The University of Hong Kong
School of Biological Sciences

**Qualifying Seminar**

# Network dynamics, ecosystem consequences, and conservation genetics implications of the global trade of threatened tree species

**Date: 07th April 2022 (Thur)**

**Time: HKT 13:00**

**Venue: Zoom**

## About the speaker:

**Even YM Leung** is a PhD student supervised by Dr. Timothy Bonebrake and Dr. Caroline Dingle. She is passionate about conservation biology, especially flora conservation.

## Abstract:


Tropical forests are one of the most biodiverse habitats on earth. However, as demand for tropical timber has soared over the past few decades, heavily traded tropical hardwood species, such as rosewoods (Genus: Dalbergia) are under great threat. This highlights an urgent need in understanding the trade from the perspectives of both the supply and demand sides, to conserve the tree species that are traded unsustainably.

Here I will present my thesis plan and preliminary work on the (i) scope, (ii) impacts, and (iii) solutions to the unsustainable trade of threatened wood-producing species. To characterize illegal wood trade in its major market, China, I used online seizure reports and court cases for social network analysis to reveal the trading networks and key trading hubs. To further investigate the illegal wood trade from its source of origin, I propose to use molecular means in mapping origins of seized wood. To understand the impacts of selective logging, focusing on N-fixation, I will use modeling to compare potential change in soil nutrients and biological N-fixation rates under a gradient of selective logging pressures. Finally, using the critically endangered and timber-producing African Zebrawood (*Microberlinia bisulcata*) as a case study, I will evaluate seed sourcing in restoration efforts in conserving the genetic diversity of the species. These results will be useful in applied contexts of conservation, enforcement and policy-making, as well as contributing to the field of conservation biology.