DO NOT CONSIDER FOR TALK

2025 SEA Symposium Abstract

Coastal Carolina University

Conway SC

Corresponding Faculty Member: Daniel Williams (dwilliams@coastal.edu)

Comparison of Phages Found in Conway, South Carolina and Genomic Annotation of TriFive

Alexis Vail, Lucy Murr, Erykka Leeman

To contribute to the overall understanding of the evolution of phages, the SEA-PHAGES program allows us to evaluate the genome of phages, which contributes to future scientific studies. Comparing and contrasting three different phages that where found and isolated in Conway, South Carolina we can strengthen our knowledge of the phage population in this area. GooseBumps, Hylia, and TriFive were isolated using different approaches and analysis of plaque assays reveled differences in plaque morphology of these phages, suggesting distinct types of phages. A bioinformatic approach was used to determine the start site, stop site, and function of the second half of the TriFive genome, which is comprised of ~29,000 base pairs. Using specific DNA analysis tools such as DNA Master, Starterator, Phamerator, PhagesDB, and HHPred, we annotated 63 different genes. These genes annotated showed variation in functions and possible start sites. Using these methods, contributed to the scientific community and increased knowledge of phage biology through determining the function and comparing the different phages.