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2021 SEA Faculty Meeting Abstract

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A QUBES Resource for Introducing PHAGES Students to Primary Literature

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We developed a set of teaching resources designed to introduce undergraduate students in SEA-PHAGES courses to primary scientific literature. Scientific literature can appear as a daunting challenge to undergraduate students, especially to those who are still developing mastery of fundamental biology concepts. However, if presented properly, primary literature can reinforce many of the learning objectives of the SEA-PHAGES curriculum, such as data interpretation and scientific thinking. In this QUBES resource, we have designed a curriculum framework, including learning objectives, which can be used by SEA-PHAGES faculty to teach primary literature in any PHAGES course. We have also carefully selected several peer-reviewed scientific articles that are accessible to undergraduate students when presented with proper background. Furthermore, we have included introductory material and assignments for each paper. These resources will allow SEA-PHAGES faculty to integrate primary literature into their courses, either by using the material as is or by adapting the resource in a novel way to suit their course. In fact, we ourselves adapted these resources for our PHAGES courses during both the Fall 2020 and Spring 2021 semesters and experienced positive results with our students. In this presentation, we will discuss this QUBES resource, our experiences using the resource in SEA-PHAGES courses, and ideas for further developing these tools to enhance the SEA-PHAGES experience.