

MS Project
Department of Environmental Science and Policy
College of Science
George Mason University

Candidate: Eric Mazur

Presentation Date and Time: April 25, 2024 at 3:00pm

Presentation Location: Hybrid: David King Hall 3006 and virtual

Title: Molecular Analysis of Disease-Causing Microorganisms From Corals Using Laser Capture Microdissection

Project Director: Dr. Esther Peters

Committee: Dr. Jennifer Salerno and Dr. Brent Whitaker

ABSTRACT

Infectious diseases are an ever-growing problem affecting coral reef organisms and it is important to determine which members of the microbial community are living in different tissue layers of the coral holobiont. Using samples from wild and captive corals, a protocol was developed to remove suspected bacteria, extract nucleic acids, and amplify and sequence a portion of the 16S rRNA gene from coral tissue sections. The identification of *Mycobacterium*, which has been attributed to disease in fish and various genera previously associated with disease in corals suggests the potential viability of laser capture microdissection in coral disease research.