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Engaging Citizen Scientists to Support Freshwater Sponge Research

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Freshwater sponges are the simplest of animals and play a vital role in the aquatic ecosystem by providing food and habitat for other aquatic invertebrates and vertebrates. Freshwater sponges are filter feeders, meaning they pass water through pores and filter out food particles from the water. Sponges have the potential to filter more than 50,000x their own volume in a day. They have also been shown to be capable of removing nitrates, phosphates, and other inorganic chemicals from the water. Because of their importance to the freshwater ecosystem, we are interested in determining the distribution and diversity of species throughout Minnesota. We have currently sampled 80 different lakes and rivers in Minnesota. However, in the "Land of 10,000 Lakes" there are still many places for which we have been unable to sample for sponges.

One potential solution to the problem of not being able to collect all over the state, is to recruit citizens who may be interested in helping collect sponges throughout Minnesota. To start recruiting citizens to help, we attended five regional county fairs. We developed sponge collection kits to hand out to citizens that would allow them to obtain environmental data and a small sample of the sponge to send to us for morphological and molecular analyses. In this poster, we will present the development of the freshwater sponge collection kit and the initial findings of citizen recruitment in freshwater sponge collections.