



In partial fulfillment of the requirements for the degree of

**Master of Science**  
**Dane Whittaker**

Will present their scientific paper

**Collective Action at the Shoreline:  
A Comparison of Lake Management Organizations  
in Vilas County, Wisconsin, U.S.A.**

Monday, March 16, 2020  
12:00 pm

Via Zoom: <https://asu.zoom.us/j/469050679>

Faculty, students, and the general public are invited.

Supervisory Committee:  
Dr. Marco Janssen, Chair  
Dr. Bryan Leonard, Member  
Dr. Chris Solomon, Member

## **Abstract**

Community-based volunteer organizations are critical to natural resource management in the United States. However, due to volunteer involvement, these organizations struggle with collective action problems: coping with free riding, solving commitment problems, arranging for the supply of new institutions, and monitoring individual compliance with sets of rules. In this study, we explore how volunteer organizations can overcome these challenges. To do this, we compare how volunteer organizations are impacted by natural resource conditions, community attributes, and the rules in use. These factors emerge from Elinor Ostrom's Institutional Analysis and Development framework and the Institutional Design Principles. For this research, we focused on lake organizations in Wisconsin. We collected our data through semi-structured interviews with thirty-one lake organizations and public data. The data was analyzed using constant comparison and simple regression, followed by qualitative comparative analysis (QCA). Our results support the institutional design principles, they reinforces the importance of considering the system holistically—natural resource condition, community attributes, and rules in use—when managing a resource, and indicate that community-based natural resource management is an effective way to tailor management strategies to the natural resource condition and the community attributes.