River Quest

Each May, the Duluth-area River Quest brings about 1,500 sixth graders to the St. Louis River Estuary, where they learn about Minnesota’s industrial and shipping economy, the natural resources that make Minnesota unique, and how they can enjoy our resources safely.

Minnesota Sea Grant has helped organize River Quest for the past 26 years. We’ve reached more than 25,000 students on aquatic invasive species and beach safety and rip currents at our information and activity stations.

Science Fellows in Congressional Offices

Each year, Sea Grant places exceptional science graduate students in the legislative and executive branches of government to help interpret science that can inform policy issues. Congressional members who agree to host a Sea Grant Knauss Fellow gain useful science expertise for themselves and their staff and the newly “minted” scientists get to see first-hand how policy is made and understand how science can help inform policy.

Minnesota Sea Grant’s 2018 Knauss Fellow, Jillian Farkas, is working on perfluorinated chemical (PFCs/PFAS), Great Lakes mapping and the reauthorization of the farm bill in Sen. Gary Peters (MI) office.

What Makes Algae Become Toxic?

Cyanobacteria blooms (CyHABs) threaten the health and recreational value of Minnesota’s lakes by causing “pea-soup” waters that can contribute to hypoxia, kill fish, and create harmful, even lethal, toxins.

Minnesota Sea Grant is actively seeking financial support to develop real-time methods to track CyHABs using satellites and rapid detection methods to determine when a CyHABs becomes toxic.

It’s important to note that some, but not all CyHABs produce toxins and then only under certain conditions. This research can help state agencies more effectively protect people and pets from exposure to CyHABs and toxic waters.
Minnesota Sea Grant funded research that will help manage the clean-up of oil should it spill into the Great Lakes. Lian Shen, director of the St. Anthony Falls Laboratory and professor of mechanical engineering, is featured in a Minnesota Sea Grant video: “Oil, Water, Wind: What if Oil Spilled into a Large Lake.”


Minnesota Sea Grant funded research to understand Muskellunge behavior and genetics in the St. Louis River Estuary of Lake Superior. Loren Miller, University of Minnesota adjunct associate professor and MNDNR fisheries research scientist, discusses this research and how UMN graduate student Erin Schaeffer, pictured above, is leading the acoustic tracking fieldwork.


Minnesota Sea Grant is developing educational materials and hosting focus groups to gather public input toward creating a practical stormwater management guide. Minnesota communities along the North Shore have municipal initiatives to manage stormwater, but it’s not clear how private land and homeowners can be a part of coordinated community stormwater management. In addition to strengthening public understanding and involvement in North Shore community stormwater management, Minnesota Sea Grant’s work will increase public safety and reduce municipal cost reductions.

Tom Beery

Minnesota Sea Grant is developing a resiliency checklist to ensure that climate mitigation and climate adaptation measures are included in park and recreation planning for the Duluth Parks and Recreation Department, which has extensive planning responsibilities for the area’s world-class outdoor recreation facilities. Growing concerns about climate impacts add additional layers of planning challenges and responsibilities. A resiliency checklist provides a handy tool to use to consider severe weather event preparedness, public safety, long-term cost savings, and the use of green infrastructure solutions.

Tom Beery