

Curriculum Vitae
August 28, 2020

Name: Stephen W. Golladay

Address:

Joseph W. Jones Ecological Research Center
3988 Jones Center Drive
Newton, GA 31770

Education:

Undergraduate, Juniata College, Huntingdon PA
Graduate, Virginia Tech University, Blacksburg VA

Current Position:

Aquatic Biologist, Jones Center at Ichauway; Adjunct Graduate Faculty, Odum School of Ecology, University of Georgia; Adjunct Graduate Faculty, Biology Department, Valdosta State University, Adjunct Graduate Faculty, Department of Crop, Soil, and Environmental Science, Auburn University

Recent Journal Articles:

Waters, M.N., S.W. Golladay, C.H. Patrick, J.M. Smoak, and S.D. Shivers. 2015. The potential effects of river regulation and watershed land use on sediment characteristics and lake primary producers in a large reservoir. *Hydrobiologia* 749:15-30.

Golladay, S.W., K.L. Martin, J.M. Vose, D.N. Wear, A.P. Covich, R.J. Hobbs, K.D. Klepzig, G.E. Likens, R.J. Naiman, and A.W. Shearer. 2016. Achievable future conditions as a framework for guiding forest conservation and management. *Forest Ecology and Management* 360: 80-96.

Rugel, K., S.W. Golladay, C.R. Jackson, and T.C. Rasmussen. 2016. Delineating groundwater/surface water interactions in a karst watershed: lower Flint River Basin, southwestern Georgia, USA. *Journal of Hydrology: Regional Studies* 5: 1-19.

Atkinson, C.L., S.W. Golladay, and L.L. Smith. 2017. Larval anuran stable isotope signatures and stoichiometry across multiple geographically isolated wetlands in the southeastern United States. *Southeastern Naturalist* 16:87-104. pdf

Patrick, C.H., M.N. Waters, and S.W. Golladay. 2017. The distribution and ecological role of *Corbicula fluminea* (Müller, 1774) in a large and shallow reservoir. *BioInvasions Records* 6:39-48.

Smith, C.R., P.V. McCormick, A.P. Covich, and S.W. Golladay. 2017. Comparison of macroinvertebrate assemblages across a gradient of flow permanence in an agricultural watershed. *River Research and Applications* 2017: 1–11. <https://doi.org/10.1002/rra.3211>.

- Tietjen, W. L., S. Becker, T.k. Muenz, and S.W. Golladay. 2017. Observations on the spider fauna of geographically isolated wetlands in southwestern Georgia. *Georgia Journal of Science* 75: Article 14. (<https://digitalcommons.gaacademy.org/gjs/vol75/iss2/14>)
- Marzolf, N. S., S. W. Golladay, P. McCormick, A. P. Covich, and S. Wilde. 2018. Inter- and intra-annual apple snail egg mass dynamics in a large southeastern US reservoir. *Hydrobiologia* 811: 155-171 <https://doi.org/10.1007/s10750-017-3475-x>.
- Shivers, S.D., S.W. Golladay, M.N. Waters, S.B. Wilde, and A.P. Covich. 2018. Rivers to reservoirs: Hydrological drivers control reservoir function by affecting the abundance of submerged and floating macrophytes. *Hydrobiologia* 815: 21-35.
- Shivers, S.D., S.W. Golladay, M.N. Waters, S.B. Wilde, P.D. Ashford, and A.P. Covich. 2018. Changes in submerged aquatic vegetation (SAV) coverage caused by extended drought and flood pulses. *Lake and Reservoir Management* 34: 218-229.
- Davis, J. L. M. C. Freeman , S. W. Golladay. 2019. Identifying life history traits that promote occurrence for four minnow. (Leuciscidae) species in intermittent Gulf Coastal Plain streams. *Southeastern Naturalist* 19:102-126.
- DuBose, T. P., C. L. Atkinson, C. C. Vaughn, and S. W. Golladay. 2019. Drought-induced, punctuated loss of freshwater mussels alters ecosystem function across temporal scales. *Frontiers in Ecology and Evolution*. <https://doi.org/10.3389/fevo.2019.00274.7:1-13>
- Marzolf, N. S., C. R. Smith, and S. W. Golladay. 2019. Limpkin (*Aramus guaruana*) establishment following recent increase in non-native prey availability in Lake Seminole, GA. *Wilson Journal of Ornithology*. <https://doi.org/10.1676/17-26.131:179-184>
- Rugel, K., S. W. Golladay, C. R. Jackson, R. J. McDowell, J. F. Dowd, and T.C. Rassmussen. 2019. Using hydrogeomorphic patterns to predict groundwater discharge in a karst basin: Lower Flint River Basin, southwestern GA, USA. *Journal of Hydrology Regional Studies*. <https://doi.org/10.1016/j.ejrh.2019.100603.23:1-13>
- Davis, J. L., M. C. Freeman, and S. W. Golladay. 2020. Identifying life history traits that promote occurrence for four minnow. (Leuciscidae) species in intermittent Gulf Coastal Plain streams. *Southeastern Naturalist* 19: 102-126.
- Qi, J., S.T. Brantley, and S.W. Golladay. 2020. Simulated irrigation reduction increases streamflow especially during low flow periods: A case study in the lower Flint River Basin. *Journal of Hydrology: Regional Studies* 28: 100665.

Recent Other Publications (peer-reviewed):

- Golladay, S. W., and D. W. Hicks. 2015. Using the Sustainable Boundary Approach (SBA) to assess and develop flow guidelines: the Flint River, Georgia. In: R. J. McDowell, C. A. Pruitt, and R. Bahn (eds.). *Proceedings of the 2015 Georgia Water Resources Conference*, held April 28-29, 2015, Institute of Ecology, University of Georgia, Athens, Georgia. <http://www.gwri.gatech.edu/node/4070>.

- Marzolf, N. S., S. D. Shivers, S. W. Golladay, and A. P. Covich. 2015. Is environmental calcium availability limiting dispersal of an invasive snail in Lake Seminole and associated smaller lakes? In: R. J. McDowell, C. A. Pruitt, and R. Bahn (eds.). Proceedings of the 2015 Georgia Water Resources Conference, held April 28-29, 2015, Institute of Ecology, University of Georgia, Athens, Georgia. <http://www.gwri.gatech.edu/node/4070>.
- Smith, C. R., P. V. McCormick, S. W. Golladay, and Alan P. Covich. 2015. Invertebrate assemblage changes indicative of reduced flow in an agricultural watershed. In: R. J. McDowell, C. A. Pruitt, and R. Bahn (eds.). Proceedings of the 2015 Georgia Water Resources Conference, held April 28-29, 2015, Institute of Ecology, University of Georgia, Athens, Georgia. <http://www.gwri.gatech.edu/node/4070>.
- Smith, N. D., and S. W. Golladay, B. A. Clayton, and D. W. Hicks. 2015. Stream habitat and mussel populations adjacent to AAWCM sites in the lower Flint River Basin. In: R. J. McDowell, C. A. Pruitt, and R. Bahn (eds.). Proceedings of the 2015 Georgia Water Resources Conference, held April 28-29, 2015, Institute of Ecology, University of Georgia, Athens, Georgia. <http://www.gwri.gatech.edu/node/4070>.
- McNulty S., A. Baca, M. Bowker, S. Brantley, L.M. Conner, T. Dreaden, S. Golladay, T. Holmes, N. James, S. Liu, R. Lucardi, A. Mayfield, L. Smith, G. Sun, E. Treasure, and J. Vose. 2019. Chapter 9: Forest Drought Impacts and adaptive management options for the Southeast United States. In: Vose J.M., D.L. Peterson, C.H. Luce, and T. Patel-Weynand (eds). Drought impacts on forests and rangelands in the United States: translating science into management responses. USDA Forest Service Southern Research Station GTR: *In press*.
- Golladay, S. W., B. Emanuel, S. G. Rogers. 2019. Where has all the water gone: examining hydrologic change and human response in the upper Flint River, GA. Proceedings of the Georgia Water Resources Conference. (Outreach Publication)
- Smith, C. R., S. W. Golladay, M. Waters, B. Clayton. 2019. Of limpkins and apple snails: invasive species, novel ecosystems, and an uncertain future. Proceedings of the Georgia Water Resources Conference. (Outreach Publication)

Manuscripts submitted or in preparation: (complete drafts available)

- Golladay, S.W., B. Clayton, S.T. Brantley, C.R. Smith, J. Qi, and D.W. Hicks. In revision. Forest restoration increases isolated wetland hydroperiod: a long-term case study. *Ecosphere* (revised July 2020)
- Golladay, S.W., L.S. Craig, A. Depalma-Dow, B. Emanuel, and S.G. Rogers. In review. Public engagement and water management: Collaborating with those responsible for our water supplies. *Freshwater Science* (Revised July 2020)
- Shivers, S.D., S.W. Golladay, M.N. Waters, S.B. Wilde, N.S. Marzolf, and A.P. Covich. Submitted. Invasive species interactions affect nutrient cycling in a shallow reservoir: a mesocosm experiment. *Freshwater Biology* (March 2020).

Qi, J., S.T. Brantley, and S.W. Golladay. In preparation. Simulated longleaf pine (*Pinus palustris* Mill.) restoration increases streamflow: a case study in the lower Flint River.

Webster, B.C., M.N. Waters, and S.W. Golladay. Submitted. Transformations to sediment deposition and transport along an interconnected six reservoir sequence. *Global Biogeochemical Cycles* (July 2020)

Technical Reports:

Brantley, S.T., J. Qi, and S.W. Golladay. 2018. Agricultural water conservation for streamflow in the lower Flint River. Submitted to the Georgia Chapter of the Nature Conservancy. (Submitted January 10, 2018).

Recent Funded Research and Awards (External):

Golladay, S.W., and S.T. Brantley. 2016. Evaluation of current and potential water conservation strategies using SWAT Modeling: The lower Flint River Basin in Georgia. The Nature Conservancy of Georgia (Funded for \$38,000 for 11/01/16-12/31/17).

Conner, L.M., and S.W. Golladay. 2019. Georgia Albany Feral Swine Control Pilot Project (FWCPP). USDA NRCS. (Funded for \$260,080, 06/01/2020-05/31/2023)

O'Donnell, F.C., M.N. Waters, S.W. Golladay, S.T. Brantley, and C.R. Smith. 2019. A landscape approach to wetland mitigation of non-point source agricultural runoff. USDA – Nation Institute of Food and Agriculture, AFRI. Funded for \$499,995, 06/01/2020-05/31/2023)

Synergistic Activities:

Director memberships: Georgia Adopt-A-Stream Statewide Board of Directors, 2000 – present; Georgia Youth Science and Technology Center at Bainbridge State College, 2000 – 2018 (former Chair)

Advisory positions: Flint River Technical Advisory Committee, GA EPD, 2004 – 2006; NEON Aquatic Technical Advisory Committee, 2011-present; Technical Advisory Committee, Lower Flint River Habitat Conservation Plan, 2012 – present; Flint River Soil and Water Conservation District CIG Project, beginning 2016; USGS SE Climate Science Center Working Group on Hydrologic Impacts, 2016 – present.

Memberships: American Association for the Advancement of Science; Freshwater Mussel Conservation Society; Society for Freshwater Science; Apalachicola, Chattahoochee, Flint (ACF) Stakeholders, 2014-present

Leadership and Training: Institute for Georgia Environmental Leadership (IGEL), Instructor 2010-present, participant – Class of [2014 \(http://www.igeleaders.org/\)](http://www.igeleaders.org/); High Impact Communications for Scientists, CI International, April 16-17, 2018

Education and Outreach: Since 1993 a 30% appointment to the Jones Center Education program for natural resource managers, conservation professionals, and policymakers
(www.jonesctr.org/education)