



The University of Hong Kong  
School of Biological Sciences

**Public  
Seminar**

# Illegal trade network, remote sensing and genomic approaches to tropical hardwood conservation in Africa and Asia

**Date: 9<sup>th</sup> Jan 2026 (Fri)**

**Time: 4:00 PM**

**Venue: KBSB 6N-11 & Zoom**

## About the speaker:

Ms. Even YM LEUNG is a PhD candidate in the Global Change and Tropical Conservation Lab, supervised by Prof. Timothy BONEBRAKE and Dr. Caroline DINGLE. Her research interests center on flora and fauna conservation, where she contributes to protecting threatened species as a conservation ecologist. She is also a keen environmental educator, promoting biodiversity and conservation to students and the public.

## Abstract:

The wildlife trade spans economic, social and environmental sectors, both locally and internationally. Of which, unsustainable timber trade detrimentally impacts tropical hardwood populations, species and ecosystems. This PhD thesis provides an overview of the tropical hardwood trade through multidisciplinary approaches, documenting threats and evaluating conservation actions. Firstly, to quantify the scale and scope of the illegal wood trade in the region, social network analysis identified at least 15 tree species in illegal wood trade networks involving China from 2012 to 2022, with Hong Kong as the dominant transit hub. Second, to understand the potential impacts of armed conflict on forest cover and commercially important timber species, random forest classification of Landsat 8 satellite imagery revealed forest loss in both conflict and non-conflict regions from 2015 to 2025, with greater loss in non-conflict areas. Notably, overlap analysis identified the endangered *Microberlinia bisulcata* (Zingana or African Zebrawood) as the most affected by both armed conflict and forest loss. Finally, to evaluate the seed sourcing efforts in a *Microberlinia bisulcata* nursery in Cameroon, restoration genomics using ddRADseq data revealed that the nursery effectively captured the genetic diversity of its wild counterparts, and that populations in the Ebo Forest and Korup National Park (currently under armed conflict) are potentially genetically distinct entities that should both be conserved. Overall, this thesis addresses knowledge gaps in tropical hardwood trade research and emphasizes the need for collaborative, multidisciplinary conservation efforts.

