

Date: Fri., Feb 28th
Time: 16:00 (UTC+8)
Venue: 3N01 + Zoom



Investigating the ecology and evolution of nutritional mutualisms

Inter-Kingdom symbiosis is a prevalent adaptive strategy that has allowed organisms to colonize new environments, thrive in resource-poor conditions, and diversify. In particular, the benefit gained from two organisms coupling their metabolisms can fill in nutritional deficiencies for one or both partners, providing a competitive advantage in habitats where nutrients are limiting. These “nutritional mutualisms” have evolved across the diversity of life, and provide the foundation of ecosystems, such as coral reefs and forests. However, our understanding of the functioning and evolution of these relationships remains limited to a few well-studied species. In this talk, I will share some ongoing projects investigating nutritional mutualisms in three groups: marine invertebrates that host unicellular algae, vascular plants associated with mycorrhizal root fungi, and lichens. I include diverse taxa in my work with the long-term goal of improving our understanding of the ecology and evolution of nutritional mutualisms broadly, rather than in one group alone.



Inga Conti-Jerpe

Dr. Inga E. Conti-Jerpe holds a PhD in Biological Sciences from the University of Hong Kong, a Master of Science in Marine Biology from the University of North Carolina Wilmington, and a Bachelor of Science in Biology from Cornell University. She is currently an Assistant Professor in the Science Unit at Lingnan University. Her research program investigates the ecology and evolution of nutritional mutualisms across taxa. She predominantly uses stable isotope analysis and molecular tools to quantify the assimilation and exchange of different nutrient sources in mutualisms, identify adaptations involved in these relationships, and investigate the genetic underpinnings of nutritional partnerships. She is committed to running a supportive and inclusive lab group that fosters collaboration and research excellence.

ALL ARE WELCOME!

