



Exploring what ancient humans and coral fossils tell us about past environments, ecosystems, and culture

Date: Thurs., April 3rd

Time: 16:00 (UTC+8)

Venue: 3N01 + Zoom



One of the major impacts humans have on ecosystems is through the provisioning of food. In many parts of the world, ecosystems have sustained human impacts for many thousands of years, obscuring natural baselines which are critical for setting future conservation goals. However, determining ancient human diets and their ecological consequences is challenging due to the complex interplay of cultural preference, resource availability, and environmental influence. In this talk, I discuss my past and ongoing research, which combines expertise in historical ecology and biogeochemistry with that of archaeologists, paleobiologists, oceanographers, and geochemists to explore a seemingly simple question: **What were ancient Panamanians eating?** I present research in which we used stable isotopes from coral skeletons to establish a historical baseline of nutrients and climate in the Eastern Tropical Pacific. These data were then used as a framework to investigate ancient human diets, revealed through advanced compound-specific stable isotope analysis of preserved bone collagen. Through this ongoing interdisciplinary work, I demonstrate the power of examining ancient humans from an ecological perspective and highlight the need for environmental baselines to provide broader context in historical ecology



Jonathan Cybulski

Dr. Jonathan Cybulski holds a Ph.D. in Ecology and Biodiversity from the University of Hong Kong, a Master of Science in Environmental Science from American University, and a Bachelor of Science in Geology from Northeastern University. After Jon's Ph.D., he completed a one-year postdoctoral fellowship in collaboration with the HKU Stable Isotope Ratio Mass Spectrometry Laboratory, where he continued to develop advanced methods for stable-isotope analysis. Most recently, Jon was awarded the prestigious three-year Tupper Postdoctoral Fellowship to study at the Smithsonian Tropical Research Institute in Panama from 2022-2025, where he worked with archaeologists to uncover how ancient human diets may have been influenced by environmental change. Currently, Jon is the Programme Coordinator for the new MSc in Integrative Marine Ecology and Conservation at HKU. For his research, Jon uses a combination of ecology, archaeology, geology, and biogeochemical methods to understand and communicate the story of human-ecosystem-environment interactions through time.

ALL ARE WELCOME!

