

GEOFFREY F DILLY

Assistant Professor of Biology, CSU Channel Islands, Camarillo, CA.

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EDUCATION

- 2012** **Ph.D. in Biology**
Harvard University, Cambridge, Massachusetts
Dissertation: Physiological Investigations into Environmental Stress Response in the Hydrothermal Vent Polychaete *Paralvinella sulfincola*
Advisor: Peter R. Girguis **Committee Members:** Colleen Cavanaugh, Gonzalo Giribet, John Wakeley
Coursework: Genetics & Genomics, Invertebrate Physiology, Symbiosis, Microbial Methodology, Molecular Ecology, Computational Bioinformatics, Science & Public Policy
- 2003** **B.S. in Marine Biology**
UC Santa Cruz, Santa Cruz, California
Honors: Highest Honors in the Major, Merrill College Honors, College Service Award

RECENT PROFESSIONAL EXPERIENCE

- 2014 – present** **Assistant Professor of Biology**
CSU Channel Islands, Biology Department. Chair – Amy Denton
- 2011 – 2014** **Postdoctoral Scholar, integrative physiology**
UC Santa Barbara, Santa Barbara, CA. PI – Gretchen E. Hofmann
1) Ocean Margins Ecosystems Group on Acidification Studies (OMEGAS) (NSF OCE-1040960)
2) Antarctic Sea Urchin Ocean Acidification Transcriptomics (NSF ANT-0944201)

TEACHING EXPERIENCE

- 2015** **Professor – Biol 200: Organismal and Population Biology**
CSU Channel Islands, Camarillo, CA. Developed new curriculum material for 87-student introductory biology course designed to be a first encounter for biology majors at CSUCI. Topics include ecology, evolution, and biological diversity. Built a Biology Wiki with Professor Thoms to enhance engagement with the students.
- 2015** **Professor – Biol 431: Bioinformatics**
CSU Channel Islands, Camarillo, CA. Developed new curriculum for bioinformatics course aimed at advanced undergraduates in the major. Topics include sequencing, BLAST, databasing, ClustalW, MicroRNAs, proteomics, SNPs and more.
- 2014 – 2015** **Professor – Biol 499: Sea Change – Capstone course in Biology (Fall 2014, Spring 2015, Fall 2015)**
CSU Channel Islands, Camarillo, CA. Developed original curriculum based on ocean conservation and marine science. Weekly lectures and discussions focusing on primary literature and critical thinking and analysis skills leading to the creation of a Graduate Student Research Fellowship Proposal by each student.

HONORS AND AWARDS

- 2012** David W. Towle Award for Best Student Oral Paper SICB Division of Comparative Physiology & Biochemistry
- 2010** Finalist for the Scholander Award, American Physiological Society – Comparative and Evolutionary Physiology Section. Oral Presentation at APS intersociety meeting.

RECENT GRANTS AND FELLOWSHIPS

- 2015 – 2016** Understanding Thermotolerance in a Warming World: Respirometry on the Antarctic limpet *Nacella concinna* PI - **Dilly, G.** \$10,514 to cover course release time and equipment to support research on thermal tolerance. CSU Channel Islands Minigrant
- 2014 – 2015** Aplicando principios evolutivos para inferir adaptación climática en especies marinas: usando un enfoque genómico. (Applying evolutionary principles to identify adaptations to climate change in marine species using a genomic approach). PI – J.D. Gaitan-Espitia, P. Co-Investigators – **Dilly, G.**, Hofmann, G. INACH, \$100,000 & travel covered to Antarctica.
- 2009 – 2012** Exploring the Boundaries of Metazoan Thermotolerance at Hydrothermal Vents: Respiration and Protein Expression of Paralvinellid Worms. PI – Girguis, P. Co-Investigators – **Dilly, G.**, Callister, S. Pacific Northwest National Labs – Environmental Molecular Sciences Laboratory. (Proposal 34696) Mass Spectrometry Usage Grant.
- 2006 - 2011** National Science Foundation Graduate Research Fellowship Program (GFRP)

PUBLICATIONS

- Dilly, GF**, Gaitain-Espitia, JD, Hofmann, GE. (2014) Characterization of the Antarctic sea urchin (*Sterechinus neumayeri*) transcriptome and mitogenome: a molecular resource for phylogenetics, ecophysiology and global change biology. *Molecular Ecology Resources*. E-pub. DOI: 10.1111/1755-0998.12316.
- Dilly GF**, Young CR, Lane WS, Pangilinan J, Girguis PR (2012) Exploring the limit of metazoan thermal tolerance via comparative proteomics: thermally induced changes in protein abundance by two hydrothermal vent polychaetes. *Proceedings of the Royal Society of London, Series B*, 279, 3347–56.
- Roeselers G, Newton ILG, Woyke T, Auchtung TA, **Dilly GF**, Dutton RJ, Fisher MC, Fontanez KM, Lau E, Stewart FJ, Richardson PM, Barry KW, Saunders E, Detter JC, Wu D, Eisen JA, Cavanaugh CM. (2010) Complete genome sequence of *Candidatus Ruthia magnifica*. *Standards in Genomic Sciences*, 3, 163–73.
- White HK, Reimers CE, Cordes EE, **Dilly GF**, Girguis PR (2009) Quantitative population dynamics of microbial communities in plankton-fed microbial fuel cells. *International Society of Microbial Ecology (The ISME journal)*, 3, 635–46.
- Newton ILG, Woyke T, Auchtung TA, **Dilly GF**, Dutton RJ, Fisher MC, Fontanez KM, Lau E, Stewart FJ, Richardson PM, Barry KW, Saunders E, Detter JC, Wu D, Eisen JA, Cavanaugh CM. (2007) The *Calyptogenia magnifica* Chemoautotrophic Symbiont Genome. *Science*. Vol. 315. no. 5814, pp. 998 – 1000.

MANUSCRIPTS IN REVIEW OR ADVANCED PREPARATION

- Dilly, G.F., Rivest, E.B., Kapsenberg, L., Nguyen, A.T., Hoshijima, U., Lunden, J. and Hofmann, G.E.** Exploring local adaptation to ocean acidification in *Mytilus californianus* during simulated upwelling events in Acidification Respirometry Chambers (ARCs). *J Experimental Biology*.

INVITED TALKS AND SEMINARS

- 2013** Invited Oral Presentation and Technical Demonstration “Antarctic Urchin Transcriptomics” presentation and Acidification Respirometry Chamber (ARC) Demonstration at Coastal Studies of Ocean Change (CSOC) Workshop. Universidad Autónoma de Baja California, Ensenada, Mexico.
- 2012** Invited Oral Presentation Environmental Proteomics Symposium at Soc. for Int. & Comp. Biology. Charleston, SC.
- 2010** Invited Seminar “Constraining the thermal limits of metazoan life: Comparing thermally induced shifts in global protein expression in vent worms *Paralvinella sulfincola* and *Paralvinella palmiformis*”. Pacific Northwest National Laboratory. Richland, WA.

RECENT CONFERENCES AND PRESENTATIONS

- 2015** Poster Presentation - Channel Islands Rocky Intertidal Ecology: Past, Present, and Future. COAST Annual Meeting. Long Beach, CA.
- 2015** CSUCI Representative - Council on Undergraduate Research (CUR) Annual Meeting. Washington, DC.
- 2014** Oral Presentation - Exploring local adaptation to ocean acidification in *Mytilus californianus* during simulated upwelling events in Acidification Respirometry Chambers (ARCs). APS Intersoc Meeting. San Diego, CA.
- 2013** Oral Presentation - COMPARATIVE MUSSEL RESPIROMETRY DURING SIMULATED UPWELLING EVENTS USING ACIDIFICATION RESPIROMETRY CHAMBERS (ARCs). Western Society of Naturalists, Oxnard, CA.

RECENT RESEARCH CRUISES AND FIELD EXPERIENCE

- 2014-2015** Santa Rosa Research Station – Led multiple research trips with undergraduate research team exploring intertidal ecology of Santa Rosa sites. PI – G. Dilly, CSUCI
- 2011** McMurdo Station, Antarctica – Sea urchin genomic and physiological responses to ocean acidification. PI – G. Hofmann, UCSB.
- 2010** R/V *Atlantis* & HOV *Alvin* – Juan de Fuca Ridge, 54°N. Multistress effects on respiration rates in *Paralvinellid* worms. Chief Sci – R. Lee, WSU