

Bjorn Schmidt

Assistant Professor
Biological & Environmental Sciences
Texas A&M University-Commerce
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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 genetics to investigate questions in freshwater ecology, particularly examining intrinsic (ecological) effects and extrinsic (landscape) effects on functional connectivity and dispersal in vertebrates.

Peer-Reviewed Publications

1. **Schmidt, B.**, Zhen, W., Ren, P., Guo, C. Qin, J., Cheng, F., and Xie, S. (2020) 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. *Ecology of Freshwater Fish* 29: 790-807. <https://doi.org/10.1111/eff.12530>.
2. Qin, J., Xiang, M., Jia, M., Cheng, F., Zhang, L., **Schmidt, B.**, Liu, J., and Xie, S. (2020) Combined opportunistic and equilibrium life-history traits facilitate successful invasions of the Shimofuri goby (*Tridentiger bifasciatus*). *Aquatic Invasions* 15: 514-528.
3. Kandathil Radhakrishnan, D., Akbar Ali, I., **Schmidt, B.**, John, E., Sivanpillai, S., and Sankar, T. (2020) Improvement of nutritional quality of live feed for aquaculture: an overview. *Aquaculture Research* 51: 1-17.
4. Kandathil Radhakrishnan, D., Sasha, Z., Chen, Yushun, Cheng, F., Zhang, L., Jiao, Q., Thundiparambil Sathrajith, A., **Schmidt, B.**, and Xie, S. (2020) A comparison of zooplankton assemblages in Nansi Lake and Hogze Lake, potential influences of the East Route of the South-to-North Water Transfer Project, China. *Journal of Oceanology and Limnology*. <https://doi.org/10.1007/s00343-020-9288-1>.
5. Kandathil Radhakrishnan, D., Velayudhannair, K., and **Schmidt, B.** (2020) Effects of bio-flocculated algae on the growth, digestive enzyme activity and microflora of freshwater fish *Catla catla* (Hamilton 1922). *Aquaculture Research* 15: 4533-4540. <https://doi.org/10.1111/are.14798>.
6. Kandathil Radhakrishnan, D., Akbar Ali, I., Thundiparambil Sathrajith, A., **Schmidt, B.**, Sivanpillai, S., and Thazhakot Vasunambesan, S. (2020) Grazing rates of freshwater

- copepod *Thermocyclops decipiens* (Kiefer, 1929) on *Chlorella vulgaris* under different light intensities. *Aquaculture* 525. <https://doi.org/10.1016/j.aquaculture.2020.735321>.
7. Cheng, F., **Schmidt, B.**, Qin, J., and Xie, S. (2019) Short-term distribution patterns of young-of-the-year fish assemblages between the main stem and affiliated lakes in the middle reaches of the Yangtze River, China. *North American Journal of Fisheries Management* (early view). <https://doi.org/10.1002/nafm.10406>.
 8. 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>
 9. 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>
 10. **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>
 11. **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>
 12. **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>
 13. 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>
 14. 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)

Work Experience

2020-present	Assistant Professor <i>Texas A&M University-Commerce, Commerce, Texas</i>
2016-2019	Postdoctoral Researcher <i>Key Laboratory of Aquatic Biodiversity and Conservation, Institute of Hydrobiology, Chinese Academy of Sciences, Wuhan, China</i>
2009-2016	Research and Teaching Assistant <i>University of Southern Mississippi, Hattiesburg, Mississippi</i>
2006-2009	Research and Teaching Assistant <i>Western Kentucky University, Bowling Green, Kentucky</i>
2006	Fisheries Technician

- 2005 *Aquatic Ecology Laboratory, Ohio State University, Columbus, Ohio*
Fisheries Technician
- 2005 *Fisheries and Wildlife Sciences, Virginia Tech, Blacksburg, Virginia*
Environmental Laboratory Assistant
- 2004 *Columbia Analytical Services, Jacksonville, Florida*
Fish and habitat sampling technician (EPA contractor)
- 2003-2004 *Dynamac Corporation, Corvallis, Oregon*
Fish Collection Curatorial Assistant
- 2003 *Tulane Museum of Natural History, Belle Chasse, Louisiana*
Water Quality Internship
- 2003 *Lake Pontchartrain Basin Foundation, Metairie, Louisiana*

Awards and Fellowships

- 2019 President's International Fellowship Initiative. *Chinese Academy of Sciences* – extension – 300,000 RMB
- 2017 President's International Fellowship Initiative. *Chinese Academy of Sciences* – 400,000 RMB

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*

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

References

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