CONSIDER FOR TALK

7th Annual SEA-PHAGES Symposium Abstract

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Isolating and Characterizing Different Mycobacteriophages at Old Dominion University

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Six newly discovered bacteriophages from the Tidewater region of Virginia were isolated and characterized by the ODU Research Community Alliance (ORCA) members. The bacteriophages were enriched from different soil samples using *Mycobacterium smegmatis* mc2155 as the host organism. Numerous rounds of purification and isolation using spot plates and stick streaks were used to purify the phages. Subsequently, the isolated phages were visualized using transmission electron microscopy which revealed that the 6 phages all had siphoviral structural morphology. One of the six phages, named Bricole, was sequenced revealing a genome length of 81.1 kbp. The Bricole genome sequence placed the phage in the Cluster M phage group with mycobacteriophages Bongo, PegLeg, and Rey. Bricole is a temperate phage and the genome contains interesting features such as a large number of tRNA elements and a unique *lysA-gp36-gp37-lysB* lysis cassette.