

Curriculum vita

James Henry Roberts, PhD

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CURRENT POSITION AND AFFILIATIONS

- Assistant Professor of Biology, Georgia Southern University
- Member of the Graduate Faculty, Georgia Southern University
- Certified Fisheries Biologist, American Fisheries Society

EDUCATION

2012 **Ph.D., Fish and Wildlife Conservation**

- Virginia Tech, Department of Fish and Wildlife Conservation
- Dissertation: *Using genetic markers to understand the population ecology of stream fishes*
- Advisors: Dr. Paul Angermeier and Dr. Eric Hallerman

2003 **M.S., Fisheries Science**

- Virginia Tech, Department of Fisheries and Wildlife Sciences
- Thesis: *Factors influencing darter dispersal patterns in the upper Roanoke River drainage*
- Advisor: Dr. Paul Angermeier

2000 **B.S., cum laude, Fisheries and Aquaculture**

- University of Georgia, Warnell School of Forest Resources
- Thesis: *Reproduction of longnose dace (*Rhinichthys cataractae*) in Coweeta Creek*
- Advisor: Dr. Gary Grossman

PROFESSIONAL EMPLOYMENT

August 2014-Present	Assistant Professor of Biology , Georgia Southern University
October 2012-July 2014	Postdoctoral Research Associate , Virginia Tech
May 2010-June 2010	Instructor , University of Virginia, Mountain Lake Biological Station
May 2002-September 2012	Research Specialist II , Virginia Tech
August 2000-April 2002	Graduate Research Assistant , Virginia Tech

COURSES TAUGHT

Spring 2016-present	Instructor : <i>Landscape Genetics</i> (BIOL 7090) Georgia Southern University
Spring 2016-present	Instructor : <i>Evolution and Ecology</i> (BIOL 3133) Georgia Southern University
Fall 2015-present	Instructor : <i>Ichthyology</i> (BIOL 5444/5444G) Georgia Southern University
Spring 2015-present	Instructor : <i>Fisheries Biology</i> (BIOL 5099/5099G) Georgia Southern University
Spring 2015-present	Instructor : <i>Conservation Biology</i> (BIOL 5534/5534G) Georgia Southern University
Fall 2014-present	Instructor : <i>Environmental Biology</i> (BIOL 1230) Georgia Southern University

Summer 2014	Co-Instructor: <i>Applied Conservation Genetics</i> (Short course) National Zoological Gardens, Pretoria, South Africa
Spring 2013	Co-Instructor: <i>Wildlife Field Biology</i> (FIW 2324) Virginia Tech
Summer 2013	Co-Instructor: <i>Applied Conservation Genetics</i> (Short course) International Livestock Research Institute, Nairobi, Kenya
Fall 2008-Fall 2012	Co-Instructor: <i>Applied Conservation Genetics</i> (FIW 6114) Virginia Tech
Fall 2011-Fall 2013	Instructor: <i>Ichthyology</i> , Roanoke Valley Virginia Master Naturalist Program
Summer 2010	Instructor: <i>Fish Ecology</i> (BIOL 4510) University of Virginia, Mountain Lake Biological Station
Spring 2006	Instructor: <i>Fish Ecology</i> (FIW 4614) Virginia Tech

PUBLICATIONS (* indicates student coauthor)

Scientific:

20. Moncrief, N.D., **J.H. Roberts**, E.M. Hallerman, R.A. Van Den Bussche, J.H. Porter, and R.D. Dueser. 2017. Landscape genetics of a raccoon (*Procyon lotor*) metapopulation in an undeveloped coastal island system. *Journal of Mammalogy* 98:1137-1155.
19. Eschenroeder, J.C.* and **J.H. Roberts**. 2016. Novel polymorphic microsatellite loci for distinguishing rock bass (*Ambloplites rupestris*), Roanoke bass (*A. cavifrons*), and their hybrids. *Molecular Biology Reports*. 43:1035-1039.
18. **Roberts, J.H.**, G.B. Anderson, and P.L. Angermeier. 2016. A long-term study of ecological impacts of river channelization on the population of an endangered fish: lessons learned for assessment and restoration. *Water* 8(6), 240, DOI: 10.3390/w8060240. **Invited paper** for a special issue on "Stream Ecosystems and Restoration: Linking Bioassessments to Improved Planning and Design Strategies".
17. **Roberts, J.H.**, P.L. Angermeier, and G.B. Anderson. 2016. Population viability analysis for endangered Roanoke logperch. *Journal of Fish and Wildlife Management*. 7:46-64.
16. **Roberts J.H.**, P.L. Angermeier, and E.M. Hallerman. 2016. Extensive dispersal of endangered Roanoke logperch inferred using genetic marker data. *Ecology of Freshwater Fish* 25:1-16. (First published in "online-early" format August 2014)
15. **Roberts, J.H.** and P.L. Angermeier. 2014. Chapter 4: Standardized methods for sampling fishes in streams of Panama. In: Puerta-Piñero C., Gullison R.E., Condit R.S. (eds). *Methods for monitoring biodiversity in Panama*. Smithsonian Tropical Research Institute, Washington, D.C. DOI: <http://dx.doi.org/10.5479/si.ctfs.0001>.
14. **Roberts J.H.**, P.L. Angermeier, and E.M. Hallerman. 2013. Distance, dams and drift: what structures populations of an endangered, benthic stream fish? *Freshwater Biology* 58:2050-2064.
13. Johnson J.B., **J.H. Roberts**, T.L. King, J.W. Edwards, W.M. Ford, and D.A. Ray. 2013. Genetic structuring of Northern myotis (*Myotis septentrionalis*) at multiple spatial scales. *Acta Theriologica* online early DOI: 10.1007/s13364-013-0163-8
12. Hitt N.P. and **J.H. Roberts**. 2012. Hierarchical spatial structure of stream fish colonization and extinction. *Oikos* 121:127-137.
11. **Roberts J.H.** 2011. First observation of a natural hybrid between endangered Roanoke Logperch (*Percina rex*) and Chainback Darter (*Percina nevisense*). *Southeastern Fishes Council Proceedings* 53:21-28.
10. Duncan M.B., S.E. DuRant, B.J.K. Ostby, **J.H. Roberts**, and J.D. Willson. 2011. A multi-taxa biological survey of Passage Creek, Virginia. *The Northeastern Naturalist* 18:357-369.
9. **Roberts J.H.** and N.P. Hitt. 2010. Longitudinal structure in temperate stream fish communities:

testing conceptual models with temporal data. Pages 281-299 in K. Gido and D. Jackson, eds. Community Ecology of North American Stream Fishes: Concepts, Approaches, and Techniques. American Fisheries Society, Bethesda, MD.

8. **Roberts J.H.** and A.E. Rosenberger. 2008. Threatened fishes of the world: *Percina rex* (Jordan and Evermann 1889) (Percidae). Environmental Biology of Fishes 83:439-440.
7. **Roberts J.H.**, A.E. Rosenberger, B. Albanese, and P. L. Angermeier. 2008. Movement patterns of endangered Roanoke logperch (*Percina rex*). Ecology of Freshwater Fish 17:374-381.
6. Dutton D.J.*, **J.H. Roberts**, P.L. Angermeier, and E.M. Hallerman. 2008. Microsatellite markers for endangered Roanoke logperch (*Percina rex*) and their potential utility for other species. Molecular Ecology Resources 8:831-834.
5. **Roberts J.H.** and P.L. Angermeier. 2007b. Movement responses of stream fishes to introduced corridors of complex cover. Transactions of the American Fisheries Society 136:971-978.
4. **Roberts J.H.** and P.L. Angermeier. 2007a. Spatiotemporal variability of stream habitat and movement of three species of fish. Oecologia 151:417-430.
3. **Roberts J.H.** and J.M. Kilpatrick. 2004. An experimental test of selectivity for benthic prey fishes given injected fluorescent marks. Journal of Freshwater Ecology 19:531-538.
2. **Roberts J.H.** and P.L. Angermeier. 2004. A comparison of injectable fluorescent marks in two genera of darters: effects on survival and retention rates. North American Journal of Fisheries Management 24:1017-1024.
1. **Roberts J.H.** and G.D. Grossman. 2001. Reproductive characteristics of female longnose dace in the Coweeta Creek drainage, North Carolina, USA. Ecology of Freshwater Fish 10:184-190.

Popular press:

3. Duong Y. and **J.H. Roberts**. 2010. Reflections on student involvement in the Genetics Section, the Parent Society, and beyond. Fisheries 35:188-189.
2. **Roberts J.H.** and E.A. Frimpong. 2009. The extensive and complex landscape of fish-related journals (Response to Mather et al. 2008). Fisheries 34:143-144.
1. **Roberts J.H.** 2004. Marvelous, misunderstood minnows. Virginia Wildlife 65:27-28.

SCIENTIFIC PRESENTATIONS (* indicates student coauthor)

Invited oral presentations:

9. **Roberts J.H.** The river of no return? Exploring the resiliency of stream-fish communities to hydrologic change. Invited presentation for the Department of Biology, Armstrong State University, October 2017, Savannah, Georgia.
8. **Roberts J.H.** How molecular genetic tools can advance the conservation of fish and wildlife populations. Invited presentation for the Warnell School of Forestry and Natural Resources, University of Georgia, October 2016, Athens, Georgia.
7. **Roberts J.H.** The sharpest tool in the shed? How molecular genetic studies help advance the conservation of freshwater fishes. Invited presentation for the Wildlife and Fisheries Department, Clemson University, October 2015, Clemson, South Carolina.
6. **Roberts J.H.**, P.L. Angermeier, B.W. Albanese, and J. Jiao. Linking individual movement to the demographics and evolution of fish populations. American Fisheries Society Annual Meeting, September 2011, Seattle, WA.
5. **Roberts J.H.**, P.L. Angermeier, and E.M. Hallerman. Using spatial ecological and genetic data to inform conservation of endangered Roanoke logperch. Southern Division American Fisheries Society

- Spring Meeting, January 2011, Tampa, FL. (**Awarded Best Student Paper**)
4. **Roberts J.H.**, E.M. Hallerman, J. Jones, and P.L. Angermeier. Effects of dams, reservoirs, and tailwaters on functional connectivity in the upper Tennessee River basin. American Fisheries Society Annual Meeting, September 2010, Pittsburgh, Pennsylvania.
 3. **Roberts J.H.**, D.J. Dutton, J.E. Davis, P.L. Angermeier, and E.M. Hallerman. Balancing risks to the endangered Roanoke logperch. American Fisheries Society Annual Meeting, August 2009, Nashville, Tennessee.
 2. **Roberts J.H.**, and N.P. Hitt. Persistence of longitudinal structure in stream fish communities. American Fisheries Society Annual Meeting, August 2008, Ottawa, Ontario.
 1. **Roberts J.H.** Spatial perspectives on the population ecology of benthic stream fishes. North American Benthological Society Annual Meeting, June 2007, Columbia, SC.

Contributed oral presentations:

25. Wheeler, C. and J.H. Roberts. How well does the flow-trait framework predict short-term fish community dynamics in unregulated rivers? Annual meeting of the Southeastern Fishes Council, October 2017, Chattanooga, Tennessee.
24. Scott, R.L.* and **J.H. Roberts**. What determines who is where in Atlantic Coastal Plain fish communities? Annual meeting of the Southeastern Fishes Council, October 2017, Chattanooga, Tennessee.
23. Scott, R.L.* and **J.H. Roberts**. Influences of local and regional environmental factors on Atlantic coastal plain stream fish communities. Annual meeting of the Georgia Chapter of the American Fisheries Society, January 2017, Statesboro, GA. (**Awarded Best Graduate Student Paper**)
22. Strickland, G.* and **J.H. Roberts**. Occupancy modeling of eDNA from an endangered darter in turbid rivers. Annual meeting of the Georgia Chapter of the American Fisheries Society, January 2017, Statesboro, GA. (**Awarded Runner-up for Best Graduate Student Paper**)
21. Eschenroeder, J.C.* and **J.H. Roberts**. On the extent of hybridization and replacement of Roanoke bass with invasive Rock bass. Annual Meeting of the American Fisheries Society, September 2016, Kansas City, MO.
20. Moncrief, N.D., **J.H. Roberts**, E.M. Hallerman, R.A. Van Den Bussche, and R.D. Dueser. Landscape genetics of raccoons (*Procyon lotor*) in a naturally fragmented coastal landscape. Annual meeting of the American Society of Mammalogists, June 2016, Minneapolis, MN.
19. Eschenroeder, J.C.* and **J.H. Roberts**. Hybridization and replacement of Roanoke bass (*Ambloplites cavifrons*) with invasive rock bass (*A. rupestris*) in Virginia: how big is the problem? Joint Meeting of the Virginia and North Carolina chapters of the American Fisheries Society, March 2016, Danville, VA. (**Awarded Best Student Paper**)
18. Eschenroeder, J.C.* and **J.H. Roberts**. Hybridization and replacement of Roanoke bass (*Ambloplites cavifrons*) with invasive rock bass (*A. rupestris*) in Virginia: A genetic assessment of the scope of the problem. Annual meeting of the Southeastern Fishes Council, November 2015, Gainesville, FL.
17. **Roberts, J.H.** A new framework for assessing and averting risks to fragmented populations of stream fish. Annual meeting of the Southeastern Fishes Council, November 2014, Asheville, NC.
16. **Roberts, J.H.**, E.M. Hallerman, and P.L. Angermeier. Potential for genetic monitoring to detect biotic impacts of river habitat fragmentation and land-use change. Annual meeting of the Virginia Chapter of the American Fisheries Society, February 2014, Fredericksburg, VA.
15. Angermeier, P.L., **J.H. Roberts**, J.C. Richard*, E.A. Frimpong, and N.P. Hitt. Perspectives on Stream Fish Movement: A Conceptual Framework and Empirical Tests. Virginia Mountain Stream Symposium, September 2013, Harrisonburg, VA.

14. Dueser, R.D., N.D. Moncrief, J.H. Porter, and **J.H. Roberts**. Raccoon Movement on the Virginia Barrier Islands (USA): A Challenge for Avian Habitat Restoration on a Naturally Fragmented Coastal Landscape. 11th International Mammalogical Congress, August 2013, Belfast, Northern Ireland.
13. **Roberts J.H.**, P.L. Angermeier, and E.M. Hallerman. A new framework to evaluate and avert risks to fragmented fish populations. 26th International Congress for Conservation Biology, July 2013, Baltimore, MD.
12. **Roberts J.H.**, J. Jiao, P.L. Angermeier, and B.W. Albanese. A meta-analysis of North American stream-fish movement studies. Annual meeting of the Virginia Chapter of the American Fisheries Society, February 2012, Blacksburg, VA.
11. Angermeier P.L., **J.H. Roberts**, N.P. Hitt, and B.W. Albanese. Roles of individual mobility and habitat use in shaping spatial structure and vulnerability of stream fish populations. American Fisheries Society Annual Meeting, September 2011, Seattle, WA.
10. **Roberts J.H.**, P.L. Angermeier, and E.M. Hallerman. Extensive dispersal of Roanoke logperch inferred from genetic marker data. Southeastern Fishes Council Annual Meeting, November 2010, Athens, GA. (**Awarded Best Student Paper**)
9. **Roberts J.H.**, and N.P. Hitt. Waterfalls, chubs, and the persistence of longitudinal "succession" in stream fish communities. Southern Division AFS Student Colloquium, October 2009, Blacksburg, VA.
8. **Roberts J.H.**, D.J. Dutton, J.E. Davis, P.L. Angermeier, and E.M. Hallerman. Population genetics and conservation of Roanoke logperch (*Percina rex*), an endangered stream fish. Society for Conservation Biology Annual Meeting, July 2008, Chattanooga, TN.
7. **Roberts J.H.** What is a population of darters? Southeastern Fishes Council Annual Meeting, November 2007, Chattanooga, TN.
6. **Roberts J.H.**, D.J. Dutton, P.L. Angermeier, and E.M. Hallerman. Incorporating population boundaries into Aquatic GAP assessments: is Gerrymandering in order? National GAP Analysis Conference, 2007, Asheville, NC.
5. **Roberts J.H.**, D.J. Dutton, P.L. Angermeier, and E.M. Hallerman. Using microsatellites to characterize the population structure of redline and greenside darters in the upper Tennessee River basin. Southern Division American Fisheries Society Spring Meeting, February 2007, Memphis, TN.
4. **Roberts J.H.** and P.L. Angermeier. Assumptions, evolution, and application of conceptual models of Roanoke logperch population dynamics. Southern Division American Fisheries Society Spring Meeting, February 2005, Virginia Beach, VA.
3. **Roberts J.H.** and P.L. Angermeier. A comparison of injectable fluorescent marks in two genera of darters: effects on mortality and retention rates. Southern Division American Fisheries Society Midyear Meeting, February 2003, Little Rock, AR.
2. **Roberts J.H.**, T.J. Newcomb, and M.J. Pinder. Assessment of biological integrity in an agriculturally impacted Virginia mountain stream. Virginia Academy of Sciences Annual Meeting, 2002, Virginia Beach, VA.
1. **Roberts J.H.** and P.L. Angermeier. Influences of instream features on the dispersal patterns of darters. Southern Division American Fisheries Society Meeting, February 2002, Jacksonville, FL.

Contributed posters:

7. Sibley, J.* and **J.H. Roberts**. Striped bass movement behavior and spawning chronology in the Ogeechee River. Annual meeting of the Southeastern Fishes Council, October 2017, Chattanooga, Tennessee.
6. Wendt, A.* and **J.H. Roberts**. Population structure and breeding biology of endangered reticulated

- flatwoods salamanders on Eglin Air Force Base, Florida. Joint Meeting of Ichthyologists and Herpetologists, July 2016. New Orleans, Louisiana.
5. Vance, G.* and **J.H. Roberts**. Comparative age and growth of two competing bass species. Department of Biology Undergraduate Research Symposium, April 2016. Georgia Southern University, Statesboro.
 4. Lutz, A.K.*; T. Kuhn*, C. Colón-Gaud, **J.H. Roberts**, and S.P. Vives. Consumer community structure along a ~200-km stretch of the Ogeechee River. Joint Meeting of the Georgia and Alabama Chapters of the American Fisheries Society, March 2016. Columbus, GA.
 3. Strickland, G.* and **J.H. Roberts**. Magical Waters: the fishes of Beautiful Eagle Creek. College of Science and Mathematics Annual Research Symposium, April 2015. Georgia Southern University, Statesboro.
 2. Plunkett, B.* and **J.H. Roberts**. A meristic and morphometric assessment of Roanoke bass, rock bass, and their hybrids. Southern Division American Fisheries Society Meeting, January 2014, Charleston, SC.
 1. Duncan, M.B.* and **J.H. Roberts**. A summary of the American Fisheries Society's restoration and monitoring efforts on Stroubles Creek. Dean's Forum on the Environment, 2007, Blacksburg, VA.

PRESENTATIONS TO CITIZEN GROUPS

6. **Roberts, J.H.** The rainforest in your backyard: biology and conservation of fish in the Roanoke River. Monthly meeting of the Roanoke Valley Chapter of Trout Unlimited, Roanoke, VA, May 2012.
5. **Roberts, J.H.** The rainforest in your backyard: biology and conservation of fish in the Roanoke River. Monthly meeting of the Roanoke Valley Chapter of the Sierra Club, Roanoke, VA, January 2012.
4. **Roberts, J.H.** The natives are restless: perceptions, misconceptions, and a way forward in the management of introduced aquatic species. Tennessee Aquarium, Chattanooga, TN, December 2011.
3. **Roberts, J.H.** Diversity and conservation of Roanoke River fishes. Keynote Address at Roanoke Valley Fall Waterways Cleanup Celebration, Roanoke, VA, October 2011.
2. **Roberts, J.H.** The king and his court: an overview of the ecology of *Percina rex* (and other Roanoke River natives). North American Native Fish Association Annual Meeting, Roanoke, VA, May 2011.
1. **Roberts, J.H.** Fish tales from the upper Roanoke River. Monthly meeting of the Upper Roanoke River Roundtable, Roanoke, VA, February 2005.

GRANT SUPPORT

At Georgia Southern University

- \$175,000 **Roberts, J.H.** (PI) and C.L. Cox (co-PI). 2017-2020. DNA marker development and genetic diversity analysis for priority mussel species in North Carolina. North Carolina Wildlife Resources Commission.
- \$87,247 **Roberts, J.H.** (PI). 2017-2019. Genetic restoration of endangered Roanoke logperch. National Fish and Wildlife Foundation.
- \$33,750 **Roberts, J.H.** (PI). 2017-2019. Evaluation of visual and acoustic methods for monitoring spawning Robust redhorse. Georgia Department of Natural Resources.
- \$9,438 **Roberts, J.H.** (PI). 2016-2017. Population genetics of Roanoke logperch in North Carolina. North Carolina Wildlife Resources Commission.
- \$27,850 Colon-Gaud, J.C. (PI), A. Harvey (co-PI), **J.H. Roberts** (co-PI). 2016-2017. Rehabilitation of Beautiful Eagle Creek (Phase 2). Georgia Southern University Center for Sustainability.
- \$32,572 Chandler, C. (PI), M. Cawthorn (co-PI), L. McBryer (co-PI), **J.H. Roberts** (co-PI). 2016-2017.

- Development of Platforms to Access Data on Sustainable Biodiversity on the Georgia Southern Campus. Georgia Southern University Center for Sustainability.
- \$4,496 **Roberts, J.H.** (PI). 2016. Preliminary visual monitoring of spawning Robust redhorse in the Savannah and Ogeechee rivers. Georgia Department of Natural Resources.
- \$35,194 Colon-Gaud, J.C. (PI), A. Aslan (co-PI), **J.H. Roberts** (co-PI). 2015-2016. Bio-assessment and Monitoring at Beautiful Eagle Creek. Georgia Southern University Center for Sustainability.
- \$39,787 Chandler, C. (PI), M. Cawthorn (co-PI), L. McBrayer (co-PI), **J.H. Roberts** (co-PI). 2015-2016. Using Vertebrates to Provide a Framework for Sustainable Biodiversity on the Georgia Southern Campus. Georgia Southern University Center for Sustainability.
- \$22,212 **Roberts, J.H.** (PI). 2015-2016. Conservation genetics of Roanoke bass in North Carolina. North Carolina Wildlife Resources Commission, Raleigh, NC.
- \$30,000 **Roberts, J.H.** (PI). 2014-2015. Population genetic investigation of reticulated flatwoods salamanders on Eglin Air Force Base. Sub-contract with Virginia Tech.
- \$14,000 **Roberts, J.H.** (PI). 2014-2015. Development of Noninvasive Survey Techniques for Roanoke logperch Based on Environmental DNA. Sub-contract with Virginia Tech.

At Virginia Tech

- \$10,000 **Roberts, J.H.** (PI). 2013. Methods for sampling fishes in Panama streams. Smithsonian Tropical Research Institute, Washington D.C.
- \$23,840 E.M. Hallerman (PI), **J.H. Roberts** (co-PI) and D.J. Orth (co-PI). 2013-2015. Development of environmental DNA protocols for detecting occurrence of imperiled daces (genus *Chrosomus*) in Virginia. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$20,000 A.M. Villamagna (co-PI), P.L. Angermeier (PI), and **J.H. Roberts** (co-PI). 2014-2015. Cost-effectiveness of riparian restoration as a recovery tactic for Roanoke logperch. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$19,000 G.B. Anderson (co-PI), P.L. Angermeier (PI), and **J.H. Roberts** (co-PI). 2014-2015. Development and application of a multiscale model of habitat suitability for Roanoke logperch. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$87,000 Orth, D.J. (PI), E.M. Hallerman (co-PI), and **J.H. Roberts** (co-PI). 2013-2018. Distribution of *Chrosomus* dace with respect to status of Clinch dace (*Chrosomus sp. cf. saylori*) in the Upper Clinch River System, Virginia. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$24,050 **Roberts, J.H.** (PI) and P.L. Angermeier (co-PI). 2013. Fish and Habitat Survey of the Nottoway River at Fort Pickett, with Special Emphasis on Endangered Roanoke Logperch. EEE Consulting, Inc., Mechanicsville, VA.
- \$4,000 **Roberts, J.H.** (PI) and E.M. Hallerman (co-PI). 2012-2013. Assessment of raccoon dispersal among Virginia's barrier islands based on analysis of population genetic data. Virginia Museum of Natural History, Martinsville, VA.
- \$54,750 **Roberts, J.H.** (co-PI), E.M. Hallerman (PI), and P.L. Angermeier (co-PI). 2012-2015. Assessment of the distribution and degree of introgression of Roanoke bass (*Ambloplites cavifrons*) in Virginia. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$17,710 **Roberts, J.H.** (PI) and P.L. Angermeier (co-PI). 2013-2014. Population viability analysis for Roanoke logperch. U.S. Fish and Wildlife Service, Gloucester, VA.
- \$12,410 **Roberts, J.H.** (co-PI) and P.L. Angermeier (PI). 2012. Surveys for Roanoke logperch (*Percina rex*) in Tinker Creek, Botetourt County, Virginia. W.W. Associates of Lynchburg, VA.

- \$33,550 **Roberts J.H.** (co-PI) and P.L. Angermeier (PI). 2012-2015. Habitat suitability for Roanoke logperch in streams near Philpott Reservoir. U.S. Army Corps of Engineers, Wilmington, NC.
- \$254,453 **Roberts J.H.** (co-PI), P.L. Angermeier (PI), and G.B. Anderson (co-PI). 2012-2015. Assessing impacts of the Roanoke River Flood Reduction Project on the endangered Roanoke logperch. U.S. Army Corps of Engineers, Wilmington, NC.
- \$18,500 Argentina, J.E. (co-PI), P.L. Angermeier (PI), and **J.H. Roberts** (co-PI). 2013. Habitat associations for young-of-year Roanoke logperch (*Percina rex*) in Roanoke River. American Electric Power, Richmond, VA.
- \$608,675 **Roberts J.H.** (co-PI) and P.L. Angermeier (PI). 2005-2012. Assessing impacts of the Roanoke River Flood Reduction Project on the endangered Roanoke logperch. U.S. Army Corps of Engineers, Wilmington, NC.
- \$10,000 **Roberts J.H.** (co-PI) and P.L. Angermeier (PI). 2011-2012. Assessment of the distribution and abundance of Roanoke logperch in tributaries of the Dan River. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$28,987 P.L. Angermeier (PI) and **J.H. Roberts** (co-PI). 2006-2010. Monitoring and population genetics of endangered Roanoke logperch in the Smith River, Virginia. U.S. Army Corps of Engineers.
- \$4,758 **Roberts J.H.** (co-PI), P.L. Angermeier (PI), and E.M. Hallerman (co-PI). 2010. Survey of mitochondrial DNA variation in endangered Roanoke logperch (*Percina rex*). Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$3,603 **Roberts J.H.** (co-PI) and P.L. Angermeier (PI). 2008. Habitat and fish surveys for Roanoke logperch (*Percina rex*) and orangefin madtom (*Noturus gilberti*) in North Fork Little Chestnut Creek, Franklin County, Virginia. Joyce Engineering Inc., Greensboro, NC.
- \$10,500 **Roberts J.H.** (co-PI), P.L. Angermeier (PI), and E.M. Hallerman (co-PI). 2007-2008. Continuing assessment of the population genetics of Roanoke logperch (*Percina rex*). U.S. Fish and Wildlife Service, Gloucester, VA.
- \$2,060 Duncan M.B. (PI), **J.H. Roberts** (co-PI), and D. Weaver (co-PI). 2007. A survey of the fish fauna of Passage Creek. The Potomac Conservancy, Silver Spring, MD.
- \$4,057 **Roberts J.H.** (co-PI) and P.L. Angermeier (PI). 2007. Surveys for habitat suitable for endangered Roanoke logperch in streams crossed by proposed Transco gas pipeline extensions in Pittsylvania and Campbell counties, Virginia. ENSR, Houston, TX.
- \$32,000 **Roberts J.H.** (co-PI), P.L. Angermeier (co-PI), and E.M. Hallerman (PI). 2006-2007. Development of microsatellite markers for study of Roanoke logperch (*Percina rex*) population genetic structure and viability. Virginia Department of Game and Inland Fisheries, Richmond, VA.
- \$48,522 **Roberts J.H.** (co-PI), P.L. Angermeier (PI), and E.M. Hallerman (co-PI). 2005-2006. Population genetics of fishes as a tool to assess the conservation value of watersheds in the upper Tennessee River basin. U.S. Geological Survey, Reston, VA. (Sub-contract within a larger Aquatic GAP contract awarded to J.L. Waldon and P.L. Angermeier).

STUDENT MENTORING

Graduate

Graduate advising

January 2017-Present

Paul Braun (pursuing M.S. Biology at GSU); Project title: "Demographic characteristics of Robust redhorse in Georgia rivers"

August 2016-Present	Jackson Sibley (pursuing M.S. Biology at GSU); Project title: "Factors influencing Striped bass recruitment in the Savannah River"
January 2016-Present	Rebecca Scott (pursuing M.S. Biology at GSU); Project title: "Local and regional influences of fish community dynamics in Atlantic coastal plain streams"
August 2015-Present	Garret Strickland (pursuing M.S. Biology at GSU); Project title: "Landscape genomics of Redbreast sunfish"
January 2015-Present	Alexander Wendt (pursuing M.S. Biology at GSU); Project title: "Conservation genetics and reproductive biology of endangered Reticulated flatwoods salamanders"
January 2015-January 2017	Jackman Eschenroeder (completed M.S. Biology at GSU); Thesis title: "Assessing the genetic status and factors leading to the decline of the Roanoke bass (<i>Ambloplites cavifrons</i>)"
<i>Graduate committee memberships</i>	
July 2016-Present	Matthew Scanlon (pursuing M.S. Biology at GSU); Project title: "Evaluating elasmobranch interactions in the Georgia shrimp fishery and the potential use of zinc + graphite as a shark deterrent"
February 2016-Present	Richard Orton (pursuing M.S. Biology at GSU); Project title: "Habitat ecology and population genetics of <i>Sceloporus woodi</i> "
October 2015-Present	Allison Lutz (pursuing M.S. Biology at GSU); Project title: "Fish and macroinvertebrate trophic relationships in the lower Ogeechee River basin: spatiotemporal trends in fish diets of dominant feeding guilds"
July 2015-Present	Jason Moak (pursuing M.S. Biology at GSU); Project title: "Fish community composition in connected and disconnected oxbows of the Savannah River"
January 2015-November 2016	Jamie Alfieri (completed M.S. Biology at GSU); Thesis title: "The effects of urbanization on host populations and parasite communities in coastal Georgia salt marshes"
August 2012-June 2015	Daniel Schilling (completed M.S. Fisheries Science at Virginia Tech); Thesis title: "Assessment of morphological and molecular genetic variation of freshwater mussel species"

Undergraduate

May 2017-Present	Grayson Walker (pursuing B.S. Biology at GSU); BIOL4890H Honors
May 2016-July 2016	Johnathan Collins (pursuing B.S. Biology at GSU); BIOL4890 Project title: "Effects of nuclear plant pollutants on Savannah River Fish"
May 2016-July 2016	Forrest Probst (pursuing B.S. Biology at GSU); BIOL4890 Project title: "Do Loggerhead nests that have been relocated and screened have a higher survival rate than nests that have not?"
May 2016-July 2016	Garrett Streat (pursuing B.S. Biology at GSU); BIOL4890 Project title: "A study of the significance of soil properties due to habitat disturbance on Oribatid mite populations in Bulloch County, Georgia"
May 2016-July 2016	Lucia Diggs (completed B.S. Biology at GSU); BIOL4890 Project title: "An evaluation of the potential for red wolf reintroduction into northern

	Georgia”
January 2016-April 2016	Garrett Vance (completed B.S. Biology at GSU); BIOL4890 Project title: “Comparative age and growth of Roanoke and Rock bass”
May 2015-July 2015	Garret Strickland (completed B.S. Biology at GSU); Project title: “Development of environmental DNA techniques for noninvasive monitoring of Roanoke logperch”
May 2013-June 2014	Brandon Plunkett and Devon Kessler (both completed B.S. Fisheries Science at Virginia Tech); Project title: “Morphology and genetics of native Roanoke bass and invasive Rock bass”
May 2006-December 2007	Dan Dutton (completed B.S. Fisheries Science at Virginia Tech); Project title: “Population genetics of Roanoke logperch”

Student groups

2014-Present	Faculty Advisor to the Georgia Southern University chapter of the Coastal Conservation Association
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UNIVERSITY SERVICE

August 2016-Present	Department of Biology Undergraduate Curriculum Committee
January 2016-Present	Department of Biology Graduate Committee
January 2016-Present	Affiliate member of the Institute for Interdisciplinary STEM Education
January 2015-May 2016	Department of Biology Seminar Committee
2015-2016 (3 occasions)	Faculty host and interviewer for the Saturday Scholars Program
2015-2017 (4 occasions)	Delivered 3-hour learning activity on stream ecology, fish diversity, and sampling methods for students in GSU Field Biology (BIOL3440)
August 2014-February 2015	Search Committee for Assistant Professor of Physiology

PROFESSIONAL SERVICE AND INVOLVEMENT

Leadership Positions

2010	Vice President , Virginia Tech Chapter of the American Fisheries Society
2006	President , Fisheries and Wildlife Graduate Student Association, Virginia Tech
2005	President , Virginia Tech Chapter of the American Fisheries Society
2004	Chair , Stream Concerns Committee, Virginia Tech Chapter of the American Fisheries Society
2003	Communications and Outreach Officer , Nongame Aquatics Committee, Southern Division American Fisheries Society
2003	Chair , Natural History and Biodiversity Section, Virginia Academy of Science
2002	Vice President , Virginia Tech Chapter of the American Fisheries Society
2001	Chair , Stroubles Creek Restoration Committee, VT Chapter of the American Fisheries Society
2000	Treasurer , University of Georgia American Fisheries Society Student Subunit

Society and Committee Memberships

- American Fisheries Society
- Southeastern Fishes Council
- Society for Conservation Biology
- American Society of Ichthyologists and Herpetologists
- Savannah Technical Working Group, Robust Redhorse Conservation Committee

Other professional service

- Past journal referee for: African Journal of Aquatic Science, American Midland Naturalist, Animal Conservation, Biological Conservation, Canadian Journal of Fisheries and Aquatic Sciences, Conservation Biology, Diversity, Ecography, Ecology of Freshwater Fish, Ecosphere, Global Ecology and Biogeography, Hydrobiologia, Journal of the American Water Resources Association, Journal of Fish and Wildlife Management, Landscape Ecology, North American Journal of Fisheries Management, Oecologia, PLOS One, The Southeastern Naturalist, and Transactions of the American Fisheries Society
- 2014: Peer-reviewed a proposal for South Carolina Water Resources Center
- 2017: Peer-reviewed the Candy Darter Species Status Assessment for U.S. Fish and Wildlife Service

COMMUNITY SERVICE AND OUTREACH

2016	Helped develop three educational posters for outdoor signage, which describe results of fish, macroinvertebrate, and water quality monitoring of Eagle Creek
2016	Delivered a learning activity on fish diversity and sampling for members of the Ogeechee Riverkeeper, during a float of the Ogeechee River
2014-2015 (3 occasions)	Delivered various educational talks about fisheries professions, fish biology, and pond management at K-12 schools in the Statesboro system.
2014	Helped develop educational video about Roanoke logperch conservation for a Roanoke River exhibit at the Center in the Square museum in Roanoke, Virginia
2011-2013 (4 occasions)	Delivered aquatic education talks to Junior Naturalist Clubs at Montgomery County, Virginia elementary schools
2005-2012 (4 occasions)	Delivered educational seminars about fish diversity and ecology to various citizen groups, including the Upper Roanoke River Roundtable, Virginia Master Naturalists, Trout Unlimited, and The Sierra Club.
2000-2010 (10 occasions)	Led K-12 field and in-class aquatic education activities through the Outreach Committee of the Virginia Tech AFS chapter
2010	Co-organized “Fishes of the New River” educational booth at the Giles County Riverfest
2004	Wrote article about minnow diversity (“Marvelous, misunderstood minnows”) for Virginia Wildlife magazine
2003	Developed outreach website for the Southern Division AFS Nongame Aquatics Committee

MEDIA COVERAGE

2013	<p>“Virginia Crossroads: searching for the endangered Roanoke logperch”: Newscaster John Carlin of WLSL10 profiles our long-term study of Roanoke logperch in the Roanoke River. Available online at http://www.wsls.com/story/23506641/virginia-crossroads-searching-for-the-</p>
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- endangered-roanoke-logperch.
- 2013 **“Fish sampling” (episode 172 of Virginia Water Radio):** In a podcast produced by the Virginia Water Resources Research Center of Virginia Tech, I describe the objectives and details of different techniques for sampling fishes in streams. Available online at <http://www.virginiawaterradio.org/2013/07/episode-172-7-29-13-fish-sampling.html>.
- 2011 **“Good signs for the endangered Roanoke logperch”:** WDBJ7 News of Roanoke/Lynchburg profiles our long-term monitoring of Roanoke logperch as part of the Roanoke River Flood Reduction Project. Available online at www.wdbj7.com.
- 2011 **“Staying around the mound is sound”:** Freshwater Research News features recent research by Than Hitt and me regarding the role of *Nocomis* chub nests in facilitating the persistence of nest-associating minnow species. Available online at freshwaterresearch.wordpress.com.
- 2010 **“Conservancy calls on student researchers to help preserve the integrity of the Potomac’s Passage Creek watershed”:** Virginia Tech Research Magazine profiles our biodiversity surveys for the Potomac Conservancy in Passage Creek, a high-quality tributary of the Shenandoah River. Available online at www.research.vt.edu/resmag/2010summer/passagecreek.html.