

Bjorn Schmidt

Education

- 2016 Ph.D. in Biological Sciences
Dissertation: "A comparative study of genetic isolation in headwater fishes"
University of Southern Mississippi, Hattiesburg, Mississippi
- 2009 M.S. in Biology
Western Kentucky University, Bowling Green, Kentucky
- 2003 B.S. in Ecology and Evolutionary Biology
Tulane University, New Orleans, Louisiana

Research Interests

My research uses population genetic techniques to investigate questions in freshwater ecology, particularly examining intrinsic (ecological) effects and extrinsic (landscape) effects on functional connectivity and dispersal in freshwater fishes. My dissertation research examined characteristics that restrict dispersal in river networks, and my postdoctoral research examined characteristics that promote dispersal in anthropogenically connected systems.

Peer-Reviewed Publications

1. Kandathil Radhakrishnan, D., Akbar Ali, I., **Schmidt, B.**, John, E., Sivan Pillai, S., Sankar, T. (2019) Improvement of nutritional quality of live feed for aquaculture: an overview. *Aquaculture Research*. In press. <https://doi.org/10.1111/are.14357>
2. Qin, J., Cheng, F., Zhang L., **Schmidt, B.**, Liu, J, and Xie, S. (2019) Invasions of two estuarine gobiid species interactively induced from water diversion and saltwater intrusion. *Management of Biological Invasions* 10: 139-150. <https://doi.org/10.3391/mbi.2019.10.1.09>
3. Chen, W., **Schmidt, B.**, and He, S. (2018) The potential colonization histories of *Opsariichthys bidens* (Cyprinidae) in China using Bayesian binary MCMC analysis. *Gene* 676 (2018): 1-8. <https://doi.org/10.1016/j.gene.2018.07.019>
4. **Schmidt, B.**, Wang, Z., Cheng, F., and Xie, S. (2018) Ten novel microsatellite markers for the freshwater sleeper *Micropercops swinhonis* (Günther, 1873), with testing of cross-species amplification in two other fishes from suborder Gobioidi. *Journal of Applied Ichthyology* 2018; 00: 1-3. <https://doi.org/10.1111/jai.13750>
5. **Schmidt, B.** and Schaefer, J. (2018) Comparative genetic isolation patterns for multiple headwater fishes in three geographic regions. *Journal of Fish Biology* 92: 1090-1109. <https://doi.org/10.1111/jfb.13570>

6. **Schmidt, B.** and Schaefer, J. (2018) Ecological and landscape effects on genetic distance in an assemblage of headwater fishes. *Ecology of Freshwater Fish* 27: 617-631. <https://doi.org/10.1111/eff.12375>
7. Cheng, F., Zhao, S., **Schmidt, B.**, Ye, L., Hallerman, E., and Xie, S. (2018) Morphological but no genetic differentiation among fragmented populations of *Hemiculter leucisculus* (Actinopterygii, Cyprinidae) from a lake complex in the middle Yangtze, China. *Hydrobiologia* 809: 185-200. <https://doi.org/10.1007/s10750-017-3464-0>
8. Feldheim, K., Kreiser, B., **Schmidt, B.**, Duvernell, D., and Schaefer, J. (2014) Isolation and characterization of microsatellite loci for the blackstripe topminnow (*Fundulus notatus*) and their variability in two closely related species. *Journal of Fish Biology* 85: 1726-1732. [doi:10.1111/jfb.12469](https://doi.org/10.1111/jfb.12469)

Manuscripts in Preparation

1. **Schmidt, B.**, Zhen, W., Ren, P., Guo, C. Qin, J., Cheng, F., and Xie, S. A review of potential factors promoting fish movement in inter-basin water transfers, with emergent patterns from a trait-based risk analysis for a large-scale project in China. *under review*
2. **Schmidt, B.**, Qin, J., Cheng, F., and Xie, S. Differing patterns of movement during fish invasions of lakes likely influenced by seasonal timing of inter-basin water diversion.
3. Cheng, F., **Schmidt, B.**, and Xie S. Dramatic variations in the young-of-the-year fish assemblages after the spawning closure in the middle reaches of the Yangtze River. *under revision*
4. Ren, P., **Schmidt, B.**, Fang, D., and Xu, D. Temporal and spatial distribution patterns of fish egg and larvae assemblages in the lower reach of the Yangtze River ecosystem.

Teaching Experience

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| • Zoology lab | 8 semesters |
| • Principles of Biological Science lab | 2 semesters |
| • Biological Concepts: Evolution, Diversity and Ecology lab | 2 semesters |
| • Human Anatomy and Physiology lab | 1 semester |
| • Marine Biology lab | 1 semester |
| • General Biology lab for Non-Majors | 1 semester |
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Professional Service

- (2017) Member of foreign expert panel (“A review of aquaculture and fishery enhancement techniques used in the United States”). *Aquaculture training special session*. Jining, China
- Reviewer for *Molecular Biology, Freshwater Biology, Ecology and Evolution*, and *Copeia*

Work Experience

- 2019-Present Assistant Professor- Texas A&M- Commerce
- 2016-2019 Postdoctoral Researcher
Key Laboratory of Aquatic Biodiversity and Conservation, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan, China
- 2009-2016 Research and Teaching Assistant
University of Southern Mississippi, Hattiesburg, Mississippi
- 2006-2009 Research and Teaching Assistant
Western Kentucky University, Bowling Green, Kentucky
- 2006 Fisheries Technician
Aquatic Ecology Laboratory, Ohio State University, Columbus, Ohio
- 2005 Fisheries Technician
Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, Virginia
- 2005 Environmental Laboratory Assistant
Columbia Analytical Services, Jacksonville, Florida
- 2004 Fish and habitat sampling technician (EPA contractor)
Dynamac Corporation, Corvallis, Oregon
- 2003-2004 Fish Collection Curatorial Assistant
Tulane Museum of Natural History, Belle Chasse, Louisiana
- 2003 Water Quality Internship
Lake Pontchartrain Basin Foundation, Metairie, Louisiana
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Awards and Fellowships

- 2019 President's International Fellowship Initiative. *Chinese Academy of Sciences* – extension – 200,000 RMB
- 2017 President's International Fellowship Initiative. *Chinese Academy of Sciences* – 400,000 RMB

Conference Presentations

1. Schmidt, B. and Xie, S. (2018) Inter-basin water transfer facilitates movement and invasion for the Yangtze grenadier anchovy in Eastern China. *Marine and Freshwater Invasive Species, Aquatic Ecosystem Health and Management Society*. Beijing, China
2. Schmidt, B. and Xie, S. (2018) Range expansion and altered dispersal patterns between freshwater lakes facilitated by the East Route of China's South-to-North Water Diversion Project. *International Society of Limnology*. Nanjing, China
3. Schmidt, B., Qin, J., Cheng, F., and Xie, S. (2017) Effects of inter-basin water transfers on population connectivity of fishes. *American Fisheries Society*. Tampa, Florida, USA
4. Schmidt, B., Schaefer, J., and Kreiser, B. (2015) Examining isolation by distance and isolation by environment for six headwater and small stream resident fishes within six drainages in Mississippi and Arkansas. *Southeastern Fishes Council*. Gainesville, Florida, USA
5. Schmidt, B., Schaefer, J., and Kreiser, B. (2013) The influence of migration path characteristics on the population structure of *Fundulus olivaceus* and *Semotilus atromaculatus* in four drainages of Mississippi. *Southeastern Fishes Council*. Lake Guntersville, Alabama, USA
6. Schmidt, B. and Grubbs, S. (2009) A comparative ecological study of two sister species of darters in Kentucky, *Etheostoma kantuckeense* and *E. lawrencei*. *American Fisheries Society*. Nashville, Tennessee, USA
7. Schmidt, B. and Grubbs, S. (2008) A comparative ecological study of two disjunct, congeneric species of darters in Kentucky: *Etheostoma kantuckeense* and *E. lawrencei*. *Kentucky Academy of Sciences*. Louisville, Kentucky, USA
8. Schmidt, B. and Grubbs, S. (2007) Fish assemblage patterns in relation to environmental parameters in the Upper Barren River basin of Kentucky, with emphasis on the distribution of *Etheostoma kantuckeense*. *Kentucky Academy of Sciences*. Morehead, Kentucky, USA