

**WIU CENTENNIAL HONORS COLLEGE**  
**Thomas E. Helm Undergraduate Research Day 2023**

**Abstract**

Poster

Major: Secondary Science Ed

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**Live Moss and Seaweed Water Filtration and Purification**

**Katie Tanner**

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Water purification is a critical process during disastrous times when clean drinking water is scarce. The purpose of our experiment was to determine if we could create a water filtration system that effectively removes contaminants and impurities from pond water to make it safe for human consumption. We created two different water filters: one with live moss and one with seaweed. Both of these are well known water purifiers; however, they are not commonly found in engineered filtration systems. In addition, we included clay in our mixture to serve as a powerful absorbent that eliminates suspended solids and organic matter. Through experimentation and observation, we concluded that the live moss water filter did remove contaminants and impurities from pond water; however, the effectiveness of the seaweed filter remains uncertain because there was not a significant difference in various parameters in the water. Nonetheless, both water filtration systems did not produce safe water for human consumption.