

## Morgan W. Kelly

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### ACADEMIC AND RESEARCH APPOINTMENTS

- 2014- *pres.* Assistant Professor. Department of Biological Sciences, Louisiana State University.  
2011-2013 Postdoctoral Fellow. Department of Ecology, Evolution and Marine Biology, UC Santa Barbara  
Supervisor: Gretchen E. Hofmann.  
2005-2006 Research Associate. Department of Molecular, Cellular, and Developmental Biology, University of Texas, Austin. Supervisor: Alan Lloyd.

### EDUCATION

- 2011 Ph.D. Population Biology Graduate Group, University of California, Davis. *Thermal tolerance and mating systems of two intertidal crustaceans*. Advisors: Eric Sanford and Richard Grosberg.  
2004 M.S. Dept. of Wildlife Ecology, University of Maine, Orono. *Conservation genetics of unionid mussels*. Advisor: Judith Rhymer.  
1998 B.A. Biology, Swarthmore College, Swarthmore, PA.

### AWARDS

- 2015 \$140,125.00 The genomic basis of stress adaptation in a marine copepod. *LA Board of Regents*. (2015-18)  
2016 \$159,666.00 Genomic variation and local adaptation among natural stocks of eastern oysters (*Crassostrea virginica*) in coastal Louisiana. *Louisiana Sea Grant*. (2016-2018)  
2016 Tiger Athletic Foundation Undergraduate Teaching Award

### PUBLICATIONS

#### Peer-reviewed

- Padilla-Gamino, JL, Gaitan-Espitia, JD, **Kelly, MW**, Hofmann, GE (*in press*) Physiological plasticity and local adaptation to ocean acidification in the calcareous algae *Corallina vancouveriensis*: An ontogenetic and geographic approach. *Evolutionary Applications*.
- Kelly, MW**, Pankey, MS, DeBiasse, MB, Plachetzki, DP. (*in press*) Adaptation to heat stress reduces phenotypic and gene expression plasticity in a marine copepod. *Functional Ecology*.
- Kelly, MW**, DeBiasse, MB., Cecola<sup>1</sup>, C. Roberts<sup>1</sup>, H, & Villela<sup>1</sup>, V. (*in press*) Adaptation to climate change: trade-offs among responses to multiple stressors in an intertidal crustacean *Evolutionary Applications*.
- DeBiasse, MB., & **Kelly, MW**. (2016) Plastic and evolved responses to global change: what can we learn from comparative transcriptomics? *Journal of Heredity*. 107:71-81.
- Kelly, MW.**, Padilla-Gamiño, JL., Hofmann, G.E. (2015) High pCO<sub>2</sub> affects body size, but not gene expression in larvae of the California mussel, (*Mytilus californianus*). *ICES JMS*. fsv 184.
- Evans, TG, Diamond, SE, **Kelly, MW**. (2015) Mechanistic species distribution modeling as a link between physiology and conservation. *Conservation Physiology*. 3,1. cov056
- TG Evans, JL Padilla-Gamiño, **MW Kelly**, et. al. (2015) Ocean acidification in the ‘post-genomics era: Roadmaps from the purple sea urchin *Strongylocentrotus purpuratus*. *Comparative Biochemistry and Physiology Part A*. 185:33-42
- Hofmann GE, Evans TG, **Kelly MW**, Padilla-Gamino JL, Blanchette CA, Washburn L, Chan F, McManus MA, Menge BA, Gaylord B, Hill TM, Sanford E, LaVigne M Rose JM, Kapsenberg L, and Dutton JM. (2014) Exploring local adaptation and the ocean acidification seascape – studies in the California Current Large Marine Ecosystem. *Biogeosciences* 11:1053-1064.
- Kelly MW**, Padilla-Gamiño, JL, Hofmann, GE. (2013) Natural variation and the capacity to adapt to ocean acidification in a keystone species. *Global Change Biology* 19:2536-2546.
- Padilla-Gamiño, JL, **Kelly, MW**, Evans, TE and Hofmann, GE. (2013) Temperature and CO<sub>2</sub> additively regulate physiology, morphology and genomic responses of larval sea urchins, *Strongylocentrotus purpuratus*. *Proceedings of the Royal Society, B*. 280:1759.
- Kelly MW**, Sanford E, Grosberg RK. (2013) Trade-offs, geography, and limits to thermal adaptation in the tidepool copepod *Tigriopus californicus*. *American Naturalist*. 181:846-854.

<sup>1</sup> undergraduate co-author

- Kelly MW**, Hofmann GE. (2012) Adaptation and the physiology of ocean acidification. *Funct. Ecol.* 27: 980-990.
- Kelly MW**, Grosberg RK, Sanford E. (2012) Love the one you're with: proximity determines mating success in the barnacle *Tetraclita rubescens*. *Molecular Ecology*. 21: 5088–5097.
- Kelly MW**, Sanford E, Grosberg RK. (2012) Limited potential for adaptation to climate change in a tidepool copepod. *Proceedings of the Royal Society, B*. 279: 349–356.<sup>1</sup>
- Sanford E, & **Kelly MW**. (2011) Local adaptation in marine invertebrates. *Annual Review of Mar. Sci.* 3: 509-535.
- Kelly MW**, Sanford E. (2010) The Evolution of mating systems in barnacles. *Journal of Experimental Marine Biology and Ecology*. 392: 37-45.
- Kelly MW**, Rhymer JM (2005). Population genetic structure of a rare unionid (*Lampsilis cariosa*) in a recently glaciated landscape. *Conservation Genetics*. 6: 789-802.

#### **Non-peer-reviewed**

- Kelly MW**, Thapa<sup>2</sup>, B. (*In press*) Evolution and responses to climate change. *In: Encyclopedia of Evolutionary Biology*. Amsterdam, Elsevier Publishing.

#### **TEACHING EXPERIENCE**

- Instructor.** Louisiana State University. Introduction to Evolution. Sp 2014, Sp 2015, F 2015, Sp 2016.
- Instructor.** Friday Harbor Laboratories. FHL 568: Evolutionary Responses to Climate Change in the Sea. Summer 2016.
- Teacher.** Middle School Science, Bronx, NY. Participated in the Teach for America program, which recruits teachers to underserved public schools. Taught 6th, 7th, and 8th grades. Developed science curricula and an after school science program. 1998-2001.

#### **GRANTS**

- 2015 \$140,125.00 The genomic basis of stress adaptation in a marine copepod. *Louisiana Board of Regents*. (2015-2018).
- 2016 \$159,666.00 Genomic variation and local adaptation among natural stocks of eastern oysters (*Crassostrea virginica*) in coastal Louisiana. *Louisiana Sea Grant*. (2016-2018)

#### **INVITED TALKS (last 5 years)**

- 2016 **Keynote Address:** “Does environmental history influence a species’ vulnerability to ocean change?” Gordon Research Seminar in Ocean Global Change Biology. Waterville Valley, NH.
- 2016 “Stress adaptation in marine invertebrates.” Friday Harbor Research Lab, University of Washington. Friday Harbor, WA.
- 2016 “The price of victory: consequences of stress adaptation in marine invertebrates.” LSU Museum of Natural Science
- 2015 "Trade-offs and the evolution of stress tolerance in marine invertebrates" University of Louisiana Lafayette
- 2015 "Trade-offs and the evolution of stress tolerance in marine invertebrates" Rice University, Houston, TX
- 2014 University of Southern California, Marine and Environmental Biology, Los Angeles, CA
- 2014 Hopkins Marine Station, Monterey, CA
- 2014 American Physiology Society Intersociety Meeting: Comparative Approaches to Grand Challenges in Physiology. Speaker and Symposium co-organizer “Acclimate, Adapt or Die: Responses to Global Change.” San Diego, CA
- 2014 American Genetic Association Symposium on Evolution and Plasticity: Adaptive responses by species to human-mediated changes to their ecosystems. Seattle, WA
- 2014 Louisiana State University, Department of Renewable Natural Resources. Baton Rouge, LA
- 2014 University of New Orleans, Department of Biological Sciences. New Orleans, LA
- 2013 University of Washington Program on Climate Change. Friday Harbor, WA
- 2013 University of Maryland, Horn Point Laboratory. Cambridge, MA
- 2013 Univeristy of Connecticut, Marine Sciences Program. Avery Point, CT
- 2013 Univeristy of Alabama, Dauphin Island Sea Lab. Dauphin Island, AL
- 2012 University of Washington, School of Oceanography. Seattle, WA

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<sup>2</sup> reviewed by Faculty of 1000

## **SERVICE**

### **Reviewer**

Manuscripts: *Biochemical Genetics, BMC Evolutionary Biology, Climate Change Responses, Ecology, Ecosphere, Functional Ecology, Global Ecology and Biogeography, Integrative and Comparative Biology, Marine Ecology Progress Series, Marine and Freshwater Behaviour and Physiology, Molecular Ecology, PLOS Genetics, Proceedings of the Royal Society B., Ecology Letters.*

Research Proposals: NSF ad hoc reviewer, Biological Oceanography and SEES OA.

**Undergraduate Mentorship.** 15 undergraduate research assistants mentored for one or more quarters

## **PROFESSIONAL MEMBERSHIPS**

Society for Integrative and Comparative Biology

Society for the Study of Evolution

Western Society of Naturalists