



The University of Hong Kong
School of Biological Sciences

Qualifying
Seminar

Investigating the Structure & Function of the Coral Holobiont under a Changing Climate

Date: 25th March 2022

Time: 11:00 AM

Venue: Zoom



About the speaker:

Róisín Hayden is a PhD student supervised by Dr. David Baker and Dr. Shelby McIlroy. Her research focuses on microbial ecology, particularly in coral-hosted symbiotic communities.



Abstract:

Reef-building (scleractinian) coral host a wide array of symbiotic microorganisms, often referred to as the coral “holobiont”. The diversity and functioning of these communities are tightly linked to coral survival, health and resilience to stress. As climate change and increasing ocean temperatures drive the demise of coral reefs worldwide, this provides a promising target for coral preservation and management strategies.

Central to this research is an understanding of the ecological processes that shape these symbiont communities. Using a combination of molecular and stable-isotope based techniques, I will explore interactions between the coral host, co-occurring symbionts and their surrounding environment. Specifically, I will investigate how access to nutrients and competitive strategies drive symbiont dominance *in hospite*. I will also assess community and functional shifts in coral-associated bacteria (CAB) in response to environmental conditions. As global and local threats to coral reefs continue to increase, answering these questions may help predict how communities will respond to stress, while also informing novel conservation practices.