

CALEB D. MCMAHAN

Field Museum of Natural History
1400 S. Lake Shore Drive
Chicago, IL 60605 USA

Curriculum Vitae, 2021
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Education:

Ph.D., Biological Sciences (2015), Louisiana State University; Advisor: Dr. Prosanta Chakrabarty
Dissertation: "Diversification and Biogeography of Neotropical Cichlids"
M.S., Biological Sciences (2010), Southeastern Louisiana University; Advisor: Dr. Kyle Piller
Thesis: "Molecular Systematics of Middle American Fishes"
B.S., Biology [with honors] (2007), Erskine College; Advisor: Dr. Nora Espinoza

Research Keywords: systematics, biogeography, evolution, ecology, Neotropics, fishes

Positions & Appointments:

Subject Editor, *ZooKeys* (2021-present)
Head of Zoology Collections, Field Museum of Natural History (2020-present)
Affiliate Scientist, University of Chicago, Consortium for Advanced Science & Engineering (2020-present)
Research Associate, University of Kansas Biodiversity Research Institute & Natural History Museum (2019-present)
IACUC member, DePaul University, Chicago (2017-present)
Collections Manager of Fishes (Ichthyologist), Field Museum of Natural History (2014-present)

Grants & Funding:

2021 Research Award, Grainger Center, FMNH – Population Genomics and Biogeography of an Economically Important Neotropical fish; \$9,000
2021 Continued field studies of fishes in El Salvador – Negaunee Foundation; \$5000
2020 FMNH Women's Board award – Re-visiting Protected Areas in Peru (with Lesley de Souza); \$10,000
2019 Research Award, Grainger Center, FMNH – Phylogenomics in Lowland Neotropical Rivers; \$11,000
2019 Research award, FMNH – Aquatic Biodiversity in the Highlands of Guatemala; \$20,000
2019 MCSF Award – fieldwork in Bangladesh, Field Museum of Natural History; \$5,000
2019 Negaunee Foundation Award – New Thermal Printing Capabilities for Collections; \$10,000
2018 MCSF Award – fieldwork in Honduras, Field Museum of Natural History; \$4,500
2016 Research award, FMNH – Comparative freshwater biodiversity in El Salvador (with Crystal Maier); \$22,000
2015 Science Innovation Award, FMNH – Reassessment of Gulf of Mexico Fishes at The FMNH; \$15,500
2015 Negaunee Foundation Research Award – Change over time in Mexican fishes; \$50,000
2015 MCSF Award – fieldwork in Guatemala, Field Museum of Natural History; \$10,000
2014 Lerner-Gray Research Grant, American Museum of Natural History
2013 NSF Doctoral Dissertation Improvement Grant – DEB-1311408
2012 Collections Study Grant, The Field Museum, Chicago IL
2009 Lerner-Gray Research Grant, American Museum of Natural History
2009 Raney Research Grant, American Society of Ichthyologists and Herpetologists

Awards and Honors:

2014 Outstanding Graduate Student Award, LSU Museum of Natural Science
2013 Finalist, Wilks Award – Southwest Association of Naturalists (SWAN meeting 2013)
2012 Stoye Award, American Society of Ichthyologists and Herpetologists meeting, Vancouver, Canada
2007 Ellison Biology Award, Erskine College
2007 1st place Field Biology research presentations (SCAS Annual Meeting 2007)
2007 Top Undergraduate Researchers in South Carolina (AAAS), SCAS Annual Meeting 2007
2006 Who's Who among American Colleges & Universities
2006 T.D. Brown Scholarship in Biology, Erskine College
2006 Research Training Program, Smithsonian NMNH (Advisor: Dr. George Zug)

- 2006 SC Wildlife Federation Scholarship
- 2005 Research grant from SC Independent Colleges & Universities (SCICU)
- 2005 T.D. Brown Scholarship in Biology, Erskine College
- 2004 βββ Award for Achievement in Freshman Biology
- 2003 2nd place Botany Research Award (SCAS annual meeting 2003)
- 2002 Research grant from the South Carolina Academy of Science (SCAS)

Publications:

* *undergraduate/graduate student coauthors*

Published or In Press:

- 43. HOU, L.*, **MCMAHAN, C.D.**, MCNEISH, R., MUNNO, K., ROCHMAN, C., & T. HOELLEIN. *In Press*. A fish tale: A century of museum specimens reveal increasing microplastic concentrations in freshwater fish. *Ecological Applications*.
- 42. **MCMAHAN, C.D.**, MONTEJO, C.F.*, GINGER, L., CARRASCO, J.C., CHAKRABARTY, P., & W.A. MATAMOROS. 2020. Climate change models predict decreases in the range of a microendemic freshwater fish in Honduras. *Scientific Reports* 10: 12693.
- 41. MIYAMOTO, K., **MCMAHAN, C.D.**, & A. KANEKO. 2020. *Parascolopsis akatamae*, a new species of dwarf monacle bream (Perciformes: Nemipteridae) from the Indo-West Pacific, with redescription of closely related species *P. eriomma*. *Zootaxa* 4881(1): 91-103.
- 40. ELÍAS, D.J.*, **MCMAHAN, C.D.**, MATAMOROS, W.A., GÓMEZ-GONZÁLEZ, A.[†]*, CHAKRABARTY, P., & K.R. PILLER. 2020. Scale(s) Matter: Deconstructing an Area of Endemism for Middle American Freshwater Fishes. *Journal of Biogeography* 47(11): 2483-2501.
- 39. LARDIZABAL, C.C., MARTINEZ, D.E., ZAMORA, L.E., **MCMAHAN, C.D.**, & W.A. MATAMOROS. 2020. First insular record of the cichlid *Mayaheros urophthalmus* (Günther, 1862) (Cichliformes: Cichlidae) on an island 70 kilometers offshore in the Honduran Caribbean. *Journal of Fish Biology* 97(4): 1273-1275.
- 38. MURRAY, C.M., RUSSO, P.*, ZORRILLA, A.*, & **C.D. MCMAHAN**. 2019. Divergent Morphology among Populations of the New Guinea Crocodile, *Crocodylus novaeguineae* (Schmidt, 1928): Diagnosis of an Independent Lineage and Description of a New Species. *Copeia* 107(3): 517-523.
- 37. **MCMAHAN, C.D.**, MATAMOROS, W.A., ELÍAS, D.J.*, & K.R. PILLER. 2019. Species or population? Systematic status of *Vieja coatlicue* (Teleostei: Cichlidae). *Neotropical Ichthyology* 17(2): e190004.
- 36. MATAMOROS, W.A., DOMÍNGUEZ-CISNEROS, S.E., VELÁZQUEZ-VELÁZQUEZ, E., & **C.D. MCMAHAN**. 2018. Description of a new species of killifish of the genus *Profundulus* (Atherinomorpha: Profundulidae) from the Mexican state of Oaxaca. *Copeia* 106(2): 239-246.
- 35. ANGULO, A., CLÁUDIA SANTOS, A., LÓPEZ, M., LANGEANI, F., & **C.D. MCMAHAN**. 2018. A new species of *Astyanax* Baird & Girard, 1854 (Characiformes: Characidae) from Costa Rica and Panama, with a key to the lower Central American species of the genus. *Journal of Fish Biology* 92(6): 1866-1887.
- 34. ANGULO, A., DONASCIMIENTO, C., LASSO-ALCALÁ, FARAH-PÉREZ, A., LANGENAI, F., & **C.D. MCMAHAN**. 2018. Redescription of *Trichomycterus straitus* (Meek & Hildebrand, 1913) (Siluriformes: Trichomycteridae), with notes on its geographic distribution. *Zootaxa* 4420(4): 530-550.

33. ELÍAS, D.J.*, MOCHEL, S.F., CHAKRABARTY, P., & **C.D. MCMAHAN**. 2018. First record of the non-native pacu, *Piaractus brachypomus* in Lago Petén-Itzá, Guatemala, Central America. *Occasional Papers of the LSU Museum of Natural Science* 88: 1-6.
32. GÓMEZ-GONZÁLEZ, A.E.*, ÁLVAREZ, F., MATAMOROS, W.A., VELÁZQUEZ-VELÁZQUEZ, E., SCHMITTER-SOTO, J.J., GONZÁLEZ-DÍAZ, A.A., & **C.D. MCMAHAN**. 2018. Redescription of *Vieja hartwegi* (Taylor & Miller 1980) (Teleostei: Cichlidae) from the Grijalva River basin, Mexico and Guatemala, with description of a rheophilic morph. *Zootaxa* 4375(3): 371-391.
31. DIAZ, P.*, RUIZ-CAMPOS, G., PILLER, K.R., **MCMAHAN, C.D.**, García de Leon, F.J., Camarena-Rosales, F., Ledesma-Vázquez, J., & J. Rosales-Casián. 2017. Assessment of the morphological variation of *Agonostomus monticola* (Teleostei: Mugilidae) throughout its amphiamerican distribution. *Neotropical Ichthyology* 15(4): e170036.
30. CHAKRABARTY, P., FAIRCLOTH, B.C., LUDT, W.B., **MCMAHAN, C.D.**, NEAR, T.J., DORNBERG, A., ALBERT, J.S., ARROYAVE, J., STIASSNY, M.L.J., SORENSON, L., & M. E. ALFARO. 2017. Phylogenomic systematics of Ostariophysan fishes: Ultraconserved Elements support the surprising non-monophyly of Characiformes. *Systematic Biology* 66(6): 881-895.
29. MERCHANT, M., MCADON, C., MEAD, S., MCFATTER, J., **MCMAHAN, C.D.**, GRIFFITH, R., & MURRAY, C.M. 2017. Comparison of Serum Phospholipase A₂ Activities of All Known Extant Crocodylian Species. *Advances in Biological Chemistry* 7(4): 151160.
28. BAGLEY, J.C., MATAMOROS, W.A., **MCMAHAN, C.D.**, TOBLER, M., CHAKRABARTY, P., & J.B. JOHNSON. 2017. Phylogeography and species delimitation in convict cichlids (Cichlidae: *Amatitlania*): implications for species limits and Plio-Pleistocene evolutionary history in Central America. *Biological Journal of the Linnean Society* 120(1): 155-170.
27. **MCMAHAN, C.D.**, GINGER, L., CAGE, M.*, DAVID, K.*, CHAKRABARTY, P., JOHNSTON, M., & W.A. MATAMOROS. 2017. Pleistocene to Holocene Expansion of the Black-belt Cichlid in Central America. *Vieja maculicauda* (Teleostei: Cichlidae). *PLoS ONE* 12(5): e0178439.
26. **MCMAHAN, C.D.**, KUTZ, J.*, MURRAY, C.M., CHAKRABARTY, P., GEHEBER, A.D., & D.J. ELÍAS*. 2017. Objectively measuring subjectively described traits: geographic variation in body shape and pattern within *Vieja melanura* (Teleostei: Cichlidae). *Revista de Biología Tropical* 65(2): 623-631.
25. WELLER, H.I.*, **MCMAHAN, C.D.**, & M.W. WESTNEAT. 2017. Dirt-sifting Devilfish: Winnowing in the geophagine cichlid *Satanoperca daemon* and evolutionary implications. *Zoomorphology* 136: 45-59.
24. MURRAY, C.M., **MCMAHAN, C.D.**, GUYER, C., & B.I. CROTHER. 2016. The inhibition of scientific progress: perceptions of biological units. In: *Assumptions Inhibiting Progress in Comparative Biology*, Crother, B.I. & L.R. Parenti, Ed. CRC Press.
23. CERÍACO, L.M.P., GUTIÉRREZ, E.E., DUBOIS, A., ...**MCMAHAN, C.D.**, ET AL. 2016. Photography-based taxonomy is inadequate, unnecessary, and potentially harmful for biological sciences. *Zootaxa* 4196(3): 435-445.
22. JAMANGAPÉ, J.A. *, VELÁZQUEZ-VELÁZQUEZ, E., MARTÍNEZ-RAMÍREZ, E., ANZUETO-CALVO, M.J., GOMEZ, E.I., DOMÍNGUEZ-CISNEROS, S.E., **MCMAHAN, C.D.**, & W.A. MATAMOROS. 2016. Validity and Redescription of *Profundulus balsanus* Ahl, 1935 (Cyprinodontiformes: Profundulidae). *Zootaxa* 4173(1): 55-65.

21. MATAMOROS, W.A., **MCMAHAN, C.D.**, MEJIA, C.R., HOUSE, P.*, & P. CHAKRABARTY 2016. First record of the non-native armored catfish *Hypostomus niceforoi* (Fowler, 1943; Loricariidae) in Central America. *Occasional Papers of the LSU Museum of Natural Science* 87: 1-12.
20. **MCMAHAN, C.D.**, FREEBORN, L.R., WHEELER, W.C., & B.I. CROTHER. 2015. Forked tongues revisited: molecular apomorphies support morphological hypotheses of squamate evolution. *Copeia* 103(3): 525-529.
19. **MCMAHAN, C.D.** AND S. MOCHEL. 2015. Clarification of type specimens for Bornean species of *Osteochilus* (Cyprinidae). *Zootaxa* 4032(1): 147-150.
18. **MCMAHAN, C.D.**, MATAMOROS, W.A., PILLER, K.R., & P. CHAKRABARTY. 2015. Taxonomy and systematics of the herichthyins (Cichlidae: Tribe Heroini), with the description of eight new Middle American Genera. *Zootaxa* 3999(2): 211-234.
17. MATAMOROS, W.A., **MCMAHAN, C.D.**, CHAKRABARTY, P., ALBERT, J., & SCHAEFER, J. 2015. Derivation of the freshwater fish fauna of Central America Revisited: Myers's hypothesis in the 21st Century. *Cladistics* 31(2): 177-188.
16. **MCMAHAN, C.D.**, MATAMOROS, W.A., BARRAZA, E., KUTZ, J.*, & P. CHAKRABARTY. 2014. Taxonomic status of the Lago Coatepeque endemic convict cichlid *Amatitlania coatepeque* (Teleostei: Cichlidae). *Copeia* 4: 633-638.
15. MURRAY, C.M., **MCMAHAN, C.D.**, DOBIE, J.L., GUYER, C. 2014. Cranial variation amongst independent lineages of the alligator snapping turtle (*Macrochelys temminckii*). *Journal of Zoological Systematics & Evolutionary Research* 52(4): 305-311.
14. BOHN, S., BARRAZA, E., **MCMAHAN, C.D.**, MATAMOROS, W., & B. KREISER. 2013. Cross amplification of microsatellite loci developed for alligator gar (*Atractosteus spatula*) in tropical gar (*Atractosteus tropicus*). *Revista Mexicana de Biodiversidad* 84: 1349-1351.
13. **MCMAHAN, C.D.**, SMITH, W.L., SPARKS, J.S., CHAKRABARTY, P., & M.P. DAVIS. 2013. Temporal patterns of diversification across global cichlid biodiversity (Acanthomorpha: Cichlidae). *PLoS ONE* 8(8): e71162.
12. CARSTENS, B.C., BRENNAN, R.S., CHUA, V., DUFFIE, C.V., HARVEY, M.G., KOCH, R.A., **MCMAHAN, C.D.**, NELSON, B.J., NEWMAN, C.E., SATLER, J.D., SEEHOLZER, G., POSBIC, K., TANK, D.C., & J. SULLIVAN. 2013. Model selection as a tool for phylogeographic inference: An example from the willow *Salix melanopsis*. *Molecular Ecology* 22(15): 4014-4028.
11. MATAMOROS, W.A., CHAKRABARTY, P., ANGULO, A., GARITA-ALVARADO, C.A., & **C.D. MCMAHAN**. 2013. A new species of *Roeboides* (Teleostei: Characidae) from Costa Rica and Panama, with a key to Middle American species of the genus. *Neotropical Ichthyology* 11(2): 285-290.
10. **MCMAHAN, C.D.**, MATAMOROS, W.A., ALVAREZ CALDERON, F.S.*, HENRÍQUEZ, W.Y.*, RECINOS, H.M.*, CHAKRABARTY, P., BARRAZA, E., & N. HERRERA. 2013. Checklist of the inland fishes of El Salvador. *Zootaxa* 3608(6): 440-456.
9. **MCMAHAN, C.D.**, DAVIS, M.P., DOMÍNGUEZ-DOMÍNGUEZ, O., GARCÍA DE LEON, F.J., DOADRIO, I., & K.R. PILLER. 2013. From the mountains to the sea: phylogeography and cryptic diversity in the mountain mullet, *Agonostomus monticola* (Teleostei: Mugilidae). *Journal of Biogeography* 40: 894-904.

8. **MCMAHAN, C.D.**, MURRAY, C.M., GEHEBER, A.D., BOECKMAN, C.D.*, & K.R. PILLER. 2011. *Paraneetroplus synspilus* is a junior synonym of *Paraneetroplus melanurus* (Teleostei: Cichlidae). *Zootaxa* 2833: 1-14.
7. ECKSTUT, M.E., **MCMAHAN, C.D.**, CROTHER, B.I., ANCHETA, J., MCLENNAN, D., & D. BROOKS. 2011. PACT in Practice: Comparative historical biogeographic patterns and species area relationships of the Greater Antillean and Hawaiian Island terrestrial biotas. *Global Ecology and Biogeography* 20: 545-557.
6. **MCMAHAN, C.D.**, GEHEBER, A.D., & K.R. PILLER. 2010. Molecular Systematics of the Enigmatic Middle American Genus *Vieja* (Teleostei: Cichlidae). *Molecular Phylogenetics & Evolution* 57: 1293-1300.
5. RHEUBERT, J.L., **MCMAHAN, C.D.**, SEVER, D.M., BUNDY, M.R., & K.M. GRIBBINS. 2010. Ultrastructure of the reproductive system of the Black Swamp Snake (*Seminatrix pygaea*) VII. Spermatozoon morphology and potential evolutionary trends of sperm characters among Serpentes. *Journal of Zoological Systematics & Evolutionary Research* 48(4): 366-375.
4. GEHEBER, A.D., **MCMAHAN, C.D.**, & K.R. PILLER. 2010. First Record of the Non-native Three Spot Gourami (Osphronemidae: *Trichogaster trichopterus*) in Jamaica. *Aquatic Invasions* Supl. 1: S13-S16.
3. KENWAY-LYNCH, C.S., **MCMAHAN, C.D.**, GEHEBER, A.D., HAYES, M.M., & K.R. PILLER. 2010. Threatened Fishes of the World: "*Xenotoca*" *eiseni* 1896 (Goodeidae). *Environmental Biology of Fishes* 87(3): 219-220.
2. BROACH, J.S. & **C.D. MCMAHAN**. 2009. New Records of Amphibians and Reptiles from Florence County, South Carolina, USA. *Herpetological Review* 40(2): 243-244.
1. **MCMAHAN, C.D.** & G.R. ZUG. 2007. Burmese *Hemidactylus* (Reptilia: Squamata: Gekkonidae): Geographic Variation in the Morphology of *Hemidactylus bowringii* in Myanmar and Yunnan, China. *Proceedings of the California Academy of Sciences* 58(24): 485-509.

Book Reviews & Other Publications:

4. MOHAMMADI, S. & **C.D. MCMAHAN**. 2013. A Review of: Venomous Reptiles of the United States, Canada, and Northern Mexico Volume 2: *Crotalus*. *Copeia* 2013(1).
3. **MCMAHAN, C.D.** 2012. Museum Techniques: Preservation of snake specimens for scientific study. Snake Species of the World, Encyclopedia of Life, Life Desks.
2. EDWARDS, M.L., & **C.D. MCMAHAN**. 2011. Stuffed birds and pickled frogs: the importance of natural history museums in South Carolina. *South Carolina Wildlife*.
1. **MCMAHAN, C.D.** 2011. A Review of: A Field Guide to Coastal Fishes from Maine to Texas. *Copeia* 2011(3).

Postdoctoral Researchers:

Andrew George, Ph.D. (2020-present; co-advised with Dr. Michelle Thompson & Dr. Lesley de Souza)

Graduate Student Dissertation/Thesis Committees (co-advised):

César Fuentes-Montejo (DePaul University, Chicago; M.S. student 2020-present)

Alexandra Krak (DePaul University, Chicago; M.S. student 2020-present)

Konrad Taube (DePaul University, Chicago; M.S. student 2019-present)

Yibril Massip (Universidad de Ciencias y Artes de Chiapas, Mexico; Ph.D. student 2019-present)

Noel Jones (St. Cloud State University, Minnesota; M.S. student 2019-present)

Cory Blackwelder (University of Central Missouri; M.S. student 2018-present)

Jesús Sánchez Cadena (Universidad de Ciencias y Artes de Chiapas, Mexico; M.S. student 2017-present)

Diego Ardón (Universidad de Ciencias y Artes de Chiapas, Mexico; M.S. 2020)
Roberto Cucalon (DePaul University, Chicago; M.S. 2019)
Paulina Díaz-Murillo (Universidad Autónoma de Baja California, Mexico; Ph.D. 2017)

Undergraduate, High School Student Mentees:

**authorship on presentation and/or publication*

- *Chris Boeckman, Southeastern Louisiana University; cichlid taxonomy
- *Parker House, LSUMNS; fieldwork/tetra morphology
- *Justin Kutz, LSUMNS; cichlid systematics & taxonomy
- *Marcy Cage, LSUMNS; cichlid body shape plasticity, distributional analyses
- Lauren Cooper, LSUMNS; systematics of *Poeciliopsis* guppies
- Natalie Deuroen, LSUMNS; generating molecular data for cichlids
- *Francisco Samuel Alvarez Calderon, Universidad de San Salvador; inventory of El Salvador fishes
- *Wendy Henriquez, Universidad de San Salvador; inventory of El Salvador fishes
- *Michelle Recinos, Universidad de San Salvador; inventory of El Salvador fishes
- Christian Kuylen, LSUMNS; cichlid systematics & taxonomy
- *Gerald Soderstrum, LSUMNS; cichlid morphology and distribution
- *Yue Li, LSUMNS; diadromous fish phylogeography
- *Diego Elias, Universidad de Guatemala; cichlid phylogeography in Guatemala
- *David Clark, Jr., LSUMNS; eco-morphology of *Astyanax aeneus* in Río Patuca, Honduras
- Sera Sousley, Roosevelt University, Fall 2014; morphology of the genus *Alfaro*
- Viridiana Lopez, Chicago State University, Summer 2015; clearing and staining methodology
- Aaron Sanders, Roosevelt University, Fall 2015; body size trends in Mexican fishes
- *Hannah Weller, University of Chicago, 2015-2017; morphological evolution in cichlids
- *Kyle David, University of Miami, 2015-2017; cichlid phylogeography
- *Adan Gomez Gonzalez, Universidad de Ciencias y Artes de Chiapas, 2015-2017; cichlid systematics
- Jacquelyn Galvez, Loyola Marymount University, REU intern FMNH 2017; cichlid systematics
- Kim Nguyen, University of Illinois Chicago, 2017-present; foraging behavior of invasive gobies in Lake Michigan
- *Humair Raziuddin, University of Illinois Chicago, 2017-present; trophic change over time in Mexico fishes
- Eidy Morales Arriaga, Universidad de Ciencias y Artes de Chiapas, 2017-2018; systematics of livebearers
- James Egan, Knox College, 2017-present; GIS analyses and species-distribution modeling
- Caleb Caton, Pomona College, REU intern FMNH 2018; mullet taxonomy
- Andrei Olaru, High school intern FMNH 2019; cichlid systematics
- Izabella Villatuya, High school intern FMNH 2019; cichlid systematics
- *César Fuentes Montejo, Universidad de San Carlos, Guatemala, 2018-2019; Middle America biogeography

Conference Presentations:

(presenter or co-author on presentations)

- 2021 Behavior, Ecology, & Evolution of Poeciliid Fishes Virtual Forum (2 oral presentations)
- 2020 Society of Integrative & Comparative Biology (oral presentation)
- 2019 Mesoamericana Congress – Guatemala (2 oral presentations)
- 2019 Joint Meeting of Ichthyologists and Herpetologists (2 oral presentations, 1 poster presentation)
- 2018 Latin American Ichthyology Congress – Mexico (3 oral presentations, 3 poster presentations)
- 2018 Joint Meeting of Ichthyologists and Herpetologists (2 oral presentations, 2 poster presentations)
- 2017 Latin American Ichthyology Congress – El Salvador (2 oral presentations)
- 2017 Joint Meeting of Ichthyologists and Herpetologists (1 oral presentation, 2 poster presentations)
- 2016 Latin American Ichthyology Congress – Mexico (2 oral presentations, 2 poster presentations)
- 2016 Evolution Meeting (oral presentation)
- 2016 Joint Meeting of Ichthyologists and Herpetologists (1 oral presentation, 3 poster presentations)
- 2015 Latin American Ichthyology Congress – Costa Rica (1 oral presentation, 1 poster presentations)
- 2015 Joint Meeting of Ichthyologists and Herpetologists (2 oral presentations, 1 poster presentation)

- 2014 Joint Meeting of Ichthyologists and Herpetologists (2 oral presentations, 1 poster presentation)
- 2013 Latin American Ichthyology Congress – Guatemala (1 oral presentation, 1 poster presentation); *delivered keynote address at opening of this conference*
- 2013 Joint Meeting of Ichthyologists and Herpetologists (3 oral presentations)
- 2013 Southwest Association of Naturalists – Wilkes Award Symposium (oral presentation)
- 2013 Central American Coastal Biology NSF Workshop – Honduras (oral presentation)
- 2012 Latin American Ichthyology Congress – Mexico (oral and poster presentations)
- 2012 Southeastern Fishes Council (poster presentation)
- 2012 Joint Meeting of Ichthyologists and Herpetologists/World Congress of Herpetology (2 oral and 2 poster presentations)
- 2011 Joint Meeting of Ichthyologists and Herpetologists (oral presentation)
- 2011 Evolution Meeting (oral presentation)
- 2010 Joint Meeting of Ichthyologists and Herpetologists (oral presentation)
- 2010 Association of Southeastern Biologists Annual Meeting (oral presentation)
- 2009 Southeastern Fishes Council (poster presentation)
- 2009 Joint Meeting of Ichthyologists and Herpetologists (oral presentation)
- 2008 Southeastern Fishes Council (oral presentation)
- 2008 Joint Meeting of Ichthyologists and Herpetologists (oral and poster presentations)
- 2007 South Carolina Academy of Science Annual Meeting (oral presentation)
- 2007 Association of Southeastern Biologists Annual Meeting (poster presentation)
- 2006 National Association of Biology Teachers (poster presentation)
- 2006 RTP Poster Symposium – Smithsonian NMNH (poster presentation)
- 2006 SCICU Research Symposium (oral presentation)
- 2004 SE American Society of Microbiologists Annual Meeting (poster presentation)
- 2004 South Carolina Academy of Science Annual Meeting (oral presentation)

Invited Seminars:

- 14 May 2020 World Fish Migration Foundation
- 11 Dec 2019 Field Museum of Natural History
- 9 Sept 2019 Universidad Nacional de El Salvador
- 30 Apr 2019 University of Illinois Chicago
- 18 Jan 2019 Natural History Museum of Los Angeles County
- 5 May 2018 American Livebearer Association Convention
- 11 Oct 2017 Tennessee Tech University
- 28 Mar 2017 Illinois Institute of Technology
- 2 Mar 2017 Universidad de San Carlos, Guatemala
- 17 Nov 2015 University of Findlay
- 15 Jan 2015 DePaul University
- 7 Nov 2013 Simposio Latinoamericano de Ictiología; Antigua, Guatemala (keynote address)
- 28 Oct 2013 Regis University
- 20 Feb 2013 University of Southern Mississippi

Fieldwork:

>20 expeditions to Neotropics (Honduras, Nicaragua, El Salvador, Panama, Costa Rica, Mexico, Guatemala, Jamaica), multiple trips throughout southeastern United States

Languages:

English (fluent), Spanish (conversational)

Curatorial Experience:

Collections Manager of Fishes, Field Museum of Natural History (June 2014-present)

- Ichthyologist in the Division of Fishes overseeing >2million specimens, supervising two permanent collections staff and several volunteers, students, and interns, outreach events, presentations to donors and Board of Trustees, active research and fieldwork program. Proficiency using EMu database.
- Curatorial Assistant (CA), LSU Museum of Natural Science – Ichthyology; (Spring 2011-Spring 2014)
- Fieldwork, sorting/identification, cataloging of specimens, design and implementation of tissue database protocols (allowing linking of tissue samples with voucher specimens), packing/shipping/receiving loans. Also coordinated migration of databases (specimen and tissue) to new system (Specify).
- Collections Assistant (CA), Southeastern Louisiana University Vertebrate Museum – Fishes; (Fall 2007-Summer 2010)
- Fieldwork, sorting/identification, cataloging of specimens and associated tissues, packing/shipping/receiving loans
- Collections Assistant, Vertebrate Collection (fishes, amphibians, reptiles), Dept. of Biology, Erskine College; (2005-2007)
- Fieldwork, sorting/identification, cataloging of specimens

Service:

- IUCN working group, Central America freshwater fishes (2020-present)
 Chair, Search Committee; Collections Manager of Insects at the Field Museum (2018-2019)
 Field Museum Women in Science Steering Committee, Programming Working Group (2017-present)
 Parker-Gentry Award Committee, The Field Museum (2016-present)
 American Society of Ichthyologists and Herpetologists:
- Workshop sub-committee chair (2008-2009)
 - Chair-elect and chair of graduate student committee (2009-2011)
 - Long Range Planning and Policy committee (2011-2013)
 - Committee on *Copeia* (2012-2016)
 - Collections Committee (2014-present)
 - Nominating Committee (2015-2016)
 - Judge, Storer Award (2016, 2018)
 - Board of Governors (2016-present)
 - Web Content Committee (2017-present)
 - Raney Award Committee (2017-2019; chair in 2019)
 - Resolutions Committee (2018)
- BIOS mentor, program for incoming freshmen biology majors at Louisiana State University (Fall 2013)
 Seminar coordinator, LSU Museum of Natural Science (2011-2012)
 Guest, What The Fish blog, The Field Museum (2012)
 University Graduate Council, Southeastern Louisiana University (2009-2010)
 President, Biology Graduate Student Association, Southeastern Louisiana University (2 terms, 2008-2010)

Additional Experience:

- Research Assistant, Dept. of Biological Sciences, Southeastern Louisiana University; (Fall 2008-Spring 2009)
- Monthly collections of invasive carp species for gut content analysis and abundance surveys
- Assistant Naturalist, Highlands Nature Center, Highlands Biological Station, Highlands, NC; (Summer 2007)
- Care of live animals on display and maintenance of exhibits, leading outreach events for public (adults and kids)
- Research Training Program (2006), Smithsonian Institution – National Museum of Natural History; Advisor: Dr. George Zug
- Student Director, Biological Outreach Program, Dept. of Biology, Erskine College (2004-2007)
 Animal Care Staff, Animal Facility, Dept. of Biology, Erskine College (2003-2007)

Teaching Experience:

Spring 2019: co-taught field course, OTS Palo Verde station, Costa Rica
Fall 2015: Guest lecturer, Ecology, The University of Findlay
Fall 2014, Fall 2015: Guest lecturer, Biodiversity and Sustainability, Roosevelt University
Fall 2010, Fall 2013: BIOL 4145 (Ichthyology), Louisiana State University
Fall 2010: Guest lecturer, Comparative Vertebrate Anatomy, Saint Louis University
Spring 2008: GBIO 152 (Genetics, Cell, Molecular Biology lab), Southeastern Louisiana University
Fall 2007: GBIO 439/539 (Freshwater & Estuarine Biology), Southeastern Louisiana University
January 2006: Student Teaching Assistant, Tropical Biology (with trip to Costa Rica)
with Dr. Janice Haldeman, Erskine College, Dept. of Biology
Fall 2004-Spring 2007: Biological Outreach Program Instructor
January 2004: Guest lecturer, Tropical Biology (with trip to Costa Rica)
Fall 2003, 2004: Guest lecturer, General Biology (for non-majors)

Journal Reviewer for: *Environmental Biology of Fishes, Neotropical Biodiversity, Ichthyology and Herpetology, Southeastern Naturalist, Scientific Reports, PLoS ONE, Zootaxa, Copeia, Molecular Ecology, Journal of Fish Biology, Micron, Biotropia, Systematics and Biodiversity, Aqua, CheckList, Molecular Phylogenetics and Evolution, Journal of Biogeography, International Journal of Biodiversity and Conservation, Journal of the Marine Biological Association of the United Kingdom, Biological Journal of the Linnean Society, Zookeys, Hydrobiologia, Fishery Bulletin, Revista de Biología Tropical*

Society Memberships: American Society of Ichthyologists and Herpetologists, American Alliance of Museums, Sociedad de Ictiología Mexicana