

Dynamics of eastern oyster-associated bacteria in the Narragansett Bay, RI

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Project Location:

University of Rhode Island-Kingston

Project Description:

The eastern oyster, a species of high ecological and economic value, has been shown to harbor communities of bacteria distinct from those found in the water column. Previously, we have identified core groups of bacteria that are associated with different tissue types of the oysters. In this project, we aim to explore the abundance and distribution of these core bacteria among the water column across different depth and locations of the Narragansett Bay (NB). Students will receive trainings in field sampling and various molecular technologies, including DNA extraction, PCR amplification, and amplicon library sequencing. Additional opportunities will be provided for the students to gain skills in high-performance computing and molecular sequencing data analysis. This research will further our understanding of the prevalence and fluctuation of the oyster-associated bacterial species in the NB. It will also provide new insights into the origin and dispersal of the host-associated bacteria.

*This project involves **both field & lab/computer work***

Required/preferred skills for student applicant:

Course preparations in microbiology, biochemistry, or related fields. Prior experiences with DNA extraction and PCR is preferred but not required.

Student transportation needed for project?

No