

Kelly Marie Diamond, PhD

Postdoctoral Fellow, Seattle Children's Research Institute

Kelly.Diamond@seattlechildrens.org | [DiamondKMG.github.io](https://github.com/DiamondKMG) | @DiamondKMG

Education

- 2015-2019 Ph.D. Biological Sciences, Clemson University, Clemson, SC
Functional morphology and environmental impacts on migration-related performance in amphidromous goby fishes
- 2013-2015 M.S. Biological Sciences, Clemson University, Clemson, SC
*Environmental effects on fish escape responses: impact of flow on the escape performance of the Hawaiian stream goby, *Sicyopterus stimpsoni**
- 2009-2013 B.S. Biology, University of Central Florida, Orlando, FL
Phylogenetic relationships and morphological variation in pitviper taxa

Professional Appointments

- 2020-Present Postdoctoral fellow, Seattle Children's Research Institute, Seattle, WA

Publications

*Undergraduate student, ‡ International Collaborator

- 2020 Blob RW, Baumann T, **Diamond KM**, Young VKH, Schoenfuss HL. Functional correlations of axial muscle fiber type proportions in the waterfall-climbing Hawaiian stream fish *Sicyopterus stimpsoni*. *Journal of Anatomy*. 236:1160–1166. <https://doi.org/10.1111/taja.13169>
- Schneider NG*, McDamy AJ*, Rubin AM, Schoenfuss HL, Blob RW, **Diamond KM**. Do predators take advantage of prey blind spots? In-stream analysis of predator-prey interactions in Hawaiian stream fishes. *Environmental Biology of Fishes*. *In review*.
- McAlpine-Bellis EA*, Utsumi KL*, Klein JRV*, **Diamond KM**, Gilbert-Smith S*, Garrison GE, Eifler M, Eifler D. Movement patterns and habitat use for sympatric species with differing prey detection strategies. *Herpetologica*. *In revision*.
- Diamond KM**, Lagarde R‡, Ponton D‡, Powder K, Schoenfuss HL, Walker JA, Blob RW. Testing impacts of novel behaviors on functional tradeoffs: escape performance versus climbing in gobiid fishes. *In prep*.
- 2019 Blob RW, Lagarde R‡, **Diamond KM**, Keeffe RM, Bertram RS, Ponton D‡, Schoenfuss HL. Functional diversity of evolutionary innovations: insights from waterfall-climbing kinematics and performance of juvenile gobiid fishes. *Integrative Organismal Biology*. Obz029. <https://doi.org/10.1093/iob/obz029>
- Diamond KM**, Lagarde R‡, Schoenfuss HL, Walker JA, Ponton D‡, Blob RW. Ontogenetic change in escape behavior and performance of fishes experiencing different predator regimes. *Biological Journal of the Linnean Society*. 127: 324-336. <https://doi.org/10.1093/biolinnean/blz055>

- 2017 Taft NK, Taft BN, Henck H, **Diamond KM**, Schoenfuss HL, Blob RW. Comparative morphology and mechanical properties of the lepidotrichia of climbing and non-climbing Hawaiian gobioid fishes. *Cybiurn*. 41(2): 107-115.
- 2016 **Diamond KM**, Schoenfuss HL, Walker JA, Blob RW. Flowing water affects fish fast-starts: escape performance of the Hawaiian stream goby, *Sicyopterus stimpsoni*. *Journal of Experimental Biology*. 219: 3100-3105. <http://jeb.biologists.org/content/219/19/3100>
- 2014 **Diamond KM**, Trovillion D, Allen KE, Malela KM, Noble DA, Powell R, Eifler D, Gifford ME. Individual (co)variation in locomotor performance and field behavior in Curly-tailed Lizards, *Leiocephalus carinatus*. *Journal of Zoology*. 294: 248-254. <http://onlinelibrary.wiley.com/doi/10.1111/jzo.12175/full>

Grants, Fellowships, and Awards (\$137,567)

- 2020 Postdoctoral Research Fellow, Seattle Children's Research Institute (\$106,00)
- 2019 Vision Research Corporation, Phantom Camera Education Challenge (\$11,340)
- Clemson Professional Enrichment Grant (\$1000)
- Clemson Professional Development Grant for Graduate Student Research (\$1000)
- Biological Sciences Graduate Student Association, Travel Award (\$300)
- Alfred 'Hap' Wheeler Distinguished BSGSA Member Award
- 2018 American Philosophical Society, Lewis & Clark Fund for Exploration & Research (\$4300)
- American Museum of Natural History, Theodore Roosevelt Memorial Fund fellowship (\$3413)
- Findley Student Assistance Endowment (\$1500)
- Clemson Professional Enrichment Grant (\$648)
- 2017 Society for Integrative and Comparative Biology Fellowship of Graduate Student Travel (\$2000)
- Biological Sciences Graduate Student Association, Travel Award (\$400)
- Clemson Professional Enrichment Grant (\$750)
- Biological Sciences Graduate Student Association Commitment to Service
- 2016 American Society of Ichthyologists and Herpetologists, Edward C. Raney Grant (\$800)
- Biological Sciences Graduate Student Association, Travel Award (\$400)
- Clemson Professional Enrichment Grants (\$750, \$302, \$414)
- 2015 Biological Sciences Graduate Student Association, Travel Award (\$300)

- 2014 Sigma Xi Grant-in-Aid of Research (\$1000)
Clemson Professional Enrichment Grant (\$650)
- 2014 Biological Sciences Graduate Student Association Commitment to Research
- 2012 Student Government Association Travel Award (\$300)
- 2011 Innovation through Institutional Integration Fellowship (2011-2013)
- 2010 Research and Mentoring Program Scholarship (2010-2011)
Work Force Central Florida Grant for Undergraduate Research
- 2009 Florida Bright Futures Scholarship (2009-2013)

Teaching and Leadership Experience

- 2020 [SlicerMorph](#) virtual workshop instructor
- 2018-2019 Founding member of Clemson University, College of Science Outreach Team
Organized science themed community events
- 2014-2019 Creative Inquiry Mentor, Clemson University
Trained and oversaw independent projects of 9 undergraduate students
- 2013-2019 Graduate teaching assistant. Clemson University
Labs: Vertebrate Biology, Comparative Vertebrate Morphology, Human Physiology, Mammalogy
- 2018 Organizer, Graduate Research Brown Bag seminar series
Invited, advertised, and moderated semester long seminar series to highlight graduate student research
- 2017- 2018 Clemson Hope- Paw Pals
Helped elementary school students to improve writing skills
- 2017 Mentor, Erell Institute
Worked with undergraduate women to collect and analyze habitat use data in desert lizards
- 2016-2018 Representative for Department of Biological Sciences to the College of Engineering and Sciences Student Advisory Board
PR committee and Outreach committee
- 2016-2019 Mentor, New Foundations foster home for children
Worked one on one with a high school student to encourage learning and self esteem
- 2014-2016 Clemson University Natural History Museum. Laboratory and Website Development
Developed content and created interactive display

- 2014-2018 Guest lecture. Clemson University. Vertebrate Biology
Topics include Endothermy vs Ectothermy, Bird diversity, Dinosaurs & other Mesozoic diapsids, Mammal diversity
- 2011-2013 Internet Science and Technology Fair primary school team mentor
Worked with e-learning students on science fair projects

Service Activities

- Reviewer for: *Integrative Organismal Biology, Journal of Fish Biology, Ichthyology and Herpetology.*
- 2020-Present Ask an animal scientist! (<http://askananimalscientist.com/>)
Created a website aimed at allowing kids to ask questions during the Covid-19 shutdown
- 2019-Present Outreach associate for the journal *Integrative Organismal Biology*.
Write blog posts to promote journal articles, all posts can be read [here](#)
- 2019-Present Skype a Scientist volunteer
Skype with kids of all ages to talk about biomechanics, ecology, and how science works!
- 2018 Served on panel for 'Writing a competitive travel grant,' SICB annual meeting, San Francisco, CA
- 2017 Tiger Talks encouraging elementary school students to pursue their interests in STEM
- 2016 Session moderator at the International Congress of Vertebrate Morphology
- 2015-2016 Bring Your Daughter to Clemson Day
- 2014 - 2016 Clemson Relay for Life team member
- 2013-2015 Graduate School Application Workshop, Clemson University

Affiliations

- 2019-Present Sigma Xi
- 2017-Present Society for the Study of Evolution
- 2015-Present International Society of Vertebrate Morphology
- 2014-Present American Society of Ichthyologists and Herpetologists
- 2013-Present Society for Integrative and Comparative Biology
- 2013- Present Clemson Biological Sciences Graduate Student Association
Member 2013-Present. Officer 2014-2015 & 2018

Presentations

*Undergraduate Student, ‡ International Collaborator

- 2020 Linking morphology, performance, and behavior in the migration of stream goby fishes. **KM Diamond**, JG Griner*, R Lagarde‡, D Ponton‡, KE Powder, HL Schoenfuss, JA Walker, RW Blob. Annual SICB meeting. Austin, TX.

JF Griner*, **KM Diamond**, RW Blob. Comparative body shapes of amphidromous goby fishes living in different predator regimes. Annual SICB meeting. Austin, TX.

NG Schneider*, AJ McKamy*, **KM Diamond**, RW Blob. Do predators take advantage of prey blind spots? In-stream analysis of predator-prey interactions in Hawaiian stream fishes. Annual SICB meeting. Austin, TX.

- 2019 Morphology, performance, & anti-predator strategies of gobiid fishes across predator regimes. **KM Diamond**, R Lagarde‡, D Ponton‡, K Powder, HL Schoenfuss, RW Blob. ICVM. Prague, Czech Republic.

Migration performance: gobies do more than just climb waterfalls! **KM Diamond**. Invited seminar. Wake Forest University.

Climbing and escape performance over migration pulses in the Hawaiian goby. **KM Diamond**, HL Schoenfuss, RW Blob. Annual SICB meeting. Tampa, FL

Bendy to the bone: a study of climbing goby vertebrae. GK Forker*, **KM Diamond**, RW Blob. Focus on Creative Inquiry. Clemson, SC

- 2018 Do predators take advantage of prey blind spots? AJ McKamy*, NG Schneider*, **KM Diamond**, RW Blob. SE SICB meeting, Clemson, SC.

Bendy to the bone. GK Forker*, **KM Diamond**, RW Blob. SE SICB meeting, Clemson, SC.

Take it or leave it. Fast-start modulation in the great sculpin *Myoxocephalus polyacanthocephalus*. LM Penrod, A Daddino, **KM Diamond**, JL Johansen, JF Steffensen‡, P Domenici‡. Annual SICB meeting. San Francisco, CA

Where to find the best bugs: a study of habitat use among lizard species with different movement strategies. EA Mcalpine-Bellis*, GE Garrison, S Gilbert Smith*, JRV Klein*, KL Utsumi*, **KM Diamond**, D Eifler, M Eifler. Annual SICB meeting. San Francisco, CA

Does the form of stress matter? A comparison of Pacific sand lance (*Ammodytes hexapterus*). A Daddino, **KM Diamond**, L Penrod, JL Johansen, JF Steffensen‡, P Domenici‡. Annual SICB meeting. San Francisco, CA

2018 Do the best come first? Locomotor performance over the course of migration events in the amphidromous goby fish, *Sicyopterus stimpsoni*. **KM Diamond**, HL Schoenfuss, RW Blob. Annual SICB meeting. San Francisco, CA

2017 Locomotor performance over the course of migration events in the amphidromous goby fish, *Sicyopterus stimpsoni*. **KM Diamond**, RW Blob. Southeastern SICB meeting. Blacksburg, VA

Comparative escape performance of prey fish species that face different degrees of range overlap with predators. **KM Diamond**, HL Schoenfuss, JA Walker, RW Blob. Clemson Biological Sciences Annual Student Symposium. Clemson, SC (3rd place oral presentation)

Does ontogenetic environment influence escape response? Comparative escape responses of goby fishes through ontogeny and among islands. **KM Diamond**, HL Schoenfuss, JA Walker, RW Blob. Annual SICB meeting. New Orleans, LA

Assessing the impacts of environmental contaminants on escape behavior in the migratory stream goby *Sicyopterus stimpsoni*. AM Rubin*, **KM Diamond**, HL Schoenfuss, RW Blob. Annual SICB meeting. New Orleans, LA & Clemson Biological Sciences Annual Student Symposium. Clemson, SC (2nd place in best poster)

Comparative waterfall climbing kinematics of goby fishes from Hawai'i and Réunion: are recently evolved behaviors less variable? RM Keeffe*, **KM Diamond**, R Lagarde‡, D Ponton‡, RS Bertram, HL Schoenfuss, RW Blob. Annual SICB meeting. New Orleans, LA

Mechanical specializations of the fin rays in waterfall-climbing gobiid fishes. NK Taft, BN Taft, **KM Diamond**, HL Schoenfuss, RW Blob. Annual SICB meeting. New Orleans, LA

2016 Does ontogenetic environment correlate with escape behavior in fish? **KM Diamond**, HL Schoenfuss, JA Walker, and RW Blob. Southeastern SICB meeting. Durham, NC

Is fish escape performance influenced by flow? Tests in the Hawaiian stream goby, *Sicyopterus stimpsoni*. **KM Diamond**, HL Schoenfuss, JA Walker, and RW Blob. Annual SICB meeting. Portland, OR

Waterfall-climbing performance of gobiid fishes from La Réunion: how conservative are novel functional behaviors? RS Bertram, HL Schoenfuss, R Lagarde‡, D Ponton‡, **KM Diamond**, T Offerle, and RW Blob. Annual SICB meeting. Portland, OR

Field observation of intraspecific and predatory attack behaviors of the Hawaiian sleeper fish, *Eleotris sandwicensis*. AM Rubin*, **KM Diamond**, HL Schoenfuss, and RW Blob. Presented at Annual SICB meeting. Portland, OR & Clemson Biological Sciences Annual Student Symposium. Clemson, SC

- 2015 Impacts of flow speed and attack direction on the fast-start escape response of the Hawaiian goby, *Sicyopterus stimpsoni*. **KM Diamond**, HL Schoenfuss, JA Walker, and RW Blob. Southeastern SICB meeting. Atlanta, GA.
- Just keep swimming! Testing effects of flow speed and stimulus direction on escape behavior in a Hawaiian gobioid. **KM Diamond**. Clemson Biological Sciences Annual Student Symposium. Clemson, SC
- Fast-start escape behavior in juvenile Hawaiian gobies, *Sicyopterus stimpsoni*: testing effects of flow speed and stimulus direction. **KM Diamond**, HL Schoenfuss, JA Walker, and RW Blob. Presented at: Southeastern SICB meeting. Chapel Hill, NC (2014) and Annual SICB meeting. West Palm Beach, FL (2015)
- 2014 Sistemática y biogeografía de *Bothriechis schlegelii* (Berthold, 1846) (Serpentes: Viperidae), una aproximación molecular y morfológica. JP Hurtado Gómez‡, **KM Diamond**, CL Parkinson, and JM Daza Rojas‡. IV Congreso Colombiano de Zoología. Cartagena de Indias, Colombia
- Combined morphological and molecular analysis of rattlesnake phylogeny. AM Fenwick, **KM Diamond**, CL Parkinson. Southwestern Association of Naturalists Annual Meeting. Stillwater, OK
- Evolutionary history and polymorphism of the eyelash palm pitviper (*Bothriechis schlegelii*). **KM Diamond**, JP Hurtado Gómez‡, JM Daza Rojas‡, CL Parkinson. Biology of the Pitvipers Symposium. Tulsa, OK
- Individual variation in locomotor performance and field behavior in northern curly-tailed lizards (*Leiocephalus carinatus*): **KM Diamond***, ME Gifford, and R Powell. Annual SICB meeting. Austin, TX
- 2013 Evolutionary history and polymorphism in the Eyelash Palm Pit-viper (*Bothriechis Schlegelii*): **KM Diamond**, and CL Parkinson. Presented at: Southeastern Ecology and Evolution Conference and Showcase of Undergraduate Research. Orlando, FL
- 2012 Phylogeny of rattlesnakes (*Crotalus and Sistrurus*) based on morphological and molecular data: **KM Diamond**, AM Fenwick, CL Parkinson. Presented at: Southeastern Ecology and Evolution Conference. Clemson, SC and Showcase of Undergraduate Research. Orlando, FL
- 2011 Understanding evolutionary relationships of rattlesnakes (*Crotalus and Sistrurus*): **KM Diamond**, AM Fenwick, CL Parkinson. Showcase of Undergraduate Research. Orlando, FL
- Combined morphological & molecular analysis of rattlesnake phylogeny: AM Fenwick, **KM Diamond**, CL Parkinson. Biology of the Rattlesnakes Symposium. Tucson, AZ