

**Edward D. Burress**  
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## **Summary**

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Peer-reviewed papers: 22 (16 first-author)

Citations: 241 (via Google Scholar)

h-index: 10 (via Google Scholar)

Website: <http://edb0014.wix.com/edwardburress>

## **Education**

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Ph.D. Biology, Auburn University, Auburn, AL 36849. 2017.

M.S. Biology, Appalachian State University, Boone, NC 28608. 2012.

B.S. Biology, Lees-McRae College, Banner Elk, NC 28604. 2009.

## **Postdoctoral Experience**

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2017-present. Postdoctoral scholar. Department of Evolution and Ecology, University of California, Davis. Peter Wainwright Lab.

## **Publications**

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- (22) Burress, E.D., M. Tan, & P.C. Wainwright. Head shape modulates the diversification of a classic cichlid pharyngeal jaw innovation. *American Naturalist*. DOI: 10.1086/705392.
- (21) Burress, E.D. & P.C. Wainwright. 2019. Adaptive radiation in labrid fishes: a central role for functional innovations during 65 My of relentless diversification. *Evolution* 73:346-359.
- (20) Piálek, L., E.D. Burress, K. Dragová, A. Almiron, J. Casciotta, O. Říčan. 2018. Phylogenomics of pike cichlids (Cichlidae: *Crenicichla*) of the *C. mandelburgeri* species complex: rapid ecological speciation in the Iguazú River and high endemism in the Middle Paraná basin. *Hydrobiologia* 10.1007/s10750-018-3733-6.
- (19) Kokubun, E.E., K.O. Bonato, E.D. Burress, C.B. Fialho. 2018. Diet and body shape among populations of *Bryconamericus iheringii* (Otophysi: Characidae) across the Campos Sulinos ecosystem. *Neotropical Ichthyology* 16, e170167.
- (18) Burress, E.D., L. Piálek, J.R. Casciotta, A. Almirón, M. Tan, J.W. Armbruster, O. Říčan. 2018. Lake- and island-like adaptive radiations replicated in rivers. *Proceedings of the Royal Society B*, 20171762.
- (17) Burress, E.D., F. Alda, A. Duarte, M. Loureiro, J.W. Armbruster, P. Chakrabarty. 2018. Phylogenomics of pike cichlids (Cichlidae: *Crenicichla*): the rapid evolution and trophic diversification of an incipient species flock. *Journal of Evolutionary Biology* 31: 14-30.
- (16) Burress, E.D. & M. Tan. 2017. Ecological opportunity alters the timing and shape of adaptive radiation. *Evolution* 71: 2650-2660.
- (15) Bonato, K.O., E.D. Burress, C.B. Fialho, J.W. Armbruster. 2017. Resource partitioning among syntopic Characidae corroborated by gut content and stable isotope analyses. *Hydrobiologia*. doi: 10.1007/s10750-017-3314-0.
- (14) Burress, P.B.H., E.D. Burress, J.W. Armbruster. 2017. Body shape variation within the Southern Cavefish, *Typhlichthys subterraneus* (Percopsiformes: Amblyopsidae). *Zoomorphology*. doi:10.1007/s00435-017-0360-0.
- (13) Bonato, K.O., Burress, E.D., & Fialho, C.B. 2017. Dietary differentiation in relation to mouth and tooth morphology of a neotropical characid fish community. *Zoologischer Anzeiger* 267: 31-40.

- (12) Burress, E.D., Holcomb, J.M., Tan, M., & Armbruster, J.W. 2016. Ecological diversification associated with the benthic-to-pelagic transition by North American minnows. *Journal of Evolutionary Biology* 30: 549-560.
- (11) Burress, E.D., Holcomb, J.M., Orlandi-Bonato, K., & Armbruster, J.W. 2016. Body size is negatively correlated with trophic position among cyprinids. *Royal Society Open Science* 3: 150652.
- (10) Burress, E.D., Holcomb, J.M., & Armbruster, J.W. 2016. Ecological clustering within a diverse minnow assemblage according to morphological, dietary and isotopic data. *Freshwater Biology* 61: 328-339.
- (9) Burress, E.D. 2016. Ecological diversification associated with the pharyngeal jaw diversity of Neotropical cichlid fishes. *Journal of Animal Ecology* 85: 302-313.
- (8) Burress, E.D., Duarte, A., Serra, W.S., & Loureiro, M. 2015. Rates of piscivory predict pharyngeal jaw morphology in a piscivorous lineage of cichlid fishes. *Ecology of Freshwater Fish* 25: 590-598.
- (7) Burress, E.D. 2015. Cichlid fishes as models of ecological diversification: patterns, mechanisms, and consequences. *Hydrobiologia* 748: 7-27.
- (6) Burress, E.D., A. Duarte, W.S. Serra, M. Loureiro, M.M. Gangloff, & L. Siefferman. 2013. Functional diversification of a predatory species flock. *PLOS One* e80929
- (5) Burress, E.D., M.M. Gangloff, & L. Siefferman. 2013. Trophic analysis of two subtropical South American freshwater crabs using stable isotope ratios. *Hydrobiologia* 702: 5-13.
- (4) Burress, E.D., A. Duarte, M.M. Gangloff, & L. Siefferman. 2013. Isotopic trophic guild structure of a diverse subtropical South American fish community. *Ecology of Freshwater Fish* 22: 66-72.
- (3) Burress, E.D., A. Duarte, W.S. Serra, M.M. Gangloff & L. Siefferman. 2013. Species-specific ontogenetic diet shifts among Neotropical *Crenicichla*: using stable isotopes and tissue stoichiometry. *Journal of Fish Biology* 82: 1904-1915.
- (2) Serra, W.S., M. Zarucki, A. Duarte, E.D. Burress, F. Teixeira-de-Mella, I. González-Bergonzoni & M. Loureiro. 2013. New records of characiform fishes (Ostariophysi: Characiformes) for Uruguay. *Checklist* 9: 1576-1579.
- (1) Serra, W.S., A. Duarte, E.D. Burress, & M. Loureiro. 2011. Pisces, Perciformes, Cichlidae, *Crenicichla tendybaguassu* Lucena & Kullander, 1992: First record for Uruguay. *Checklist*: 7: 357-359.

### **Academic Awards and Grants**

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Czech Science Foundation (#19-200125). “Genomics of replicated cichlid diversification in rivers: the role of hybridization in adaptive radiation of Neotropical pike cichlids (*Crenicichla*)”. Funding term: 2019-2021. \$354,622 (USD). PIs: Lubomír Piálek, Oldřich Říčan. International collaborators: Milan Malinsky, Edward Burress.

College of Science and Mathematics (COSAM) *Dean’s Graduate Student Research Award*. 2017. Auburn University.

*Stoye General Ichthyology Award* for best student oral presentation by the American Society of Ichthyologists and Herpetologists. 2016. Baton Rouge, LA.

1<sup>st</sup> Place Student Talk. Southeastern Fishes Council. 2014. *The influence of phylogeny on minnow morphology, behavior, and physiology*. Asheville, NC.

M.S. Thesis nominated by the Appalachian State University Biology Department for *Outstanding Thesis Award in Science, Technology, and Mathematics*. 2012.

Jim Smith Fund. 2013-2014.

Guy Jordan Endowment Fund. 2013-2014.

Sigma Xi Grants-In-Aid. 2010-2011.

Paul V. Loiselle Conservation Fund. 2010-2011.

Office of Student Research, International Research Grant. 2010-2011, 2009-2010.

## Teaching Experience

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Instructor of Record – *Ecology* – During the 2015-2017 Summer semesters, I was the Instructor of Record for the Ecology course at Auburn University. I was responsible for all aspects of the course, including the development of lectures, exams, course-specific policy, and implementation of laboratory (laboratory was taught by graduate teaching assistants).

## Additional Teaching Experience

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2012-2017	Ecology, T.A., (Spring and Fall Semesters), Auburn University
2012 (S)	Ecology, T.A., Appalachian State University
2011 (F)	Ichthyology, T.A., Appalachian State University
2011 (S)	Concepts in Biology II, T.A., Appalachian State University
2010 (F)	Concepts in Biology I, T.A., Appalachian State University
2010 (S)	Animal Behavior, T.A., Appalachian State University
2009 (F)	Concepts in Biology I, T.A., Appalachian State University

## Teaching Reviews

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My average student review score is 4.45 (5 point scale). Student comments that frequent reviews include: willingness to help, approachableness, and laid-back teaching style.

## Select Oral Presentations

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- Burress, E.D. & Wainwright, P.C. 2019. Adaptive radiation in labrid fishes: a central role for functional innovations during 65 My of relentless diversification. Society for Integrative and Comparative Biology. Tampa, Florida.
- Burress, E.D. & Tan, M. 2018. Ecological opportunity alters the timing and shape of adaptive radiation. Society for Integrative and Comparative Biology. San Francisco, California.
- Burress, E.D., Tan, M., & Armbruster, J.W. 2017. Evolution of pharyngeal jaw shape, size, and associated musculature across the Neotropical cichlid phylogeny. Society for comparative and integrative biologists. New Orleans, LA.
- Burress, E.D., Oldrich, O., Pialek, P., Casciotta, J., Almiron, Tan, M., & Armbruster, J.W. 2016. Parallel phenotypic diversification and rapid speciation of *Crenicichla* species flocks: riverine analogs to the East African Great Lake cichlids. Joint Meeting of Ichthyologists and Herpetologists. Baton Rouge, LA. **\*Awarded ASIH Stoye General Ichthyology Award.**
- Burress, E.D., Oldrich, O., Pialek, P., Casciotta, J., Almiron, Tan, M., & Armbruster, J.W. 2016. Parallel phenotypic diversification and rapid speciation of *Crenicichla* species flocks: riverine analogs to the East African Great Lake cichlids. Evolution. Austin, TX.
- Burress, E.D., Holcomb, J.M., Tan, M., & Armbruster, J.W. 2016. Ecological diversification associated with the benthic-to-pelagic transition by North American minnows. Southeastern Fishes Council. Jackson, MS. **\*Awarded 3<sup>rd</sup> Place student talk.**
- Burress, E.D., Tan, M., & Armbruster, J.W. 2015. Craniofacial diversification among cichlid fishes. Joint Meeting of Ichthyologists and Herpetologists. Reno, NV.
- Burress, E.D., Holcomb, J.M., & Armbruster, J.W. 2015. Body size is negatively correlated with trophic position among minnows. Southeastern Fishes Council. Gainesville, FL.
- Burress, E.D., J.M. Holcomb, J.W. Armbruster. 2014. The influence of phylogeny on minnow morphology, behavior, and physiology. Southeastern Fishes Council. Asheville, NC. **\*Awarded best student talk.**
- Burress, E.D., M. Tan, & Jonathan W. Armbruster. 2014. Ecological diversification among Neotropical cichlid fishes. Joint Meeting of Ichthyologists and Herpetologists. Chattanooga, TN.

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**Reviewer contributions**

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Journal of Evolutionary Biology, Functional Ecology, Oikos, Freshwater Biology, Freshwater Science, Journal of Fish Biology, Ecology of Freshwater Fish, Hydrobiologia, Biological Journal of the Linnean Society, Neotropical Ichthyology, Royal Society Open Science, PeerJ, Zootaxa, Ecology and Evolution

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**Society Affiliations**

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Society for the Study of Evolution  
Society for Integrative and Comparative Biology  
American Society of Ichthyologists and Herpetologists

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**Outreach**

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2017-2018 Biodiversity Museum Day, University of California, Davis – showing the local public examples of the global fish diversity.  
2013-2016 Writing Consultant, Auburn University Miller Writing Center – providing consultation to undergraduate and graduate students in academic writing.  
2014-2016 AU Explore, College of Science and Mathematics, - leading tours of the AU Natural History Museum to local middle school children.  
2014-2016 Auburn University Museum of Natural History open house – leading tours of AUMNH to the local public.  
2014-2015 Mentoring Brazilian Intern in the use of stable isotopes in food web and dietary studies for her dissertation.

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**Administrative Positions**

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2016-2017 President. Biological Sciences Graduate Student Association. Auburn University.  
2014-2015 Vice President. Biological Sciences Graduate Student Association. Auburn University.

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**Outreach: Online media**

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My wildlife photography is featured for educational purposes on the following websites:

<http://aquaesfera.org/>

<http://cichlidae.us/>

<http://www.ciklid.org/>

<http://en.cyclopaedia.net/wiki/>

<http://www.planetainvertebrados.com.br/>

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**Active Collaborators**

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Oldrich Rican	University of South Bohemia, Czech Republic
Lubomir Piálek	University of South Bohemia, Czech Republic
Jorge Casciotta	Universidad Nacional de La Plata, Argentina
Alejandro Duarte	Universidad de la Republica, Uruguay
Marcelo Loureiro	Universidad de la Republica, Uruguay
Prosanta Chakrabarty	Louisiana State University, USA
Fernando Alda	Louisiana State University, USA
Milton Tan	George Washington University, USA

## References

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