

Justin C. Bagley

CONTACT INFORMATION

Field Operations Division
Alabama Department of Environmental
Management (ADEM)
1350 Coliseum Blvd
Montgomery, AL 36110-2412, USA

Phone: (334) 271-7783
Dept. Office: (334) 260-2700
E-mail: justin.bagley@adem.alabama.gov
Websites: [website](#) ; [blog](#)

PROFESSIONAL APPOINTMENTS

Alabama Department of Environmental Management, Montgomery, AL, USA

Environmental Scientist, Environmental Indicators Section, Field Operations Division (2023 – present)

Auburn University at Montgomery, Montgomery, AL, USA

Adjunct Professor, Department of Biology and Environmental Science (2022 – present)

Jacksonville State University, Jacksonville, AL, USA

Assistant Professor, Department of Biology (2020 – 2022)

University of Missouri–St. Louis, St. Louis, MO, USA

Postdoctoral Research Associate, Department of Biology (2018 – 2020)

– Advisor: Nathan Muchhala (Funding: NSF DEB)

Virginia Commonwealth University, Richmond, VA, USA

Affiliate Researcher, Department of Biology (2018 – present)

Postdoctoral Scholar, Department of Biology (2017 – 2018)

– Advisor: Andrew J. Eckert (Funding: NSF Macrosystems Biology)

Universidade de Brasília, Brasília, Distrito Federal, Brazil

Senior Research Associate, Departamento de Zoologia (2015 – 2018)

Universidade Estadual Paulista (UNESP), São Jose do Rio Preto, São Paulo, Brazil

Young Talent Fellow Postdoc, Departamento de Zoologia e Botânica (2015 – 2017)

– Director: Kiko Langeani; Coordinator: Guarino R. Colli (Funding: CNPq)

Utah Valley University, Orem, UT, USA

Adjunct Instructor of Ecology, Department of Biology (Summer 2014)

EDUCATION

Brigham Young University, Provo, UT, USA

Ph.D. in Integrative Biology (December 2014)

– Advisor: Jerald B. Johnson

The University of Alabama, Tuscaloosa, AL, USA

M.Sc. in Biology (August 2008)

– Advisor: Phillip M. Harris

B.Sc. in Biology (December 2004)

– Advisor: Stephen M. Secor

Shelton State Community College, Tuscaloosa, AL, USA

A.S. in General Studies (May 2002)

LANGUAGES

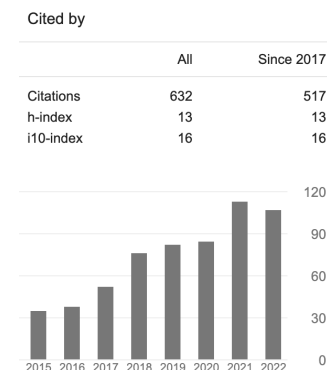
Spoken: English (native), Spanish (14 yrs), Portuguese (functional, 2.5 yrs)
Programming & Markup: bash/shell, R, Python, git, Swift, Markdown, L^AT_EX

RESEARCH INTERESTS

freshwater fishes, environmental science, community ecology and biogeography, biological assessment of water quality (e.g., biomonitoring, index of biotic integrity), integrative taxonomy, phylogeography, phylogenomics, population genomics, ecological niche modeling, speciation, gene flow (hybridization), species delimitation

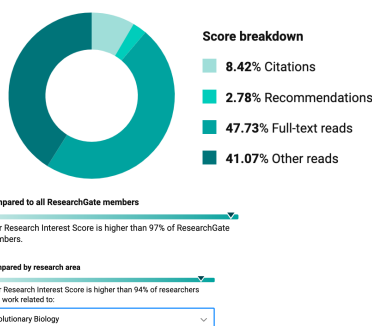
PUBLICATIONS

Google Scholar citation metrics:



ResearchGate Score:

Research Interest Score: **2,665** +1.70



Abbreviations: ^Eequal contribution, ^Uundergraduate student, ^Ggraduate student

A. Peer-reviewed Journal Papers and Book Chapters

25. **Bagley JC**, Johnson CC, McGregor SW, Breitman MF, Armbruster JW, Harris PM, O'Neil PE (2023). Marine and freshwater fishes of Alabama: a revised checklist and discussion of taxonomic issues. *Zootaxa*, 5357(3), 301–341. doi:10.11646/zootaxa.5357.3.1
24. **Bagley JC**, Breitman MF, Johnson JB (2022). Length–weight relation for seven Neotropical freshwater fish species (Actinopterygii) endemic to Central America. *Acta Ichthyologica et Piscatoria*, 2022, 183–187. doi:10.3897/aiep.52.86467
23. Calderón-Acevedo CA^{GE}, **Bagley JC**^E, Muchhala N (2022). Genome-wide ultraconserved elements resolve phylogenetic relationships and biogeographic history among Neotropical leaf-nosed bats in the genus *Anoura* (Phyllostomidae). *Molecular Phylogenetics and Evolution*, 167, 107356. Available online 10 November 2021. doi:10.1016/j.ympev.2021.107356
22. Soares YFF, Aquino PPU, **Bagley JC**, Langeani F, Colli GR (2021) Two new species of *Hypostomus* suckermouth armored catfishes (Teleostei: Loricariidae) from Central Brazil. *Journal of Fish Biology*. Available online. doi:10.1111/jfb.14777.
21. Menon M, **Bagley JC**, Page G, Whipple AV, Schoettle AW, Still C, Wehenkel C, Waring K, Flores-Rentería L, Cushman SA, Eckert AJ (2021) Adaptive evolution in a conifer hybrid zone is driven by a mosaic of introgressed and standing genetic variants. *Communications Biology*, 4(1), 1–14.

20. **Bagley JC**, Heming NM, Gutiérrez EE, Devisetty UK, Mock KE, Eckert AJ, Strauss SH (2020) Genotyping-by-sequencing and ecological niche modeling illuminate phylogeography, admixture, and Pleistocene range dynamics in quaking aspen (*Populus tremuloides*). *Ecology and Evolution*, 10, 4609–4629.
19. **Bagley JC**, Uribe-Convers S, Carlsen M, Muchhala N (2020) Utility of targeted sequence capture for phylogenomics in rapid, recent angiosperm radiations: Neotropical *Burmeistera* bellflowers as a case study. *Molecular Phylogenetics and Evolution*, 152, 106769. Available online. doi:10.1016/j.ympev.2020.106769.
18. **Bagley JC**, Aquino PPU, Breitman MF, Langeani F, Colli GR (2019) DNA barcode and minibarcode identification of freshwater fishes from Cerrado headwater streams in central Brazil. *Journal of Fish Biology*, 95, 1046–1060.
17. Menon M^G, Landguth E, Sáenz AL^G, **Bagley JC**, Schoettle A, Wehenkel CA, Cushman S, Waring K, Eckert AJ (2019) Tracing the footprints of a moving hybrid zone under a demographic history of speciation with gene flow. *Evolutionary Applications*, 13(1), 195–209.
16. **Bagley JC**, Hickerson MJ, Johnson JB (2018) Testing hypotheses of diversification in Panamanian frogs and freshwater fishes using hierarchical approximate Bayesian computation with model averaging. *Diversity*, 10, 120.
15. Breitman MF, Domingos FMCB, **Bagley JC**, Wiederhecker HC, Ferrari TB^U, Cavalcante VHGL^G, et al.^{UG} (2018) A new species of *Enyalus* (Squamata: Leiosauridae) endemic to the Brazilian Cerrado. *Herpetologica*, 74(4), 355–369.
14. **Bagley JC**, Harris PM, Mayden, RL (2018) Phylogeny and divergence times of suckers (Cypriniformes: Catostomidae) inferred from Bayesian total-evidence analyses of molecules, morphology, and fossils. *PeerJ*, 6, e5168. Available online. doi:10.7717/peerj.5168.
13. Menon MG^G, **Bagley JC**, Friedline C, Whipple A, Schoettle A, Sáenz AL^G, Wehenkel CA, Flores-Rentería LH, Snieszko R, Cushman S, Waring K, Eckert AJ (2018) The role of hybridization during ecological divergence between southwestern white pine, *Pinus strobiformis*, and limber pine, *P. flexilis*. *Molecular Ecology*, 27, 1245–1260.
12. Overcast I^G, **Bagley JC**, Hickerson, MJ (2017) Strategies for improving approximate Bayesian computation tests for synchronous diversification. *BMC Evolutionary Biology*, 17, 203.
11. Ceriaco LM, Gutiérrez EE, Dubois A, et al.^{UG} (Appendix 1 of **Supporting Signatories**) (2016) Photography-based taxonomy is inadequate, unnecessary, and potentially harmful for biological sciences. *Zootaxa*, 4196, 435–445.
10. **Bagley JC**, Matamoros WA, McMahan CD, Tobler M, Chakrabarty P, Johnson JB (2016) Phylogeography and species delimitation in convict cichlids (Cichlidae: *Amatitlania*): implications for taxonomy and Plio–Pleistocene evolutionary history in Central America. *Biological Journal of the Linnean Society*, 120(1), 155–170.
9. **Bagley JC**, Alda F, Breitman MF, van den Berghe E, Birmingham E, Johnson JB (2015) Assessing species boundaries using multilocus species delimitation in a morphologically conserved group of Neotropical freshwater fishes, the *Poecilia sphenops* species complex (Poeciliidae). *PLoS One*, 10(4), e0121139.
8. Watson CM, Makowsky R, **Bagley JC**^G (2014) Reproductive mode evolution in lizards revisited: updated analyses examining geographic, climatic and phyloge-

- netic effects support the cold-climate hypothesis. *Journal of Evolutionary Biology*, 27(12), 2767–2780.
7. Bagley JC^G, Johnson JB (2014b) Testing for shared biogeographic history in the lower Central American freshwater fish assemblage using comparative phylogeography: concerted, independent, or multiple evolutionary responses? *Ecology and Evolution*, 4, 1686–1705.
 6. Bagley JC^G, Johnson JB (2014a) Phylogeography of the lower Central American Neotropics: diversification between two continents and between two seas. *Biological Reviews*, 89(4), 767–790.
 5. Bagley JC^G, Sandel M, Travis J, Lozano-Vilano M de L, Johnson JB (2013) Paleoclimatic modeling and phylogeography of least killifish, *Heterandria formosa*: insights into Pleistocene expansion-contraction dynamics and evolutionary history of North American Coastal Plain freshwater biota. *BMC Evolutionary Biology*, 13, 223.
 4. Unmack PJ, Bagley JC^G, Adams MD, Hammer MD, Johnson JB (2012) Molecular phylogeny and phylogeography of the Australian freshwater fish genus *Galaxiella* (Teleostei: Galaxiidae), with an emphasis on dwarf galaxias (*G. pusilla*). *PLoS One*, 7(6), e38433.
 3. Bagley JC^G, Mayden RL, Roe KJ, Holznagel W, Harris PM (2011). Congeneric phylogeography reveals polyphyly and novel biodiversity within black basses (Centrarchidae: *Micropterus*). *Biological Journal of the Linnean Society*, 104, 346–363.
 2. Johnson JB, Bagley JC^G (2011) Ecological drivers of life-history evolution. In: Ecology and Evolution of Poeciliid Fishes. (eds Evans JP, Pilastro A, Schlupp I), pp. 38–49. *University of Chicago Press*, Chicago, IL. ISBN-10: 0226222748.
 1. Thompson M^G, Bagley JC^G, Rasco J, Lackey K, Cox M^G (2007) The Respiratory System. In: Biology: The Study of Life (eds Rasco J, Lackey K). *Kendall/Hunt Publishing*. ISBN-10: 0757556434.

B. Preprints

4. Bagley JC, Aquino PPU, Hrbek T, Hernandez S^G, Langeani F, Colli GR (2021) Using ddRAD-seq phylogeography to test for genetic effects of headwater river capture in suckermouth armored catfish (Loricariidae: *Hypostomus*) from the central Brazilian Shield. *bioRxiv*. Available online at: doi:10.1101/2021.04.18.440224.
3. Bagley JC, Heming NM, Gutiérrez EE, Devisetty UK, Mock KE, Eckert AJ, Strauss SH (2018) Genotyping-by-sequencing and ecological niche modeling illuminate phylogeography, admixture, and Pleistocene range dynamics in quaking aspen (*Populus tremuloides*). *PeerJ Preprints*. Available online at: <https://peerj.com/preprints/27162/>.
2. Bagley JC, Hickerson MJ, Johnson JB (2018) Testing hypotheses of diversification in Panamanian frogs and freshwater fishes using hierarchical approximate Bayesian computation with model averaging. *PeerJ Preprints*. Available online at: <https://peerj.com/preprints/26623/>.
1. Menon M^G, Bagley JC, Friedline C, Whipple A, Schoettle A, Sáenz AL^G, Wehenkel CA, Flores-Rentería LH, Snieszko R, Cushman S, Waring K, Eckert AJ (2017) The role of hybridization during ecological divergence between southwestern white pine, *Pinus strobiformis*, and limber pine, *P. flexilis*. *bioRxiv*.

C. Manuscripts In Preparation

3. **Bagley JC**, Bonner R^U, Breitman MF, Dease L^U, Glick M^U, Peters J^U, Sciuchetti M (*in prep.*) Ecological niche modeling and future distributions of coastal dune plants endemic to the northern Gulf of Mexico. *Global Change Biology*.
2. **Bagley JC**, Breitman MF, Bolte C^G, Johnson JB (*in prep.*) Idiosyncratic effects of tectonism, sea levels, and continental shelf width on Neotropical freshwater fish diversification in Central America. *BMC Evolutionary Biology*.
1. **Bagley JC**, Aquino PPU, Langeani F, Colli GR (*in prep.*) RAD-seq phylogeography of darter characins, *Characidium*: insight into fine-scale biogeography of the central Brazilian Highlands. *Ecology and Evolution*.

D. Datasets, Open-Source Software & Code

9. **Bagley JC** (2020) MAGNET. justincbagley/MAGNET: MAGNET version 1.2.0. **Zenodo**. Available at: <http://doi.org/10.5281/zenodo.4387279>.
8. **Bagley J**, Heming N, Gutiérrez E (2020) Data for: Genotyping-by-sequencing and ecological niche modeling illuminate phylogeography, admixture, and Pleistocene range dynamics in quaking aspen (*Populus tremuloides*). *Mendeley Data*, v2. Available at: <http://dx.doi.org/10.17632/jhkhvdgyfy.2>.
7. **Bagley JC** (2020) PIRANHA. justincbagley/PIRANHA: PIRANHA version 0.4a4. **Zenodo**. Available at: <http://doi.org/10.5281/zenodo.4331675>.
6. **Bagley J** (2019) Data for: DNA barcode and minibarcode identification of freshwater fishes from Cerrado headwater streams in central Brazil. [Data Set]. *Mendeley Data*, v1. Available at: <http://dx.doi.org/10.17632/9pr3cpf33g.1>.
5. **Bagley JC**, Hickerson MJ (2018) Data for: Testing hypotheses of diversification in Panamanian frogs and freshwater fishes using hierarchical approximate Bayesian computation with model averaging. [Data Set]. *Mendeley Data*, v2. Available at: <http://dx.doi.org/10.17632/f94kxmwf2n.2>.
4. **Bagley JC**, Mayden R, Harris P (2018) Data for: Phylogeny and divergence times of suckers (Cypriniformes: Catostomidae) inferred from Bayesian total-evidence analyses of molecules, morphology, and fossils. [Data Set]. *Mendeley Data*, v2. Available at: <http://dx.doi.org/10.17632/trw6sb4v7w.2>.
3. **Bagley JC** (2017) MissingDataFX. justincbagley/MissingDataFX: MissingDataFX version 0.1.1 [Data Set]. **Zenodo**. Available at: <http://doi.org/10.5281/zenodo.399837>.
2. **Bagley JC** (2017) MAGNET. justincbagley/MAGNET: MAGNET version 0.1.4 [Data Set]. **Zenodo**. Available at: <http://doi.org/10.5281/zenodo.399054>.
1. **Bagley JC** (2016) GaussClust. justincbagley/GaussClust: GaussClust version 0.1.0 [Data Set]. **Zenodo**. Available at: <http://doi.org/10.5281/zenodo.231221>.

PRESENTATIONS &
CONTRIBUTED
ABSTRACTS

Abbreviations: ^U undergraduate student, ^G graduate student; OP, Oral Presentation; PP, Poster Presentation

36. **Bagley JC**, Abernathy A^U, Bell L^U, Bonner RE^U, Dease LK^U, DeVaney C^U, Glick MJ^U, Hall J^U, Hughston EA^U, Jones M^U, Jones N^U, King M^U, Morrow

- K^U, Peters J^U, Prickett M^U, West C^U (2022) Predicting the responses of Northern Gulf of Mexico coastal dune plant communities to climate change using ecological niche modeling. **American Association of Geographers (AAG) Annual Meeting 2022**, Virtual [Zoom/online], February 28 –March 2. (International Meeting; PP). Available at:
<https://github.com/justincbagley/Bagley-et-al-Dune-Plant-ENM-Poster>
35. Bonner RE^U, Dease LK^U, Hughston EA^U, **Bagley JC** (2022) Using ecological niche modeling to predict the response of *Hydrocotyle bonariensis* to global climate change. **American Association of Geographers (AAG) Annual Meeting 2022**, Virtual [Zoom/online], February 28–Mar 2. (International Meeting; PP). Available at:
<https://github.com/justincbagley/Bonner-Bagley-Hbonariensis-ENM-Poster>
34. Bonner RE^U, Dease LK^U, Hughston EA^U, **Bagley JC** (2022) Using ecological niche modeling to predict the response of *Hydrocotyle bonariensis* to global climate change. **JSU Student Symposium 2022**, Jacksonville State University Houston Cole Library, February 15–16. (University Symposium; PP) Available at:
<https://github.com/justincbagley/Bonner-Bagley-Hbonariensis-ENM-Poster>
33. **Bagley JC** (2021) Diversification of life at the intersection of ecology, evolution, and Earth history. **PhylogatR Workshop**, Mountain Lake Biological Station, Pembroke, VA, August 2. (Professional Meeting; OP)
32. **Bagley JC** (2020) Diversification of life at the intersection of ecology, evolution, and Earth history. **Department of Biology, Jacksonville State University**, virtual, March 14. (Job Talk; OP)
30. Peach LR^G, Waring KM, Fulé PZ, Swenson JK, Menon M, Eckert AJ, **Bagley JC** (2020) Unraveling drought sensitivity via dendroecological investigation of *Pinus strobiformis* & *P. flexilis* hybrid individuals. **Society of American Foresters National Convention**, virtual, October 29–31. (International Meeting; PP)
29. **Bagley JC**, Uribe–Convers S, Carlsen MM, Muchhala N (2019) Assessing the utility of Hyb-Seq for resolving phylogeny and introgression in rapid angiosperm radiations: a pilot study in *Burmeistera* bellflowers. **Department of Biology Biolunch**, University of Missouri–St. Louis, St. Louis, MO, October 16. (University OP)
28. **Bagley JC**, Uribe–Convers S, Carlsen M, Muchhala N (2019) Assessing the utility of Hyb-Seq for resolving phylogeny and introgression in rapid angiosperm radiations: a pilot study in *Burmeistera* bellflowers. **Evolution Meeting 2019**, Providence, RI, June 21–25. (International Meeting; PP)
27. Calderon–Acevedo C^G, **Bagley JC**, Muchhala N (2019) Genome-wide ultraconserved elements resolve phylogenetic relationships among leaf-nosed bats in the genus *Anoura* Gray 1838. **99th Annual Meeting of the American Society of Mammalogists**, Washington, DC, June 27–July 2. (National Meeting; OP)
26. Menon M^G, Page G, **Bagley JC**, Cushman S, Waring K, Whipple A, Flores–Rentería L, Still C, Wehenkel C, Eckert AJ (2019) Introgression fuels adaptive evolution in range margin populations of *Pinus strobiformis*. **Evolution Meeting 2019**, Providence, RI, June 21–25. (International Meeting; OP)
25. Menon M, Landguth E, Leal–Sáenz A, **Bagley JC**, Wehenkel C, Waring K, Schoettle A, Eckert AJ (2018) The role of hybridization during ecological divergence of *Pinus strobiformis* and *P. flexilis*. **Population, Evolutionary and Quantitative Genetics Conference (GSA)**, Madison, WI, May 13–16. (International

Meeting; PP)

24. Menon M^G, Sáenz AL^G, Landguth E, **Bagley JC**, Schoettle A, Wehenkel CA, Cushman S, Waring K, Eckert AJ (2018) Tracing the footprints of a hybrid zone under a history of divergence with gene flow. **21st Annual Graduate Research Symposium and Exhibit**, Virginia Commonwealth University, Richmond, VA, April 24. (University Symposium; PP)
23. **Bagley JC**, Menon M^G, Friedline C, Whipple A, Schoettle A, Sáenz AL^G, Wehenkel CA, Flores-Rentería LH, Snieszko R, Cushman S, Waring K, Eckert AJ (2018) Population genomics and paleoclimatic modeling support speciation with gene flow, not genomic islands of differentiation, in sky-island populations of southwestern white pine. **International Plant & Animal Genome Conference XXVI**, San Diego, CA, January 13–17. (International Meeting; PP)
22. **Bagley JC**, Aquino PPU, Hrbek T, Hernandez S, Langeani F, Colli GR (2017) Using ddRAD-seq phylogeography to test for genetic effects of headwater river capture in suckermouth armored catfish (Loricariidae: *Hypostomus*) from the central Brazilian Shield. **Evolution Meeting 2017**, Portland, OR, June 23–27. (International Meeting; OP)
21. **Bagley JC**, Menon M^G, Friedline C, Whipple A, Schoettle A, Sáenz AL^G, Wehenkel CA, McGarvey D, Flores-Rentería LH, Snieszko R, Cushman S, Waring K, Eckert AJ (2017) Population genomics and paleoclimatic modeling support speciation with gene flow, not genomic islands of differentiation, in sky-island populations of southwestern white pine. **Evolution Meeting 2017**, Portland, OR, June 23–27. (International Meeting; PP)
20. Menon M^G, **Bagley JC**, Friedline C, Whipple A, Schoettle A, Sáenz AL^G, Wehenkel CA, McGarvey D, Flores-Rentería LH, Snieszko R, Cushman S, Waring K, Eckert AJ (2017) What's in a name? Ecological speciation in southwestern white pine. **Evolution Meeting 2017**, Portland, OR, June 23–27. (International Meeting; OP)
19. Ferrari TB^U, Breitman MF, Domingos F, Wiederhecker HC, **Bagley JC**, de Mello R, de Lima TG, Colli G (2017) Taxonomia integrativa e delimitação de espécies no Cerrado: uma nova espécie de *Enyalius* (Squamata: Leiosauridae) endemic do bioma. **VIII Congresso Brasileiro de Herpetologia**, Mato Grosso, Brazil. (National Meeting; Abstract + OP)
18. Wiederhecker HC, Breitman MF, Domingos F, **Bagley J**, Colli G (2017) Next-Generation Teaching: ensinando ao pesquisar taxonomia integrativa beneficia estudantes e professores. **VIII Congresso Brasileiro de Herpetologia**. (National Meeting; Abstract + OP)
17. Aquino PPU, **Bagley JC**, Couto TBA, Figueira-Soares YF^U (2015) Sinal biogeográfico de captura de cabeceira: primeiro registro de *Phalloceros harpagos* Lucinda, 2008 (Cyprinodontiformes: Poeciliidae) em riachos da bacia do rio São Francisco. **III Simpósio de Zoologia Sistemática**, UFMG Campus Pampulha, Belo Horizonte, Minas Gerais, Brazil, December 16–20. (Regional Meeting; Abstract + PP)
16. Unmack PJ, **Bagley JC**, Davis A, Hammer MP, Adams M, Johnson JB (2014) Phylogeny, biogeography and evolution of the temperate perches (Percichthyidae). **Australian Society for Fish Biology**, Darwin Convention Center, Darwin, Northern Territory, Australia, June 30–July 4. (National Meeting; Abstract + PP)
15. **Bagley JC**^G, Alda FA, Breitman MF, van den Berghe EP, Bermingham E, John-

- son JB (2014) Who's your "molly"? Species boundaries and cryptic diversity in a complex of Neotropical freshwater fishes. **BYU Grad Expo**, Brigham Young University, Provo, UT, U.S.A., March 25. (Invited PP)
14. **Bagley JC^G** (2014) Paleoclimatic modeling and phylogeography of least killifish, *Heterandria formosa*: insights into Pleistocene expansion-contraction dynamics along the North American Coastal Plain. **Center for Bioenvironmental Research**, Tulane University, New Orleans, Louisiana, U.S.A., January 13. (Invited OP)
 13. **Bagley JC^G**, Johnson JB (2013) Phylogeography of the lower Central American Neotropics: diversification between two continents, between two seas. **Joint International Meeting of Ichthyologists and Herpetologists**, Albuquerque, New Mexico, U.S.A., July 9–15. (International Meeting; Abstract + OP)
 12. **Bagley JC^G**, Sandel M, Travis J, Lozano-Vilano M de L, Johnson JB (2013) Testing biogeographic hypotheses of Plio–Pleistocene history and diversification along the North American Gulf-Atlantic Coastal Plain in least killifish (*Heterandria formosa*). **Evolution Conference**, Snowbird Resort, Salt Lake City, Utah, U.S.A., June 20–25. (International Meeting; PP)
 11. **Bagley JC^G** (2012) Integrative comparative phylogeographical approaches to understanding evolutionary diversification in Central American freshwater fishes. **São Paulo School for Advanced Science-Evolution (SPSAS-evo)**, Ilhabela, Brazil, August 19–31. (International Workshop; PP)
 10. **Bagley JC^G**, Johnson JB (2012) Comparative phylogeography of Central American freshwater fishes. **1st Joint Congress on Evolutionary Biology**, Ottawa, Ontario, Canada, July 6–10. (International Meeting; PP)
 9. Lozano-Vilano M de L, **Bagley JC^G** (2010) A new species of *Heterandria* from Coahuila state, México. **Annual Meeting of the Texas Academy of Sciences**, Austin, Texas, U.S.A. (Abstract)
 8. **Bagley JC^G**, Johnson JB (2010) Do secondary freshwater fishes show congruent responses to saltwater barriers? **Evolution 2010**, Joint Annual Meeting of the Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists, Portland, Oregon, U.S.A., June 25–29. (International Meeting; OP)
 7. Nay L^U, **Bagley JC^G**, Johnson JB (2009) Life history variation in the knife-edged livebearer, *Alfaro cultratus*. **Joint International Meeting of Ichthyologists and Herpetologists**, Portland, Oregon, U.S.A., July 22–27. (International Meeting; Abstract + PP)
 6. **Bagley JC^G** (2009) Phylogenetic comparative analyses of body size and shape variation in a diverse yet morphologically conservative clade of lungless salamanders (Plethodontidae: Desmognathus). **Department of Biology Ecolunch Seminar**, Brigham Young University, Provo, Utah, U.S.A., January 30. (OP)
 5. **Bagley JC^G**, Brummer T^U, Nay L^U, Johnson JB (2008) Phylogeography, geometric morphometrics, and life history variation of *Alfaro cultratus* (Cyprinodontiformes: Poeciliidae) from Costa Rica. **Desert Fishes Council Meeting**, Cuatro Ciénegas, Mexico, November. (Annual Meeting; Abstract + PP)
 4. **Bagley JC^G** (2008) Polyphyly, hybridization and cryptic biodiversity among *Micropterus*. **Desert Fishes Council Meeting**, Cuatro Ciénegas, Mexico, November. (Annual Meeting; Abstract + OP)
 3. **Bagley JC^G** (2008) A new molecular phylogeny of the black basses, *Micropterus*

(Teleostei: Centrarchidae), based on increased within-taxon sampling. **Department of Biology Ecolunch Seminar**, Brigham Young University, Provo, Utah, U.S.A., October 31. (OP)

2. **Bagley JC^G**, Harris PM (2008) Taxonomy, population genetics and body shape variation in Alabama spotted bass. **Joint International Meeting of Ichthyologists and Herpetologists**, Montreal, Quebec, Canada. (International Meeting; Abstract + OP)
1. **Bagley JC^U**, Secor SM (2004) Allometry of digestive performance in the marine toad and diamondback water snake. **Society for Integrative and Comparative Biology Meeting**, San Diego, California, U.S.A. (Annual Meeting; Abstract + PP)

GRANTS &
FELLOWSHIPS
(TOTAL: \$208,324)

Dec 2022	AUM Experiential Education and Engagement Center (EEEC) <i>Undergraduate Research and Creative Activity Award</i> (\$3,680)
Oct 2021	Alabama Division of Wildlife and Freshwater Fisheries <i>Coopertative Endangered Species Conservation Fund</i> (\$44,736)
Oct 2021	JSU Faculty Research Grant (\$3000)
Jan 2019	<i>J. Frank Schmidt Family Charitable Foundation Grant</i> (\$6480)
Sep 2014	<i>Young Talent Fellow, Science Without Borders Program</i> (\$77,040) Conselho Nacional de Desenvolvimento Cientifico e Tecnologico (CNPq), Brazil
Apr 2012	<i>Doctoral Dissertation Improvement Grant</i> (DDIG) (\$14,040) U.S. National Science Foundation (NSF)
Aug 2012	<i>Graduate Research Fellowship</i> (\$15,000) Graduate Studies, Brigham Young University
2010	<i>IDEA WILD Research Equipment Award</i> (\$800)
2010	<i>Graduate Mentoring Environment Research Award</i> (\$5000) Brigham Young University
Aug 2008	<i>Board of Regents Fellowship</i> (\$24,000; declined) University of Louisiana, Lafayette
May 2007	<i>LINK Foundation/Smithsonian Research Fellowship, SMSFP</i> (\$5548)
Jan 2007	<i>Collegiate License Tag Endowed Grad. Education Fund Fellowship</i> (\$19,000) The University of Alabama
May 2002	<i>Phi Theta Kappa Presidential Scholarship to The University of Alabama</i> (\$14,000) Association of Alabama Two-Year Colleges

ACADEMIC HONORS
& TRAVEL AWARDS
(TOTAL: \$5225)

Feb 2022	Nominee, <i>The Chamber, Gadsden/Etowah County Excellence in Education Award</i>
Oct 2021	<i>PhylogatR Beta-Testing Workshop, Mountain Lake Biological Station, Travel Award (\$700)</i>
2018	<i>Full Member, Sigma Xi, The Scientific Research Society</i>
2012	<i>São Paulo School for Advanced Science-Evolution (SPSAS-evo) course, São Paulo, Brazil (\$2500)</i>
2009	<i>National Academy of Sciences Sackler Colloquium Student Travel Award (\$425)</i>
2007	<i>The University of Alabama Graduate Student Association Research and Travel Support Fund Grant (\$1000)</i>
2007	<i>The University of Alabama Graduate School Research and Travel Fund Award (\$600)</i>

TEACHING
EXPERIENCE

Abbreviations: Auburn University at Montgomery (AUM), Brigham Young University (BYU), The University of Alabama (UA), Universidade de Brasília (UnB), Virginia Commonwealth University (VCU), University of Missouri-St. Louis (UMSL), Jacksonville State University (JSU)

General Biology

Introductory Biology I (undergraduate, blended majors/non-majors)

Instructor, BY 101 (JSU, Spring 2022, 2 sections)

Instructor, BY 101 (JSU, Spring 2021, 2 sections)

Instructor, BY 101 (JSU, Fall 2020, 2 sections)

Principles of Biology (undergraduate, non-majors)

Student Instructor, BIO 100 (BYU, Summer 2014)

Co-Instructor with Keith Crandall, BIO 100H Honors section (BYU, Fall 2011)

Graduate Teaching Assistant to Duke Rogers, BIO 100 (BYU, Fall 2010)

Graduate Teaching Assistant to Richard Gill, BIO 100 (BYU, Winter 2009)

Principles of Biology I Laboratory (undergraduate)

Graduate Teaching Assistant to Jane Rasco, BSC 115 (UA, 2006 – 2008)

Honors Principles of Biology II (undergraduate)

Instructor, BY 106 (JSU, Spring 2022, 1 section)

Ecology and Evolution

Ecology (undergraduate)

Instructor of Record, BIOL 4200/4201 (AUM, Fall 2022 – lecture + lab)

General Ecology (undergraduate)

Instructor, BY 332 (JSU, Fall 2021 – lecture + CURE lab)

Instructor, BIOL 3700 (UVU, Summer 2014)

Co-Instructor with Russell Rader, BIO 350 (BYU, Winter 2012)

Evolutionary Biology Laboratory (undergraduate)

Graduate Teaching Assistant to Michael Whiting, BIO 421 (BYU, Winter 2010)

Seminar in Systematics (graduate)
Instructor, BY 577 (JSU, Fall 2020, 1 section)

Advanced Evolution
Guest Lecturer for Nathan Muchhala, BIOL 5302 (UMSL, Spring 2019)

Integrative Taxonomy (with an Emphasis on Squamata) (undergraduate + graduate)
Co-Instructor, BIOL 391 (VCU, Summer 2017 – CURE)
Co-Instructor, ZOO 397806 (UnB, Spring 2016 – CURE)

Zoology

Zoology (undergraduate)
Instructor, BIOL 2030/2031 (AUM, Fall 2022 – lecture + lab)

Ichthyology

Ichthyology (undergraduate + graduate)
Instructor, BY 460 (JSU, Spring 2021, lecture + lab)

Training

JSU Online Online Teaching Course
Faculty Participant (JSU, Fall 2020)

Teaching Advancement Program (TAP) Course
Graduate Student Participant (UA, 2007)

Academic Advisor to Graduate Students

Christian Braswell, M.Sc., Biology, JSU (2021 – 2022)

Early Mentoring of Students in Research – I mentored/am mentoring the following graduate and undergraduate students in research at Auburn University at Montgomery (AUM), Brigham Young University (BYU), Universidade de Brasília (UnB), Virginia Commonwealth University (VCU), and the University of Missouri-St. Louis (UMSL), or Jacksonville State University (JSU). Information is given as [*student, degree/major, university, (years)*].

Graduate Students

Camilo A. Calderón–Acevedo, Ph.D., Biology, UMSL (2019)
(research collaborator/mentee; Ph.D. advisor: N. Muchhala)

Undergraduate Students

Kailey Higgins, B.Sc., Marine Biology, AUM (2022 – 2023)
Rachel Bonner, B.Sc., Biology, JSU (2021 – 2022)
Kayla Morrow, B.Sc., Biology, JSU (2021 – 2022)
Macee Glick, B.Sc., Biology, JSU (2021 – 2022)
43 Students, BY 332 Ecology CURE, JSU (Fall 2021)
Zachary Grasso, B.Sc., Biology, VCU (2018)
Samantha Moon, B.Sc., Biology, VCU (2017 – 2018)
Ingrid Pinheiro Paschoaletto, B.Sc., Zoologia, UnB (2015 – 2017)
Dean Trubschenck, B.Sc., Biology, BYU (2010 – 2013)
Joseph Nelson, B.Sc., Biology, BYU (2010 – 2012)
Zachary Panter, B.Sc., Biology, BYU (2010 – 2013)
Lacey Nay, B.Sc., Biology, BYU (2008 – 2009)

UNIVERSITY
SERVICE

University Service Positions (2021 – present)

Member, Institutional Review Board (IRB), Jacksonville State University (2021)

College Service Positions (2021 – present)

Outside Member, Inorganic Chemist Search Committee, Department of Chemistry and Geosciences, Jacksonville State University (Spring 2021)

Department Service Positions (2021 – present)

Member, Graduate Curriculum Committee, Department of Biology (Fall 2021 – Spring 2022)

REVIEWER

Editorial Positions (2020 – present)

Review Editor, Editorial Board, Frontiers in Ecology and Evolution [section: Phylogenetics, Phylogenomics, and Systematics; Impact factor (2019): 2.416].

Journal Reviews (24, 2011 – present)

Molecular Ecology (4)

Ecology and Evolution (3)

Molecular Phylogenetics and Evolution (3)

Frontiers in Ecology and Evolution (2)

Conservation Genetics (2)

Systematic Biology (1)

Environmental Biology of Fishes (1)

Heredity (1)

Journal of Heredity (1)

Journal of Biogeography (1)

Journal of Fish Biology (1)

Neotropical Ichthyology (1)

PeerJ (1)

Proceedings of the Royal Society of London B (1)

Scientific Reports (1)

Transactions of the Royal Society of South Africa (1)

Zoological Journal of the Linnean Society (1)

OTHER SERVICE &
OUTREACH

April 2021

Student Presentation Judge

Dauphin Island Sea Lab (DISL) MSGSO Graduate Student Symposium

Dec 2017

World scientists' warning to humanity: A second notice. Signatory. BioScience, 67(12), 1026–1028.

Winter 2014 *BYU Grad Expo* (Department of Biology representative)
 Graduate Studies, Brigham Young University
 Jun 2009 *Day Instructor, Summer Science Fish Camp*
 Canyon Brook Private School, Provo, Utah
 Oct 2008 *Conservation Field Trip, Desert Springs Action Committee*
 (DSAC)
 Ash Meadows National Wildlife Refuge
 Oct 2008 *Course Field Trip to sample Spanish Fork River*
Ichthyology, BIO 220/443, Brigham Young University

PROFESSIONAL
ORGANIZATIONS

2022 –present *American Association of Geographers (AAG)*
 2018 –present *Sigma Xi, The Scientific Research Society*
 2014 – 2019 *American Association for the Advancement of Science (AAAS)*
 2010 – 2020 *Society of Systematic Biologists (SSB)*
 2007 –present *The Society for the Study of Evolution (SSE)*
 2007 – 2017 *The American Society of Naturalists (ASN)*
 2007 –present *American Society of Ichthyologists and Herpetologists (ASIH)*

PROFESSIONAL
REFERENCES

Dr. Jerald B. Johnson (Ph.D. Advisor and Collaborator)

Professor & Co-Curator of Fishes
Department of Biology & Monte L. Bean Life Science Museum
Brigham Young University
4102 LSB (Life Sciences Building)
Provo, UT 84602-5535, U.S.A.
Phone: (801)-310-4957
E-mail: jerry.johnson@byu.edu

Dr. Keith A. Crandall (Ph.D. Committee Member and Co-Instructor)

Professor and Chair—Computational Biology Institute
George Washington University
Innovation Hall, 45085 University Drive, Suite 305
Ashburn, VA 20147, U.S.A.
Phone: (571)-553-0107
E-mail: kcrandall@gwu.edu

Dr. Andrew J. Eckert (Postdoc Advisor and Collaborator)

Associate Professor
Department of Biology
Virginia Commonwealth University
1000 W Cary St, Rm 126
Richmond, VA 23284-2012, U.S.A.
Phone: (804)-828-0800
E-mail: aeckert2@vcu.edu

Dr. Nathan Muchhala (Postdoc Advisor and Collaborator)

Associate Professor
Department of Biology
University of Missouri–St. Louis
1 University Blvd., 223 Research Building,
St. Louis, MO 63121-4400, U.S.A.
Phone: (314) 516-6672
E-mail: muchhala@umsl.edu

Last update: 24 January 2023