Seth J. Wenger - Curriculum Vitae

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RESEARCH FOCUS

I am a conservation ecologist working in freshwater systems, with work spanning several sub-disciplines: landscape ecology, quantitative ecology, population ecology, urban ecology, ecosystem ecology, fisheries science, ecohydrology and environmental policy. Current areas of research include: (1) incorporating biodiversity conservation into infrastructure projects; (2) understanding flow effects on aquatic species; (3) practical application of quantitative methods in conservation; (4) conservation prioritization; and (5) urban stream management. Most of my research is highly applied.

EDUCATION

PhD Degree in Ecology **2006**
University of Georgia, Athens, GA
Dissertation: Predicting and Preventing Losses of Imperiled Fish Species in an Urbanizing Environment

MS Degree in Conservation Ecology and Sustainable Development **1999**
University of Georgia, Athens, GA
Thesis: Developing Science-Based Riparian Buffer Protection Policies

BS Degree in Environmental Science & BA Degree in English **1994**
Lebanon Valley College, Annville, PA

ACADEMIC APPOINTMENTS & PROFESSIONAL EXPERIENCE

Associate Professor **2020 - Present**
Odum School of Ecology, University of Georgia, Athens, GA

Director of Science **2014 - Present**
River Basin Center, University of Georgia, Athens, GA

Affiliate Scientist **2014-Present**
Trout Unlimited, Boise, ID

Assistant Professor **2014-2020**
Odum School of Ecology, University of Georgia, Athens, GA

Staff Scientist **2010 - 2013**
Trout Unlimited, Boise, ID

Post-Doctoral Associate **2008-2009**
Trout Unlimited / US Forest Service, Boise, ID

Associate Director, River Basin Center **2007-2008**
University of Georgia. Position classification: Public Service Assistant

Conservation Ecologist & Policy Analyst **2005-2007**
Position classification: Research Coordinator/Research Professional 3 **1999-2003**
Institute of Ecology/River Basin Center, University of Georgia, Athens, GA

Graduate Assistant **2003-2005**
Institute of Ecology, University of Georgia, Athens, GA **1998-1999**

Communications Coordinator **1997**
Link-to-Learn Program, Harrisburg, PA

Press Secretary **1996**
Ruth C. Rudy for Congress Campaign, Bellefonte, PA

REFEREED PUBLICATIONS

Google Scholar statistics: h-index=39; i10-index=72; Citations in 2024: 772; Total citations: 8459.

100. Wood, J.L., L.H. Dietterich, D.R. Leasure, S.C. Jantzi, T.R. Maddox, S.J. Wenger, J.W. Skaggs, A.D. Rosemond, and M.C. Freeman, 2024. Elemental composition and potential toxicity of the riverine macrophyte *Podostemum ceratophyllum* Michx. reflects land use in eastern North America. *Science of The Total Environment* 954, p.176118.

99. Naslund, L., D. Buhr, D., M. Chambers, S.K. McKay, S. Jumani, B. Bledsoe, A. Rosemond, and S. Wenger, 2024. Facilitating Dam Removal Decisions with Multiple Objectives. *River Research and Applications* 10.1002/rra.4390.

98. Solomon, K.J., J.C. Sullivan, E.P. Gardiner, M.C. Scott, R.J. Bixby, S.J. Wenger, C.R. Jackson, and C.M. Pringle, 2024. Effects of low-density development on stream biota: Evidence for biotic homogenization from an assemblage perspective. *Ecological Indicators* 168, p.112753.

97. Cummins, C.S., A.D. Rosemond, N.J. Tomczyk, S.J. Wenger, P.M. Bumpers, V. Gulis, A.M. Helton, and J.P. Benstead, 2024. Temperature dependence of leaf breakdown in streams differs between organismal groups and leaf species. *Ecology* 105(10), p.e4405.

96. Hare, D.K., A.M. Helton, C.S. Cummins, P.M. Bumpers, N.J. Tomczyk, P.A. Rogers, S.J. Wenger, E.R. Hotchkiss, A.D. Rosemond, and J.P. Benstead, 2024. Leaf litter breakdown phenology in headwater stream networks is modulated by groundwater thermal regimes and litter type. *Limnology and Oceanography Letters* 10.1002/lol2.10423.

95. Abbasnezhad, B., J.B. Abrams and S.J. Wenger, 2024. The Impact of Projected Land Use Changes on the Availability of Ecosystem Services in the Upper Flint River Watershed, USA. *Land* 13: 893.

94. Rack, L., M.C. Freeman, B.N. Emanuel, L.S. Craig, S.W. Golladay, C. Yang, and S.J. Wenger. 2024. How low is too low? Partnering with stakeholders and managers to define ecologically-based low-flow thresholds in a perennial temperate river. *River Research and Applications* 10.1002/rra.4301.

93. Naslund, L.C., A.S. Mehring, A.D. Rosemond and S.J. Wenger. 2024. Toward more accurate estimates of carbon emissions from small reservoirs. *Limnology and Oceanography* 10a.1002/lno.12577.

92. Nagy, A.J., M.C. Freeman, B.J. Irwin and S.J. Wenger. 2024. Life history connections to long-term fish population trends in a species-rich temperate river. *Ecology of Freshwater Fish* 33:e12767.

91. Gujarathi-Talati, S., S. Ferreira, S. Wenger and M. Filipski. 2024. Fisherfolk contingent valuation of marine restoration in Gujarat, India. *Ocean & Coastal Management* 248: 106951.

90. Jacobs, G.R., R.F. Thurow, C.E. Petrosky, C.W. Osenberg, and S.J. Wenger. 2023. Life-cycle modeling reveals high recovery potential of at-risk wild Chinook salmon via improved migrant survival. *Canadian Journal of Fisheries and Aquatic Sciences*. 10.1139/cjfas-2023-0167

89. van Rees, C.B., D.D. Hernández-Abrams, M. Shudtz… [15 others]… and S.J. Wenger. 2023. Reimagining infrastructure for a biodiverse future. *Proceedings of the National Academy of Sciences* 120 p.e2214334120.

88. McKay, S.K. S.J. Wenger, C.B. van Rees, B.P. Bledsoe, T.S. Bridges. 2023. Jointly advancing infrastructure and biodiversity conservation. *Nature Reviews Earth & Environment* 4: 675-677

87. Pease, A.A., G.R. Jacobs, M. Mendoza-Carranza, R. Rodiles-Hernández, S.J. Wenger, and K.A. Capps. 2023. Otolith microchemistry highlights the importance of extensive connectivity for conservation of an iconic migratory fish in a large tropical river basin. *Aquatic Conservation: Marine and Freshwater Ecosystems* 33:969-980.

86. Duda, J.J., S. Jumani, D.J. Wieferich, D. Tullos, S.K. McKay, T.J. Randall, A. Jansen, S. Bailey, B.L. Jensen, R.C. Johnson, E. Wagner, K. Richards, S. Wenger, E.J. Walther, and J. Bountry. 2023. Patterns, drivers, and a predictive model of dam removal cost in the United States. *Frontiers in Ecology and Evolution* 11: 10.3389/fevo.2023.1215471

85. Freeman, M.C., B. Albanese, P. Bumpers, M. Hagler, A. Nagy, B.J. Freeman, and S.J. Wenger. 2023. Persistence of native riverine fishes downstream from two hydropower dams with contrasting operations. *Canadian Journal of Fisheries and Aquatic Sciences* 10.1139/cjfas-2022-0297

84. van Rees, C.B., S. Jumani, L. Abera, L. Rack, S.K. McKay, and S.J. Wenger. 2023. The potential for nature-based solutions to combat the freshwater biodiversity crisis. *PLOS Water* 10.1371/journal.pwat.0000126.

83. Stowe, E.S., K.N. Petersen, S. Rao, E.J. Walther, M.C. Freeman, and S.J. Wenger. 2023. Stream restoration produces transitory, not permanent, changes to fish assemblages at compensatory mitigation sites. *Restoration Ecology*, p.e13903.

82. Jackson, C.R., S.J. Wenger, B.P. Bledsoe, J.M. Shepherd, K.A. Capps, A.D. Rosemond, M.J. Paul, M. Welch-Devine, K. Li, T. Stephens, T.C. Rasmussen. 2023. Water Supply, Waste Assimilation, and Low-flow Issues Facing the Southeast Piedmont Interstate-85 Urban Archipelago. *Journal of the American Water Resources Association*. 10.1111/1752-1688.13130

81. Connelly, K.N., S.J. Wenger, N. Gaur, J.M.B. McDonald, M. Occhipinti and K.A. Capps. 2023. Assessing relationships between onsite wastewater treatment system maintenance patterns and system-level variables. *Science of The Total Environment* 870: 161851.

80. Murray-Stoker, K.M., J.V. McHugh, A.C. Benke, K.A. Parsons, D. Murray-Stoker, A.D. Rosemond, S.J. Wenger and D.P. Batzer. 2023. Long-term comparison of invertebrate communities in a blackwater river reveals taxon-specific biomass change. *Freshwater Biology*. 10.1111/fwb.14052

79. Baynes, A.Y., M.C. Freeman, S.K. McKay and S.J. Wenger. 2023. Habitat associations of riverine fishes among rocky shoals. *Ecology of Freshwater Fish*. eff.12690.

78. Hernandez-Abrams, D.D., S. Connelly, M.C. Freeman, P.E. Gutierrez-Fonseca and S.J. Wenger. 2023. Seasonal variability in macroinvertebrate assemblages in paired perennial and intermittent streams in Costa Rica. *Hydrobiologia* 850: 215-230.

77. Wenger, S.J., E.S. Stowe, K.B. Gido, M.C. Freeman, Y. Kanno, N.R. Franssen, J.D. Olden, N.L. Poff, A.W. Walters, P.M. Bumpers and M.C. Mims. 2022. Simple statistical models can be sufficient for testing hypotheses with population time-series data. *Ecology and Evolution* 12: e9339.

76. Tomczyk, N.J., A.D. Rosemond, P.M. Bumpers, C.S. Cummins, C. Yang and S.J. Wenger. 2022. Differences in respiration rates and abrasion losses may muddle attribution of breakdown to macroinvertebrates versus microbes in litterbag experiments. *River Research and Applications* 38:1721–1729

75. van Rees, C.B., L. Naslund, D.D. Hernandez-Abrams, S.K. McKay, C.B. Woodson, A. Rosemond, B. McFall, S. Altman and S.J. Wenger. 2022. A strategic monitoring approach for learning to improve natural infrastructure. *Science of the Total Environment* 832: 155078.

74. Solomon, K.J., R.J. Bixby, S.J. Wenger and C.M. Pringle. 2022. Have stream diatom assemblages changed a decade after the loss of a foundation riparian tree species in a headwater Appalachian watershed? *Freshwater Science* 4: 342:361.

73. Hemstrom, W., D. Dauwalter, M.M. Peacock, D. Leasure, S. Wenger, M.R. Miller and H. Neville. 2022. Population genomic monitoring provides insight into conservation status but no correlation with demographic estimates of extinction risk in a threatened trout. *Evolutionary Applications* 15: 1449-1468.

72. Benez-Secanho, F.J., P. Dwivedi, S. Ferreira, J. Hepinstall-Cymerman and S. Wenger. 2022. Trade-offs Between the Value of Ecosystem Services and Connectivity Among Protected Areas in the Upper Chattahoochee Watershed. *Environmental Management* 69: 937-951.

71. Scoggins, M., D.B. Booth, T. Fletcher… [18 others]… and S.J. Wenger. 2022. Community-powered urban stream restoration: A vision for sustainable and resilient urban ecosystems. *Freshwater Science* 41: 404-419.

70. Freeman, M., K. Bestgen, D. Carlisle, E.A. Frimpong, N.R. Franssen, K.B. Gido, E.R. Irwin, Y. Kanno, C.H. Luce, S.K. McKay, M.C. Mims, J.D. Olden, N.L. Poff, D.L. Propst, L. Rack, A.H. Roy, E.S. Stowe, A. Walters and S.J, Wenger. 2022. Toward improved prediction of streamflow effects on freshwater fishes. *Fisheries Magazine* 47: 290-298.

69. Jackson, C.R., K.K. Cecala, S.J. Wenger, J.E. Kirsch, J.R. Webster, D.S. Leigh, J.M. Sanders, J.P. Love, J.D. Knoepp, J.M. Fraterrigo and A.D. Rosemond. 2022. Distinctive connectivities of near-stream and watershed-wide land uses differentially degrade rural aquatic ecosystems. *BioScience* biab098.

68. Allgeier, J.E., B.C. Weeks, K.S. Munsterman, N. Wale, S.J. Wenger, V. Parravicini, N. Schiettekatte, S. Villéger, and D.E. Burkepile. 2021. Phylogenetic conservatism drives nutrient dynamics of coral reef fishes. *Nature Communications* 12: 5432.

67. Arnold, Z.J., S.J. Wenger, and R.J. Hall. 2021. Not just trash birds: quantifying avian diversity at landfills using community science data. *PloS One* 16: e0255391.

66. Dudley, M.P., K. Solomon, S. Wenger, C.R. Jackson, M. Freeman, K.J. Elliott, C.F Miniat and C.M. Pringle. 2021. Do crayfish affect stream ecosystem response to riparian vegetation removal? *Freshwater Biology* doi.org/10.1111/fwb.13728.

65. Freeman, M.C., D. Elkins, P. Maholland, Z. Butler, M. Kleinhans, J. Skaggs, E. Stowe, C. Straight, and S. Wenger. 2021. Slow recovery of headwater-stream fishes following a catastrophic poisoning event. *Journal of Fish and Wildlife Management*. doi.org/10.3996/JFWM-20-080.

64. Paulukonis, E., B.A. Crawford, J.C. Maerz, S.J. Wenger, and N.P. Nibbelink. 2021. Prioritization of vulnerable species under scenarios of anthropogenic-driven change in Georgia's coastal. *Journal of Fish and Wildlife Management* doi.org/10.3996/JFWM-20-089.

63. Petersen, K.N., M.C. Freeman, J.E. Kirsch, W.O. McLarney, M.C. Scott, and S.J. Wenger. 2021. Mixed evidence for biotic homogenization of southern Appalachian fish communities. *Canadian Journal of Fisheries and Aquatic Sciences* DOI: 10.1139/cjfas-2020-0372.

62. Fesenmyer, K.A., S.J. Wenger, D.S. Leigh, and H.M. Neville. 2021. Large portion of USA streams lose protection with new interpretation of Clean Water Act. *Freshwater Science* 40(1): 252-258.

61. Jacobs, G.R., R.F. Thurow, J.M. Buffington, D. Isaak and S.J. Wenger. 2021. Climate, fire regime, geomorphology, and conspecifics influence the spatial distribution of Chinook Salmon redds. *Transactions of the American Fisheries Society*. 150: 8-23.

60. Dudley, M. P., M.C Freeman, S.J. Wenger, C.R. Jackson, and C M. Pringle. 2020. Re-thinking foundation species in a changing world: The case for *Rhododendron maximum* as an emerging foundation species in shifting ecosystems of the Southern Appalachians. *Forest Ecology and Management* 472: 118240

59. Allgeier, J.E., S.J. Wenger and C.A. Layman. 2020. Taxonomic identity best explains variation in body nutrient stoichiometry in a diverse marine animal community. *Scientific Reports* 10: 13718.

58. Stowe, E.S., S.J. Wenger, M.C. Freeman, B.J. Freeman. 2020. Incorporating spatial synchrony in the status assessment of a threatened species with multivariate analysis. *Biological Conservation* 248: 108612.

57. Brownson, K., E.P. Anderson, S. Ferreira, S.J. Wenger, L. Fowler and L. German. 2020. Governance of payments for ecosystem services influences social and environmental outcomes in Costa Rica. *Ecological Economics* 174: 106659.

56. Butler, Z.P., S J. Wenger, M.G. Dodd, S. Coleman, J. L. Gaskin, K. Hayes, N. Hickey, D. Hoffman, B. L. Ondich, J.B. Pfaller, R. Regnery, T. Smith, R.K. Vance, K. L. Williams. 2020. Predation of loggerhead sea turtle eggs across Georgia's barrier islands. *Global Ecology and Conservation* 23: e01139.

55. Yang, C., I.S. Wehrtmann, S.J. Wenger, and A.T. Rugenski. 2020. Neotropical freshwater crabs (Decapoda: Pseudothelphusidae) shred leaves. *Nauplius* 28. 10.1590/2358-2936e2020020 .

54. Yang, C., S.J. Wenger, A.T. Rugenski, I.S. Wehrtmann, S. Connelly and M.C. Freeman. 2020. Freshwater crabs (Decapoda: Pseudothelphusidae) increase rates of leaf breakdown in a neotropical headwater stream. *Freshwater Biology*. doi.org/10.1111/fwb.13524.

53. Tomczyk, N.J., A.D. Rosemond, C.S. Cummins, P.M. Bumpers, J.P. Benstead and S.J. Wenger. 2020. Ignoring temperature variation leads to underestimation of the temperature sensitivity of leaf litter decomposition. *Ecosphere* 11: e03050.

52. Usher, R.L., J. Wood, P.M. Bumpers, S.J. Wenger and A.D. Rosemond. 2020. Streamwater nutrients stimulate detrital carbon loss across an urbanized landscape. *Freshwater Science* 39: 101-114.

51. Neville, H.M., D.R. Leasure, D.C. Dauwalter, J.B. Dunham, R. Bjork, K.A. Fesenmyer, N.D. Chelgren, M.M. Peacock, C.H. Luce, D.J. Isaak, L.A. Carranza, J. Sjoberg, and S.J. Wenger. 2020. Application of multiple-population viability analysis to evaluate species recovery alternatives. *Conservation Biology* 34: 482-493.

50. Vidal, T., B.J. Irwin, C.P. Madenjian, and S.J. Wenger. 2019. Environmental variability may have greater influence over alewife recruitment dynamics in Lake Michigan due to age truncation. *Journal of Great Lakes Research* 45: 958-968.

49. Bouchet, P., T. Peterson, D. Zurell … [22 others]… S. Wenger and K. Yates. 2019. Better model transfers require knowledge of mechanisms. *Trends in Ecology and Evolution* 34: 489-490.

48. Elkins, D., S.C. Hazzard, B.R. Kujada, A.L. George, K. Hill, and S.J. Wenger. 2019. Illuminating hotspots of imperiled aquatic biodiversity in the southeastern United States. *Global Ecology and Conservation* 19, e00654.

47. Wenger, S.J., A. Subalusky, M.C. Freeman. 2019. The missing dead: The former contribution of animal remains to nutrient cycling in North American rivers. *Foodwebs* 18: e00106.

46. Leasure, D.R., S.J. Wenger, N.D. Chelgren, H.M. Neville, D.C. Dauwalter, R. Bjork, K.A. Fesenmyer, J.B. Dunham, M.M. Peacock, C.H. Luce, A.C. Lute and D.J. Isaak. 2019. Hierarchical multi-population viability analysis. *Ecology* 100(1), e02538.

45. Yates, K. L., Bouchet, P. J., Caley, M. J., Mengersen, K., Randin, C. F., Parnell, … [39 others]… Seth Wenger, Mark J Whittingham, Yuri Zharikov, Damaris Zurell, and Ana MM Sequeira. 2018. Outstanding challenges in the transferability of ecological models. *Trends in Ecology & Evolution* 33: 790-802.

44. Wheeler, K., S.J. Wenger, S.J. Walsh, Z.P. Martin, H.L. Jelks and M.C. Freeman. 2018. Stream fish colonization but not persistence varies regionally across a large U.S. river basin. *Biological Conservation* 223: 1-10.

43. Tomczyk, N.J., T.B. Parr, S.J. Wenger and K.A. Capps. 2018. The influence of land cover on the sensitivity of streams to metal pollution. *Water Research* 144: 55-63.

42. Majewska, A.A., S. Sims, S.J. Wenger, A.K. Davis, and S. Altizer. 2018. Do characteristics of pollinator-friendly gardens predict the diversity, abundance and reproduction of butterflies? *Insect Conservation and Diversity* 11: 370-382.

41. de Paula, F.R., P. Gerhard, S.F. de Barros Ferraz, and S.J. Wenger, 2018. Multi-scale assessment of forest cover in an agricultural landscape of Southeastern Brazil: Implications for management and conservation of stream habitat and water quality. *Ecological Indicators* 85: 1181-1191.

40. Wheeler, K., S.J. Wenger, and M.C. Freeman, 2018. States and rates: Complementary approaches to developing flow ecology relationships. *Freshwater Biology* 2018: 906–916.

39. Isaak, D.J., S.J. Wenger, E.E. Peterson, J. Ver Hoef, D.E. Nagel, C.H. Luce, S.W. Hostetler, J.B. Dunham, B.B. Roper, S.P. Wollrab, S.P. and G.L. Chandler, 2017. The NorWeST summer stream temperature model and scenarios for the western US: A crowd sourced database and new geospatial tools foster a user community and predict broad climate warming of rivers and streams. *Water Resources Research* 53: 9181-9205.

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36. Freeman, M.C., M.M. Hagler, P.M. Bumpers, K. Wheeler, S.J. Wenger, and B.J. Freeman. 2017. Long-term monitoring data provide evidence of declining species richness in a river valued for biodiversity conservation. *Journal of Fish and Wildlife Management* 8: 418-435.

35. Schultz, L.D., M.P. Heck, D. Hockman-Wert, T. Allai, S.J. Wenger, N.A. Cook, and J.B. Dunham. 2017. Spatial and temporal variability in the effects of wildfire and drought on thermal habitat for a desert trout. *Journal of Arid Environments* 145: 60-68.

34. Isaak, D.J., S.J. Wenger and M.K. Young. 2017. Big biology meets microclimatology: Defining thermal niches of ectotherms at landscape scales for conservation planning. *Ecological Applications* 27: 977-990.

33. Sohrabi, M.M., D. Tonina, S.J. Wenger, and D.J. Isaak. 2017. Estimation of daily stream water temperatures with a Bayesian regression approach. *Hydrologic Processes* 31: 1719-1733.

32. Isaak, D.J., M.K. Young, C.H. Luce, S.W. Hostetler, S.J. Wenger, E.E. Peterson, J.M. Ver Hoef, M.C. Groce, D.L. Horan, and D.E. Nagel. 2016. Slow climate velocities of mountain streams portend their role as refugia for cold-water biodiversity. *Proceedings of the National Academy of Science* 113: 4374-4379.

31. Kormos P.R., C.H. Luce, S.J. Wenger and W.R. Berghuijs. 2016. Trends and sensitivities of low streamflow extremes to discharge timing and magnitude in Pacific Northwest mountain streams. *Water Resources Research* 52: 4990-5007.

30. Sterling, J.L., A.D. Rosemond and S.J. Wenger. 2016. Watershed urbanization affects macroinvertebrate community structure and reduces biomass through similar pathways in Piedmont streams, Georgia, USA. *Freshwater Science* 35: 676-688.

29. Roy A.H., K.A. Capps, R.W. El-Sabaawi, K.L. Jones, T.B. Parr, A. Ramirez, R.F. Smith, C.J. Walsh and S.J. Wenger. 2016. Urbanization and stream ecology: diverse mechanisms of change. *Freshwater Science* 35: 272-277.

28. Williams, J.E., H.M. Neville, A.L. Haak, W.T. Colyer, S.J. Wenger and S. Bradshaw. 2015. Climate change adaptation and restoration of western trout streams: opportunities and strategies. *Fisheries* 40: 304-317.

27. Allgeier, J.E., S.J. Wenger, A.D. Rosemond, D.E. Schindler and C.A. Layman. 2015. Metabolic theory and taxonomic identity predict nutrient recycling in a diverse food web. *Proceedings of the National Academy of Sciences* 112(2):2640-2647.

26. Dauwalter, D.C., S.J. Wenger and P. Gardner. 2014. Role of complexity in habitat use and selection by stream fishes in a Snake River Basin tributary. *Transactions of the American Fisheries Society* 143:1177-1187.

25. Luce., C., B. Staab, M. Kramer, S. Wenger, D. Isaak, C. McConnell. 2014. Sensitivity of summer stream temperatures to climate variability in the Pacific Northwest. *Water Resources Research* 50. doi: 10.1002/2013WR014329.

24. Isaak, D., E. Peterson, J. Ver Hoef, S. Wenger, J. Falke, C. Torgersen, C. Sowder, A. Steel, M.-J. Fortin, C. Jordan, A. Reusch, N. Som, P. Monestiez, K. McNyset. 2014. Applications of spatial statistical network models to stream data. *WIREs Water*.

23. Wenger, S.J., N.A. Som, D.C. Dauwalter, D.J. Isaak, H.M. Neville, C.H. Luce, J.B. Dunham, M.K. Young, K.D. Fausch and B.E. Rieman. 2013. Probabilistic accounting of uncertainty in forecasts of species distributions under climate change. *Global Change Biology* 19: 3343-3354.

22. Peterson, D.P, S.J. Wenger, B.E. Reiman and D.J. Isaak. 2013. Linking Climate Change and Fish Conservation Efforts Using Spatially Explicit Decision Support Tools. *Fisheries* 38: 112-127.

21. Peterson, E.E., J.M. Ver Hoef, D.J. Isaak, J. A. Falke, M.-J. Fortin, C.E. Jordan, K. McNyset, P. Monestiez, A.S. Ruesch, A. Sengupta, N. Som, E.A. Steel, D.M. Theobald, C.E. Torgersen, S.J. Wenger. 2013. Modelling dendritic ecological networks in space: an integrated network perspective. *Ecology Letters* 16: 707-719.

20. Al-Chokhachy, R., S.J. Wenger, D.J. Isaak and J.L. Kershner. 2013. Characterizing the thermal suitability of instream salmonids: a cautionary example from the Rocky Mountains. *Transactions of the American Fisheries Society* 142: 793-801.

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15. Wenger, S.J., D.J. Isaak, B.E. Rieman, J.B. Dunham, M.K. Young, K.D. Fausch, C.H. Luce, H.M. Neville, D.E. Nagel, G.L. Chandler and D.L. Horan. 2011. Role of climate and invasive species in structuring trout distributions in the Interior Columbia Basin. *Canadian Journal of Fisheries and Aquatic Resources* 68: 988-1008.

14. Dauwalter, D.C., S.J. Wenger, K.R. Gelwicks and K. Fesenmyer. 2011. Land use associations with roundtail chub, flannelmouth sucker and bluehead sucker occurrence in the Upper Colorado River Basin. *Transactions of the American Fisheries Society* 140(3): 646-658.

13. Hagler, M.M., M.C. Freeman, S.J. Wenger, B.J. Freeman, P.L. Rakes and J.R. Shute. 2011. Use of recent and historical records to estimate status and trends of a rare and imperiled stream fish, *Percina jenkinsi* (Percidae). *Canadian Journal of Fisheries and Aquatic Resources* 68: 739-748.

12. Wenger, S.J., C.H. Luce, A.F. Hamlet, D.J. Isaak and H.M. Neville. 2010. Macroscale hydrologic modeling of ecologically relevant flow metrics in small streams. *Water Resources Research* 46, W09513, doi: 10.1029/2009WR008839.

11. Wenger, S.J., M.C. Freeman, L.A. Fowler, B.J. Freeman and J.T. Peterson. 2010. Conservation planning for imperiled aquatic species in an urbanizing environment. *Landscape and Urban Planning* 97(1):11-21.

10. Wenger, S.J., M.M. Hagler and B.J. Freeman. 2009. Prioritization of areas of the Conasauga River Sub-basin of Georgia and Tennessee for preservation and restoration. *Proceedings of the Southeastern Fishes Council* 51: 31-38.

9. Wenger, S.J., A.H. Roy, C.R. Jackson, E.S. Bernhardt, T.L. Carter, S. Filoso, C.A. Gibson, N.B. Grimm, W.C. Hession, S.S. Kaushal, E. Martí, J.L. Meyer, M.A. Palmer, M.J. Paul, A.H. Purcell, A. Ramirez, A.D. Rosemond, K.A. Schofield, T.R. Schueler, E. Sudduth, C.J. Walsh. 2009. Twenty-six key research questions in urban stream ecology: an assessment of the state of the science. *Journal of the North American Benthological Society* 28: 1080-1098.

8. Roy, A.H., A.H. Purcell, C.J. Wash and S.J. Wenger. 2009. Urbanization and stream ecology: five years later. *Journal of the North American Benthological Society* 28: 908-910.

7. Wenger, S.J. 2008. The use of surrogates to predict the stressor response of imperiled species. *Conservation Biology* 22(6): 1564-1571.

6. Roy, A.H., S.J. Wenger, T.D. Fletcher, C.J. Walsh, A.R. Ladson, W.D. Shuster, H.W. Thurston and R.R. Brown. 2008. Impediments and solutions to sustainable, watershed-scale urban stormwater management: lessons from Australia and the United States. *Environmental Management* 42(2): 344-359.

5. Wenger, S.J. and M.C. Freeman. 2008. Estimating species occurrence, abundance and detection probability using zero-inflated distributions. *Ecology* 89(10): 2953–2959.

4. Wenger, S.J., J.T. Peterson, M.C. Freeman, B.J. Freeman and D.D. Homans. 2008. Stream fish occurrence in response to impervious cover, historic land use and hydrogeomorphic factors. *Canadian Journal of Fisheries and Aquatic Sciences* 65: 1250-1264.

3. Roy, A.H., M.C. Freeman, B.J. Freeman, W.E. Ensign, S.J. Wenger and J.L. Meyer. 2006. Importance of streamside riparian forests in urban areas contingent on sediment and hydrologic regime. *Environmental Management* 37(4): 523-539.

2. Roy, A.H., M.C. Freeman, B.J. Freeman, S.J. Wenger, W.E. Ensign and J.L. Meyer. 2005. Investigating hydrologic alteration as a mechanism of fish assemblage shifts in urbanizing streams. *Journal of the North American Benthological Society* 24(3): 656-678.

1. Dahlberg, D.B., S.M. Lee, S.J. Wenger and J.A. Vargo. 1997. Classification of vegetable oils by FT-IR. *Applied Spectroscopy* 51(8): 1118-1124.

OTHER PUBLICATIONS

Nelson, J.M., T.A. Stephens, J. Calabria, K.S. Hill, W.H. Mattison, B.P. Melchionni, J.W. Skaggs, A. Vick, B.P. Bledsoe, and S.J. Wenger, 2021. *Review of Special Provisions and Other Conditions Placed on GDOT Projects For Imperiled Aquatic Species Protection, Volumes I-IV (No. FHWA-GA-20-1806).* Georgia. Department of Transportation Office of Performance-Based Management & Research.

Wenger, S.J. 2016. Book Review: Kurt D. Fausch, "For the Love of Rivers: A Scientist's Journey." *Biological Conservation* 201: 425.

Nagel, D.E., J.M. Buffington, S.L. Parkes, S.J. Wenger, J.R. Goode. 2014. *A landscape scale valley confinement algorithm: Delineating unconfined valley bottoms for geomorphic, aquatic, and riparian applications.* USDA Forest Service, Boise, ID.

Roy, A.H., M.J. Paul, & S.J. Wenger. 2010. Urban Stream Ecology (Chapter 16). In: J. Aitkenhead-Peterson & A. Volder (editors), *Urban Ecosystem Ecology (Agronomy Monograph 55).* American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Madison, WI.

Wenger, S.J., T.L. Carter, R. A. Vick and L.A. Fowler. 2008. Runoff limits: an ecologically-based stormwater management program. *Stormwater* 9(2): 45-58.

Wenger, S.J. and J. Baker Roskie. 2007. *City of Jefferson Curry Creek Water Supply Watershed: Estimate of Existing and Projected Impervious Cover and Assessment of Watershed Protection Provisions.* UGA River Basin Center, Athens, GA.

Freeman, B.J., M. Hagler, S.J. Wenger, G.B. Anderson and R.A. Katz. 2007. *Identification and Mapping of Critical Habitats in the Conasauga River Corridor of Georgia and Tennessee: 2006 Annual Report to the Georgia Department of Natural Resources, Atlanta.* UGA Odum School of Ecology / Georgia Museum of Natural History, Athens, GA.

Freeman, B.J., M. Hagler, S.J. Wenger and R.A. Katz. 2007. *Identification and Mapping of Critical Habitats in the Etowah River System with an Emphasis on the Distribution of Sensitive Species of Fishes: 2006-2007 Annual Report to the Georgia Department of Natural Resources, Atlanta.* UGA Odum School of Ecology / Georgia Museum of Natural History, Athens, GA.

UGA River Basin Center. 2007. *Draft Etowah Aquatic Habitat Conservation Plan.* UGA River Basin Center, Athens, GA. Available online: *www.etowahhcp.org.* [Primary author of pp 11-97.]

Wenger, S.J. and Byron J. Freeman. 2007. *Impacts of the Proposed Russell Creek Reservoir on Imperiled Fish Species and Potential Mitigation Options.* UGA River Basin Center, Athens, GA.

Wenger, S.J. 2006. *Predicting and Preventing Losses of Imperiled Fish Species in an Urbanizing Environment (PhD Dissertation).* University of Georgia, Athens, GA.

Wenger, S.J. and M.C. Freeman. 2006. *Stressors to Imperiled Fishes in the Etowah Basin: Mechanisms, Sources and Management under the Etowah HCP.* UGA River Basin Center, Athens, GA.

Wenger, S.J., T.L. Carter, E. Dreelin and C. Gervich. 2006. *Etowah HCP Stormwater Management Policy, including the Runoff Limits Program.* UGA River Basin Center, Athens, GA.

Norman, J., E. Franzen, H. Millington, B. Ensign, S. Wenger, M. Freeman and M. Hagler. 2006. *Etowah HCP Stream Crossing and Culvert Design Policy.* UGA River Basin Center, Athens, GA.

Carter, T.L., E. Franzen, C. Gervich, B. Bumback and S. Wenger. 2005. *Etowah HCP Standard Operating Procedure for Erosion and Sedimentation Control and Grading Ordinance.* UGA River Basin Center, Athens, GA.

Freeman, B.J., S. Wenger, C. Straight and M. Hagler, 2003. *Prioritization of Watersheds in the Upper Chattahoochee River Basin for Preservation of Sensitive Fish and Crayfish Species.* Report for the Upper Chattahoochee Riverkeeper. University of Georgia, Athens, Georgia.

Wenger, S.J., J. Roskie and L.A. Fowler. 2003. *Recommendations for Managing Growth and Protecting Water Quality in the Curry Creek Watershed.* Report for the City of Jefferson, GA. University of Georgia, Athens, GA.

Fowler, L.A., B.J. Freeman and S.J. Wenger. The Etowah Regional Habitat Conservation Plan. *Proceedings of the 2003 Georgia Water Resources Conference,* K.J. Hatcher, ed. University of Georgia, Athens, GA.

Freeman, B.J., S.J. Wenger, J.E. Rogers and M.M. Hagler. 2003. *Fish Community Analysis of Allatoona, Butler and Proctor Creek Watersheds, Etowah River Basin, Cobb County, GA.* University of Georgia, Athens, GA.

Freeman, B.J., S.J. Wenger, J.E. Rogers. 2003. *Identification and Mapping of Critical Habitats in the Conasauga River Corridor of Georgia and Tennessee: 2001-2002 Annual Report.* University of Georgia, Athens, GA.

Freeman, B.J., M.M. Hagler, M.C. Scott and S.J. Wenger. 2003. *Identification and Mapping of Critical Habitats in the Etowah River System with an Emphasis on the Distribution of Sensitive Species of Fishes: 2002 Annual Report.* University of Georgia, Athens, GA.

Freeman, B.J., C.A. Straight, P.A. Marcinek, S.J. Wenger, M.M. Hagler and M.C. Freeman. 2003. Distribution and Status of the "Coosa" Madtom (*Noturus* sp. cf. N. *munitus*) and Freckled Darter (*Percina lenticula*) in Georgia. University of Georgia, Athens, GA.

Freeman, B.J., S. J. Wenger, S.E. McClurg and C.A. Straight. 2002. *Etowah River Basin Stressors Analysis.* Report for the U.S. Fish and Wildlife Service. University of Georgia, Athens, GA.

Lose and Associates, Inc., University of Georgia and Greenways Inc., 2002. *Gwinnett County Open Space and Greenway Master Plan.* Available from Gwinnett County, Georgia, Parks and Recreation Department (primary author of Sections 3 and 4, plus other components).

Wenger, S. and L. Fowler. 2001. *Conservation Subdivision Ordinances.* Atlanta Regional Commission, Atlanta, GA..

Freeman, B.J. and S.J. Wenger. 2001. *Identification and Mapping of Critical Habitats in the Conasauga River Corridor of Georgia and Tennessee: 2001 Annual Report.* University of Georgia Institute of Ecology, Athens, GA.

Ruhlman, M. and S. Wenger. 2001. "The Alcovy Watershed Protection Plan: A regional approach to watershed protection." Pp. 286-290 in *Proceedings of the 2001 Georgia Water Resources Conference,* K.J. Hatcher, ed. University of Georgia, Athens, GA.

Brown and Caldwell, Limnotech, Inc. and the University of Georgia. 2001. *The Alcovy Watershed Protection Plan.* Atlanta, GA: Brown and Caldwell. Primary author of chapters 2, 3, 5, 6, 11 and 12.

Freeman, B.J. and S.J. Wenger. 2000. *Identification and Mapping of Critical Habitats in the Etowah River System with an Emphasis on the Distribution of Sensitive Species of Fish: 2001 Annual Report.* Athens, GA: University of Georgia.

Freeman, B.J. and S.J. Wenger. 2000. *Prioritizing Streams for Buffer Preservation and Restoration in the Etowah River Basin (Report for the U.S. Fish and Wildlife Service).* University of Georgia, Athens, GA.

Wenger, S.J. and L. Fowler. 2000. *Protecting Stream and River Corridors: Creating Effective Local Riparian Buffer Ordinances.* University of Georgia, Athens, GA.

Ache, B.W. and S.J. Wenger. 1999. *A Survey of Onsite Wastewater Treatment Systems: Identifying Alternatives Appropriate to Coastal Louisiana Based on Performance and Cost.* A publication of the Barataria-Terrebonne National Estuary Program, Thibodaux, Louisiana.

Wenger, S.J. 1999. *A Review of the Scientific Literature on Riparian Buffer Width, Extent and Vegetation.* University of Georgia, Athens, GA.

SELECTED PRESENTATIONS

Note: only presentations for which I was first author or presenter are listed

Wenger, S.J. *Reorienting urban stream management to focus on equitable delivery of benefits.* Symposium on Urbanization and Stream Ecology Webinar Series. Dec 5, 2024. Invited.

Wenger, S.J. *Reorienting urban stream management towards equitable delivery of benefits.* Society for Freshwater Science Annual Meeting, Philadelphia, PA. June 5, 2024.

George, A. and S.J. Wenger. *Changing the course: A proposal to dramatically raise the profile of southeastern aquatic biodiversity.* Keynote address. Southeast Chapter of the Society for Freshwater Science, Columbus, GA. Nov. 8, 2023. Invited.

Wenger, S.J. and C.R. Jackson. *We should be doing a lot less stream restoration, or, Towards truly people-centered urban stream management.* Sixth Symposium on Urbanization and Stream Ecology, Brisbane, Australia. May 31, 2023.

Wenger, S.J. *Why I'm optimistic about the future.* Odum School of Ecology Convocation, Athens, GA, May 12, 2023. Invited.

Wenger, S.J., P. Bumpers, M. Freeman. *What happened to the Conasauga?* Georgia Water Resources Conference, Athens, GA. Mar. 31, 2023.

Wenger, S.J., S.K. McKay, C.B. van Rees, B. Bledsoe. *Re-imagining infrastructure for a biodiverse future.* Biology Departmental Seminar, University of Louisville, Louisville, KY. Nov. 3, 2022. Invited seminar.

Wenger, S.J., S.K. McKay, C.B. van Rees, B. Bledsoe, A. Rosemond, T. Bridges. *Re-imagining infrastructure for a biodiverse future.* Biological Sciences Departmental Seminar, University of Alabama, Tuscaloosa, AL. Sept. 30, 2022. Invited seminar.

Wenger, S.J., S.K. McKay, C.B. van Rees, B. Bledsoe, A. Rosemond, T. Bridges. *Re-envisioning infrastructure investments as an opportunity for aquatic biodiversity conservation.* 2022 Joint Aquatic Sciences Meeting, Grand Rapids, MI. May 17, 2022.

Wenger, S.J. *Interdisciplinary science and policy solutions to freshwater conservation and water management problems.* Environmental Health Sciences Seminar, University of Georgia, Athens, GA, Sept 25, 2020. Invited seminar.

Wenger, S.J., M.C. Freeman, E. Stowe, L. Rack. 2019. *A framework for understanding fish community response to flow alteration.* Society for Freshwater Science Annual Meeting, Salt Lake City, UT, May 21, 2019.

Wenger, S.J. 2019. *Data-driven aquatic conservation.* Tenure Talk. University of Georgia, Athens, GA, April 2, 2019.

Wenger, S.J. *Real-time viability analysis of multiple populations across broad landscapes.* Ecological Society of America Annual Meeting, New Orleans, LA, Aug 7, 2018.

Wenger, S.J. A. Subalusky and M.C. Freeman. *The role of the missing dead in North American rivers.* Society for Freshwater Science Annual Meeting, Detroit, MI, May 22, 2018.

Wenger, S.J., P. Bumpers, M.C. Freeman, D. Leasure, K. Wheeler, H. Neville, M. Hagler and B.J. Freeman. *High flows decrease fish populations in the current year but increase populations the following year.* Society for Freshwater Science Annual Meeting, Raleigh, NC, June 6, 2017.

Wenger, S.J., D. Elkins, S. Sweat, K. Hill, B. Kuhajda, A. George. *The Southeastern Freshwater Conservation Strategy.* Kennesaw State University, Kennesaw, GA. Feb 8, 2017. Invited talk.

Wenger, S.J., M.C. Freeman, D. Leasure, K. Wheeler and P. Bumpers. *Fish population responses to exceptional high and low flow*s. American Geophysical Union Annual Meeting, San Francisco, CA, Dec 13, 2016. Invited talk.

Wenger S.J, H.M. Neville et al. *The salmonid population viability project: modeling trout viability in a desert landscape under current and forecasted conditions.* American Fisheries Society Annual Meeting, Portland, OR, August 20, 2015. Invited talk.

Wenger, S.J. and N. Som. *Improved methods for weighting species distribution models to improve ensemble model predictions.* Society for Freshwater Science Annual Meeting, Milwaukee, WI, May 18, 2015. Invited talk.

Wenger S.J. *Novel methods for population viability analysis under current and future climates.* Clemson University, Clemson SC, March 5, 2015. Invited talk.

Wenger, S.J. *New methods of broad-scale population viability analysis for data-driven conservation planning.* Georgia Southern University, Statesboro, GA, November 17, 2014. Invited talk.

Wenger, S.J., and 11 others. *The salmonid population viability project.* October 15 and 16, 2014. Webinar with 50+ attendees.

Wenger, S.J., N. Som, D. Dauwalter, D. Isaak, H. Neville, C. Luce, J. Dunham, M. Young, K. Fausch and B. Rieman. Realistic assessment of uncertainty in ecological models and predictions. Joint Aquatic Sciences Meeting, Portland, OR, May 20, 2014.

Wenger, S.J., E. Landguth, H. Neville, and nine others. *A system to forecast the demographic and genetic viability of salmonid fish across broad regions under changing climates.* NASA Biodiversity and Ecological Forecasting Team Meeting. April 30, 2014. Invited poster.

Wenger, S.J. *New approaches for broad-scale population viability estimation.* Virginia Tech, Blacksburg, VA, March 6, 2014. Invited talk.

Wenger, S.J. and J. Olden. *Simpler species distribution models yield better predictions.* American Fisheries Society Annual Meeting, Little Rock, AR, September 10, 2013.

Wenger, S.J., D.C. Dauwalter and H.M. Neville. *A modeling approach for simultaneous estimation of persistence of multiple populations for freshwater conservation planning.* Society for Freshwater Science Annual Meeting, Jacksonville, FL, May 21, 2013.

Wenger, S.J. and D.J. Isaak. *Developing regionally consistent thermal niche definitions through integration of massive fish and stream temperature databases.* Western Division American Fisheries Society Annual Meeting, Boise, ID. April 15, 2013.

Wenger, S.J., D.C. Dauwalter and H.M. Neville. *A modeling approach for simultaneous estimation of persistence of multiple populations for freshwater conservation planning.* Western Division American Fisheries Society Annual Meeting, Boise, ID. April 14, 2013.

Wenger, S., D. Isaak, J. Dunham, S. Hostetler, J. Kershner, D. Peterson, E. Peterson, C. Luce, B. Roper, J. Ver Hoef, D. Nagel, D. Hockman, D. Horan, G. Chandler, S. Parkes, and S. Wollrab. 2012. *Using the NorWeST regional stream temperature model for high resolution aquatic vulnerability assessments in the Northwest.* American Geophysical Union Annual Meeting, San Francisco, CA. December 3-7, 2012.

Wenger, S.J., D.J. Isaak, H.M. Neville, C.H. Luce. Accounting for uncertainty in species distributions under climate change: An example using bull trout. Western Division American Fisheries Society Annual Meeting, Jackson, WY. March 28, 2012.

Wenger, S.J. *Forecasting aquatic species distributions under climate change.* Australian Rivers Institute, Brisbane, Queensland, Australia. March 2, 2012. Invited talk.

Wenger, S.J. *The future of trout: how climate change could affect rivers and fish in the western US*. 2011 Truckee River Symposium, Reno, NV. September 27, 2011. Invited talk.

Wenger, S.J., D.J. Isaak, C.H. Luce, H.M. Neville, K.D. Fausch, J.B. Dunham, D.C. Dauwalter, M.K. Young, M.M. Elsner, B.E. Rieman, A.F. Hamlet, J.E. Williams. *Flow regime, temperature and biotic interactions drive differential declines of trout species under climate change.* American Fisheries Society Annual Meeting, Seattle, WA. September 8, 2011.

Wenger, S.J., D.J. Isaak, C.H. Luce, H.M. Neville, K.D. Fausch, J.B. Dunham, D.C. Dauwalter, M.K. Young, M.M. Elsner, B.E. Rieman, A.F. Hamlet, J.E. Williams. *Flow regime, biotic interactions and temperature determine differential responses of four trout species to projected climate change in the western US*. Idaho Chapter of the American Fisheries Society Annual Meeting, Boise, ID. March 2, 2011.

Wenger, S.J. *Fish population response to climate change.* Workshop: "Understanding and adapting to climate change in aquatic ecosystems at landscape and river basin scales" held by the Rocky Mountain Research Station. Boise, ID. February 28, 2011. Invited talk.

Wenger, S.J., D.J. Isaak, B.E. Rieman, J.B. Dunham, M.K. Young, K.D. Fausch, C.H. Luce, H.M. Neville, A.F. Hamlet, D.E. Nagel, D. Horan and G. Chandler. *Effects of climate change on native and introduced trout in the Columbia River Basin.* Interior Columbia Basin Interagency Deputy Team Meeting. Spokane, WA. December 7, 2010. Invited talk.

Wenger, S.J., D.J. Isaak, B.E. Rieman, J.B. Dunham, M.K. Young, K.D. Fausch, C.H. Luce, H.M. Neville, A.F. Hamlet, D.E. Nagel, D. Horan and G. Chandler. *Climate-induced changes to flow regime may lead to declines in an invasive fish species.* North American Benthological Society Annual Meeting. Santa Fe, NM. June 9, 2010.

Wenger, S.J., C.H. Luce, D.J. Isaak, A.F. Hamlet and H.M. Neville. *Macroscale hydrologic modeling of ecologically relevant flow metrics in small streams.* US Forest Service Region 6 Aquatic/Watershed Program Managers Meeting. Vancouver, WA. May 11, 2010. Invited talk.

Wenger, S.J., D.J. Isaak, H.M. Neville, C.H. Luce, B.E. Rieman, A.F. Hamlet, K.D. Fausch and D. Nagel. *Flow regime influences distributions of brook trout, bull trout and cutthroat trout in the Upper Columbia Basin.* Idaho Chapter of the American Fisheries Society Annual Meeting, Pocatello, ID. March 5, 2010.

Wenger, S.J., D.J. Isaak, H.M. Neville, C.H. Luce, B.E. Rieman, A.F. Hamlet, K.D. Fausch and D. Nagel. *Native and invasive trout distributions in the Upper Columbia Basin under climate change: influence of flow regime, temperature and biotic interaction.* Idaho State University, Pocatello, ID. February 4, 2010. Invited talk.

Wenger, S.J., C.H. Luce, A.F. Hamlet, D.J. Isaak and H.M. Neville. *Modeling ecologically relevant flow metrics in small streams.* American Geophysical Union Fall Meeting, San Francisco, CA. December 15, 2009.

Wenger, S.J., D.J. Isaak, H.M. Neville, C.H. Luce, B.E. Rieman and A.F. Hamlet. *Adapting the VIC hydrologic model to headwater streams in the West.* US Forest Service Western Watersheds and Climate Change Workshop, Boulder, CO. November 18, 2009. Invited talk.

Wenger, S.J. *Managing stormwater impacts to protect imperiled aquatic species.* 2009 Sustainable Stormwater Symposium, Portland, OR. September 16, 2009. Invited talk.

Wenger, S.J., D.J. Isaak, H.M. Neville, C.H. Luce and B.E. Rieman. *Using climate models to predict hydrologic and thermal effects on future habitat distributions of inland trout in headwater streams across the western U.S.* Western Division American Fisheries Society Annual Meeting, Albuquerque, NM. May 4, 2009.

Wenger, S.J., M.C. Freeman, J. T. Peterson, L.A. Fowler and B.J. Freeman. *Managing for imperiled species in an urbanizing environment.* Society for Conservation Biology Annual Meeting, Chattanooga, TN. July 16, 2008.

Wenger, S.J., A.H. Roy and A. Purcell. *Report on the Second Symposium on Urbanization and Stream Ecology.* North American Benthological Society Annual Meeting, Salt Lake City, UT. May 26, 2008.

Wenger, S.J. *Incorporating best available science into watershed management policy and monitoring programs.* International Watershed Management Research Symposium, San Luis, Costa Rica. March 29, 2008. Invited talk.

Wenger, S. J., L.A. Fowler and B.J. Freeman. *The Etowah Aquatic Habitat Conservation Plan.* Southeastern Fishes Council Annual Meeting, Chattanooga, TN. November 8, 2007.

Wenger, S.J. *Introduction to aquatic habitat conservation plans.* The Nature Conservancy Efroymson Workshop, Southeastern U.S., Chattanooga, TN. August 30, 2007. Invited talk.

Wenger, S.J., L.A. Fowler and B.J. Freeman. *Integrating predictive modeling and land use policy to manage for imperiled stream fishes.* 2007 North American Benthological Society Annual Meeting, Columbia, SC. June 5, 2007.

Wenger, S.J., T.L. Carter, M.C. Freeman, L.A. Fowler and B.J. Freeman. *Stormwater management: the key to protecting the imperiled fishes of the Etowah.* 2007 Georgia Water Resources Conference, Athens, GA. March 28, 2007.

Wenger, S.J., M.C. Freeman and B.J. Freeman. *Predicting persistence of imperiled fish species in an urbanizing landscape.* Ecological Society of America Annual Meeting, Memphis, TN. August 10, 2006.

Wenger, S.J., M.C. Freeman, J.T. Peterson, B.J. Freeman and D.D. Homans. *Estimating effects of impervious cover on occurrence of stream fishes to guide management policies.* 2006 North American Benthological Society Annual Meeting, Anchorage, AK. June 5, 2006.

Wenger, S.J., M.C. Freeman, T.L. Carter and L.A. Fowler. *Using runoff limits to protect imperiled fish species.* 2005 Georgia Water Resources Conference, Athens, GA. April 26, 2005.

Wenger, S.J., M.C. Freeman, B.J. Freeman, N.M. Burkhead and A.H. Roy. *Changes in fish assemblages in urbanizing watersheds.* 2004 American Fisheries Society Annual Meeting, Madison, WI. August 25, 2004.

Wenger, S.J., M.C. Freeman, B.J. Freeman and A.H. Roy. *Identifying a metric of sensitive fish species for assessing impacts of urbanization on fish assemblages.* 2004 North American Benthological Society Annual Meeting, Vancouver, BC. June 7, 2004.

Wenger, S.J. *Directing patterns of growth: greenspace preservation.* 2003 Conference, Association of County Commissioners of Georgia, Atlanta, GA. September 29, 2003. Invited talk.

Wenger, S.J. and A. Roy. *Riparian uffers in urban areas: what they can do, what they can't do, and how to protect them.* Georgia Urban Forest Council Third Quarterly Meeting, Atlanta, GA. August 13, 2003. Invited talk.

Wenger, S.J., B.J. Freeman, M.C. Freeman, A.Roy and W.E. Ensign, 2003. *Assessing effects of development on imperiled fish communities for the Etowah Regional Habitat Conservation Plan.* Ecological Society of America 2003 Annual Conference, Savannah, GA. August 6, 2003.

Fowler, L.A., B.J. Freeman and S.J. Wenger (presenter). *The Etowah Regional Habitat Conservation Plan*. 2003 Georgia Water Resources Conference, Athens, GA. April 24, 2003.

Wenger, S.J. *Where do we want to go and how do we get there?* "Inside the Loop" Meeting on Growth Management, Oconee County, GA. March 19, 2003. Invited talk.

Wenger, S.J. *Directing patterns of growth: greenspace preservation.* 2003 Mayor's Day Conference, Georgia Municipal Association, Cobb County, GA. January 25, 2003. Invited talk.

Wenger, S.J., S. Kidd and C. Stoughton. *A regional approach to greenspace protection.* Citizens Summit for Livable Communities, Atlanta, GA. November 10, 2001. Invited talk.

Wenger, S.J. *Protecting streams with buffers and watershed management.* Citizens Summit for Livable Communities, Atlanta, GA. November 10, 2001. Invited talk.

Wenger, S.J. *Conservation subdivisions.* Georgia Planning Association Annual Meeting, Jekyll Island, GA. October 24, 2001. Invited talk.

Wenger, S.J. *Managing growth to protect natural resources.* Coastal Decision Maker Workshop, Sapelo Island Visitors Center, GA. October 23, 2001. Invited talk.

Wenger, S.J. *Protecting drinking water supply watersheds*. Soque Watershed Association Drinking Water Protection Workshop, Clarksville, GA. September 14, 2001. Invited talk.

Wenger, S.J. *Effective local policies for protecting natural resources*. EPD Environmental Compliance Officer Training Program, Savannah, GA. August 22, 2001. Invited talk.

Wenger, S.J. *Stormwater quality management: a model ordinance for Georgia.* 2000 Georgia River Network Annual Conference, Milledgeville, GA. October 28, 2000. Invited talk.

Wenger, S.J. *Riparian buffers: function, performance and laws in Georgia.* 2000 Georgia River Network Annual Conference, Milledgeville, GA. October 28, 2000. Invited talk.

Freeman, B.J. and S.J. Wenger (presenter). 2000. *A rapid prioritization method for protecting imperiled streams.* Society for Conservation Biology Annual Meeting, Missoula, MT. June 9-12, 2000.

Wenger, S.J. *Technical aspects of buffers.* Coastal Decision Makers Workshop on Riparian Buffers. Charleston, SC. May 31, 2000. Invited talk.

Wenger, S.J. and L.A. Fowler. 1999. *Developing science-based riparian buffer protection policies in Georgia.* Society for Conservation Biology Annual Meeting, College Park, MD. June 17-21, 1999.

GRANTS & CONTRACTS

2024-2028. Assessment of water quality and quality conditions in Tired Creek Lake, Grady County, GA. Grady County, GA. Seth Wenger & Phillip Bumpers, PIs. $76,873. Awarded.

2024-2026. Assessing Status of Aquatic Species in the Conasauga River System. Georgia Department of Natural Resources. Byron Freeman, lead PI (Seth Wenger role: co-PI). $31,000. Awarded.

2024-2025. Assessing Status of Aquatic Species in the Conasauga River System. Georgia Department of Natural Resources (FY23). Byron Freeman, lead PI (Seth Wenger role: co-PI). $30,000. Awarded.

2024-2025. Evaluating longitudinal declines in water quality in the Conasauga River using aquatic macroinvertebrates (Year 2). Georgia Water Resources Institute. Seth Wenger, PI. $20,995. Awarded.

2024-2025. The 2025 Biennial Georgia Water Resources Conference. Georgia Water Resources Institute.

Sechindra Vallury, lead PI (Seth Wenger role: co-PI). $12,500. Awarded.

2024-2027. Restoring access to historical habitats for migratory fishes of the Altamaha-Ocmulgee watersheds: Phase one. National Oceanographic and Atmospheric Administration via The Nature Conservancy. Seth Wenger, lead PI. $651,110. Awarded.

2024-2026. Expanding Research Test Beds for Nature-based Solutions in the Southeastern US. US Army Corps of Engineers. Brian Bledsoe, lead PI (Seth Wenger role: co-PI). $5,466,613. Awarded.

2024-2026. Promoting a Better Understanding of the National Park's Natural Resource Data to Park Resource Managers, Regional Scientists, and the Public. National Park Service. Seth Wenger, PI. $305,901. Awarded.

2024-2026. Estimating Mussel Response to Lower Flint River Flows to Support Habitat Conservation Planning. Georgia Department of Natural Resources. Seth Wenger, PI. $96,037. Awarded.

2023-2025. Assessment and Monitoring of the Effects of Garwood Dam Removal on Imperiled Aquatic Organisms and their Habitat. Georgia Department of Transportation. Jay Shelton, lead PI (Seth Wenger role: co-PI). $226,295. Awarded.

2023-2024. Visualizations of the pre-impoundment channel of Lake Tugalo. Chattooga Conservancy. Jon Calabria, lead PI (Seth Wenger role: co-PI). $13,485. Awarded.

2023-2024. Evaluating longitudinal declines in water quality in the Conasauga River using aquatic macroinvertebrates. Georgia Water Resources Institute. Seth Wenger, PI. $20,854. Awarded.

2023-2024. The 2023 Biennial Georgia Water Resources Conference, year 2. Georgia Water Resources Institute. Seth Wenger, PI. $12,478. Completed.

2023-2026. Leveraging Earth Observation for Ecosystem Service Accounting in Large-scale Levee Setback Decisions. National Aeronautics and Space Administration. Charles van Rees, lead PI (Seth Wenger role: co-PI). $604,962. Awarded.

2023-2024. Planning Proposal: CRISES: Collaborative Research and Education Center for Transformative Water Solutions. National Science Foundation. Don Nelson, lead PI (Seth Wenger role: senior personnel). $100,000. Awarded.

2023-2024. Assessing Options for Improving Drought Resilience of the Upper Flint. Georgia Environmental Protection Division. Seth Wenger, lead PI. $74,9156. Awarded.

2023-2024. Holly Creek fish sampling years 6-7. National Fish and Wildlife Foundation via Georgia Department of Natural Resources. Seth Wenger, lead PI, UGA. $54,374. Awarded.

2022-2023. Endangered Species Applications Course 2023. US Fish and Wildlife Service. Seth Wenger, PI. $22,828. Completed.

2022-2023. The 2023 Georgia Water Resources Conference. Georgia Water Resources Institute. Seth Wenger, lead PI. $9,990. Completed.

2022. Reconstruction of the pre-impoundment channel form of Lake Tugaloo. American Rivers. David Leigh and Seth Wenger, PIs. $13,778. Completed.

2022. Mitigation compliance analysis (2016-2021). Georgia Environmental Restoration Association. Seth Wenger, PI. $5,000. Awarded.

2022-2024. SRSRN: Sustainable and Equitable Urban Stream Corridors: Improving aesthetic, social, water quality, and ecological values of urban watersheds to achieve downstream rural benefits. National Science Foundation. Rhett Jackson, lead PI (Seth Wenger role: co-PI). $149,989. Awarded.

2022-2024. Nature-based restoration of Conasauga river shoals. National Fish and Wildlife Foundation. Seth Wenger, lead PI, UGA. $204,392. Awarded.

2021-2022. Assessing dissolved oxygen concentrations in the Conasauga River. Georgia Water Resources Institute. Byron Freeman and Seth Wenger, PIs. $17,996. Awarded.

2021. Synthesizing multiple long-term datasets to test flow ecology relationships. US Geological Survey. Seth Wenger, PI. $29,300. Awarded.

2021. Mitigation compliance analysis (2015-2020). Georgia Environmental Restoration Association. Seth Wenger, PI. $5,000. Awarded.

2021-2022. Holly Creek fish sampling years 4-5. National Fish and Wildlife Foundation via Georgia Department of Natural Resources. Seth Wenger, lead PI, UGA. $58,031. Awarded.

2020-2021. Endangered Species Act applications course. U.S. Fish & Wildlife Service. Seth Wenger, PI. $51,000. Awarded.

2020-2023. Engineering with Nature Initiative. US Army Corps of Engineers. Brian Bledsoe, lead PI (Seth Wenger role: co-PI). $7.5M. Awarded.

2020-2021. Flow-dependent benefits and values of water resources in the Upper Oconee and Middle Ocmulgee Regions. Georgia Environmental Protection Division via Albany State University. Seth Wenger, lead PI, UGA. $35,892.

2020. Flow targets for maintaining ecosystem integrity of the Upper Flint River. American Rivers, Inc. Seth Wenger, PI. $4,347. Awarded.

2020-2022. The 2021 Biennial Georgia Water Resources Conference. Georgia Water Resources Institute. Seth Wenger, lead PI. $19,536. Awarded.

2019-2020. Holly Creek fish sampling years 2-3. National Fish and Wildlife Foundation via Georgia Department of Natural Resources. Seth Wenger, lead PI, UGA. $39,766. Awarded.

2019-2023. Communications and technical editing support for the National Park Service Southeast Region 2020-2024. National Park Service. Seth Wenger, PI. $450,589. Awarded.

2018-2019. Holly Creek Fish Sampling 2018. National Fish and Wildlife Foundation via Georgia Department of Natural Resources. Seth Wenger, lead PI, UGA. $21,740. Completed.

2018-2020. Review of Special Provisions and Other Conditions Placed on GDOT Projects for Imperiled Aquatic Species Protection (Main Phase). Georgia Department of Transportation. Seth Wenger, Brian Bledsoe, Byron Freeman, Robert Bringolf, Katie Hill, Alfie Vick, and Jon Calabria, PIs. $658,492. Completed.

2018-2019. Synthesizing Multiple Long-Term Datasets to Test Flow Ecology Relationships to Inform Water Resources Management. US Army Corps of Engineers grant to fund USGS Powell Center Working Group. Mary Freeman, Keith Gido, Annika Walters and Seth Wenger, PIs. $35,402. Completed.

2018-2019. Developing real-time sensor networks for monitoring stream water quality to improve water resource management: Year 2. Georgia Water Resources Institute. Seth Wenger, Amy Rosemond, John Dowd and Phillip Bumpers, PIs. $17,997. Completed.

2018-2019. Potential conservation benefits of forestry best management practices for sensitive aquatic species in the Southeastern US (USGS Contribution). US Geological Survey. Cecil Jennings, Brian Irwin, Duncan Elkins, and Seth Wenger, PIs. $175,030. Completed.

2018-2019. Potential conservation benefits of forestry best management practices for sensitive aquatic species in the Southeastern US (FWS Contribution). US Fish and Wildlife Service. Cecil Jennings, Brian Irwin, Duncan Elkins, and Seth Wenger, PIs. $28,872. Completed.

2018. Identifying Priority Areas for Surface Water Protection in the Middle Chattahoochee. Georgia Forestry Commission. Duncan Elkins and Seth Wenger, PIs. $49,193. Completed.

2017-2018. GERA state buffer mitigation research. Georgia Environmental Restoration Association. Katie Hill and Seth Wenger, PIs. $9,884. Completed.

2017-2021. Quantifying restoration benefits to native stream fishes. US Geological Survey. Seth Wenger, PI. $138,191. Awarded.

2017-2018. Analysis of the effects of hydrologic variation on stream fishes in the Apalachicola-Chattahoochee-Flint River Basin (2017-2018). US Geological Survey. Seth Wenger and Kit Wheeler, PIs. $93,000. Completed.

2017. Review of Special Provisions and Other Conditions Placed on GDOT Projects for Imperiled Aquatic Species Protection (Scoping Phase). Georgia Department of Transportation. Seth Wenger, Brian Bledsoe and Byron Freeman, PIs. $82,600. Completed.

2017-2018. Developing real-time sensor networks for monitoring stream water quality to improve water resource management. Georgia Water Resources Institute. Seth Wenger, Amy Rosemond, John Dowd and Phillip Bumpers, PIs. $17,924. Completed.

2017-2020. Collaborative Research: Headwater stream networks in a warming world: predicting heterotrophic ecosystem function using theory, multi-scale temperature manipulations and modeling. NSF. Jon Benstead, Amy Rosemond, Vlad Gulis, Ashley Helton and Erin Hotchkiss, PIs (Seth Wenger, senior personnel). Amount to UGA: $659,519. Completed.

2015-2018. A system to forecast the demographic and genetic viability of salmonid fish across broad regions under changing climates. NASA. Seth Wenger, Erin Landguth and Helen Neville, PIs. $716,309. Completed.

2015-2017. Quantifying ecological outcomes of hydrologic variability. US Army Corps of Engineers. Seth Wenger, lead P.I. $148,099. Completed.

2015-2017. Analysis of the effects of hydrologic variation on stream fishes in the Chattahoochee and Flint River basins, Georgia. USGS Cooperative Ecosystem Study Unit. Seth Wenger, P.I. $108,285. Completed.

2014-2017. Effects of hydrology on metapopulation dynamics of stream fishes in the Chattahoochee and Flint River basins, Georgia. USGS Cooperative Ecosystem Study Unit. Seth Wenger, P.I. $179,651. Completed.

2015-2017. Spatially explicit demographic models to evaluate the spatial and temporal pattern of rehabilitation of lake sturgeon in the Niagara River. US Fish and Wildlife Service. Seth Wenger and Craig Osenberg, PIs. $43,701. Completed.

2015-2016. Southeastern Aquatic Biodiversity Conservation Opportunity Analysis. National Fish and Wildlife Foundation. Seth Wenger, lead P.I. $138,691. Completed.

2014-2017. Subcontract under US EPA Contract EP-C-12-060. Tetra Tech. Seth Wenger, P.I. $40,000. Completed.

2014-2020. LTER: The Interacting Effects of Hydroclimate Variability and Human Landscape Modification in the Southern Appalachian Mountains (Coweeta LTER VII). Ted Gragson, UGA, lead P.I. $3,000,000 total budget. Awarded (partially).

2014-2019. Communications and Technical Editing Support for the National Park Service Southeast Region. National Park Service Cooperative Ecosystem Study Unit award. Seth Wenger, P.I. $239,601. Awarded.

2014-2015. Collaborative Research: US- Mexico Planning Visit: Mexican Urban Stream Ecology (MUSE). National Science Foundation. Krista Capps, lead PI (overall); Seth Wenger, P.I. (UGA). $5,400 to UGA, of $71,300 overall. Completed.

2014-2015. Meeting: The Third Symposium on Urbanization and Stream Ecology (SUSE3). National Science Foundation. Seth Wenger, P.I. $14,116. Completed.

2014-2014. A system to forecast the demographic and genetic viability of salmonid fish across broad regions under changing climates. Seth Wenger, Erin Landguth and Helen Neville, PIs. $190,510. Completed.

2013-2014. Developing a comprehensive interagency stream temperature database and high resolution NorWeST climate scenarios for the North Pacific LCC. North Pacific Landscape Conservation

Cooperative. Daniel J. Isaak, Seth J. Wenger, Erin E. Peterson, Jay Ver Hoef, Jason B. Dunham, Steve Hostetler, Charles H. Luce, Jeff Kershner, Brett B. Roper, and Dave Nagel, PIs. $71,712. Completed.

2012-2013. The NorWeST Regional Stream Temperature Model for Mapping Thermal Habitats and Predicting Vulnerability of Aquatic Species to Climate Change across the Great Northern LCC. Daniel J. Isaak, Erin E. Peterson, Jeff Kershner, Jason B. Dunham, Jay Ver Hoef, Steve Hostetler, Brett B. Roper, Charles H. Luce and Seth J. Wenger, PIs. $31,558. Completed.

2011-2012. A Regional Stream Temperature Model for Mapping Thermal Habitats and Predicting Vulnerability of Aquatic Species to Climate Change across the Great Northern LCC. Daniel J. Isaak, Erin E. Peterson, Jeff Kershner, Jason B. Dunham, Jay Ver Hoef, Steve Hostetler, Brett B. Roper, Charles H. Luce and Seth J. Wenger, PIs. $210,665. Completed.

2011-2012. Spatially-variable stream temperature sensitivity to climate change in the Pacific Northwest. U.S. Forest Service Rocky Mountain Research Station joint venture agreement with Trout Unlimited. S.J. Wenger, P.I. $25,000. Completed.

2010-2011. Development of Initial Rivers Classification System for the Wami-Ruvu Basin, Tanzania. Contract from Global Water for Sustainability program, Florida International University. S.J. Wenger, P.I. $4,150. Completed.

2009-2011. The Potential Influence of Changing Climate on the Persistence of Western Native Salmonids at Risk: Linking Multiple Scale Analyses to Decision Support. U.S. Geological Survey. J.L. Kershner, S. Cannon, K. Fausch, A. Haak, S. Hostetler, B. Gresswell, D. Isaak, C. Muhlfeld, H. Neville, D. Peterson, A. Todd, S. Wenger and J. Williams, PIs. $1,029,392. Completed.

2009-2011. Validation of the VIC hydrologic model in the Shoshone National Forest / Development of decision support tools for addressing climate change effects on native trout. U.S. Forest Service Rocky Mountain Research Station joint venture agreement with Trout Unlimited. S.J. Wenger, P.I. $30,720. Completed.

2008-2010. Assessment of Urban, Suburban and Transitional Watersheds in Athens-Clarke County. Contract from Athens-Clarke County. A.D. Rosemond and S.J. Wenger, P.I.s. $94,444. Completed.

2008-2009. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Etowah River Basin: Funding for Transition to Implementation. US Fish and Wildlife Service/GA Department of Natural Resources. S.J. Wenger, B.J. Freeman and L.A. Fowler, P.I.s. $217,772. Completed.

2008-2009. Assessing Conservation Improvements in the Conasauga River system. Georgia Department of Natural Resources. B.J. Freeman and S.J. Wenger, P.I.s. $27,000. Completed.

2008-2009. Development of Wetlands Protection Ordinances for Coastal Georgia. University of Georgia Scholarship of Engagement Grant Program. S.J. Wenger and L.A. Fowler, P.I.s. $5,000. Completed.

2008-2009. Water Balance: A Freshwater Conservation Initiative in the Etowah River Basin. Contract from World Wildlife Fund. T.L. Carter and S.J. Wenger, P.I.s. $38,000. Completed.

2008-2009. Assessing Baseline Ecological Conditions in the upper Etowah River system. Georgia Department of Natural Resources. B.J. Freeman and S.J. Wenger, P.I.s. $27,260. Completed.

2007-2008. Assessing Conservation Improvements in the Conasauga River system. Georgia Department of Natural Resources. B.J. Freeman and S.J. Wenger, P.I.s. $27,000. Completed.

2007-2008. Assessing Baseline Ecological Conditions in the upper Etowah River system. Georgia Department of Natural Resources. B.J. Freeman and S.J. Wenger, P.I.s. $27,260. Completed.

Note: Prior to receiving a PhD I could not serve as a P.I., but prepared the following successful grant proposals:

2006-2007. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Upper Etowah River Basin. US Fish and Wildlife Service / GA Department of Natural Resources. Prepared for B.J. Freeman and L.A. Fowler, P.I.s. $98,398. Completed.

2005-2006. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Upper Etowah River Basin. US Fish and Wildlife Service / GA Department of Natural Resources. Prepared for B.J. Freeman and L.A. Fowler, P.I.s. $392,608. Completed.

2004-2005. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Upper Etowah River Basin. US Fish and Wildlife Service / GA Department of Natural Resources. Prepared for B.J. Freeman and L.A. Fowler, P.I.s. $355,634. Completed.

2003-2004. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Upper Etowah River Basin. US Fish and Wildlife Service / GA Department of Natural Resources. Prepared for B.J. Freeman and L.A. Fowler, P.I.s. $281,934. Completed.

2002-2003. Development of a Habitat Conservation Plan for Imperiled Aquatic Species of the Upper Etowah River Basin. US Fish and Wildlife Service / GA Department of Natural Resources. Prepared for B.J. Freeman and L.A. Fowler, P.I.s. $158,050. Completed.

AWARDS

Odum School of Ecology Outstanding Teaching Faculty, 2023.

UGA Odum School of Ecology Graduate Student Organization Purple Heart Award, 2019.

Co-recipient, Jim Sedell Research Achievement Award, US Forest Service, 2015. Awarded to the NorWeST/Climate Shield/National Stream Internet Science and Data Team.

Co-recipient, US Fish and Wildlife Service Regional Director's Conservation Award for development of the Etowah Aquatic Habitat Conservation Plan, 2007.

UGA Institute of Ecology Solitary Glove Award for Community Service, 2004.

Co-recipient, Georgia Planning Association Outstanding Planning Award for the Gwinnett County Open Space and Greenways Master Plan, 2003.

UGA Institute of Ecology Best Student Paper Award (applied category), 2000.

UGA Institute of Ecology Environmental Policy Award for outstanding contributions to environmental policy research and development, 2000.

UGA University-wide fellowship (2-year scholarship), 1997.

Lebanon Valley College Anthony Neidig Award for Outstanding Graduating Senior, 1994.

TEACHING & MENTORING

Courses taught:

- Ecology 3480. Urban Ecology. Spring 2016 (w. J. Wood and K. Capps).
- Ecology 3550. Ecological Data Literacy. Fall 2019 (w. J.P. Schmidt).
- Ecology 4080. Conservation Ecology. Fall 2022 (w. C. Pringle), Fall 2023-2024 (w. S. Hernandez).
- Ecology 4950. Senior Seminar. Spring 2018 (w. A. Rosemond).
- Ecology 6080. Conservation Ecology. Fall 2014 - 2022 (w. C. Pringle); Fall 2023-2024 (w. S. Hernandez).
- Ecology 8220. Stream Ecology. Spring 2015 – 2024 (w. M.C. Freeman).
- Ecology 8400. Perspectives in Conservation Ecology (w. M. Hopson).
- Ecology 8910. Perspectives in Computational Ecology. Spring 2015 (w. J. Drake).
- Ecology 8750. Endangered Species Applications Course. Fall 2021, Spring 2023 (w. C. Yang).

- Ecology 8990. Perspectives in Computational Ecology Lab. Spring 2015.
- FYOS 1000. "Take Me to the River". Fall 2014 - 2016 (w. A. Rosemond and S. Connelly).
- ICON 8002. Integrative Conservation II. Fall 2017, Spring 2020.
- ICON 8110. Field Planning and Preparation. Spring 2017.

Postdoctoral scholars mentored:

- Duncan Elkins. 2015 - 2018.
- Suman Jumani. 2022 – 2023.
- Douglas Leasure. 2015 – 2018.
- Charles van Rees. 2021 – 2022.
- Kit Wheeler. 2015 – 2018.

Graduate students advised:

- Olivia Allen, MS-ICAS, Fall 2024 – Present. Co-advised by Charles van Rees.
- Valeria Aspinall, MS-ICAS, Fall 2024 – Present. Co-advised by Amanda Rugenski.
- Shelby Bauer, MS-CESD, Fall 2021 – Summer 2024. Graduated..
- Anna Baynes, MS-CESD, Fall 2020 – Spring 2021. Graduated.
- Phillip Bumpers, PhD, Fall 2018 – Fall 2024. Co-advised by Amy Rosemond. Graduated.
- Zach Butler, MS-CESD, Spring 2018 – Spring 2020. Graduated.
- Emily Chalfin, MS-ICAS, Fall 2023 – Present.
- Caitlin Conn, PhD, Fall 2015 - Present. Co-advised by Amy Rosemond.
- Kyle Connelly, MS-CESD, Fall 2019 – Summer 2021. Co-advised by Krista Capps. Graduated.
- Aurora Fowler, MS-ICAS, Fall 2024 – Present. Co-advised by Charles van Rees.
- Sameera Gujarati, PhD, OSE/ICON Fall 2015 - Present. Co-advised by Susana Ferreira.
- Carleisha Hanns, MS-CESD, Fall 2022 – Fall 2024. Graduated.
- Greg Jacobs, PhD, Spring 2015 – Spring 2021. Co-advised by Craig Osenberg. Graduated.
- Emily Johnson, MS-CESD, Fall 2016 – Spring 2020. Co-advised by Amy Rosemond. Graduated.
- Audrey Mitchell, MS-Non-thesis, Fall 2024 – Present.
- Laura Naslund PhD, Spring 2021 – Summer 2024. Co-advised by Amy Rosemond. Graduated.
- Shishir Rao, PhD, OSE/ICON, Fall 2019 - Present.
- Jon Skaggs, MS-CESD, Fall 2018 – Fall 2020. Graduated.
- John Spencer, MS, Fall 2014 - Dec 2016. Graduated posthumously.
- Ed Stowe, PhD, Summer 2016 - 2023. Co-advised by Mary Freeman. Graduated.
- Eric Walther, PhD, Fall 2021 – Present. Co-advised by Mary Freeman.
- Carol Yang, PhD, Fall 2017 - 2023. Graduated.

Graduate committees:

- Behnoosh Abbasnezhad, PhD, Warnell/ICON, UGA. Graduated.
- Greg Anderson, PhD, Virginia Tech. Withdrew.
- Zachary Arnold, MS, OSE, UGA. Graduated.
- Fabio Benez Secanho, PhD, Warnell School, UGA. Graduated.
- Tala Bleau, MS, Warnell School, UGA.
- Andrew Blinn, PhD, OSE, UGA.
- Alan Bond, PhD, Warnell School, UGA.
- Shannon Bonney, PhD, OSE/ICON, UGA. Graduated.
- Bryan Bozeman, PhD, Warnell/ICON, UGA. Graduated.
- Katie Brownson, PhD, OSE/ICON, UGA. Graduated.
- Gabriela Cardona-Rivera, PhD, Entomology, UGA. Graduated.
- Anne Chesky Smith, MA, Department of Anthropology, UGA. Graduated.

- Carolyn Cummins, PhD, OSE, UGA. Graduated.
- Jessica Davis, MS, OSE, UGA. Graduated.
- Maura Dudley, PhD, OSE, UGA. Graduated.
- Darixa Hernandez, MS-CESD, OSE, UGA. Graduated.
- Theresa Hudson, MS-CESD, OSE, UGA. Graduated.
- Laura Keys, MS, OSE, UGA. Graduated.
- Maxwell Kleinhans, MS, Warnell School, UGA. Graduated.
- Cassidy Lord, MS, Warnell School, UGA. Graduated.
- Chris Malmberg, MS, Warnell School, UGA. Graduated.
- Will Mattison, MS, Engineering, UGA. Graduated.
- Stephen Maurano, MS, OSE, UGA. Graduated.
- Seth McWhorter, PhD, Warnell School, UGA.
- Nathan Metzger, MLA, School of Environmental Design, UGA. Graduated.
- Anuja Mital, PhD, OSE, UGA.
- Kelly Murray, MS, Entomology, UGA. Graduated.
- Andrew Nagy, MS-CESD, UGA. Graduated.
- Katie Parson, MS, Warnell School, UGA. Graduated.
- Annie Paulukonis, MS, Warnell School, UGA. Graduated.
- Cody Prouty, MS, OSE, UGA. Graduated.
- Laura Rack, MS-CESD, UGA. Graduated.
- Laura Rack, PhD, UGA.
- Keysa Rosas, PhD, OSE/ICON, UGA. Withdrew.
- Ridge Sliger, MS, Warnell School, UGA. Graduated.
- Kelsey Solomon, PhD, OSE, UGA. Graduated
- Nathan Tomczyk, MS, OSE, UGA. Graduated.
- Nathan Tomczyk, PhD, OSE, UGA. Graduated.
- Natalia Vargas, MS, OSE, UGA.
- Tiffany Vidal, PhD, Warnell School, UGA. Graduated.
- James Wood, PhD, OSE, UGA. Graduated.
- Hailey Yondo, MS, Warnell School, UGA. Graduated.
- Davide Zailo, MS, Warnell School, UGA. Withdrew.

External reviewer:

- Samantha Imberger, Monash University, Australia, 2011.
- Teresa Mackintosh, Monash University, Australia, 2015.

SERVICE

Odum School of Ecology Committees: Graduate Program Committee (2015 – 2020; 2022-present), Strategic Planning Committee (2019), Conservation Ecology and Sustainable Development Steering Committee (2014-2020), Facilities Committee (2014-2018), Sustainability Committee (chair; 2015 - 2017), Dean's Advisory Committee (2020-2023); Policy-Ecology Search Committee (chair; 2021-2022), Lecturer Search Committee (2024-2025).

UGA Committees: ICON Program Committee (2017 – present; chair, 2021-2023), CICR Executive Committee (2022-present), Graduate Council (2020 – 2023; chair, program committee, 2021-2022), University of Georgia Press Editorial Board (2021-2024; chair, 2023-2024).

Mentor, Society for Freshwater Science Headwaters Leadership Academy, 2024-present.

Member, Society for Freshwater Science Finance Committee, 2024-present.

Associate Editor for *Freshwater Science*, 2018- present.

Reviewed articles for 78 journals: *American Naturalist, Animal Conservation, Aquatic Conservation: Marine and Freshwater Ecosystems, Aquatic Sciences, ARCTIC, Austral Ecology, Biology Letters, BMJ Open, Boreal Environment Research, Canadian Journal of Fisheries and Aquatic Sciences, Climate Risk Management, Climatic Change, Community Ecology, Conservation Biology, Copeia, Diversity and Distributions, Ecography, Ecological Complexity, Ecological Applications, Ecological Indicators, Ecological Modelling, Ecology, Ecology and Evolution, Ecology Letters, Ecology of Freshwater Fish, Ecosphere, Environmental Conservation, Environmental Management, Environmental Monitoring and Assessment, Environmental Research Letters, Environmental Science & Policy, Fisheries, Foodwebs, Freshwater Biology, Freshwater Science, Frontiers in Ecology and the Environment, Global Change Biology, Hydrologic and Earth Systems Science, Hydrologic Sciences, Insect Conservation and Diversity, International Journal of Geo-Information, International Journal of Tropical Biology and Conservation, Journal of the American Water Resources Association, Journal of Applied Ecology, Journal of Biogeography, Journal of Environmental Management, Journal of Environmental Planning and Management, Journal of Environmental Quality, Journal of Fish and Wildlife Management, Journal of Hydrology, Journal of the North American Benthological Society, Journal of Water and Climate Change, Knowledge and Management of Aquatic Ecosystems, Land, Landscape Ecology, Landscape and Urban Planning, Limnologica, Marine Ecology Progress Series, Marine and Freshwater Research, Methods in Ecology and Evolution, Nature Communications, North American Journal of Fisheries Management, Oikos, PeerJ, PLOS One, Progress in Physical Geography, Reviews in Fish Biology and Fisheries, Restoration Ecology, Reviews in Fish Biology and Fisheries, Revista Biologia Tropical, Revista Universitas Scientarium*, *Science of the Total Environment, Scientific Reports, Sustainability, Taprobanica, Transactions of the American Fisheries Society, Urban Ecosystems, Water, Watershed Ecology and the Environment.* I review 8-12 articles per year.

Reviewed publications for the US Geological Survey, the US Fish and Wildlife Service, the US Environmental Protection Agency, American Rivers and the Pew Foundation.

Member, Symposium on Urbanization and Stream Ecology (SUSE) Advisory Board, 2020-present.

Member, Sixth Symposium on Urbanization and Stream Ecology (SUSE6) Planning Committee, 2021-2023.

Served as a proposal panelist for NASA ROSES, 2020.

Reviewed research proposals for the National Science Foundation, the Center for Water Sciences, the Water Resources Research Institute, SeaGrant (GA, OH, NC), NOAA Northwest Fisheries Science Center, and NASA.

Coordinator, OSE Conservation Ecology and Sustainable Development certificate program, 2014-2020.

Co-organized the freshwater portion of the Odum School's 50th Anniversary celebration, January 2018.

Co-Coordinated the Fourth Symposium on Urbanization and Stream Ecology (SUSE4), held May 2017 at Haw River State Park, NC.

Member, Society for Freshwater Science Publications Committee, 2014-2017.

Coordinated and hosted the Fall 2014 Cyberseminar series for CUAHSI, the Consortium of Universities for the Advancement of Hydrologic Science, Inc.

Co-Coordinated the Third Symposium on Urbanization and Stream Ecology (SUSE3), held May 2014 in Portland, Oregon.

Guest co-edited a special urban stream issue of the Journal of the North American Benthological Society, 2009.

Co-Coordinated the Second Symposium on Urbanization and Stream Ecology (SUSE2), May 23-24, 2008, Salt Lake City, Utah.

Founding Member/Board Member, Athens Grow Green Coalition, 2000-2008.

Board member, Ecofocus Environmental Film Festival, Athens, GA, 2008-2010.

Interim Coordinator, EcoCiné Environmental Film Festival, Athens, GA, 2007.

Coordinator, Special Session on Aquatic Habitat Conservation Plans, 2007 NABS Annual Meeting.

Graduate Student Representative, University of Georgia Institute of Ecology Executive Committee, 2004-2006.

Board Member, Upper Oconee Watershed Network, 2002-2003.

Member, Georgia Environmental Planning Criteria Stakeholders Group, 2001-2002 (official state committee to develop environmental protection rules that achieve goals while respecting property rights).

Member, Georgia Stream Buffer Variance Criteria Technical Advisory Committee. 2000 (official state committee to develop variance criteria for state riparian buffer regulations).

MISCELLANEOUS

Co-PI of USGS Powell Center Working Group: *Synthesizing Multiple Long-Term Datasets to Test Flow Ecology Relationships to Inform Water Resources Management*. 2019-2022.

Member, NCEAS Working Group: *Spatial Statistics for Streams*. 2011.

Press Coverage: Our 2011 article in *PNAS* received extensive news coverage in the US, Canada and elsewhere, including the *New York Times* science blog, the *Denver Post*, the Canadian *Globe and Mail*, the *Toronto Star*, *Science*, *Nature*, *Spiegel* (Germany), *Field and Stream* magazine and nearly 50 other newspaper and radio outlets.

SKILLS

Proficiency with a range of frequentist and Bayesian statistical methods. Primary platforms are *R*, *WinBUGS* and *JAGS*.

Proficiency with database management and data manipulation in *R, Filemaker Pro* and *MS Access*.

Proficiency with Geographic Information Systems, particularly *ArcGIS*/*ArcPro*. Experience in scripting.

Knowledge of computer hardware and operating systems, including computer assembly/repair and basic *Linux* setup and management.

Knowledge of local, state and federal environmental laws and policy development in the US.

Experience with various aquatic ecology field research methods.

Knowledge of Spanish, including reading proficiency and basic conversational skill.

Experience in photography and photo processing/post-processing.

Updated 5 Jan 2025.