Michael Schramm

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As a research professional providing expertise in water science, policy, and regulation, I leverage statistical and geospatial analysis to bridge the gaps between science and stakeholders. I invest my time in developing open source data tools and methods to ensure transparency and reproduciblity in the work I communicate to the public. Since 2016, I have authored nine papers or reports on water resources topics.

Skills

Communication: academic writing, extension and outreach programs, stakeholder facilitation, technical and non-technical reports

Programatic: grant writing, project management, proposal development

Programming and Applications: ArcGIS, Excel, git (limited), `R`, `Python`

Water Management and Hydrologic Science: statistical methods for water quality, TMDL development, water quality policy and regulations, watershed planning

Employment

Texas Water Resources Institute, Texas A&M AgriLife Research — **College Station, TX**

Research Specialist III — *2019*

- Collaborate with researchers to design, plan, conduct, and coordinate water focused research projects.
- Facilitate stakeholder engagement to inform research priorities that address local research needs.
- Supervise undergraduate and/or graduate students and other technical or field staff involved in research.
- Represent TWRI at local, national, and international meetings to disseminate research findings and network with peers in the field.
- Prepare and write proposals to funding agencies; maintain financial accounts related to research projects.

Texas Water Resources Institute, Texas A&M AgriLife Research — **College Station, TX**

Research Associate — *2016 - 2019*

- Provide technical support and stakeholder facilitation of watershed planning, TMDL, and I-Plan projects in collaboration with state water resource agencies.
- Develop, evaluate, and apply research and statistical methods for water resources planning.
- Collborated with state agencies and local stakeholders to publish watershed protection plans, TMDLs, Implementation Plans, and technical reports assessing indicator bacteria pollutant loads.
- Worked with Institute scientists and other entities to secure seven projects and $1.3 million in research and water quality improvement funding.

Oak Ridge National Laboratory/Oak Ridge Associated Universities — **Oak Ridge, TN**

Research Associate — *2014-2016*

- Develop relational database and methods to assess environmental mitigation at U.S. hydropower facilities.
- Utilize statistical and geospatial methods to analyze data.
- Published three peer-reviewed journal articles, two technical reports, and one conference presentation on research findings related to mitigating environmental impacts of hydropower facilites.

Center for Energy and Environmental Policy, University of Delaware — **Newark, DE**

Graduate Research Assistant — *2013-2014*

- Responsible for interviews, data analysis, and developing policy reccomendations in two policy analysis reports delived to the state General Assembly.

Education

University of Delaware — **Newark, DE**

Master of Energy and Environmental Policy — *2013*

University of North Carolina - Wilmington — **Wilmington, NC**

B.A. Environmental Studies — *2011*

University of North Carolina - Wilmington — **Wilmington, NC**

B.S. Biology — *2004*

Selected Publications

1. Cutting, RH, LB Cahoon, JF Flood, L Horton, and M Schramm (2011). Spill the Beans: GoodGuide, Walmart and EPA Use Information as Efficient, Market-Based Environmental Regulation. *Tulane Environmental Law Journal* **24**(291), 45.
2. Pracheil, BM, CR DeRolph, MP Schramm, and MS Bevelhimer (June 2016). A Fish-Eye View of Riverine Hydropower Systems: The Current Understanding of the Biological Response to Turbine Passage. *Reviews in Fish Biology and Fisheries* **26**(2), 153–167.
3. Schramm, MP, MS Bevelhimer, and CR DeRolph (July 2016). A Synthesis of Environmental and Recreational Mitigation Requirements at Hydropower Projects in the United States. *Environmental Science & Policy* **61**, 87–96.
4. DeRolph, CR, MP Schramm, and MS Bevelhimer (Oct. 2016). Predicting Environmental Mitigation Requirements for Hydropower Projects through the Integration of Biophysical and Socio-Political Geographies. *Science of The Total Environment* **566-567**, 888–918.
5. Schramm, MP, M Bevelhimer, and C Scherelis (June 2017). Effects of Hydrokinetic Turbine Sound on the Behavior of Four Species of Fish within an Experimental Mesocosm. *Fisheries Research* **190**, 1–14.

Software (R)

1. Michael, S (2019). *dartx: Applies Drainage Area Ratio Method With Correction Factors*. Version 0.1.0. `https://github.com/mps9506/dartx`.
2. Schramm, M (2019). *echor: Access EPA 'ECHO' Data*. Version 0.1.3. `https://CRAN.R-project.org/package=echor`.
3. Schramm, M and F Harrell (2019). *tbrf: Time-Based Rolling Functions*. Version 0.1.3. `https://CRAN.R-project.org/package=tbrf`.
4. Schramm, M (2019). *wd4tx: Access 'TWDB' Water Data For Texas*. Version 0.0.0.9000. `https://github.com/mps9506/wd4tx`.