developmental Bio, fall quarter

Course assistant UCSC, Cell and Developmental Bio, summer quarter

Course assistant UCSC, Biochemistry, spring quarter

Course assistant UCSC, Eukaryotic Molecular Biology, winter quarter

2009

Course assistant UCSC, Cell Biology, fall quarter

Course assistant UCSC, Ecology and Evolution, spring quarter

POSTERS & PRESENTATIONS

“Tempo and Mode of Speciation in *Holocanthus* Angelfishes based on RADseq Markers” at Joint Meeting of Ichthyologists and Herpetologists – New Orleans, LA July 9, 2016

“Signals of Genomic Selection in Surfperches (Embiotocidae)” at Joint Meeting of Ichthyologists and Herpetologists – Reno, NV July 17, 2015

“Genome scans reveal loci under selection in disparate populations of the black surfperch, *Embiotoca jacksoni*” poster at Genomes 10k - Santa Cruz, CA March 2, 2015

“Genome-wide RAD data yields fine resolution species relationships in embiotocid surfperches” at Evolution 2014 – Raleigh, North Carolina, June 22, 2014

“Population genetics of California Sheephead” at the California Sheephead Research and Management Meeting, University of California – Santa Barbara, April 22, 2011

AWARDS AND HONORS

2017 – NRC Research Associates Program Postdoctoral Fellowship

2016 – Doctoral Student Sabbatical Fellowship

2014 – Graduate Assistance in Areas of National Need (GAANN) Fellowship

2012 – Friends of the Long Marine Lab Research Grant

2012 – Lerner-Gray Fund for Marine Research

2012 – Myers Oceanographic and Marine Biology Trust

2010 – Our World Underwater Scholarship, *semifinalist*

SERVICE

Guest Lecturer, Grant High School Biology classes – 2014, 2015

Judge, Happy Valley Middle School Science Fair – 2012

Team rider, Ride-a-Wave Foundation – 2011-present

Judge, Santa Cruz County Science Fair – 2011

Peer Review: Molecular Ecology, Conservation Genetics, Molecular Phylogenetics & Evolution, & PLoS ONE

MEMBERSHIPS

The American Association for the Advancement of Science – 2010-present

American Society of Ichthyologists & Herpetologists – 2012-present

Society for the Study of Evolution -2011-present

RESEARCH EXPERIENCE

PhD Student, Laboratory of Dr. Giacomo Bernardi, UCSC

September 2010 – Present

- population genomics and phylogenomics of *Embiotocid* surfperches

Laboratory Technician, Laboratory of Dr. Giacomo Bernardi, UCSC

Jun 2009 – April 2010

- population genetics of the black murex, *Hexaplex nigritus*, in the Sea of Cortez

Field Technician, Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)

Summer 2008

- kelp forest invertebrate and algae transects while on SCUBA

Undergraduate research assistant, Laboratory of Dr. Giacomo Bernardi, UCSC

January 2008 – June 2008

- population genetics of the California sheephead, *Semicossyphus pulcher*

Undergraduate research assistant, Laboratory of Dr. Robert Ludwig, UCSC

January 2007 - July 2007

- differential growth of endosymbiotic bacteria in varying environment

Intern, Laboratory of Dr. Charles Vacanti, Brigham and Women's Hospital, Boston, MA

Summer 2006

- regeneration of anterior cruciate ligament (ACL) tissue using a biodegradable polymer scaffold

SCUBA CERTIFICATIONS

NAUI – open water, advanced, rescue, nitrox, master diver, divemaster
American Academy of Underwater Sciences – scientific diver (100 foot)