

MS Thesis
Department of Environmental Science and Policy
College of Science
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Defense Date and Time: April 15, 2021 at 4:00pm

Defense Location: Zoom

Title: Measuring the Effect of Marine Protected Areas on Coral Disease Prevalence using a Meta-analysis Approach

Thesis Director: Dr. Jennifer Salerno

Committee: Dr. Amy Fowler, Dr. Esther C. Peters

ABSTRACT

With corals being threatened worldwide from multiple sources of stress, the evaluation of coral reef management strategies is becoming more important. The strategy analyzed in this research is the establishment of marine protected areas (MPAs). This thesis describes a systematic review to collect data from independently researched sources of coral disease prevalence within and outside of MPAs, and the synthesis of these data in meta-analysis models. This thesis provides multiple methods of synthesizing data about coral disease prevalence for the purpose of evaluating the benefits of these protected areas on coral. The goal of this thesis is to provide summarize the effect of establishing MPAs on coral disease prevalence, and to create recommendations for reef monitoring and management organizations.