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BIO-BABBLE

australasian biospecimen network association

Newsletter of the Australasian Biospecimen Network Association

SAVING THE OCEANS ONE SHELL AT A TIME

Biobankers fighting the good fight!

by Cassandra Griffin

A mosaic of yellow, stunning amber and rich mahogany, a turtle shell is a natural masterpiece and long sought after for furniture and fashion. We're all familiar with the narrative of ivory and the need to protect elephants from human threats, but many would be surprised to know that many species of turtle including the Hawksbill turtle are now listed as critically endangered due to the tortoiseshell trade. A study this year found humans harvested 9 million Hawksbill turtles over the past 150 years, more than six times previous estimates.

One of the biggest challenges with curbing the trade of illegal shell products is general public awareness, with many uninformed that the products they are purchasing are made from genuine shell. To improve public awareness and better understand the populations of turtle most at risk from poaching, the Australian Centre for Wildlife Genomics (ACWG) partnered with WWF-Australia and Royal Caribbean International to launch the Australasian branch of "Surrender your Shell".

A dual-purpose program, "Surrender your Shell" not only raises awareness and reduces the circulation of illegal tortoiseshell products, but as a result of modified DNA extraction protocols and some well curated biobanked collections, it provides conservationists and animal welfare protection officers with the upper hand to combat poaching.

"And the turtles, of course all the turtles are free, as turtles and, maybe, all creatures should be" – Dr Seuss

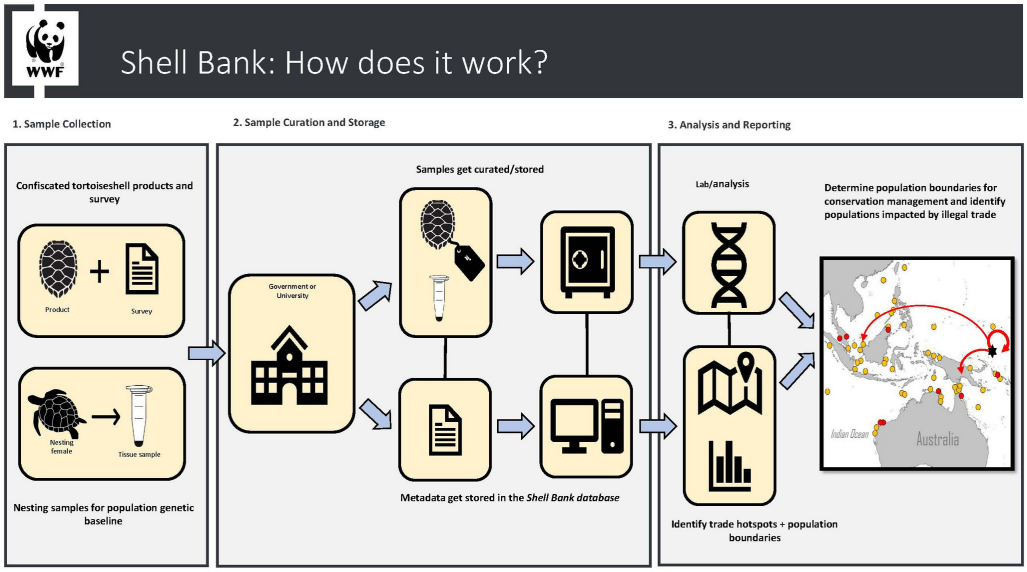
WWF | REWILDING AUSTRALIA

What was involved?

Under the scheme, the public were encouraged to surrender genuine shell products without fear of prosecution. These products including jewellery, kitchenware, hair accessories and glasses were then sent to the ACWG for DNA extraction and analysis. Using small fragments of mitochondrial DNA, extracts are compared with 'ShellBank" a DNA database of haplotypes which have been sampled from wild nesting sites of the Hawksbill turtle and stored for future analysis. ShellBank is an international initiative designed to build and advance the traceability knowledge for tortoiseshell products. The intention of WWF is to train teams in country to ensure the progressive expansion of sample collection and stored genetic data and embed these practices within routine conservation programs.

So it's poachers vs.... data?!

The pen is mightier than the sword and genetic data might just be the key to turning the tide on the poaching war. Due to their homing instincts, through which the female Hawksbill turtle returns to the same nesting site even decades later, haplotype distribution can be used as a 'genetic map' to determine the geographical origin of surrendered items. DNA haplotypes generated from these products can then be used to provide vital information on where the primary sites for poaching are located so that targeted populations can be protected and important sites monitored.



The Australian collaboration is just one element of a worldwide partnership to expand the ShellBank collection and combat the poaching of these vulnerable creatures ensuring biodiversity for future generations.

Resource links:

https://www.wwf.org.au/get-involved/surrender-your-shell#gs.grengx
https://australian.museum/blog/amri-news/surrender-your-shell-using-dna-to-protect-the-hawksbill-turtle/
https://library.sprep.org/sites/default/files/2021-10/shell-bank-marine-turtle-use-trade-initiative.pdf

Introducing the ISBER 2022 Hybrid Annual Meeting

More information: https://www.isber.org/page/ISBER2022AnnualMeeting

Meeting Theme:

Biobanking is increasingly recognized as intrinsic for accelerating the scientific journey. By fostering deep collaboration amongst a broad, inclusive community of thought leaders, we are able to strengthen our collective capability and create shared value.

The challenges associated with providing sustainable, modern infrastructure will not be solved unless there is a concerted effort to integrate lessons learned into a robust ecosystem built on partnerships across multiple sectors. Partnerships must be broad, creative, expansive and committed to the collective impact. Such coalitions can be multi-sectorial and include leaders and stakeholders from diverse quarters representing academia, industry, and government, each of whom bring their own experiential knowledge and assets. Biobanks must provide scientists and the general community with globally-available tools to innovate, learn, and inspire. As the world grows ever more connected aided by the convergence of biology, data, digital systems and automated technologies, biobanking presents many new potential applications. From novel companion diagnostics, which can be used to diagnose and treat disease more effectively, to enhancing our understanding of environmental influences, biobanking is shaping the scientific journey in a new world.

Hear experts share their stories behind Biobanking: Shaping the Scientific Journey, and help build a new understanding of the biobanking landscape to contribute to a strong vision for the future.

Meeting Format:

The meeting will be held in-person in Atlanta USA. For those who are unable to travel, a virtual component of the meeting will be released in early June.
Click HERE or more information regarding how the hybrid format will work.

Registration:

Early bird pricing is available until February 24, 2022

	ISBER Members	Non-Members	Students/Technicians
Early Bird - In-Person	$830 USD*	$1080 USD*	$500 USD* - ISBER members $700 USD* - Non-members
Early Bird - Virtual Only	$415 USD*	$540 USD*	$250 USD* - ISBER Member $350 USD* - Non-Member

*All prices listed exclusive of tax. Taxes will be added at check-out.

Delegates in countries identified by the World Bank as Low and Lower-Middle Income are eligible for a 50% discount. Delegates in countries identified as Upper-Middle Income are eligible for a 25% discount. If you are eligible to receive a discount, please contact info@isber.org.

Important Dates:

Registration opens: 2021 December 1
Workshop proposal deadline: 2021 December 13
Late breaking abstract submission period: 2022 January 7 - 30
Round table discussion submission period: 2022 January 7 - 30

ISBER and ASCP BOC are pleased to announce the Qualification in Repository Science (QBRS) for biobankers.

Applications are now open.

For details on application resources such as eligibility, topic outline, reading list, and more, please visit: http://www.isber.org/qualification.

Upon meeting specific educational and experience requirements, candidates will be eligible to complete an online examination and, if successful, gain recognition for their skills and competencies as biobankers with a qualification termed the QBRS. Biobanks are vital to medical research and precision medicine and require qualified professionals to deeply understand and exhibit proficiency in the biobanking sciences in order to obtain high quality samples. ISBER expects that the new qualification will help further the advancement of scientific discoveries through the field of biobanking.

WEBSITE BIOBANK LISTING

We have refreshed our list of ABNA members biobanks.
Is your biobank listed and is your website correct?

Click **HERE** to confirm your listing, please get in touch with ABNA for any corrections.

If you have any suggestions for a short article for Bio-Babble, please contact: abna.biobabble@gmail.com
Content deadline for January edition: 21.01.22

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