



Invitation to IOES Postgraduate Scientific Seminar Series

The Institute of Ocean and Earth Sciences (IOES) is happy to invite you to attend a Scientific Seminar by

Dr Ng Poh Kheng

on

Molecular phylogeny and evolution of red algal parasites: A case study of *Gracilaria babae* (Gracilariales)

Date : **22nd October 2015**

Time : **10.00 am**

Venue : **Anggerik Room, Level 3, IPS Building**

Molecular phylogeny and evolution of red algal parasites: A case study of *Gracilaria babae* (Gracilariales)

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Abstract

Since the first description of red algal parasites in the last century, the evolutionary relationships between most of the red algal host-parasite associations have only been inferred based on the degree of morpho-anatomical similarity between the host and parasite. The accepted evolutionary paradigm proposes that red algal parasites arise by first infecting a close relative and over time diversifying and infecting more distantly related species, thereby providing an evolutionary continuum of relationships between hosts and parasites that share a photosynthetic common ancestor. The use of molecular tools to provide a robust taxonomic framework of red algal parasites and their hosts is important prior to conducting further study to understand the effects of transitioning from a free-living to a parasitic life strategy. This seminar highlights the use of comparative phylogenetic analyses to reveal the evolution of the red algal parasite *Gracilaria babae* from *G. salicornia*, and its subsequent radiation to a distant host species, *Hydropuntia* sp.

Ng Poh-Kheng obtained her Ph.D. in Algal Biotechnology at University of Malaya in 2015. Her research interest lies in the evolution of parasitism in red algae. She conducted comparative phylogenetic analyses based on the DNA sequences of markers belonging to different genomes to provide a taxonomic framework for the red algal parasites found in Malaysian waters.