

Daniel S. Stich

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Education

- **Ph.D., Wildlife Ecology**, *The University of Maine*, 2014; Ancillary program in modeling and statistics; Dissertation: Phenology and effects of dams on the success of Atlantic salmon smolt migrations in the Penobscot River, Maine.
- **M.Sc., Fisheries and Wildlife**, *Virginia Polytechnic Institute and State University*, 2011. Thesis: Behavior and population dynamics of grass carp incrementally stocked for biological control.
- **Graduate Certificate, Future Professoriate**, *Virginia Polytechnic Institute and State University*, 2010.
- **Bachelor of Technology, Fisheries and Aquaculture**, *State University of New York College of Agriculture and Technology at Cobleskill*, Honors Program Graduate, 2008.
- **Associate of Arts**, *Schenectady County Community College*, 2006.

Professional experience

- **Assistant professor**, *Biology Department- State University of NY College at Oneonta* 09/01/2015-present. Teach undergraduate and graduate level courses in ecology and evolution, quantitative biology, ichthyology, lake management, etc. Advisement of undergraduates in Biology Department, and graduate students in the MS Lake Management program. Conduct applied aquatic ecology research and integrate with undergraduate and graduate curricula.
- **Contract Fishery Biologist**, *Integrated Statistics/NOAA Northeast Fisheries Science Center*, 09/01/2015-present. Part-time contractor with NOAA Fisheries, continuation of post-doctoral research (below).
- **Post-doctoral Research Associate**, *NOAA Northeast Fisheries Science Center & The University of Maine*, 12/17/2014-08/31/2015. Development and application of life-history-based models for informing quantitative assessment of fish-passage performance standards with application to clupeids (American shad, alewife, blue back herring) in rivers of the Northeastern U.S. Regular interaction and collaboration with scientists and fishery managers in state and federal agencies throughout the Northeast. Organize stakeholder meetings and working groups throughout Northeast. Development of advanced programming skills in multiple languages through professional programming courses.
- **Graduate Research Assistant**, *The University of Maine*, 3/28/2011-12/16/2014. Conducted advanced statistical analyses on nearly a decade of endangered Atlantic salmon data, environmental information, and physiological data. Developed spatially explicit multi-state mark recapture models for analysis of fish survival during migration through a large river system. Designed and executed lab and field studies. Responsible for acoustic receiver array spanning >250 km of river. Direction and execution of hundreds of radio- and acoustic-tagging surgeries. Use of analytical methods in laboratory to determine enzyme activity. Managed an inter-institutional, multi-species telemetry database spanning multiple decades and systems with millions of records. Extensive volunteer work with fellow students.
- **Graduate Research Assistant**, *Virginia Tech* 11/28/2008-03/25/2011. Conducted telemetry study of grass carp in Lake Gaston, general fishery technician duties, and boat upkeep. Trailer boats 200+ miles to and from the lake regularly. Direction and execution of radio surgeries. Radio tracking, electrofishing & gillnet surveys for grass carp on a large reservoir. Collection and analysis of grass carp otoliths for aging from bow-fishing samples. Development and application of stock assessment and advanced mark-recapture models.

- **Project Assistant** *Cary Institute of Ecosystem Studies*, 06/03/08-11/19/08. Field and laboratory duties associated with long-term monitoring of native and introduced mussels in NY.
- **Assistant Hatchery Manager** *SUNY Cobleskill Fish Hatchery*, Sept. 2007-June 2008. Fish culture and husbandry in cold-water hatchery, experimental research ponds, aquaponics greenhouses, and warm water hatchery. Experienced in spawning, egg and sac fry husbandry, sampling, brood stock selection, grow-out, transport & stocking.
- **Lake Steward**, *Town of Cooperstown NY*, summer 2007. Aquatic invasive species prevention, outreach and public education. Launch fee collection.
- **Robert C. Macwaters Intern** *SUNY Oneonta Biological Field Station*, summer 2007. Daily monitoring of trap nets, acoustic telemetry of walleye, sampling for lake-wide diet analysis. Publication of annual reports.
- **Fisheries Technician** *New York Power Authority Pumped Power Storage Facility, Blenheim & Gilboa NY*, fall 2007 & 2008. Relocation of fish from dewatered work areas. Co-author final reports to NYPA 2007 & 2008.
- **Fisheries Technician** *SUNY Cobleskill Department of Fisheries and Wildlife*, August 2007. Electrofishing surveys.
- **Fisheries & Wildlife Technician** *SUNY Cobleskill Department of Fisheries and Wildlife*, summer 2006. Management of 4 experimental research ponds in high-tunnel greenhouses. Weekend duties at SUNY Cobleskill Fish Hatchery. Equipment maintenance general administrative responsibilities. Radio telemetry for rainbow trout.

Teaching experience

- **Ichthyology (BIOL 351)**, *SUNY Oneonta*, Summer 2016, Spring 2017. Undergraduate level course focused on the biology, ecology, evolution, and management of fishes.
- **Advanced Ichthyology (BIOL 682)**, *SUNY Oneonta*, Spring 2017. Graduate level course focused on the biology, ecology, evolution, and management of fishes.
- **Advanced Quantitative Biology (BIOL 678)**, *SUNY Oneonta*, Spring 2017. Survey of basic and advanced biological statistics for graduate students using frequentist and Bayesian frameworks in R and JAGS. Topics covered vary based on student needs. 4 cr.
- **Math for the Liberal Arts (MATH 101)**, *SUNY Oneonta*, Fall 2016. Survey of mathematical theory and applications for non-majors including sets, logic, number theory, mathematical systems, algebra, linear algebra, geometry, probability, and statistics. 3 cr.
- **Experimental Design (BIOL 501)**, *SUNY Oneonta*, Fall 2016-2017. Co-taught and designed with Dr. Tsitsi McPherson. Graduate course in experimental design for analysis and management of MS research projects. 3 cr.
- **Ecology lab (BIOL 282)**, *SUNY Oneonta*, Fall 2016. Overview of ecological concepts, included laboratory and field-based experiences. 3 cr.
- **Quantitative Biology (BIOL 217)**, *SUNY Oneonta*, Spring 2016. Design and administer applied learning course in statistics for biologists, methods ranging from t-tests to GLM, GLMM, multivariate approaches, CART, and Bayesian hierarchical models. 4 cr.
- **Ecology and Evolution Laboratory (BIOL 181)**, *SUNY Oneonta*, Fall 2015, Spring 2016, Fall 2017. Organize, prepare, and facilitate laboratory exercises for undergraduate biology majors. 1 cr.
- **Lake Management (BIOL 690)**, *SUNY Oneonta*, Falls 2015–2016. Design, organization, and facilitation of introductory lake management class for graduate students. Topics covered include: basic limnology & biology;

stakeholder interactions and surveys; conflict resolution; problem identification; watershed and in-lake management techniques; development, implementation and evaluation of management plans; regulatory considerations. 4 cr.

- **Graduate Teaching Assistant, Ecology 201,** *The University of Maine*, 2011. Assist with coordination and organization of field and computer labs. Taught technical writing modules for college sophomores. Graded student assignments and provided feedback on technical writing. *Course Designator:* Lindsay Seward. 3 cr.
- **Graduate Teaching Assistant, Fisheries Techniques,** *Virginia Tech*, 2010. Coordinated and organized field labs. Instructed students in field sampling, analyses, and writing. *Course Designator:* Eric Hallerman. 3 cr.
- **Graduate Teaching Assistant, Fisheries Management,** *Virginia Tech*, 2009- 2011. Design, organization, and facilitation of field-based labs. Guide fisheries seniors in design and execution of pond surveys for local residents. Lead electrofishing crews. General supervision of 20+ students in a professional, public setting. Outreach publications for landowners. *Course Designator:* Brian Murphy. 3 cr. per semester (3 semesters).

Professional service

- **Peer reviewer:** Canadian Journal of Fisheries and Aquatic Sciences; Canadian Journal of Zoology; Conservation, Ecology, and Management of Catfish, AFS Symposium 77 (book); Environment, Systems, and Decisions; Fisheries Bulletin; Fisheries Research; Hydrobiologia; International Aquatic Research; International Journal of Environmental Research; Journal of Ethology; Journal of Fish Biology; Journal of Fish and Wildlife Management; Lake and Reservoir Management; Marine and Coastal Fisheries; Marine Ecology Progress Series; National Oceanic and Atmospheric Administration (external reviewer); Natural Sciences and Engineering Research Council of Canada; North American Journal of Aquaculture; North American Journal of Fisheries Management; PeerJ; Restoration Ecology; Transactions of the American Fisheries Society; US Geological Survey (external reviewer).
- **Service at professional meetings:** AV support staff for Fisheries Management session at the 2017 North American Lake Management Society (NALMS) Symposium; AV support staff for Climate Change session at the 2016 NALMS Symposium; Workshop at 2016 & 2017 meetings of the NY Federation of Lake Associations (NYSFOLA); Worked as support staff at the 8th Biennial Conference on University Education in Natural Resources, 2010; Helped organize and run the Southeast Regional AFS Student Colloquium, 2009.
- **Outreach presentations:** Otsego County Fishery Management Board 2017; Connecticut River Coordinator's Office 2015 & 2016; The Atlantic Salmon Recovery Framework, 2014; The Nature Conservancy, 2011; The Penobscot River Restoration Trust 2011; Schoharie County Conservation Association, 2006.
- **Scientific working committees:** Mohawk River Fisheries Management Group 2017-Present. Otsego Lake Fisheries Management Group 2016-Present. Environment and Smolt Stock Timing ad hoc working group under the Marine and Estuary Action Team of the U.S. Atlantic Salmon Recovery Framework 2015. Federal Energy Regulatory Commission Projects ad hoc committee to the Connectivity Action Team of the U.S. Atlantic Salmon Recovery Framework 2015. Technical Advisory Group to the Lake Gaston Weed Control Council, 2008-2011.
- **Interagency cooperation:** Collaboration on research publications; Cooperative field research; Responses to data requests; Management of federal agency telemetry data 2011–2015; Trained agency personnel in statistics and software; Simulation studies, experimental design, and power analyses for state and federal agencies.

Volunteer, outreach, and university service activities

- **State University of New York College at Oneonta:** Biology Department Ad-hoc committee for 2017-2018 undergraduate program assessment. College Graduate Committee 2016-Present. Biological Field Station Committee, 2015-Present. Departmental committee on graduate education 2015-Present. Curator of ichthyologic collections 2015-Present. Guest lecturer in Biostatistics for fisheries seniors at SUNY Cobleskill, 2016 & 2017. Guest lecturer in

fisheries taxonomy and ecology for BIOL-691 (Management of Aquatic Biota) SUNY Oneonta, 2016 & 2017. Conducted a series of voluntary R programming workshops for undergraduates and graduates in the Biology Department and the Environmental Sciences program at SUNY Oneonta fall 2015. Consultation on statistical analyses and experimental design with college undergraduates, graduate students, BFS summer interns, faculty, and staff. Public outreach, communication, and service related to professional expertise. Otsego Lake clean-up day 2007. SUNY Oneonta BFS trail maintenance and upkeep for outreach center 2007. Hydro-acoustic survey of Otsego Lake, NY for alewife abundance estimates 2006 in cooperation with Cornell University.

- **University of Maine:** Penobscot County Conservation Association Sportsman's Show 2011-2012. Participated in socioeconomic research about conservation benefits 2012; Undergraduate mentoring with AFS and TWS student organizations 2011-2013; Ran outreach booths at the Penobscot River Revival Festival in 2011; Organizes and ran outreach booths and slideshows for the removal of Great Works and Veazie Dams, 2012 & 2013; Invited guest for hybrid panel and hands-on fish-aging workshop geared toward providing exposure and experience for undergraduates. Participated in panel discussion about applying for and successfully obtaining graduate school admittance for undergraduates 2013; Assisted with a resume workshops for undergraduates 2013-2014; Organized and led a two-night R workshop for UMaine Chapter of AFS for undergrads, grad, and faculty. UMaine Nutting Hall room 204 Renovation Committee 2014-2015. Judged UMaine Competition for Undergraduate Research 2012-2014. UMaine Dept. of Wildlife Ecology Seminar Series Committee 2013. UMaine Dept. of Wildlife Ecology Faculty Search Committee 2012.
- **Virginia Polytechnic Institute & State University:** Assisted in organizing & running annual, youth-fishing derbies spring 2009, 2010, and 2011. Helped organize and run new graduate student orientations, as well as freshmen orientation 2010. Participated as a mentor for graduate-to-undergraduate and graduate-to-graduate mentoring programs 2010-2011.
- **Fisheries & Wildlife Department, SUNY Cobleskill:** Taught modules on sonic walleye tracking for Aquatic & Marine Ecology, Fall 2007; Conducted club fairs; new student orientation; STEELE Conference; high school day; fish fries, adopt-a-highway; and the Fish and Wildlife Festival spring 2006-spring 2008; Organized trash clean-up and removal in the Eminence and Mallet Pond State Forest Preserves fall 2006.
- **NYS Department of Environmental Conservation NYSDEC R-4 Fisheries:** assist with gillnetting and fish processing in multiple R-4 lakes 2016–2017. Oneida Hatchery, Constantia, NY Spring 2007: Trap net, sort, and spawn walleye 2006 & 2007; Trap and band grouse in State Forest Preserve, Fall 2006; Adirondack Hatchery, Saranac NY: Trap net and spawned fish, picked eggs, clipped fins, and stocked fish, 2007.
- **Cave House Museum of Mining and Geology:** Volunteered time for traverse mapping in previously unmapped cave sections 2007. Maintenance and expansion of the nature trail on the lower property 2007.
- **Schoharie County Conservation Association (SCCA):** Co-organized and ran youth fishing derbies 2006-2007.
- **Cobleskill-Richmondville High School:** Met with high school students to discuss aquaponics, and careers in aquaculture.
- **U.S. Fish and Wildlife Service, Wertheim National Wildlife Refuge:** Fall fish survey, Carman River Estuary 2006.

Academic & Professional Affiliations

- North American Lake Management Society: **Member** 2015-Present, **Student Affairs Committee** 2015-Present
- American Fisheries Society: **Member** 2006-Present
- New York Chapter American Fisheries Society: **Member** 2006-2009, 2015-Present, **Program chair** 2017/2018.
- Atlantic International Chapter of American Fisheries Society, **Member** 2011-2015
- University of Maine Student Sub-Chapter American Fisheries Society, **Member** 2011-2014, **Treasurer** 2011-2014

- Virginia Tech Fish & Wildlife Grad Student Assn.: **Jr. Speaker Chair** 2009-2010, **Sr. Speaker Chair** 2010-2011
- Virginia Tech Chapter American Fisheries Society: **Member** 2009-2011, **President** 2010-2011
- Virginia State Chapter American Fisheries Society: **Member** 2009-2011
- Southern Division American Fisheries Society: **Member** 2009-2011, **Newsletter Editor** 2009-2010
- SUNY Cobleskill Student Sub-Chapter American Fisheries Society: **Member** 2006-2008; **President** 2007-2008
- SUNY Cobleskill Orange Key Society: **Student Ambassador** 2007-2008
- SUNY Cobleskill Student Sub-Chapter The Wildlife Society: **Member** 2006-2008
- SUNY Cobleskill Honors Program 2006-2008

Awards and honors

- *Outstanding Graduate Student Award*, Dept. of Wildlife, Fisheries, and Conservation Biology, UMaine, 2015. **\$600**
- *Fred Griffie Memorial Award*, School of Natural Sciences, Forestry, and Agriculture, UMaine, 2015. **\$1,500**
- *Best Student Presentation* in Fish Habitat Sponsored Symposium, 144th ann. Mtg. AFS, 2014. **\$100**
- *Student Travel Award*, Dam Impacts on Fisheries Resources Symposium at the 144th annual meeting of the American Fisheries Society, 2014. **\$500**
- *Student Travel Award*, Atlantic International Chapter, American Fisheries Society, 2014. **\$380**
- *Summer Dissertation Writing Fellowship*, University of Maine Graduate School, 2014. **\$3,000**
- *Chase Distinguished Research Assistantship*, Department of Wildlife Ecology, UMaine, 2012. **\$27,000**
- *Outstanding Teaching Assistant*, Department of Fish and Wildlife Conservation, Virginia Tech, 2011.
- *Outstanding Member*, Virginia Tech Chapter of the American Fisheries Society, 2011.
- *Leo Barousa Graduate Scholarship*, Virginia Lakes and Watersheds Association, 2010. **\$2,500**
- *Robert D. Ross Graduate Scholarship*, Virginia Chapter of the American Fisheries Society, 2010. **\$500**
- *John F. Urban Outstanding Graduate Award in Fisheries & Aquaculture BT*, SUNY Cobleskill, 2008. **\$500**
- *Research Methods Award*, SUNY Cobleskill, 2008. **\$250**
- *Darwin Hamm Memorial Scholarship*, SUNY Cobleskill 2007-2008. **\$500**
- *David E. Moorehouse Award for Outstanding Junior in Fisheries and Aquaculture BT*, SUNY Cobleskill, 2007.
- *Merrill Foundation Scholarship*, SUNY Cobleskill, 2007. **\$500**

Certifications

- Certified lake manager, North American Lake Management Society

Grant proposals funded or pending (* indicates student researchers)

- *Dower, H. B., and **D. S. Stich**. 2017. Population dynamics of spawning walleye in Otsego Lake, NY. SUNY Oneonta Student Grant Program for Research & Creative Activity. Amount: **\$1,200**.
- *Hulbert, J., and **D. Stich**. 2018. No bones about it: age determination from hard parts for understanding characteristics of fishes in Southeastern NY. SUNY Oneonta Student Grant Program for Research & Creative Activity. Amount: **\$978**.
- Stich, D., T. Sheehan, and K. Mills. 2017. Understanding climate impacts on American shad recovery, fisheries management, and influences of dams. NOAA Climate Program Office FY2017 – Understanding Climate Impacts on Fish Stocks and Fisheries to Inform Sustainable Management. Amount: **\$205,438**.
- Stich, D. S., W. N. Harman, K. Yokota, and F. B. Reyda. 2016. Acquisition of tools for an ecosystem-based approach to fisheries and aquatic research, education, and management. National Science Foundation Field Stations and Marine Laboratories RFP. Amount: **\$193,459**.
- *Franzem, T., and D. S. Stich. 2016. Factors impacting amphibian populations in anthropogenic vernal pools (year 2). SUNY Oneonta Student Grant Program. Amount: **\$1,200**.

- Stich, D. S. 2016. Fish survival and population abundance following the decline of an invasive species. SUNY Oneonta Faculty Research and Creative Activity Grant. Amount: **\$3,376**.
- *Franzem, T., and D. S. Stich. 2015. Factors impacting amphibian populations in anthropogenic vernal pools. SUNY Oneonta Student Grant Program. Amount: **\$1,140**.
- Zydlewski, J., and D. Stich. 2014. Acoustic tagging of Atlantic salmon smolts for study of passage through the Stillwater Branch of the Penobscot River. West Enfield Fisheries Management Fund. Amount: **\$22,603**.
- Murphy, B. R., and D. S. Stich. 2010. Monitoring and Modeling Grass Carp Ecology and Life History at Lake Gaston, VA/NC: project extension year 4. Amount: **\$42,105**.
- Murphy, B. R., and D. S. Stich. 2009. Monitoring and Modeling Grass Carp Ecology and Life History at Lake Gaston, VA/NC: project extension year 3. Amount: **\$62,417**.

Manuscripts submitted (*graduate students †undergraduate students)

- George, S. D., B. Baldigo, and **D. S. Stich**. (*In review*). Temporal variability in stream fish community metrics and implications for long-term monitoring. *Ecological Indicators*.
- Oliver*, D. O., **D. S. Stich**, G. Whitley, and N. Rude. (*Under revision*). Estimating catchability and precision of catch rate and size-structure metrics for data-poor fisheries using occupancy and simulation modeling. *Fisheries Research*.

Peer-reviewed publications

- **Stich, D. S.**, T. F. Sheehan, and J. D. Zydlewski. (*In press*). Dam passage performance standard model for American shad. *Canadian Journal of Fisheries and Aquatic Sciences*. doi: 10.1139/cjfas-2018-0008.
- Watson*, J. M., S. M. Coghlan, J. D. Zydlewski, D. M. Hayes, and **D. S. Stich**. (*In press*). Implications of recovering river herring *Alosa* spp. populations on Smallmouth Bass *Micropterus dolomieu* diet and growth. Pages **XXX–XXX** in M. Seipker and J. Quinn Editors, *Managing Centrarchid Fisheries*, American Fisheries Society Symposium Number **XX**. American Fisheries Society, Bethesda, MD. **XXX** pp.
- Franzem†, T. P., M. Kugler†, R. LaRochelle†, **D. Stich**, A. Gascho Landis, and P. Lord. (*In press*). Reproductive phenology of *Elliptio complanata* in the Upper Susquehanna River tributaries of New York. *Northeastern Naturalist*.
- Hawkes, J. P., T. F. Sheehan, and **D. S. Stich**. 2017. Assessment of early migration dynamics of river-specific hatchery Atlantic salmon smolts. *Transactions of the American Fisheries Society* 146:1279–1290.
- Zydlewski, J., **D. Stich**, and D. Sigourney. 2017. Hard choices in assessing survival past dams; a comparison of single and paired release strategies. *Canadian Journal of Fisheries and Aquatic Sciences* 42:178–190.
- **Stich, D. S.**, G. Zydlewski, and J. D. Zydlewski. 2016. Physiological preparedness and performance of *Salmo salar* smolts in relation to behavioural salinity preferences and thresholds. *Journal of Fish Biology* 88:595–617.
- **Stich, D. S.**, M. T. Kinnison, J. F. Kocik, and J. D. Zydlewski. 2015. Initiation of migration and movement rates of Atlantic salmon smolts in fresh water. *Canadian Journal of Fisheries and Aquatic Sciences* 72:1339–1351.
- **Stich, D. S.**, M. M. Bailey, C. M. Holbrook, M. T. Kinnison, J. D. Zydlewski. 2015. Catchment-wide survival of wild- and hatchery-reared Atlantic salmon smolts in a changing system. *Canadian Journal of Fisheries and Aquatic Sciences* 72:1352–1365.

- **Stich, D. S.,** J. F. Kocik, G. B. Zydlewski, and J. D. Zydlewski. 2015. Linking behavior, physiology, and survival of Atlantic salmon smolts during estuary migration. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 7:68–86.
- **Stich, D. S.,** Y. Jiao, and B. R. Murphy. 2015. Life, Death, and Resurrection: Accounting for State Uncertainty in Survival Estimation from Radio-Tagged Grass Carp. *North American Journal of Fisheries Management* 35:321–330.
- **Stich, D. S.,** M. Bailey, J. D. Zydlewski. 2014. Survival of Atlantic salmon *Salmo salar* smolts through a hydropower complex. *Journal of Fish Biology* 85:1074–1096.
- Zydlewski, G. B., **D. S. Stich,** and S. D. McCormick. 2014. Photoperiod control of the initiation of downstream migration in Atlantic salmon smolts. *Journal of Fish Biology* 85:1023–1041.
- **Stich, D. S.,** V. Diczko, E. Frimpong, Y. Jiao, and B. R. Murphy. 2013. Growth and population size of grass carp incrementally stocked for control of hydrilla. *North American Journal of Fisheries Management* 33:14–25.

Technical reports (gray literature contributions) (*graduate students †undergraduate students)

- †Perry, J., M. Albright, and **D. Stich.** 2017. Efficacy of a potassium peroxymonosulfate-based disinfectant against zebra mussel (*Dreissena polymorpha*) adults and veliger larvae. Pages 76–89 in W. N. Harman and M. F. Albright editors, 49th Annual Report of the SUNY Oneonta Biological Field Station, SUNY Oneonta Biological Field Station, Cooperstown, NY.
- †Perry, J., M. Albright, and **D. Stich.** 2017. Evaluation of citric acid, a common food additive and calcium descaler, for use in adult zebra mussel decontamination. Pages 90–101 in W. N. Harman and M. F. Albright editors, 49th Annual Report of the SUNY Oneonta Biological Field Station, SUNY Oneonta Biological Field Station, Cooperstown, NY.
- †Franzem, T., and **D. Stich.** 2017. Comparison of amphibian abundance in vernal pools at two different sites on Rum Hill. Pages 145–155 in W. N. Harman and M. F. Albright editors, 49th Annual Report of the SUNY Oneonta Biological Field Station, SUNY Oneonta Biological Field Station, Cooperstown, NY.
- **Stich, D. S.,** and C. Ducey†. 2017. Comparison of gill raker morphology of alewife from recent and bygone introductions. Pages 225–229 in W. N. Harman and M. F. Albright editors, 49th Annual Report of the SUNY Oneonta Biological Field Station, SUNY Oneonta Biological Field Station, Cooperstown, NY.
- Zydlewski, J., and **D. S. Stich.** 2014. Passage success of wild and hatchery Atlantic salmon smolts at Weldon Dam, 2010–2013. Final Report to Brookfield Renewable Energy (Great Lakes Hydro America).
- Zydlewski, J., M. Bailey, and **D. S. Stich.** 2011. Update for 2010 passage & survival of radio-tagged Atlantic salmon smolts through Milford Dam. Final Report to National Oceanic and Atmospheric Administration.
- Zydlewski, J., and **D. S. Stich.** 2011. Final report on acoustically tagged Atlantic salmon smolt survival in the Penobscot River and Estuary, 2010–2011. Final report to the Penobscot River Restoration Trust for American Recovery and Reinvestment Act.
- Potter, J., J. M. Byrne, **D. S. Stich,** and J. R. Foster. 2010. Walleye (*Sander vitreus*) seasonal activity and habitat utilization in Otsego Lake, NY. 42nd Annual Report, SUNY Oneonta Biological Field Station, Cooperstown, NY.
- Byrne, J., **D. S. Stich,** and J. R. Foster. 2009. Diel movements and habitat utilization of walleye (*Sander vitreus*) in Otsego Lake, New York. 41st Annual Report of SUNY Oneonta Biological Field Station, SUNY Oneonta.

- **Stich, D. S.** 2008. Summer 2007 trap net monitoring of littoral fish communities at Rat Cove and Brookwood Point. 40th Annual Report of SUNY Oneonta Biological Field Station, SUNY Oneonta.
- **Stich, D. S.,** and M. D. Cornwell. 2008. Fish rescue and relocation at the New York Power Authority in Blenheim, NY. Final report to the New York Power Authority.
- **Stich, D. S.,** B.F. Decker, J. C. Lydon, J. M. Byrne, and J. R. Foster. 2007. Habitat utilization by walleye (*Sander vitreus*) in Otsego Lake, NY. 40th Annual Report of SUNY Oneonta Biological Field Station, SUNY Oneonta.
- Decker, B. F., **D. S. Stich,** M.A. Disarno, and J.R. Foster. 2007. Spawning movements of Walleye in Otsego Lake, NY. 40th Annual Report of SUNY Oneonta Biological Field Station, SUNY Oneonta.
- **Stich, D. S.,** J. C. Lydon, and M. D. Cornwell. 2006. Fish rescue and relocation at the New York Power Authority in Blenheim, NY. Interim report to the New York Power Authority.

Invited Presentations

- **Stich, D. S.,** E. Gilligan, T. F. Sheehan, and J. D. Zydlewski. 2018. A dam passage performance standard model for American shad. Atlantic States Marine Fisheries Commission American shad stock assessment data workshop, Arlington, VA, March 2018.
- **Stich, D. S.,** T. F. Sheehan, and J. D. Zydlewski. 2018. A dam passage performance standard model for American shad. Ad hoc committee for Lower Penobscot River Alosine passage, Orono, ME, February 2018.
- **Stich, D.S.** 2017. Decision-support tools for dam-passage performance standards of American shad, with watershed-scale applications. Upper Susquehanna Coalition Watershed Forum, Binghamton, NY, September 2017.
- **Stich, D.S.** 2017. Using data to support decisions about natural resources from the inside out. Cary Institute of Ecosystem Studies Seminar Series, Millbrook, NY, May 2017.
- **Stich, D. S.** 2017. Aids, accolades, and addictions inside the classroom and out. SUNY Oneonta Teaching, Learning, and Technology Center (TLTC) Tech Talk Series, Oneonta, NY, March 2017.
- **Stich, D. S.,** and T. Sheehan. 2016. Life history-based models as quantitative tools to support passage performance standards for alosines. Atlantic States Marine Fisheries Commission River Herring Technical Expert Working Group Webinar. March 14, 2016.
- **Stich, D. S.,** M. Bailey, M. Kinnison, J. Kocik. G. Zydlewski, and J. Zydlewski. 2015. Cumulative effects of dams on timing of estuary arrival and survival of Atlantic salmon smolts. NOAA National Hydro Meeting, Gloucester, MA, July 2015.
- **Stich, D. S.** 2014. Grass carp in the new world: aspirations, abundance, and apparitions. University of Maine Department of Wildlife Ecology Seminar Series, September 2014.
- **Stich, D. S.,** J. F. Kocik, G. B. Zydlewski, and J. D. Zydlewski. 2014. Linking behavior, physiology, and survival of Atlantic salmon smolts during estuary migration. Meeting of the Atlantic Salmon Recovery Framework, Augusta, ME, July 2014.
- **Stich, D. S.,** and J. Zydlewski. 2011. Atlantic salmon smolt behavior and survival 2010 & 2011. November 2011. Penobscot River Restoration Trust, Orono, ME. November 2011.

- **Stich, D. S.**, and J. Zydlewski. 2011. Atlantic salmon smolt movements and survival in the Penobscot River. The Nature Conservancy, Orono, ME, September 2011.

Professional presentations (*graduate students †undergraduate students)

- Dower, H. B., and D. Stich. 2018. Population dynamics of spawning walleye in Otsego Lake, NY. Poster presentation at the 149th Annual Meeting of the American Fisheries Society, Atlantic City NJ, August 2018.
- Gilligan, E., and D. Stich. 2018. Incorporating anticipated climate change effects into growth models for American shad populations throughout the Atlantic coast. Poster presentation at the 149th Annual Meeting of the American Fisheries Society, Atlantic City NJ, August 2018.
- Hulbert, J. R., and D. Stich. 2018. Oral presentation at the 149th Annual Meeting of the American Fisheries Society, Atlantic City NJ, August 2018.
- *Carey, S., C. V. Shafer†, K. C. Thomas†, D. T. Garrett†, B. C. Lehman, J. R. Foster, M. D. Cornwell, S. Wells, and **D. S. Stich**. 2018. The Feasibility of Restoring Lake Whitefish as an Integral Component of the Cold-water Fish Community in Otsego Lake, NY. Oral presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Elliott, R., and **D. Stich**. 2018. A citizen-based approach to supplementing state fishery data. Oral presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Hulbert, J., and **D. Stich**. 2018. Trophic interactions between Alewife, Walleye, and Yellow Perch. Oral presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- †Murch, C., and D. Stich. 2018. Density-dependent changes in Alewife growth. Oral presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Andrews, D., and **D. Stich**. 2018. Where do the Walleye go? Analyzing fry stocking success in Butterfield Lake, NY. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Casscles, J. B., and **D. Stich**. 2018. Detecting shifts in an Adirondack Lake Trout *Salvelinus namaycush* population using size structure and condition. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Caves, S., and **D. Stich**. 2018. Grass Carp *Ctenopharyngodon idella* population models for Song Lake (Cortland County) and Crooked Lake (Onondaga County). Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Dower, H., and **D. Stich**. 2018. Population characteristics of spawning Walleye in Otsego Lake, NY. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Matt, M., and **D. Stich**. 2018. Long-term proportional size distribution trends in Lake Ronkonkoma. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.

- *O'Reilly, J., and **D. Stich**. 2018. Comparison of sub-basin characteristics within Cassadaga Lakes Chautauqua County, New York. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Rose, P., D. Andrews, S. Carey, J. B. Casscles, S. Caves, M. Matt, and **D. Stich**. 2018. Beaver pond management as a tool to control algae blooms in a small, private lake. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Smith, G., and **D. Stich**. 2018. Community tensions and influences on development of a management plan for a small, private pond. Poster presentation at the 52nd Annual meeting of the New York Chapter American Fisheries Society, Cooperstown, NY, February 2018.
- *Proutey, E., D. Vogler, and **D. Stich**. 2018. Quantifying the Value and Quality of Created Wetlands in Otsego County, New York. Poster Presentation at the Annual Meeting of the Society of Wetland Scientists, Denver, CO.
- **Stich, D.** 2017. Monitoring fish survival and population abundances following decline in an invasive species. State University of New York College at Oneonta Life of the Mind, Oneonta, New York.
- **Stich, D.**, and J. Hulbert. 2017. Bayesian analysis of proportional size distribution indices in recreational fisheries. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Elliott, R., and **D. Stich**. 2017. Balancing state agency and stakeholder demands: Studying proportional stock density in Lake of the Woods, New York. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Hulbert, J., and **D. Stich**. 2017. Re-examining the balance of a percid fishery over the course of two decades. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Gorman, L., and **D. Stich**. 2017. A water chemistry regime shift associated with zebra mussel (*Dreissena polymorpha*) entrance into New York State Lakes. Poster presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Pfuhler, D., and **D. Stich**. 2017. Effects of informed bias in citizen science: a comparison of variance between data collected by an informed bias vs. random citizen groups. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *O'Reilly, J., and **D. Stich**. 2017. Comparison of sub-basin characteristics within Cassadaga Lakes Chautauqua County, New York. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Smith, G., and **D. Stich**. 2017. The social issues of Big Bowman Pond, Rensselaer County, New York with the construction of a management plan. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Tumbarello, A., and **D. Stich**. 2017. Balancing target and non-target impacts of macrophyte management in Paradox Lake, New York. Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.

- Waterfield, H., W. N. Harman, M. Albright, and **D. Stich**. 2017. Achieving ecosystem balance through food web manipulation and trophic cascade: top-down control of an invasive landlocked alewife (*Alosa pseudoharengus*) population via walleye (*Sander vitreus*) stocking and the associated limnological changes (Otsego Lake, New York). Oral presentation at the 37th International Symposium of the North American Lake Management Society, Westminster, CO.
- *Hulbert, J., and **D. Stich**. 2017. Inter-catchment variability in growth of walleye (*Sander vitreus*) 1991–2010. Oral presentation at the 147th Annual Meeting of the American Fisheries Society, Tampa, FL.
- *Heres, B., G. Maynard*, A. Molina Moctezuma*, **D. Stich**, G. Zydlewski, J. Zydlewski. 2017. Understanding fish passage in a changing system- lessons from restoration efforts in the Penobscot River. Survival Modeling, Biotelemetry, Fish Barriers and Passage: Applying Developing Technologies to Fisheries Management Issues – Symposium. Oral presentation at the 147th Annual Meeting of the American Fisheries Society, Tampa, FL.
- *Oliver, D., **D. Stich**, G. Whitley, N. P. Rude, and T. Laughlin. 2017. Developing standardized multi-gear sampling protocols for large rivers with unknown population sizes: lessons learned from three Ohio River catfish species. Data Poor Methods for Stock Assessment: Advances, Applications, and Evaluations II – Symposium. Oral presentation at the 147th Annual Meeting of the American Fisheries Society, Tampa, FL.
- †Franzem, T., and **D. Stich**. 2017. Factors affecting amphibian populations in anthropogenic vernal pools. SUNY Undergraduate Research Conference, Fredonia, NY.
- McBride, R. S., R. Ferreri, E. K. Towle, J. M. Boucher, G. Basilone, **D. Stich**, and T. Sheehan. 2017. Estimating American shad fecundity: assessing geographic and historic variation, as well as the effects of alternative methods on producing an estimate for a quantitative population model. Oral presentation at the 2017 Connecticut River Atlantic Salmon Commission Research Forum, Hadley MA.
- *Hulbert, J., **D. Stich**, and S. Wells. 2017. Growth and mortality of walleye in select New York waters 1991–2010. Poster presentation at the New York State Chapter of the American Fisheries Society, Buffalo, NY.
- **Stich, D. S.**, and T. F. Sheehan. 2016. Combined effects of tribal harvest and dam passage on population demographics of American shad. State University of New York College at Oneonta Life of the Mind, Oneonta, New York.
- †Franzem, T., and **D. Stich**. 2016. Factors affecting amphibian populations in anthropogenic vernal pools. Oral presentation at the Catskill Environmental & Monitoring Conference, 2016, Highmount, NY.
- †Garret, D., S. R. Carey†, K. C. Thomas†, B. C. Lehman, J. R. Foster, M. D. Cornwell, S. M. Wells, and **D. S. Stich**. 2016. The restoration of lake whitefish as an integral component of the cold-water fish community in Otsego Lake, NY. Poster presentation at the 146th Annual Meeting of the American Fisheries Society, Kansas City, MO.
- **Stich, D. S.**, T. Sheehan, and J. D. Zydlewski. 2016. Quantitative decision-support tools for dam passage performance standards in the Northeast US. Oral presentation at the 146th Annual Meeting of the American Fisheries Society, Kansas City, MO.
- *Dever, M. J. Kocik, J. Zydlewski, D. Hebert, J. Hawkes, and **D. Stich**. 2016. Linkage between coastal conditions and migratory patterns and behavior of Atlantic salmon smolts along the Halifax line. Poster presentation at 2016 Ocean Sciences meeting, New Orleans, LA.

- *Reyes, A.J., and **D. S. Stich**. 2016. Assessing risk and preventative measures for aquatic invasive species in Brant Lake. Oral presentation at the Annual Meeting of the New York Chapter of the American Fisheries Society, Cooperstown, NY.
- **Stich, D. S.**, T. Sheehan, and J. Zydlewski. 2016. Projected effects of dam passage performance standards on American shad (*Alosa sapidissima*). Oral presentation at the Annual Meeting of the New York Chapter of the American Fisheries Society, Cooperstown, NY.
- †Thomas, K. C., S. R. Carey†, B. C. Lehman, J. R. Foster, M. D. Cornwell, S. Wells, and D. S. Stich. 2016. The restoration of lake whitefish as an integral component of the cold-water fish community in Otsego Lake, NY. Poster presentation at the Annual Meeting of the New York Chapter of the American Fisheries Society, Cooperstown, NY.
- *Berendt, D., M. Hunter, Jr., and **D. S. Stich**. 2016. Effects of gear type on rehabilitation time of *Lepidochelys kempii* in the Gulf of Mexico. Poster presentation at the 2016 Southeast Regional Sea Turtle Meeting, AL.
- **Stich, D. S.**, T. F. Sheehan, and J. D. Zydlewski. 2016. Projected tradeoffs in population abundance of American shad (*Alosa Sapidissima*) in relation to upstream and downstream passage at dams. Oral presentation: 2016 Atlantic Salmon and Their Ecosystems Forum, Orono, ME.
- *Molina-Moctezuma, A., D. Stich, and J. Zydlewski. 2016. Post-restoration assessment of Atlantic salmon (*Salmo salar*) survival during their downstream migration in the Penobscot River, Maine. Oral presentation: 2016 Atlantic Salmon and Their Ecosystems Forum, Orono, ME.
- Harman, W., K. Yokota, **D. Stich**, M. Albright, H. Waterfield. 2015. Guiding lake management in New York State through graduate student mentorship. Poster presentation at Life of the Mind VI, SUNY Oneonta, NY.
- **Stich, D. S.**, T. F. Sheehan, and J. D. Zydlewski. 2015. Effects of dam passage performance standards on American shad population demographics and abundance. Poster presentation at Life of the Mind VI, SUNY Oneonta, NY.
- **Stich, D. S.**, T. F. Sheehan, and J. D. Zydlewski. 2015. Performance standards modeling for Alosines in the Northeast U.S. Oral presentation at the 145th Annual meeting of the American Fisheries Society, Portland Oregon.
- **Stich, D. S.**, and J. D. Zydlewski. 2015. Modeling effects of dam passage performance standards on American shad populations. Poster presentation at the 1st Annual UMaine Freshwater Science Symposium. January 29, Orono ME.
- Kocik, J. F., J. P. Hawkes, **D. S. Stich**, J. D. Zydlewski, M. Dever, and C. Byron. 2014. Local and long distance migrations of Maine Atlantic salmon smolts: Penobscot Bay to the Scotian Shelf and beyond. Oral presentation at the 144th Annual Meeting of the American Fisheries Society, Quebec City, Quebec.
- **Stich, D. S.**, M. Bailey, and J. Zydlewski. 2014. Expecting the unexpected: combined effects of dam removal and hydropower re-allocation on Atlantic salmon smolt migrations. Oral presentation at the 144th Annual Meeting of the American Fisheries Society, Quebec City, Quebec. ***Best student presentation award.**
- **Stich, D.**, M. Bailey, and J. Zydlewski. 2014. Survival of Atlantic salmon smolts through a hydropower complex in the lower Penobscot River, Maine USA. Oral Presentation: 2014 Atlantic Salmon and Their Ecosystems Forum, University of Maine, Orono. January 8, Orono ME.
- Zydlewski, J., and **D. Stich**. 2014. Hard choices in assessing survival past dams using telemetry. Oral presentation: 2014 Atlantic Salmon and Their Ecosystems Forum, University of Maine, Orono. January 8, Orono ME.
- Kocik, J. F., J. P. Hawkes, **D. S. Stich**, J. Zydlewski, M. Dever, and C. Byron. 2014. Timing of Atlantic salmon smolts from the Penobscot Bay to the Scotian Shelf. Oral presentation: 2014 Atlantic Salmon and Their Ecosystems Forum, University of Maine, Orono. January 8, Orono ME.

- **Stich, D. S.**, and B. R. Murphy. 2012. Management implications of post-stocking survival of grass carp. Oral presentation at the 142nd Annual Meeting of the American Fisheries Society, Minneapolis-St. Paul, MN.
- **Stich, D. S.**, M. Bailey, C. M. Holbrook, M. Kinnison, J. Kocik, G. Zydlewski, and J. Zydlewski. 2012. Atlantic salmon smolt migration and survival prior to dam removal. Oral presentation at the 142nd Annual Meeting of the American Fisheries Society, Minneapolis-St. Paul, MN.
- Kocik, J. F., J. P. Hawkes, **D. Stich**, J. Zydlewski, M. Dever, C. Byron and A. Lamont. 2012. Blue Highways: the migration ecology of Atlantic salmon from Maine estuaries to the Scotian Shelf. Oral presentation at the 142nd Annual Meeting of the American Fisheries Society, Minneapolis-St. Paul, MN.
- Goulette, G. S., J. P. Hawkes, M. B. O'Malley, P. M. Music, J. R. Stevens, **D. S. Stich**, and C.A. Lipsky. 2012. Estuarine community and emigration ecology of Atlantic salmon in the Penobscot Estuary, Maine. 142nd Annual Meeting of the American Fisheries Society, Minneapolis-St. Paul, MN.
- Zydlewski, J., **D. Stich**, and D. Sigourney. 2012. Understanding impacts of dams on up and downstream passage-lessons from Atlantic salmon in the Penobscot River. Oral presentation at the 142nd Annual Meeting of the American Fisheries Society, Minneapolis-St. Paul, MN.
- **Stich, D. S.**, M. Bailey, C. M. Holbrook, M. Kinnison, J. Kocik, G. Zydlewski, and J. Zydlewski. 2013. Path choice and survival of Atlantic salmon smolts in the Penobscot River, Maine. Poster presentation at the Diadromous Species Restoration Research Network 2013 Science Meeting, Orono ME.
- Zydlewski, G. B., **D. S. Stich**, and S. D. McCormick. 2013. Photoperiod control of downstream movement in Atlantic salmon smolts. International Conference on Salmon Smolts, Iceland.
- Zydlewski, J., A. Firmenich, P. Santavy, C. Lipsky, J. Hawkes, J. Kocik, and **D. Stich**. 2012. Assessing the direct stocking of imprinted smolts into the Penobscot River Estuary. Oral presentation at the 2012 Atlantic Salmon Forum: Atlantic salmon and their ecosystems, Bangor, ME.
- Hawkes, J., T. Sheehan, P. Music, **D. Stich**, and E. Atkinson. 2012. Assessing estuarine and coastal migration performance of age-1 hatchery reared Atlantic salmon smolts released into the Dennys River. Oral presentation at the 2012 Atlantic Salmon Forum: Atlantic salmon and their ecosystems, Bangor, ME.
- **Stich, D. S.**, M. Bailey, C. Holbrook, M. Kinnison, G. Zydlewski, and J. Zydlewski. 2012. Atlantic salmon smolt movements and survival in the Penobscot River. Oral presentation at the 2012 Atlantic Salmon Forum: Atlantic salmon and their ecosystems, Bangor, ME.
- **Stich, D. S.**, and B. R. Murphy. 2010. Impacts of distance distortion on the interpretation on telemetry data. Oral presentation at the 2010 Joint Meeting of the Virginia Chapters of American Fisheries Society and The Wildlife Society, Smith Mountain Lake, VA.
- **Stich, D. S.**, and B. R. Murphy. 2010. Impacts of distance distortion on a common movement index for radio-tagged animals. Oral presentation at the 2010 meeting of the Southern Division of the American Fisheries Society, Asheville, NC.
- **Stich, D. S.**, and B. R. Murphy. 2010. Uncertainty in remote-sensing data may confound results of telemetry studies. Oral presentation at the 2010 Virginia Tech GIS and Remote-Sensing Symposium, Blacksburg, VA.
- **Stich, D. S.**, J. D. Grist and B. R. Murphy. 2010. Movements and habitat use of blue catfish in Lake Norman, NC. Oral presentation at Catfish 2010, St. Louis, MO.
- **Stich, D. S.**, and B. R. Murphy. 2010. Uncertainty in the interpretation of telemetry data: a matter of significance. Poster presentation at the 140th Annual Meeting of the American Fisheries Society, Pittsburgh, PA.

- Byrne, J. M., J. Potter, **D. S. Stich**, and J. R. Foster. 2010. Hourly position data indicated substantial differences in walleye movements and habitat utilization from previous telemetry studies. Poster presentation at the 66th Annual Northeast Regional Fish & Wildlife Conference, Newton, MA.
- Byrne, J. M., **D. S. Stich**, and J. R. Foster. 2010. Hourly position data indicated substantial differences in walleye movements and habitat utilization from previous telemetry studies. Oral presentation to the NYS Legislature, Albany, NY.
- Byrne, J., **D. S. Stich**, and J. R. Foster. 2009. Hourly position data indicated substantial differences in walleye movements and habitat utilization from previous telemetry studies. Poster presentation at the 2009 joint meeting of the New York and Pennsylvania Chapters of the American Fisheries Society, Owego, NY.
- **Stich, D. S.**, B. F. Decker, J. M. Byrne, and J. R. Foster. 2008. Habitat Utilization of walleye (*Sander vitreus*). Oral Presentation at 2008 Natural History Conference X, Albany, NY.
- **Stich, D. S.**, B. F. Decker, J. M. Byrne, and J. R. Foster. 2008. Diel movements of walleye indicate lapses in long-term databases obtained through telemetry. Poster Presentation at the 64th Annual North East Regional Fish and Wildlife Conference, Atlantic City, NJ.
- Decker, B. F., **D. S. Stich**, J. R. Foster. 2008. Spawning movements of walleye in Otsego Lake, NY. Poster presentation at the 64th Annual North East Regional Fish and Wildlife Conference, Atlantic City, N.J.