MATTHEW G. GIRARD

Zoologist

Division of Fishes

Department of Vertebrate Zoology National Museum of Natural History

Smithsonian Institution 10th & Constitution Ave. NW Washington DC, 20560 USA

Website: www.mgirard.fish
Social Media: @Marineiac_Matt

Email: GirardMG@si.edu

EDUCATION

2021	Ph.D.	Ecology and Evolutionary Biology with Honors, University of Kansas
2014	B.S.	Biology with an Ecology Emphasis, Loyola University Chicago

CURRENT APPOINTMENTS

2024–	Zoologist, Division of Fishes, Department of Vertebrate Zoology, National Museum of
	Natural History, Smithsonian Institution
2021–	Research Affiliate, Ichthyology, Biodiversity Institute and Natural History Museum,
	University of Kansas

PREVIOUS APPOINTMENTS

2021–2024	Postdoctoral Fellow, Division of Fishes, Department of Vertebrate Zoology, National
	Museum of Natural History, Smithsonian Institution; Supervisor: Carole C. Baldwin
2016–2021	Graduate Teaching Assistant, University of Kansas; Supervisor(s): see Teaching section
2015–2016	Graduate Research Assistant, Ichthyology, Biodiversity Institute and Natural History
	Museum, University of Kansas; Supervisor: W. Leo Smith
2015	Graduate Collections Assistant, Ichthyology, Biodiversity Institute and Natural History
	Museum, University of Kansas, Supervisor; Andrew C. Bentley
2014	Graduate Teaching Assistant, University of Kansas; Supervisor(s): see Teaching section
2013-2014	Collections Intern, Fishes Division, Field Museum of Natural History; Supervisors: Susan
	Mochel and Mark Westneat
2012–2013	Collections Volunteer, Fishes Division, Field Museum of Natural History; Supervisor:
	Susan Mochel

RESEARCH QUESTIONS

- **▶** What are the relationships among teleost fishes?
- ▶ How do we integrate and arbitrate genotypic and phenotypic data in phylogenetics?
- How do morphological characters evolve in fishes?
- ► How do we leverage modern genomic methods to understand larval- and adult-fish biodiversity?
- ★ What are the macroevolutionary patterns behind spatial distributions?

CONTRACTS, FELLOWSHIPS, AND GRANTS (Total = \$213,867; Stipends = \$181,600; Research funds as PI = \$32,267)

Stipend—\$56,000; Research funds as PI—\$4,000.

\$32,267)	
EXTERNAL FUNDING:	
2022	Postdoctoral Fellowship, National Museum of Natural History, Smithsonian Institution.

2022 Contract, National Oceanic and Atmospheric Administration/Food and Drug

Administration. Stipend—\$20,100.

2021	Postdoctoral Fellowship, National Museum of Natural History, Smithsonian Institution. Stipend—\$56,000; Research funds as PI—\$4,000.
2017	Raney Research Award, American Society of Ichthyologists and Herpetologists. Research funds as PI—\$1,000.
2016	Lerner-Gray Grant for Marine Research, American Museum of Natural History. Research funds as PI—\$1,600.
EXTERNAL APPL	ICATION:
2024	OAR Office of Ocean Exploration and Research, National Oceanic and Atmospheric Administration. Proposal estimated budget—~\$90,000 (Co-PI: Katherine E. Bemis). Not funded first round. To be resubmitted.
Internal Fund	ING:
2025	Smithsonian Institution Barcode Network Grant, National Museum of Natural History, Smithsonian Institution. Research funds as PI—\$6,480.
2023	Postdoctoral Fellowship Extension, National Museum of Natural History, Smithsonian Institution. Stipend—\$31,000; Research funds as PI—\$2,500.
2022	Smithsonian Institution Barcode Network Grant, National Museum of Natural History, Smithsonian Institution. Research funds as PI—\$8,687 (Co-PIs: Carole C. Baldwin and Katherine E. Bemis).
2020	Panorama Small Grant Program, Biodiversity Institute, University of Kansas. Research funds as PI—\$1,000.
2020	Summer Fellowship, Department of Ecology and Evolutionary Biology, University of Kansas. Stipend—\$3,500.
2019	Summer Fellowship, Department of Ecology and Evolutionary Biology, University of Kansas. Stipend—\$2,000.
2018	Summer Fellowship, Department of Ecology and Evolutionary Biology, University of Kansas. Stipend—\$3,000.
2017	Doctoral Student Research Fund, University of Kansas. Research funds as PI—\$2,000.
2016	Panorama Small Grant Program, Biodiversity Institute, University of Kansas. Research funds as PI—\$1,000.
2017	Summer Fellowship, Biodiversity Institute, University of Kansas. Stipend—\$1,750.
2017	Summer Fellowship, Department of Ecology and Evolutionary Biology, University of Kansas. Stipend—\$1,750.
2016	Research Fellowship, Department of Graduate Studies, University of Kansas. Stipend—\$5,000.
2016	Summer Fellowship, Department of Ecology and Evolutionary Biology, University of Kansas. Stipend—\$3,500.
Awards and H	ONORS
2025	Best Young Scholar Paper in Ichthyology (for volume 112 [2024] of Ichthyology &
	Herpetology): Girard, M. G. 2024. Convergent evolution and the Red Sea rover:

Α١

2025	best foung Scholar Paper in Ichthyology (for volume 112 [2024] of Ichthyology &
	Herpetology): Girard, M. G. 2024. Convergent evolution and the Red Sea rover:
	Emmelichthys marisrubri (Teleostei: Emmelichthyidae) is a species of fusilier
	(Lutjanidae: Dipterygonotus). Ichthyology & Herpetology 112:41–52.
2025	Special Act Award: National Museum of Natural History, Smithsonian Institution.
2025	Nominated: 2025 BioOne Ambassador Award.

2024	Cover image: Journal of Morphology volume 285 issue 8.
2024	Header image for main webpage: Global Biodiversity Information Facility (gbif.org).
2024	April 2024 edition of Top & Trending Research in BioOne journals: Girard, M. G. 2024. Convergent evolution and the Red Sea rover: <i>Emmelichthys marisrubri</i> (Teleostei: Emmelichthyidae) is a species of fusilier (Lutjanidae: <i>Dipterygonotus</i>). Ichthyology & Herpetology 112:41–52.
2024	Cover images: NOAA Professional Paper NMFS volume 24: Early Life History and Biology of Marine Fishes: Research inspired by the work of H Geoffrey Moser.
2024	Cover image: Ichthyology & Herpetology volume 112 issue 1.
2023	Editor's Choice Award: Girard, M. G. , et al. 2023. Cusk-eel confusion: revisions of larval <i>Luciobrotula</i> and <i>Pycnocraspedum</i> and re-descriptions of two bythitid larvae (Ophidiiformes). <i>Ichthyological Research</i> 70:474–489.
2021	Tracy I. Storer Award (Best Student Poster Presentation), Ichthyology: Girard, M. G. Evolution of the Archerfishes (Toxotidae). Joint Meeting of Ichthyologists and Herpetologists.
2021	Honors distinction for dissertation research: Department of Ecology and Evolutionary Biology, University of Kansas.
2020	Carlin Graduate Teaching Assistant Award (University Level): Department of Graduate Studies, University of Kansas.
2019	Frederick H. Stoye Award (Best Student Oral Presentation), Ichthyology: Girard, M. G. Morphological support for the relationships among carangiform fishes. Joint Meeting of Ichthyologists and Herpetologists.
2018	Image chosen as one of <i>Nature</i> 's "Best Science Images of the Year: 2018" [Roosterfish] X-ray vision. <i>Nature</i> 564:318–323.
2017	Honors distinction for advancement to candidacy: Department of Ecology and Evolutionary Biology, University of Kansas.
2017	Kenneth B. Armitage Award for Excellence in Teaching (Department Level): Department of Ecology and Evolutionary Biology, University of Kansas.

PUBLICATIONS (See Google Scholar for citation information; peak Altmetric online attention and activity listed, see link for current information; "*" denotes equal-authorship contributions; [M] denotes mentee coauthor; 11 first authored, 24 total).

INVITED PEER-REVIEWED:

Girard, M. G., A. Nonaka, C. C. Baldwin, and G. D. Johnson. 2024. Discovery and description of elaborate larval cusk-eels and the relationships among *Acanthonus*, *Tauredophidium*, and *Xyelacyba* (Teleostei: Ophidiidae), p. 20–42. *In*: Early Life History and Biology of Marine Fishes: Research inspired by the work of H Geoffrey Moser. J. M. Leis, W. Watson, B. C. Mundy, and P. Konstantinidis (eds.). *NOAA Professional Paper NMFS* 24. <u>Gedenkschrift contribution.</u>



https://doi.org/10.7755/PP.24.3 [link to PDF]

Smith, W. L., **M. G. Girard**, H. J. Walker Jr., and M. P. Davis. 2024. The phylogeny of bristlemouths, lightfishes, and portholefishes with a revised family-level classification of the dragonfishes (Teleostei: Stomiiformes), p. 167–184. *In*: Early Life History and Biology of Marine Fishes: Research inspired by the work of H Geoffrey Moser. J. M. Leis, W. Watson, B. C. Mundy, and P. Konstantinidis (eds.). *NOAA Professional Paper NMFS* 24. Gedenkschrift contribution.

https://doi.org/10.7755/PP.24.13 [link to PDF]

Girard, M. G., M. P. Davis, and W. L. Smith. 2020. The phylogeny of carangiform fishes: morphological and genomic investigations of new fish clades. Copeia 108:265–298. "Stoye Award" contribution. https://doi.org/10.1643/CI-19-320 [link to PDF]



Smith, W. L., J. H. Stern, M. G. Girard, and M. P. Davis. 2016. Evolution of venomous cartilaginous and rayfinned fishes. Integrative and Comparative Biology 56:950–961. "Integrative and Comparative Biology of Venom" symposium contribution.



http://doi.org/10.1093/icb/icw070 [link to PDF]

PEER-REVIEWED:

Girard, M. G and K. R. Chovanec. 2025. Unlocking the genomic potential of historical and formalin-fixed specimens: Phylogenetic insights from museum-preserved threadfin fishes (Teleostei: Polynemidae) Peer J 13:e20029.



http://doi.org/10.7717/peerj.20029

Schmitter-Soto, J. J., K. E. Bemis, T. E. Dowling, L. T. Findley, M. G. Girard, D. A. Hendrickson, K. L. Ilves, K. Maslenikov, G. Ruiz-Campos, C. Scharpf, and H. J. Walker Jr. 2025. Addenda, corrigenda, et explanenda to Common and Scientific Names of Fishes, Eighth Edition. Fisheries vuaf083. https://doi.org/10.1093/fshmag/vuaf083

MacLeod, L. M. F. [M], J. K. Galbraith, M. G. Girard, and K. E. Bemis. Redescription of the Freckled Stargazer, Xenocephalus egregius (Uranoscopidae). Ichthyology & Herpetology 113:433–444. https://doi.org/10.1643/i2024112 [link to PDF].



Girard, M. G. and G. D. Johnson. 2024. Novel neurocranial fenestrae and expansions in Monomitopus and Selachophidium (Teleostei: Ophidiidae), with comments on the morphology, taxonomy and evolution of the genera. Journal of Morphology 285:e21753.



https://doi.org/10.1002/jmor.21753 [link to PDF] Girard, M. G., M. D. Santos, and K. E. Bemis. 2024. New species of redbait from the Philippines (Teleostei:





Girard, M. G. 2024. Convergent evolution and the Red Sea rover: Emmelichthys marisrubri (Teleostei: Emmelichthyidae) is a species of fusilier (Lutjanidae: Dipterygonotus). Ichthyology & Herpetology 112:41-52.



https://doi.org/10.1643/i2023048 [link to PDF]

Girard, M. G., H. J. Carter, and G. D. Johnson. 2023. New species of Monomitopus (Ophidiidae) from Hawai'i, with the description of a larval coiling behavior. Zootaxa 5330:265–279. https://doi.org/10.11646/zootaxa.5330.2.5 [link to PDF]



Bemis, K. E.*, M. G. Girard*, M. D. Santos, K. E. Carpenter, J. R. Deeds, D. E. Pitassy, N. A. L. Flores, E. S. Hunter, A. Driskell, K. MacDonald, L. A. Weigt, and J. T. Williams. 2023. A DNA barcode reference library of Philippine market fishes based on ten years of biodiversity sampling. Scientific Data 10.



https://doi.org/10.1038/s41597-023-02306-9 [link to PDF]

Bemis, K. E., J. C. Tyler, A. Kaneko, K. Matsuura, K. Murakumo, V. C. Espíndola, J.-L. Justine, D. M. Tyler, M. G. Girard, and W. E. Bemis. 2023. Pelvic-fan flaring and inflation in the Three-Tooth Puffer, Triodon macropterus (Tetraodontiformes: Triodontidae). Ichthyology & Herpetology 111:222–240. https://doi.org/10.1643/i2022022 [link to PDF]



Girard, M. G., B. C. Mundy, A. Nonaka, and G. D. Johnson. 2023. Cusk-eel confusion: revisions of larval *Luciobrotula* and *Pycnocraspedum* and re-descriptions of two bythitid larvae (Ophidiiformes). *Ichthyological Research* 70: 474–489.



https://doi.org/10.1007/s10228-023-00906-4 [link to PDF]

Pastana, M. N. L., **M. G. Girard**, M. Bartick, and G. D. Johnson. 2022. A novel association between *Erythrocles schlegelii* (Teleostei: Emmelichthyidae) and pelagic tunicates. *Ichthyology & Herpetology* 110:675–679.



https://doi.org/10.1643/i2022008 [link to PDF]

Smith, W. L., M. J. Ghedotti, O. Domínguez-Domínguez, C. D. McMahan, E. Espinoza, R. P. Martin, **M. G. Girard**, and M. P. Davis. 2022. Investigations into the ancestry of the Grape-eye Seabass

(Hemilutjanus macrophthalmos) reveal novel limits and relationships for the Acropomatiformes

(Teleostei: Percomorpha). Neotropical Ichthyology 20:e210160.



https://doi.org/10.1590/1982-0224-2021-0160 [link to PDF]

Girard, M. G., M. P. Davis, Tan H. H., D. J. Wedd, P. Chakrabarty, W. B. Ludt, A. P. Summers, and W. L. Smith. 2022. Phylogenetics of archerfishes (Toxotidae) and the evolution of the toxotid shooting apparatus. *Integrative Organismal Biology* 4:obac013.



https://doi.org/10.1093/iob/obac013 [link to PDF]

Girard, M. G., M. P. Davis, C. C. Baldwin, A. Dettaï, R. P. Martin, and W. L. Smith. 2022. Molecular phylogeny of the threadfin fishes (Polynemidae) using ultraconserved elements. *Journal of Fish Biology* 100:793–810.



https://doi.org/10.1111/jfb.14997 [link to PDF]

Smith, W. L., C. A. Buck^[M], G. S. Ornay, M. P. Davis, R. P. Martin, S. Z. Gibson, and **M. G. Girard**. 2018. Improving vertebrate skeleton images: fluorescence and the non-permanent mounting of cleared-and-stained specimens. *Copeia* 106:427–435.



https://doi.org/10.1643/CG-18-047 [link to PDF]

Strotz, L. C., M. Simões, **M. G. Girard**, L. Breitkreuz, J. Kimmig, and B. S. Lieberman. 2018. Getting somewhere with the red queen. *Biology Letters* 14:20170734.



https://doi.org/10.1098/rsbl.2017.0734 [link to PDF]

Martin, R. P., E. E. Olson, **M. G. Girard**, W. L. Smith, and M. P. Davis. 2018. Light in the darkness: new perspective on lanternfish relationships and classification using genomic and morphological data. *Molecular Phylogenetics and Evolution* 121:71–85.



https://doi.org/10.1016/j.ympev.2017.12.029 [link to PDF]

De Silva, T., A. T. Peterson, J. M. Bates, S. W. Fernando, and **M. G. Girard**. 2017. Phylogenetic relationships of weaverbirds (Aves: Ploceidae): a first robust phylogeny based on mitochondrial and nuclear markers. *Molecular Phylogenetics and Evolution* 109:21–32.



https://doi.org/10.1016/j.ympev.2016.12.013 [link to PDF]

Girard, M. G. and W. L. Smith. 2016. The phylogeny of marine sculpins of the genus *Icelinus* with comments on the evolution and biogeography of the Pseudoblenninae. *Zootaxa* 4171:549–561.



http://doi.org/10.11646/zootaxa.4171.3.9 [link to PDF]

REPORTS:

Gold, Z., S. Brown, A. Collins., M. Girard, K. Goodwin, S. McAllister, C. Meyer, K. Parsons, N. Patin, G. Rouse, L. Sala, E. Satterthwaite, C. Seid, S. Theroux, and R. Wetzer. 2025. Introduction to Developing DNA Reference Barcode Sequences.



https://doi.org/10.5281/zenodo.14867763

MEDIA

PRESS HIGHLIGHTING RESEARCH (Representative but not exhaustive):

NOAA Fisheries, "NOAA Fisheries Partners with Smithsonian to Archive Marine Specimens for Genetic Research," by Mollie Ginther.

Phys.org, "New guide seeks to advance DNA library of marine species," by Brittany Hook.

Ocean Portal, "Revealing the family ties of cusk-eels," by Danielle Hall.

Seafood Source, "US FDA, NOAA release DNA barcode library to identify fish," by Nathan Strout.

NOAA Fisheries, "Raising the bar(codes): New dataset will help fight seafood fraud and protect consumer safety," by Haley Randall.

Discover Magazine, "Hit me with your best shot," by Samantha Hill.

NBC News, "How did archerfish learn to shoot down their prey? A new study has an idea," by Tom Metcalfe.

SYFY WIRE, "Robin Hood of the river! How archerfish evolved to shoot insects out of the air," by Cassidy Ward.

Popular Science, "An archerfish family tree is the best shot yet at the evolution of sniper fish," by Ella Weaver.

Phys.org, "Researchers publish most thorough study yet of 'smart,' spitting archerfishes," by Brendan Lynch.

ScienceShots, "Inner 'blowpipe' explains how archerfish spit water with such deadly force," by Devin Reese.

Smithsonian Magazine, "Meet the expert studying fishes that spit water to hunt," by Abigail Eisenstadt.

National Geographic, "Skeleton photos are getting a boost with the help of gelatin," by Misha Jones.

Discover Magazine, "New Way to Image Skeletons Helps Research, Looks Creepy," by Earnie Mastroanni.

The Verge, "How scientists captured a stunning, hellish menagerie of half-dissolved creatures," by Rachel Becker.

Science Magazine, "These eerie new images reveal the insides of fish and snakes like never before," by Lakshmi Supirya.

CNET, "Skeletons shine under eerie new imaging techniques," by Amanda Kooser.

Science News, "Venomous fish have evolved many ways to inflict pain," by Amber Dance.

INTERVIEWS FOR POPULAR PRESS:

Business Insider, "How Scientists Safeguard 148 Million Specimens At The Smithsonian"

Smithsonian Magazine, "These fish transformed their dorsal fins into taste buds," by Katie Cottingham.

Live Science, "Pearlfish: The eel-like fish that lives up a sea cucumber's butt," by Melissa Hobson.

PARTICIPATION IN TELEVISION SPECIAL:

PBS NOVA, Ocean Invaders: Lionfish. First aired October 26, 2022.

RESEARCH-BASED PRESENTATIONS ("*" Denotes presenter[s]; [M] denotes mentee author)

Institution, Washington, DC (virtual).

INVITED ORAL PRESENTATIONS:

2025	Girard, M. G.*. Introduction to the US EEZ Fishes DNA Reference Library. All Science
	Meeting, Associate Director for Science and Chief Scientist (ADCS) Series, National
	Museum of Natural History, Smithsonian Institution, Washington, DC (virtual).
2025	Meyer, C.*, D. E. MacGuigan*, M. G. Girard*. Intro to ASV Registry and MitoPilot for
	Ocean DNA. IDSC Colloquium, National Museum of Natural History, Smithsonian
	Institution, Washington, DC.
2024	Girard, M. G.*. The diversity and evolution of Rovers and Rubyfishes
	(Emmelichthyidae). All Science Meeting, Associate Director for Science and Chief
	Scientist (ADCS) Series, National Museum of Natural History, Smithsonian

2021	Girard, M. G.* . Evolution and morphology of the archerfish water-shooting apparatus. Vertebrate Zoology Seminar, National Museum of Natural History, Smithsonian Institution, Washington, DC (virtual).
2021	Girard, M. G.* . Evolution of the archerfishes (Toxotidae). Smithsonian Virtual Ichthyology Seminar, National Museum of Natural History, Smithsonian Institution, Washington, DC (virtual).
2019	Smith, W. L.* and M. G. Girard *. Skeletons reimagined. Board of Directors of Biodiversity Institute, Lawrence, KS.
2018	Girard, M. G.* . Approachability and professionalism in the classroom. Invited presentation at the Center for Teaching Excellence Conference for New GTAs, Lawrence, KS.
2017	Girard, M. G.* . Teaching an audience of a similar age. Invited presentation at the Center for Teaching Excellence Conference for New GTAs, Lawrence, KS.
ORAL PRESENTATIONS:	
2025	Girard, M. G.* . Phylogenetic potential of historical DNA from museum specimens: Insights from threadfin fishes (Teleostei: Polynemidae). Joint Meeting of Ichthyologists and Herpetologists, St. Paul, MN.
2025	MacLeod, L. M. F.* ^[M] , K. E. Bemis, S. Farina, and M. G. Girard . Taxonomy of the stargazer genus <i>Uranoscopus</i> (Teleostei: Uranoscopidae) in the western Pacific. Indo-Pacific Fishes Conference, Taipei, Taiwan.
2025	Rose, N. S.*[M], M. A. Fortaleza, J. P. Cabasan, K. L. Labrador, J. J. Lanutan, C. L. Nañola, M. G. Girard , and K. E. Bemis. A New Species of Flathead (Platycephalidae: <i>Elates</i>) From the Philippines. Indo-Pacific Fishes Conference, Taipei, Taiwan.
2024	Girard, M. G.* and G. D. Johnson. Hole-y moly: Morphology and evolution of the genus <i>Monomitopus</i> (Ophidiidae). Joint Meeting of Ichthyologists and Herpetologists, Pittsburgh, PA.
2023	Girard, M. G.* , C. C. Baldwin, and K. E. Bemis. Evolution of the Rovers, Redbaits, and Bonnetmouths. Joint Meeting of Ichthyologists and Herpetologists, Norfolk, VA.
2023	Girard, M. G. , J. H. Carter*, and G. D. Johnson. New Species of <i>Monomitopus</i> from Hawai'i, with the description of a larval coiling behavior. Joint Meeting of Ichthyologists and Herpetologists, Norfolk, VA.
2022	Girard, M. G.* , A. Nonaka, C. C. Baldwin, and G. D. Johnson. Larva of the Gargoyle cusk (<i>Xyelacyba myersi</i>) and its relationship with the Bony-eared assfish (<i>Acanthonus armatus</i>). Joint Meeting of Ichthyologists and Herpetologists, Spokane, WA.
2019	Girard, M. G.* . Morphological support for the relationships among carangiform fishes. Joint Meeting of Ichthyologists and Herpetologists, Snowbird, UT.
2018	Girard, M. G.* . Untangling threadfins: Relationships of Polynemidae using a total evidence approach. Joint Meeting of Ichthyologists and Herpetologists, Rochester, NY.
2017	Girard, M. G.* and W. L. Smith. Relationships of carangiform fishes: a total evidence approach. Joint Meeting of Ichthyologists and Herpetologists, Austin, TX.
2016	Smith, W. L.*, M. G. Girard , J. H. Stern, and M. P. Davis. Phylogenetic and anatomical diversity of venomous, cartilaginous and ray-finned fishes. Joint Meeting of Ichthyologists and Herpetologists, Reno, NV.

2016 Smith, W. L.* and **M. G. Girard**, and J. H. Stern. Phylogenetic and anatomical diversity of venomous, cartilaginous and ray-finned fishes. Society for Integrative and Comparative Biology, Portland, OR.

POSTER PRESENTATION	DNS:
2025	MacLeod, L. M. F.*[M], M. G. Girard , and K. E. Bemis. Depth Distribution of Stargazers (Uranoscopidae). Indo-Pacific Fishes Conference, Taipei, Taiwan.
2024	Tang, K. L.*, R. Farr, S. Ingersoll, and M. G. Girard* . Phylogeny of Ophidiiformes. Joint Meeting of Ichthyologists and Herpetologists, Pittsburgh, PA.
2024	MacLeod, L. M. F.*[M], M. G. Girard , and K.E. Bemis. The deep-water Freckled Stargazer, <i>Xenocephalus egregius</i> (Uranoscopidae): New records, photographs, and mitochondrial genome. Joint Meeting of Ichthyologists and Herpetologists, Pittsburgh, PA.
2024	Rose, N. E.*[M], K. Labrador, M. Fortaleza, J. Cabasan, C. Nañolat, M. G. Girard , and K. E. Bemis. New species of flathead (Platycephalidae: <i>Elates</i>) from the Philippines, with notes on the biology of the genus. Joint Meeting of Ichthyologists and Herpetologists, Pittsburgh, PA.
2023	Bemis, K. E., M. G. Girard, Mudjekeewis D. S., K. E. Carpenter, J. R. Deeds, D. E. Pitassy*, N. A. L. Flores, E. S. Hunter, A. Driskell, K. MacDonald, L. A. Weigt, N. Rose*[M], and J. T. Williams. Biodiversity of Philippine Fishes: A DNA barcode reference library based on voucher specimens highlights remaining taxonomic questions in the region. Joint Meeting of Ichthyologists and Herpetologists, Norfolk, VA.
2022	Smith, W. L.*, H. J. Walker, M. G. Girard , and M. P. Davis. The phylogeny and taxonomy of the stomiiform bristlemouths and portholefishes. Joint Meeting of Ichthyologists and Herpetologists, Spokane, WA.
2021	Girard, M. G.* . Evolution of the Archerfishes (Toxotidae). Joint Meeting of Ichthyologists and Herpetologists, Phoenix, AZ (virtual).
2019	Smith, W. L.*, K. R. Smith*, and M. G. Girard *. <i>Copeia</i> improvements: open access, publication time, and other changes. Joint Meeting of Ichthyologists and Herpetologists, Snowbird, UT.
2017	Smith, W. L.*, C. A. Buck ^[M] , S. Z. Gibson, M. P. Davis, R. P. Martin, and M. G. Girard . Techniques for the improved visualization of vertebrate anatomy. Joint Meeting of Ichthyologists and Herpetologists, Rochester, NY.
2016	Girard, M. G.* and W. L. Smith. Carangiformes: relationships and anatomical investigation. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.
2016	Girard, M. G.* and W. L. Smith. Intra- and interspecific relationships of sculpins in genus <i>Icelinus</i> . Society for Integrative and Comparative Biology, Portland, OR.
2015	Girard, M. G.* and W. L. Smith. Intra- and interspecific relationships of sculpins in genus <i>Icelinus</i> . Joint Meeting of Ichthyologists and Herpetologists, Reno, NV.

CERTIFICATIONS

SCUBA DIVING (110 le	ogged scientific dives; 400+ recreational dives; max depth certification = 130 fsw):
Annual renewal	Scientific Diver, American Association of Underwater Scientist (AAUS). 1 July 2025; 1
	June 2024; 1 June 2023.
Biennial renewal	Diving First Aid for Professional Divers Version 3.0, Divers Alert Network (DAN). 5
	November 2024; 22 March 2023.

2023	Advanced Open Water Diver, Professional Association of Diving Instructors (PADI).
2023	Nitrox Diver (EAN-40), Technical Diving International (TDI).
2023	Diabetes and Recreational Diving, Divers Alert Network (DAN).
2023	Prepared Diver, Divers Alert Network (DAN).
2004	Open Water Diver, Professional Association of Diving Instructors (PADI).

RESEARCH INSTRUMENTS:

Operator, General Electric Phoenix V|tomelx M 240/180kV Dual Tube μCT Scanner,
 Scientific Imaging, National Museum of Natural History, Smithsonian Institution.
 Operator, Bruker SkyScan 1173 High-Energy Spiral Scan Micro-CT scanner, Friday

Harbor Laboratories, University of Washington.

MUSEUM COLLECTION CARE AND MAINTENANCE:

2023 Respirator certification, Office of Safety, Health and Environmental Management,

Occupational Health Services Center, Smithsonian Institution.

2023 Introduction to EMu collections database, Information Technology Office, National

Museum of Natural History, Smithsonian Institution.

MUSEUM COLLECTION BUILDING AND CURATION

PERMITTING AND PROJECT ADMINISTRATION:

2024— Co-Pl, Identification of the Marine Fish Larvae of Florida: Linking Voucher Specimens to Blackwater Photographs, Florida Fish and Wildlife Conservation Commission permit

SAL-21-2155A-SR and SAL-24-2155-SR (PI: Carole C. Baldwin).

DIGITIZATION:

2024–2025 Imaging NMNH primary fish types in collaboration with Imaging Services, Digitization

Program Office, Smithsonian Institution. Name-bearing specimens photographed in ultra-high resolution with medium-format camera to facilitate use of collection materials on a global scale (With: Diane Pitassy, and Nathan Anderson).

<u>COLLECTING EVENTS AND EXPEDITIONS:</u> (23 events completed; 222 total field days; 8 pending field days; see <u>Bionomia</u> for additional collection and specimen information)

December 2025 Curação: Sampling deep reefs of the southern Caribbean using conventional scuba

diving and human-occupied submersible *Curasub*. Duration: 8 days. Specimens and tissues of fishes to be accessioned by the National Museum of Natural History, Smithsonian Institution. Eleven temperature loggers to be retrieved and re-deployed.

August 2025 Vietnam: Markets of the eastern coast for FDA Seafood DNA Reference Library.

Duration: 16 days. Specimens and tissues of fishes accessioned and cataloged by the

National Museum of Natural History, Smithsonian Institution.

June 2025 Hawai'i: Sampling frozen fish specimens and rescuing orphaned fish collection from

NOAA Pacific Islands Fisheries Science Center for U.S. National Fish DNA

Reference Library. Duration: 14 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution.

January 2025 Woods Hole: Sampling frozen fish specimens from NOAA Northeast Fisheries Science

Center for U.S. National Fish DNA Reference Library. Duration: 10 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural

History, Smithsonian Institution.

December 2024 Curação: Sampling deep reefs of the southern Caribbean using conventional scuba diving and human-occupied submersible Curasub. Duration: 11 days. Specimens and tissues of fishes to be accessioned by the National Museum of Natural History, Smithsonian Institution. Eleven temperature loggers retrieved and re-deployed. Eleven Autonomous Reef Monitoring Systems (ARMS) retrieved. September 2024 Atlantic Ocean: Deep-sea trawling in the Mid-Atlantic Bight aboard NOAA Ship Henry B. Bigelow for U.S. National Fish DNA Reference Library. Duration: 23 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution. May 2024 Florida: Blackwater diving along the Atlantic coast. Duration: 5 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution. January 2024 Vietnam: Markets of the eastern coast for FDA Seafood DNA Reference Library. Duration: 17 days. Specimens and tissues of fishes accessioned by the National Museum of Natural History, Smithsonian Institution. December 2023 Curação: Sampling deep reefs of the southern Caribbean using conventional scuba diving and human-occupied submersible Curasub. Duration: 7 days. Specimens and tissues of fishes to be accessioned by the National Museum of Natural History, Smithsonian Institution. Eleven temperature loggers retrieved and re-deployed. Atlantic Ocean: Deep-sea trawling in the Mid-Atlantic Bight aboard NOAA Ship Henry September 2023 B. Bigelow. Duration: 23 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution. August 2023 Florida: Blackwater diving along the Atlantic coast. Duration: 7 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution. June 2023 Curação: Sampling deep reefs of the southern Caribbean using conventional scuba diving and human-occupied submersible Curasub. Duration: 8 days. April 2023 Panama: Scientific-diving training at Smithsonian Tropical Research Institute (STRI), Bocas del Toro Research Station. Duration: 8 days. December 2022 Curação: Sampling deep reefs of the southern Caribbean aboard human-occupied submersible Curasub. Duration: 7 days. Specimens and tissues of fishes accessioned and cataloged by the Burke Museum of Natural History and Culture, University of Washington and the National Museum of Natural History, Smithsonian Institution. Eleven temperature loggers retrieved and re-deployed. Atlantic Ocean: Deep-sea trawling in the Mid-Atlantic Bight aboard NOAA Ship Henry September 2022 B. Bigelow. Duration: 26 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution, and the Biodiversity Institute, University of Kansas. May 2022 Florida: Blackwater diving along the Atlantic coast. Duration: 4 days. Specimens and tissues of fishes accessioned and cataloged by the National Museum of Natural History, Smithsonian Institution. Curação: Sampling deep reefs of the southern Caribbean aboard human-occupied April 2022 submersible Curasub. Duration: 7 days. Specimens and tissues of fishes accessioned and cataloged by the Burke Museum of Natural History and Culture, University of Washington and the National Museum of Natural History, Smithsonian Institution. Eleven temperature loggers retrieved and re-deployed.

June 2018	Florida: Fishing along the Gulf coast and mangrove forests. Duration: 2 days. Specimens and tissues of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
June 2017	Florida: Fishing along the Gulf coast and mangrove forests. Duration: 2 days. Specimens of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
May 2016	California: Deep-sea trawling in the San Diego Trough aboard R/V Robert Gordon Sproul. Duration: 5 days. Specimens and tissues of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
December 2016	Florida: Fishing along the Gulf coast and mangrove forests. Duration: 2 days. Specimens of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
December 2015	Florida: Fishing along the Gulf coast and mangrove forests. Duration: 2 days. Specimens of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
November 2014	Taiwan: Markets of the eastern and southern coasts. Duration: 10 days. Specimens and tissues of fishes accessioned and cataloged by the Biodiversity Institute, University of Kansas.
September 2013	Illinois: Seining Piscasaw and Nippersink creeks. Duration: 3 days. Specimens of fishes and invertebrates housed at Loyola University Chicago.
September 2012	Illinois: Seining in Piscasaw and Nippersink creeks. Duration: 3 days. Specimens of fishes and invertebrates housed at Loyola University Chicago.

MUSEUM EXHIBITS AND DIGITAL CONTENT

CONTENT ADVISOR:	
2024	Anglerfish Lure Prey Throughout the Ocean (virtual), Ocean Portal, National Museum of Natural History, Smithsonian Institution.
2022	The Complicated Tale of Salmon and Trout (virtual), Ocean Portal, National Museum of Natural History, Smithsonian Institution.
2020	Under the Skin (hybrid), Bruce Museum (Greenwich, CT).
2019	Deep-Scattering Layer: Daily Migration of Ocean Animals (in person), University of Kansas Natural History Museum.
Onicot Doctor outcon	

OBJECT	PREPARATOR:
---------------	-------------

Object FREFARATOR.	
Forthcoming	From These Lands (in person), content from Division of Fishes, National Museum of
	Natural History, Smithsonian Institution.
2020	Under the Skin (hybrid), Bruce Museum (Greenwich, CT).
2013	The Machine Inside: Biomechanics (in person), Field Museum of Natural History.
2013	Opening the Vaults: Wonders of the 1893 World's Fair (in person), Field Museum of Natural
	History.

EXPERIENCE GAINED FROM ASSISTANTSHIPS, INTERNSHIPS, AND VOLUNTEER ACTIVITIES

2017–2020 Dermestid-Beetle Colony Assistant, Biodiversity Institute, University of Kansas.

Responsible for preparing skeletal specimens in and performing maintenance of KU dermestid beetle colony.

2015	Collections Assistant, Ichthyology Division, Biodiversity Institute, University of Kansas. Responsible for curating KU Ichthyology Teaching Collection, performing collection maintenance, and identification of recent Taiwanese fish collections.
2013–2014	Collections Intern, Division of Fishes, Field Museum of Natural History. Responsible for identification and digitization of deep-sea fishes, Eastern Pacific fishes, and coral reef fishes from Palau.
2012–2013	Collections Volunteer, Division of Fishes, Field Museum of Natural History. Responsible for processing skeletal material of specimens from Gulf of Mexico and Eastern Pacific.

INSTITUTIONAL SERVICE AND OUTREACH (Event audience and/or additional information listed in parentheses, where applicable)

National Museum of Natural History, Smithsonian Institution:				
2025	Speaker, Ocean DNA Tour and Discussion (Museum Executive, Advancement, and			
	Communications staff).			
2025	Content Expert, An Evening With Finspan: World Ocean Day Board Game Night, Office of Education, Outreach, and Visitor Experience (EOVE).			
2025	Master of Ceremonies, Discussion Panel, Buck Fellow Symposium and Networking Event.			
2025	Selection Committee, Natural History Research Experiences (NHRE).			
2024	Speaker, Science Snacks (October; Museum staff).			
2024	Speaker, Smithsonian Congressional Night (Members of the U.S. Congress,			
	Congressional staff, and their families).			
2024	Speaker, Science Snacks (April; Museum Advisory Board).			
2024	Selection Committee, Natural History Research Experiences (NHRE).			
2022	Speaker and Instructor, Albert Einstein Distinguished Educator Fellows from U.S. Department of Energy.			

SMITHSONIAN TROPICAL RESEARCH INSTITUTE, SMITHSONIAN INSTITUTION:

2023	Review Committee, D. Ross Robertson Research Award Fellowship for Field Studies on
	Neotropical Shore Fishes.
2023	Review Committee, D. Ross Robertson Research Award Fellowship for Field Studies on
	Neotropical Deep-reef Fishes.

BIODIVERSITY INSTITUTE, UNIVERSITY OF KANSAS:				
2019	Videography Team, One-Day-One-KU Fund Raising Event.			
2019	Speaker, Discovery Day: Marine Life (~350 Museum patrons).			
2018	Speaker, Stand Up for Science (~600 Museum patrons).			
2016–2017	Student Representative (elected), Research Planning Committee.			
2016–2017	Selection Committee, Panorama Grant.			
2014	Speaker, Party in the Panorama.			
2016	Speaker, Carnival of Chemistry, University of Kansas (~500 Museum patrons).			
2016	Speaker, DNA Day, Basehor-Linwood High School, KS. (~50 students).			

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY, UNIVERSITY OF KANSAS:

2018–2019	President (elected), Graduate Student Organization.
2018–2019	Student Representative (ex officio without voting rights), Executive Committee.

2018–2019	Student Representative (elected, with voting rights), Strategic Planning Committee.
2017–2018	Vice President (elected), Graduate Student Organization.
2017–2018	Student Representative (with voting rights), Self-Study and External Review
	Committee.
2016–2018	Speaker, Marine Biology Modules, Girl Scouts of America. (~200 Girl Scouts).
2015–2016	Social Committee (elected), Graduate Student Organization.

FIELD MUSEUM OF NATURAL HISTORY:

2015	Speaker, Members' Night (~8,000 Museum members).
2014	Speaker, Members' Night (~7,000 Museum members).
2013	Speaker, Members' Night (~10,000 Museum members).

SOCIETAL MEMBERSHIPS

2023–	Scientific Diver	American .	Association of	Underwater	Scientist (AAUS).
2023	Scientific Diver, /	WILL TO THE WILL A	1330Clarion or	Officer water	JCICIIII31 (7 17 10 J).

2023– Member, American Fisheries Society (AFS).

2016– Member, The Society for Integrative & Comparative Biology (SICB).
 2013– Member, American Society of Ichthyologists and Herpetologists (ASIH).

SOCIETAL SERVICE

2016

AMERICAN FISHERIES SOCIETY / AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS:

2023– Names of Fishes Committee.

AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS:		
2023–	Ichthyological and Herpetological Collections Committee.	
2021–	Illustration Editor (elected), <i>Ichthyology & Herpetology</i> .	
2018–	Board of Governors (ex officio with voting rights).	
2018–	Publication Policy Committee (ex officio with voting rights).	
2025	Chair, Selection Committee, John G. Lundberg and Lucinda McDade Dissertation Award in Comparative and Phylogenetic Ichthyology.	
2024	Selection Committee, John G. Lundberg and Lucinda McDade Dissertation Award in Comparative and Phylogenetic Ichthyology.	
2024	Selection Committee, Best Paper in Ichthyology & Herpetology 2023.	
2023	Selection Committee, Best Ichthyological Paper in Ichthyology & Herpetology 2022.	
2022–2023	Inaugural Selection Committee, John G. Lundberg and Lucinda McDade Dissertation Award in Comparative and Phylogenetic Ichthyology.	
2022	Judge, Frederick H. Stoye Award in Genetics, Development, and Morphology.	
2021	Selection Committee, Best Ichthyological Paper in Copeia 2020.	
2020	Selection Committee, Best Ichthyological Paper in Copeia 2019.	
2018–2020	Illustration Editor (elected), Copeia.	
2018–2020	Student Representative (elected, with voting rights), Long Range Planning and Policy Committee.	
2018	Chair (elected), Committee on Student Participation.	
2017	Acting Chair (elected), Committee on Graduate Student Participation.	

Graduate Student Participation.

Chair (elected) Clark Hubbs' Travel Award and Book Raffle Board, Committee on

JOURNAL SERVICE

2015— Reviewer for 62 manuscripts in the following 19 journals:

Acta Zoologica (2) Mitochondrial DNA Part B: Resources (3)
Copeia (11) Molecular Phylogenetics and Evolution
Evolution NOAA Professional Paper NMFS (2)

Fisheries Research PLoS ONE

Genome Biology and Evolution Scientific Reports (2)
Ichthyological Research Species Diversity

Ichthyology & Herpetology (13) Zoological Journal of the Linnaean Society (2)

iScience ZooKeys Journal of Biogeography Zootaxa (10)

Journal of Fish Biology (7)

MENTORING ([P] Denotes coauthored presentation; [U] denotes coauthored publication; [D] denotes defended thesis/dissertation)

GRADUATE STUDENTS (2 students):

2023–[3 P,1 U] Leo MacLeod, Doctoral Candidate, Howard University. Project: Evolution of stargazers

(Uranoscopidae) (Primary Advisor: Katherine E. Bemis).

Victor Tang, Masters Student, National Taiwan University. Project: Species diversity of

the genus Plectranthias (Anthiadidae) (Primary Advisor: Katherine E. Bemis).

UNDERGRADUATE STUDENTS (7 students):

2023 _{— [2 P]}	Ned Rose, Undergraduate Student, Virginia Polytechnic Institute and State University. Project: Species diversity of the genus <i>Elates</i> (Primary Advisor: Katherine E. Bemis).
2025 [1 D]	Silvia Wright, Undergraduate Student, University of Maine. Project: A phylogenetic exploration of RAG-1 and RAG-2 in select invertebrate and vertebrate marine species (Primary Advisor: Ian Bricknell).
2020	Eric Fuqua, Undergraduate Student, University of Kansas. Project: Identification of North American freshwater fishes (Primary Advisor: W. Leo Smith).
2019–2020	David Wolf, Undergraduate Student, University of Kansas. Project: Interrelationships of bristlemouth fishes (Gonostomatidae) (Primary Advisor: W. Leo Smith).
2018–2019	Xavier Urbina, Undergraduate Student, University of Kansas. Project: Morphometrics of mail-cheeked fishes (Primary Advisor: W. Leo Smith).
2016–2018	Chesney Buck, Student, Van-Go Inc. Project: Re-imagination of wet- and dry-skeleton photography ^[P, U] (Primary Advisor: W. Leo Smith).
2013–2014	Nicole Gracias, Undergraduate Student, Loyola University Chicago. Project: Digitization of Palauan fishes (Primary Advisor: Susan Mochel).

TEACHING

PEDAGOGICAL TRAINING:

Spring 2017 BIOL 801: Scientific Teaching in Biology, University of Kansas.

DEVELOPMENT OF COURSE CONTENT:

Spring 2021 BIOL 150: Introductory Biology, University of Kansas. Development of Biology of SARS-

CoV-2 lab activities (virtual).

Fall 2020 BIOL 152: Introductory Biology, University of Kansas. Development of Biology of SARS-

CoV-2 lab activities (virtual).

Spring 2020	BIOL 592: Ichthyology, University of Kansas. Development of 11 lab lectures and anatomy lab activity (partially virtual due to COVID-19 pandemic).
Spring 2018	BIOL 592: Ichthyology, University of Kansas. Development of 11 lab lectures, anatomy lab activity, and study tools.
Fall 2017	BIOL 413: History and Diversity of Organisms, University of Kansas. Development of six lab lectures and activities on opisthokonts.
Fall 2016	BIOL 413: History and Diversity of Organisms, University of Kansas. Development of five lab lectures and activities on metazoans.
Spring 2016	BIOL 592: Ichthyology, University of Kansas. Development of six lab lectures and study tools.
GUEST CLASSROOM	LECTURES (8 lectures):
Spring 2022	BIOL 412: Evolution and Diversity of Fishes, Professor Jacqueline F. Webb, University of Rhode Island. Title: Phylogeny and function of archerfishes (virtual).
Fall 2021	BIOL 102: Introductory Zoology, Professor Lukas B. Klicka, Peru State College. Title: The diversity of fishes (virtual).
Spring 2021	BIOL 153: Principles of Organismal Biology Honors, Professor Mark E. Mort, University of Kansas. Title: Did you know you are a fish? (virtual).
Spring 2019	BIOL 152: Principles of Organismal Biology, Professors Jenny Archibald and W. Leo Smith, University of Kansas. Title: Animal skeletal and muscular systems.
Spring 2018	BIOL 592: Ichthyology, Professor W. Leo Smith, University of Kansas. Title: Dichotomy of predators and prey.
Fall 2017	BIOL 413: History and Diversity of Organisms, Professors Christopher H. Haufler and Richard E. Glor, University of Kansas. Title: There's no such thing as a jellyfish: evolution and diversity of Cnidaria and Ctenophora.
Fall 2016	BIOL 122: Principles of Organismal Biology, Professor Lukas B. Klicka, Haskell Indian Nations University. Title: Your sarcopterygian self: how phylogeny helps us understand life.
Spring 2016	BIOL 592: Ichthyology, Professor W. Leo Smith, University of Kansas. Title: Fishes as predators and prey.
GRADUATE TEACHING	G POSITIONS ("*" Denotes M. G. Girard listed as an instructor of record; 7 different courses;
Spring 2021	Laboratory Assistant*, BIOL 150: Introductory Biology, University of Kansas,
. 5	Supervisor: Julie A. Campbell. Enrollment: 235 students.
Spring 2021	Laboratory Assistant*, BIOL 152: Principles of Organismal Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 409 students.
Spring 2021	Laboratory Assistant*, BIOL 153: Principles of Organismal Biology Honors, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 42 students.
E 11.0000	1 1

Laboratory Assistant*, BIOL 150: Introductory Biology, University of Kansas,

Laboratory Assistant*, BIOL 151: Introductory Biology Honors, University of Kansas,

Laboratory Assistant*, BIOL 152: Principles of Organismal Biology, University of

Kansas, Supervisor: Julie A. Campbell. Enrollment: 223 students.

Supervisor: Julie A. Campbell. Enrollment: 620 students.

Supervisor: Julie A. Campbell. Enrollment: 36 students.

Fall 2020

Fall 2020

Fall 2020

Spring 2020	Laboratory Assistant*, BIOL 150: Introductory Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 239 students.
Spring 2020	Laboratory Assistant*, BIOL 152: Principles of Organismal Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 414 students.
Spring 2020	Laboratory Assistant*, BIOL 153: Principles of Organismal Biology Honors, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 54 students.
Spring 2020	Lecture and Laboratory Assistant, BIOL 592: Ichthyology, University of Kansas, Supervisor: W. Leo Smith. Enrollment: 17 students.
Fall 2019	Laboratory Assistant*, BIOL 150: Introductory Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 613 students.
Fall 2019	Laboratory Assistant*, BIOL 152: Principles of Organismal Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 152 students.
Spring 2019	Lecture Assistant, BIOL 152: Principles of Organismal Biology, University of Kansas, Supervisors: Jenny Archibald and W. Leo Smith. Enrollment: 462 students.
Spring 2018	Lecture and Laboratory Assistant, BIOL 592: Ichthyology, University of Kansas, Supervisor: W. Leo Smith. Enrollment: 24 students.
Fall 2017	Lecture Assistant and Laboratory Instructor*, BIOL 413: History and Diversity of Organisms, University of Kansas, Supervisors: Christopher H. Haufler and Richard E. Glor. Enrollment: 36 students.
Spring 2017	Lecture Assistant, BIOL 428: Introduction to Systematics, University of Kansas, Supervisors: Kirsten Jensen and Michael S. Engel. Enrollment: 40 students.
Spring 2017	Lecture Assistant, BIOL 152: Principles of Organismal Biology, University of Kansas, Supervisors: Mark E. Mort and W. Leo Smith. Enrollment: 369 students.
Fall 2016	Lecture Assistant and Laboratory Instructor*, BIOL 413: History and Diversity of Organisms, University of Kansas, Supervisors: Christopher H. Haufler and Robert M. Timm. Enrollment: 65 students.
Spring 2016	Lecture and Laboratory Assistant, BIOL 592: Ichthyology, University of Kansas, Supervisor: W. Leo Smith. Enrollment: 17 students.
Fall 2014	Laboratory Instructor*, BIOL 150: Introductory Biology, University of Kansas, Supervisor: Julie A. Campbell. Enrollment: 127 students.

LEARNING MANAGEMENT SYSTEMS AND SOFTWARE:

Proficient with: Blackboard, Canvas, Gradescope, iClicker, Launchpad, Moodle, and ZipGrade.