

The role of Natural History Museums in fighting the Illegal Wildlife Trade.

Introducing ShellBank: A Global DNA Database for Marine Turtles

Date 26 March (Wed.)

Time 16:00 (UTC+8)

Venue 3N01 & Zoom



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Specimens in museum collections provide information relevant to a diverse range of issues including biodiversity, biosecurity, climate change, pandemic preparedness and more. The Australian Museum (AM) is Australia's first museum and just shy of 200 years old. It is the largest collection in the Southern Hemisphere and is currently custodian of more than 22 million objects and specimens. The Australian Museum Research Institute (AMRI) which houses the AM's scientific staff oversees collections from nine "-ologies" and uses these collections to underpin research into areas essential for understanding the planet's biodiversity. One of the main components to the research infrastructure available to AMRI is the Australian Centre for Wildlife Genomics (ACWG), which provides not only molecular research capacity to AMRI staff but also offers diagnostic services to a range of external stakeholders requiring DNA based information in the work they carry out. One example of this is the ACWG is an ISO/IEC: 17025 accredited wildlife forensics laboratory providing expert DNA evidence to Federal and State based agencies enforcing Australia's environment and biosecurity laws.

To improve global wildlife forensic capacity the ACWG conducts research into the development of tools to fight the illegal wildlife trade. One example is ShellBank, a global database of marine turtle DNA data collected from nesting beaches, foraging grounds, and seized or by-catch animals around the world. ShellBank is a powerful traceability tool to track the impact of the illegal trade in these species leading to improve enforcement and conservation outcomes. One application of ShellBank is to track the illegal trade in tortoiseshell products, harvested from hawksbill turtles. The Hong Kong Department of Agriculture Fisheries and Conservation has provided ShellBank with over 200 tortoiseshell products seized between 1998 and 2023. By analysing mitochondrial D-loop extracted from these samples ShellBank will generate a better understanding of the geographic origins and trade dynamics of tortoiseshell products in Hong Kong.



About speaker:

Dr Greta Frankham is a conservation geneticist and wildlife forensic scientist at the Australian Centre for Wildlife Genomics (ACWG) at the Australian Museum Research Institute in Sydney Australia. She completed her PhD at the University of Melbourne in 2012 and her academic research has focused on the conservation genetics of threatened Australian marsupial species. When she joined the ACWG in 2011 she also moved into the field of DNA-based wildlife forensics. Dr Frankham was part of the team that established the ACWG as the first ISO/IEC 17025 accredited wildlife forensics lab in Australia. Her research interests now span conservation and wildlife forensic science, working on species such as; long nosed potoroos, eastern pygmy possums, long nosed bandicoots, koalas, echidnas, red-tail black cockatoos, shingleback lizards and Hawksbill turtles. Dr Frankham also regularly carries out casework for a range of state and federal agencies involved in wildlife and biosecurity compliance in Australia.

All are welcome!