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11th Annual SEA Symposium Abstract

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Isolation and Characterization of Three Novel Mycobacterium Phages from the Sandhills Region of North Carolina.

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Bacteriophages are the most numerous microbes in the biome and display massive genetic diversity. Thirteen phages capable of replication in *Mycobacterium smegmatis mc2155* were isolated in the Sandhills region of North Carolina. Three phages (Datway, Leogania, and Lephleur) were sequenced at the Pittsburgh Bacteriophage Institute. All three of the sequenced phages were novel. Lephleur lacks any lysogeny-associated genes which is consistent with other members of the B2 subcluster. Additionally, Mycobacterium Phage Cornie (subcluster F5), was confirmed to possess a non-functional integrase gene. Therefore, Cornie is the only known F cluster phage that is virulent.