Isolation of Enterobacter aerogenes and Micrococcus luteus Bacteriophages from Environmental Sample

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Bacteriophages are specific viruses that are able to infect bacteria. Multiple phage varieties have been found for multiple types of bacteria. Because of the interactions between phages and bacteria, there may be some have effects on the surrounding ecology. In order to better identify how phages may interact with bacteria, phages needed to be isolated from soil and water samples. The two bacteria used for screening within this paper are Enterobacter aerogenes and Micrococcus luteus. Two different screening methods were used for each bacterium. For Enterobacter aerogenes, river water samples were directly isolated for phages, while for Micrococcus luteus, the isolation was done using soil samples. For both bacteria similar techniques were used. This involved filtering the sample through .22µl filters, combining with some of the bacterial culture, and plated. After the proper growing time (between 24-48 hours) the plates were observed in order to identify any possible plaques, or clear spots. If there were any suspicious spots, they were tested again to verify that they were plaques. No plaques were found that, when tested through a spot test, tested positive. This may have to do with issues present with the media used for the experiment.

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