

Capstone reflection: Micro-pollution: anthracite versus varying invertebrate microbiomes

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This work was built off past research I conducted alongside my research mentor Dr. Jason Davis that evolved into what I was able to present at the Spring 2023 capstone showcase. I enjoyed working with this project and seeing it get increasingly more advanced and accurate as time went by. At a basic level, my work adds to a larger field of science that is currently very popular, looking at the changes in our environment due to humans and how these changes affect the living things around us. With tons of past work being done on similar experiments looking at oil-eating bacteria, plastic-eating bacteria, nylon-eating bacteria, or any form of life able to deal with the awful and plentiful waste we produce, this research project adds right to that body of knowledge. On a more advanced or applied level, this project can be evolved even further into looking at which bacteria are present and active in these samples and exactly how they're dealing with the coal so that we might be able to see whether or not this work can be applied to a non-lab setting. I would've loved to break down the results I gathered even further to see the biochemistry going on in inside my cultures and determine what by-products were being produced if the coal was in fact being metabolized. I hope that in the future either another student takes interest in this idea and looks further into the bacteria involved, or if not, I'd love to revisit these methods and test more variables.