Conservation Forensics

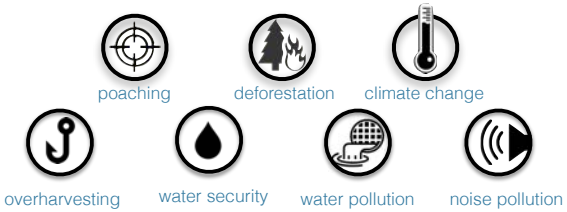
@ The University of Hong Kong

OUR PLANET - is under assault. We are in the midst of a 6th mass extinction.

The loss of **biodiversity** is unprecedented during this period; the **Anthropocene**.

Never before has the preservation of species, ecosystems, and the benefits they bring to humanity been more urgent. Hong Kong is positioned to provide solutions to these growing problems.

THE PROBLEMS



BACKGROUND - Hong Kong is the global epicenter for wildlife trade, serving as a gateway to markets in China where demand has pushed many species to the brink of extinction. Iconic wildlife such as elephants, sharks, and rhinos are under constant threat of poaching, while obscure species like pangolins, agarwood, and sea cucumbers decline without much public awareness.

THE VICTIMS

OBJECTIVE - To support government efforts in enforcing and curbing the trade of threatened species, we seek funding to support the development of a **Center for Conservation Forensics** at the University of Hong Kong. This initiative would provide an **innovative** and **interdisciplinary** platform to combat illegal wildlife trade at the global hub of activity, and to engage the public with **knowledge exchange** through communication and education of **scientific research**. Currently, Hong Kong has no such facility, fit-for-purpose to support enforcement of wildlife trafficking and crime.

AIMS - Genetic and geochemical tools are pivotal in the identification of species, geographic origin, and age of wildlife products – and thereby, their legality. The Hong Kong academic community already possesses expertise and equipment in these disciplines, but lacks some equipment essential to the task of enforcement (see reverse).

THE TOOLS

This initiative will consolidate existing infrastructure (*i.e.*, the Faculty of Science Central Facilities and Stable Isotope Laboratory) and expand with new equipment (*e.g.*, Accelerator Mass Spectrometer for radiocarbon dating). The Center would be the **first of its kind in China**, and will attract contract research through local and international sources. Our ongoing research efforts in the **Congo Basin** and throughout **Southeast Asia** will link the ends of this illegal international supply chain, from the habitats where wildlife cling to survival to the shops where they are sold.

THE TRADE

Despite increasing international pressure, Hong Kong society is complicit in this **'race to extinction'**. However, the government recently committed to strengthening enforcement and regulation, an acknowledgement of the essential role that Hong Kong can play in stemming the flow of illegally traded wildlife and contributing to biodiversity conservation worldwide.

IMPACT - Our team has a growing track record in support of wildlife trade law enforcement:

- listing of endangered species (humphead wrasse) to CITES
- genetic testing of trafficked eels; led to 40 arrests in EU
- field research and teaching programs in the Congo Basin
- AFCD contract for genetic identification of shark fins
- investigation of fraud and mislabeling of seafood in HK
- rhino horn DNA analysis with WWF & U. Pretoria
- market surveys of endangered fish, mammals & turtles

EXPANSION - We seek support to expand and consolidate our team and tools (see reverse) through strategic investment in in equipment for identifying the provenance of traded wildlife and centralization of existing facilities and staffing to sustain infrastructure through active research and teaching programs. These tools will be broadly applicable to some of the grand environmental challenges we face today. The Center for Conservation Forensics will be modeled after world-leading laboratories, and supported by international experts including Samuel Wasser at the University of Washington and Thure Cerling at the University of Utah.

To realize this vision, we need your support.

the tools

GB - IRMS

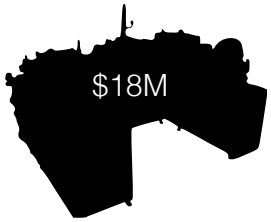
- provenance
- dating calibration
- diet and migration
- water analysis
- gas analysis

(HT)EA - IRMS
GC - IRMS

ICP-MS

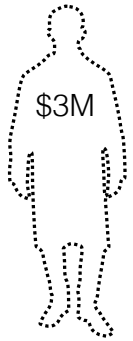
- elemental analysis
- provenance

ICP-OES

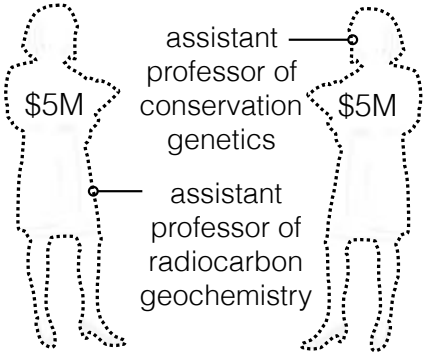


^{14}C AMS

- age dating
- ivory



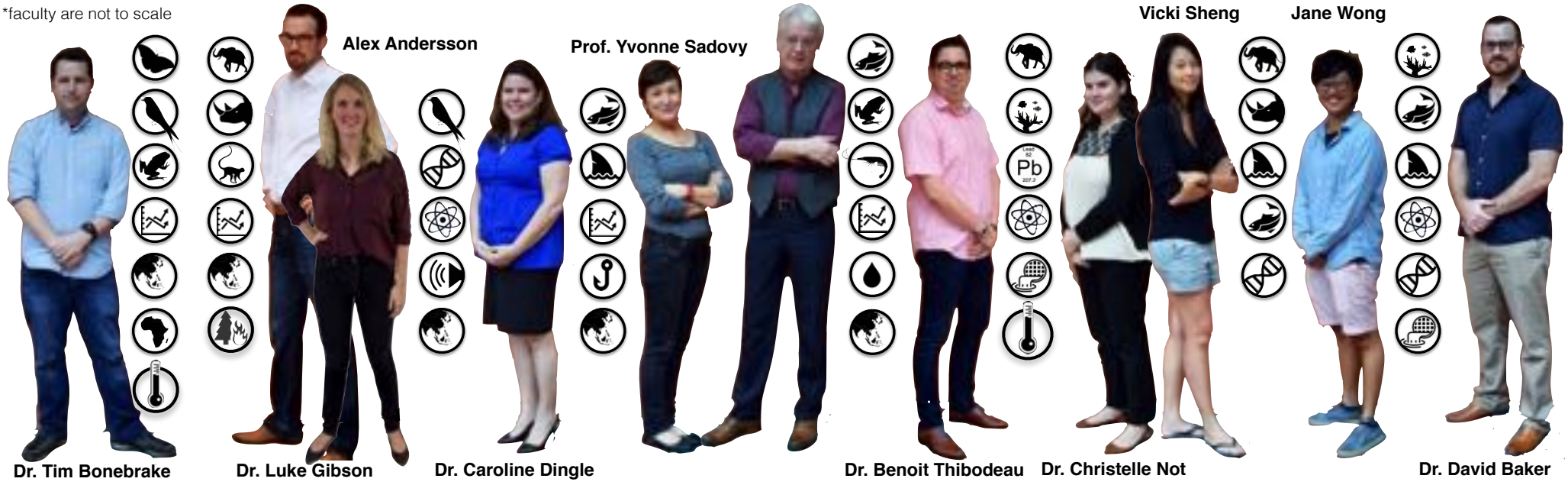
AMS technician



total kickstart: $40M$_{HKD}$

the team*

*faculty are not to scale



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