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Isolation and Characterization of two Microbacterium foliorum phages Akino08 and DirtPie

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Bacteriophages are viruses that infect bacteria. They are incredibly abundant and genetically diverse. To expand upon the knowledge of this diversity and bacteriophage evolution we sought to isolate novel bacteriophages from soil of the Rio Grande Valley, Texas. Two novel viruses, Akino08 and DirtPie, were isolated via enriched extraction from moist dirt samples collected from McAllen and Donna, Texas, respectively using host *Microbacterium foliorum* NRRL B-24224. These viruses were purified through three rounds of plating at 30⁰C for 48 hours. Akino08 has a genome length of 42,552 bp, 69.3% GC-content, has one tRNA and is part of the EB cluster of phages. Akino08 has 115 predicted genes. DirtPie has a genome length of 17,478 bp, 68.7% GC-content, has one tRNA and is part of the EE cluster of phages. DirtPie has 26 predicted genes. Characterization of these novel viral genomes has added valuable information to the rapidly growing field of phage biology and genomics hopefully leading to future advances in phage therapies and discoveries.