



The University of Hong Kong
School of Biological Sciences

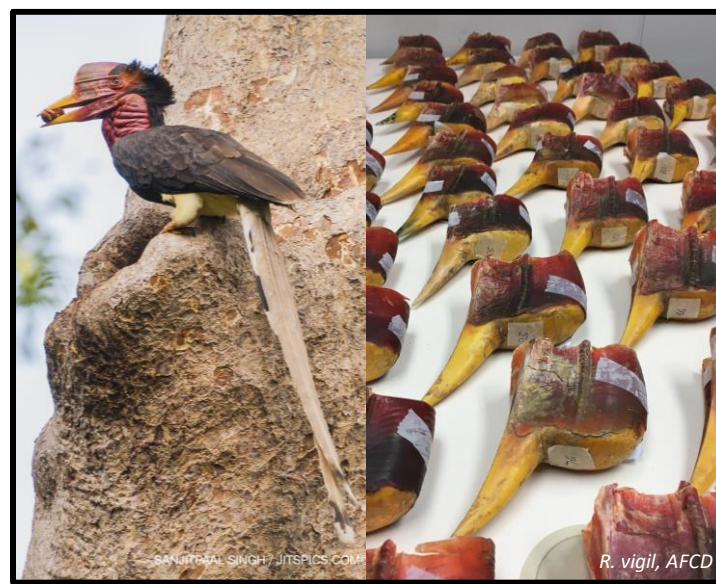
**Public
Seminar**

Threats and Conservation of the Critically Endangered Helmeted Hornbill (*Rhinoplax vigil*)

Date: Thurs 10 February 2022

Time: 16:30

Venue: 6N-11, KBSB + Zoom



About the speaker:

Chloe Webster is a PhD candidate working under the Conservation Forensics Laboratory and is supervised by Dr Caroline Dingle and co-supervisor Dr David Baker.



Abstract:

Over-consumption and unsustainable, illegal hunting for the Illegal Wildlife Trade (IWT) has caused the endangerment of many species around the world. The Critically Endangered Helmeted Hornbill (*Rhinoplax vigil*) provides a case study of a species heavily threatened by the IWT for its casque to be carved into ornaments. My thesis provides scientific means to help conserve this species.

To help enforcement efforts combat the IWT of *R. vigil*, I developed a standardised and validated forensic DNA tool to identify the species of seized casques. I also developed non-invasive sampling techniques for the conservation genetics of hornbills *in situ* and used morphological and molecular methods to identify the sex ratio of seized casques, discussing potential impacts to wild individuals. Population data is sparse across Borneo, one of the most targeted regions for *R. vigil*. Therefore, I conducted a species distribution model to predict *R. vigil* distribution, aiding population monitoring and survey efforts. Finally, I analysed three decades of auction trade data, CITES, and seizure data to understand demand for helmeted hornbill products. Results show that illegal hunting has led to the number of seized individuals over the past 10 years being almost 4 x higher than the number of wild individuals observed over the past 40 years.

By highlighting threats and areas for furthering the conservation of *R. vigil*, this work provides insight into processes fueling endangered species decline, and tools to mitigate them, in line with the IUCN Helmeted Hornbill Working Group 10-year Conservation Strategy & Action Plan.

All Welcome!