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Webinar Summary

I attended the webinar titled, "Sponge Community Biocomplexity, Competition, and Functional Significance in Hard-Bottom Habitats of The Florida Keys", on March 21, 2019. This webinar was presented by Marla Valentine, a graduate from Louisiana State University with a Master of Science in Oceanography that focused on deep-sea benthic ecology. Marla's research that she presented during the webinar focused on biogeochemical cycling of nutrients through sponges in coastal marine ecosystems.

I never knew sponges were so interesting! I learned that there are over 10,000 different species of sponges and that the oldest sponge is 15,000 years old which makes it the oldest living organisms ever. Sponges perform many functions that make them important for marine ecosystems. Sponges consume and dissolve organic materials that make them vital for nutrient recycling and filtration. Sponges provide habitats for many microorganisms that are also important to marine environments. Therefore, loss of sponges can greatly impact a marine ecosystem.

Human activities have a great impact on sponges. In the Florida Keys, where most of the research was performed, they are fished and other human activities such as pollution, impact the survival of sponges. The loss of sponges impacts the marine environment negatively.

Valentine's research used a tank with a flume designed for a sponge habitat. She tested different variables such as biomass and flow of water as well as the diversity of the sponges. The research was investigating how well sponges could filter the flow of water with different variables.

Valentine found that the actual species of the sponges was important and that they filter differently. The environment and biomass also affected the filtering. High biomass and low flow had the most impact on the water filtration. Diversity of sponges was found to be important for filtration and nutrient recycling. As the number of sponge species changed and increased the nutrient recycling increased.

Valentine concluded that sponges are vital for healthy marine ecosystems and that we need a plan to protect and conserve sponges to maintain a diverse and stable marine ecosystem.