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9th Annual SEA-PHAGES Symposium Abstract

Doane University

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A GENOME IN A DAY: LESSONS FROM THE UPDAWG GENOME ANNOTATION HACKATHON

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A hackathon is an event in which computer programmers, software developers, and others work together to solve a relatively complex problem in a short period of time (often a single day). Students and faculty from Doane University, the University of Nebraska-Lincoln, Nebraska Wesleyan University, and Northwestern College participated in a day-long genome annotation hackathon in which they attempted to complete a single phage genome annotation in a single day. We worked on the cluster A2 phage Updawg, which has a genome length of 53,043bp and 96 ORFs predicted by auto annotation. Additional features of interest included a tRNA gene and a programmed translational frameshift. Students from the four institutions worked collaboratively in cross-institutional groups to annotate assigned sections of the genome and verified their work with faculty members before submitting their sections to be added to the final annotation. The students were able to complete the entire genome annotation during the 5 hour hackathon; however, additional time was needed to finish compiling all of the files for submission. We will discuss student experiences, logistics, and lessons learned (both good and bad!) to help others who may be interested in attempting a similar activity.