

The Coastal and Great Lakes Social Science Lab

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Mission statement: The Coastal & Great Lakes Social Science Lab facilitates more resilient socio-ecosystems by conducting rigorous, reproducible research exploring how people understand and communicate about coastal and Great Lakes environmental issues.

In other words, the CGLSS Lab helps resource managers make better decisions by applying rigorous social science to real-world resource management problems and we are interested in collaborations and projects that allow us to do so.

The CGLSS Lab actively involves undergraduate and MS-level researchers in our work to inspire and train the next generation of resource managers, scholars, and environmental professionals.

We have worked on issues ranging from trust, communication, and evaluation on topics including fisheries management, environmental restoration, aquaculture, aquatic invasive species, and more. What follows are several example projects to help you contextualize and understand our work.



Trust diversity in fisheries management¹

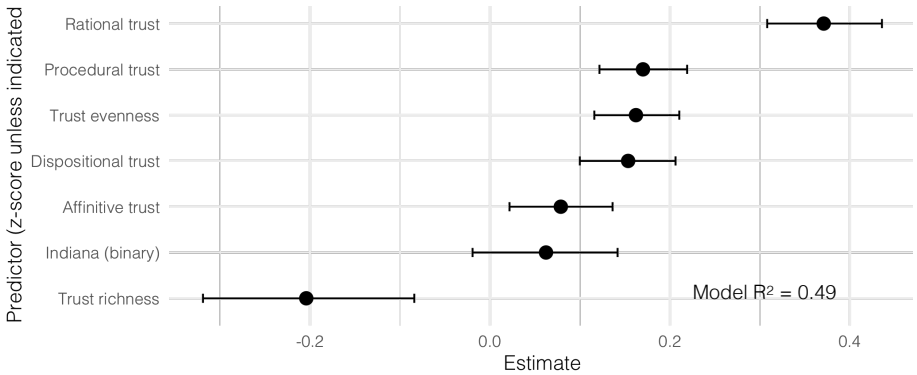


Figure 1. Modeling support for management as predicted by dimensions of trust and trust diversity

Background: Much of our work analyzes the role of trust in various resource management and environmental contexts. After all, trust is key: higher levels of public trust facilitate smoother, more resilient resource management regimes. But measuring “trust” is complicated! There are multiple dimensions of trust, each of which needs to be built differently.

Approach & key finding: We used survey research to examine trust dynamics among anglers in Illinois and Indiana and found that, while all dimensions of trust are important, *rational trust* is the largest predictor of support for fisheries management among anglers.

Management implications: Building, and communicating about, a history of management success is likely to engender support for future management actions. Having fair procedures and policies and communicating shared values with the public can build support, as well.

¹ J.S. Carlton, C. Dateno, & K. O’Reilly. In prep.

Trust and communication sources in recreational anglers²

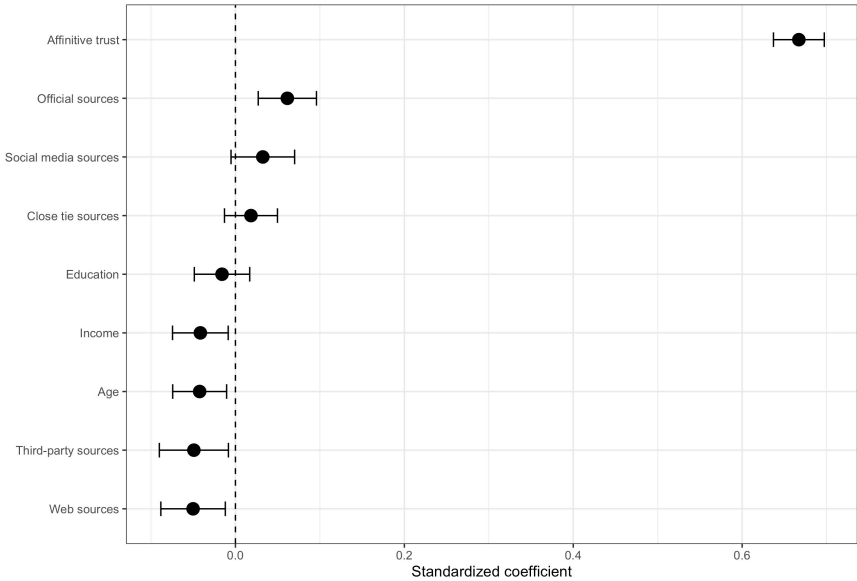


Figure 2. Modeling support for management as predicted by affinitive trust, communication source use, and controls

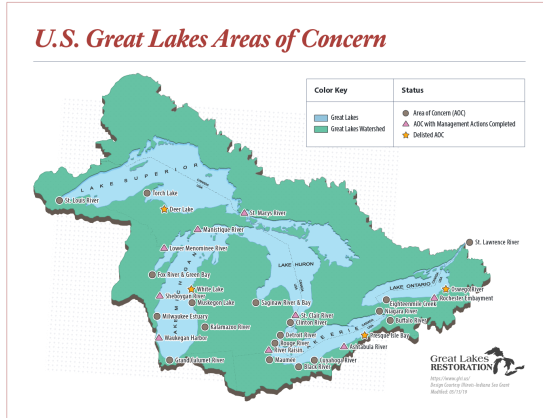
Background: Resource management controversies are often played out via different communication channels and sources. The use of these different sources might influence people's perceptions of, and support for, management actions.

Approach & key finding: We surveyed saltwater recreational anglers from Maine to Mississippi and asked them questions about support for management and media source use. *Affinitive trust* (i.e., trust based on anglers' sense that managers share their values) was the most important predictor of support for management. The use of official sources (agency websites & guides) social media, and close-tie (e.g., family and friends) predicted support for management, whereas the use of web and third-party sources negatively impacted support for management.

Management implications: Helping the public understand the values that drive management actions can foster an environment of support. In addition, there are a number of channels for communicating with the public; managers may want to consider using a variety of them to share information.

² J.S. Carlton, A. Ropicki, & M. Shivlani. In review at *Journal of Environmental Management*

Drivers of community revitalization in Areas of Concern³



Background: The federal government and local partners have undertaken extensive sediment remediation and habitat restoration projects to improve environmental quality in the Great Lakes Areas of Concern (AOCs). Improvements in water quality, habitat, and other environmental conditions can also support community wellbeing and revitalization; however, the mechanisms driving these connections are relatively unclear.

Approach and key finding: We used secondary data analysis and document review to understand revitalization in three AOCs: Grand Calumet River, White Lake, and Muskegon Lake. Our review shows that (1) anchor institutions, the arts, housing and business development, and community events act as revitalization drivers; (2) there are interactions among remediation, restoration, and revitalization drivers, and (3) the revitalization drivers and outcomes differ among different AOCs.

Management implications: Drivers and outcomes, which vary among communities even within an AOC, may need to be assessed at the community level rather than AOC-wide. The variability in revitalization processes and outcomes within and across AOCs highlights the need to engage residents and build partnerships across the entirety of AOCs to ensure representation. Including long-term trends and qualitative data in AOC assessments can more accurately capture changes from within AOC communities and changes related to other, non-AOC factors.

³ R. Nixon, J.S. Carlton, and Z. Ma. *Journal of Great Lakes Research* 48: 1387–1400.