CONSIDER FOR TALK

9th Annual SEA-PHAGES Symposium Abstract

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The discovery, isolation, and annotation of the L2 cluster mycobacteriophage, Miley16

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Miley16 is a novel, cluster L2 mycobacteriophage isolated from an Abbott Park soil sample in Farmington, Maine, using the host Mycobacterium smegmatis mc2155. Miley16 consists of 76,653 bp, 58.9% GC content, 133 genes, and 12 tRNAs. Miley16 is highly similar to most L2 phages (≥98%), but only 90% similar to Archie. A translational frameshift was identified between two tail chaperone sequences. Miley16 also contained several genes related to lysogeny maintenance and regulation, including an integrase (Y-int), an immunity repressor, excise, and CRO (control of repressor’s operator). The isolation, characterization, and genome annotation of Miley16 are discussed.