

Addressing Hawksbill Turtle Trade IN THE ASIA-PACIFIC REGION

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Critically endangered hawksbill turtles, famed and exploited for their beautiful carapaces, have experienced severe declines over the past century. Although protected in many countries by bans on international trade in the species and its products, hawksbill turtles continue to be taken for their meat, eggs, and carapaces for commercial purposes, subsistence, or cultural practices.

The hawksbill's dire conservation status in Southeast Asia and the western Pacific requires concerted action, which the World Wide Fund for Nature (WWF) and University of the Sunshine Coast have sought to facilitate in partnership with

the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the Indian Ocean–South-East Asian Marine Turtle Memorandum of Understanding (IOSEA Marine Turtle MoU).

Shedding Light on Hawksbill Status

Two assessments of hawksbill status were published in 2022 and 2023, one covering the Indian Ocean and Southeast Asia region and the other describing the situation in the western Pacific Ocean region.

Those publications highlight some success stories, and indeed a small number of hawksbill rookeries are showing a positive trajectory. However, many rookeries still have low nesting numbers, with populations that are decreasing or heading toward extirpation. The assessments also underscore the numerous known threats to the species, such as consumptive use, predators, climate change, coastal development, fisheries, and entanglement in discarded fishing gear, each summarized for the genetically distinct populations (genetic stocks or management units).

As with most migratory species, conservation of hawksbills is challenging because of their cross-border distribution and long-lived nature. Conservation is further complicated by gaps in scientific knowledge—including about their genetic stock structure, the distribution of foraging grounds, and hatchling sex ratios—which are recommended as areas for future research.

Understanding Use and Trade

The aforementioned assessments—along with other recent publications, including reports about the status and trend of marine turtle use and trade published by TRAFFIC in November 2022 and May 2023—all confirm that the Asia-Pacific region is the epicenter of exploitation and trade in marine turtles. Those documents report that from 2015 to 2019, more than 1,800 live and 1,200 dead turtles, 1,900 shell pieces and items of jewelry, thousands of kilograms of meat, and tens of thousands of eggs were intercepted and seized by authorities in Indonesia, Malaysia, and Vietnam alone. And from 2003 to 2021, in the Sulu-Celebes Seas, marine turtles were the only species in the top five for every metric of marine species seizures, whether as individuals, by volume, as parts, or by number of incidents. And those numbers represent just the tip of the iceberg.

Besides getting a grip on the numbers of turtles taken, we also need to understand the drivers and motivations of sea turtle use and trade among local fishers and community members. WWF is currently rolling out the Turtle Use Project across the Asia-Pacific region, with the aim of scaling it up globally. The program will provide insights into the levels of take by small-scale fisheries and community-level harvests, helping researchers to determine areas that may require nature-based solutions or sustainable development projects to reduce use. One such area may be the Solomon Islands, where an estimated 11,200 marine turtles are harvested by small-scale fisheries annually, with a quarter of those being hawksbills. These recent numbers are at least six times greater than those from previous studies.

Connecting the Dots with ShellBank

One of the greatest challenges to tackling unsustainable take and trade of sea turtles is understanding which populations are being targeted and at what stage of their lives. A recently launched resource called ShellBank helps connect the dots by matching the DNA of a seized turtle part or product—such as turtle meat, eggs, or tortoiseshell trinkets—with a reference



By matching DNA from seized turtle parts or products, like these items made of hawksbill shell, with a reference database, ShellBank aims to identify poaching hotspots. © Hal Brindley/travel4wildlife.com. **LEFT** Hawksbill turtles have been exploited for their beautiful shells for centuries, leaving them critically endangered. © Mat Williams/@Rokit

database of genetic data collected from nesting, foraging, bycaught, and stranded turtles. By capturing the unique DNA signatures of each nesting and foraging population, ShellBank allows comparisons to DNA extracted from seized items, thereby making it possible to identify poaching hotspots and turtle populations most at risk.

Addressing Trade through Policy Actions

With the goal “to address unsustainable use and trade of hawksbill turtles in the South-East Asia and Western Pacific Ocean region and build resilience in the populations,” several Southeast Asian countries agreed on a Single Species Action Plan (SSAP) in June 2022. Cambodia, Myanmar, the Philippines, and Vietnam have already adopted the SSAP, and more countries will likely follow suit when the SSAP is considered for adoption at upcoming meetings of CMS and the IOSEA Marine Turtle MoU. The SSAP outlines 23 actions at both the domestic and international levels and provides a framework to assist governments in implementing their commitments to relevant policy forums—including CMS and the MoU, CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), and regional initiatives and fisheries bodies—in a cohesive way to ensure effective conservation of hawksbill turtles.

The SSAP has three key objectives, which take into account the complex links between community and commercial use:

1. Review and, where necessary, improve legislation, policy, compliance, and enforcement of hawksbill turtle take, use, and trade by 2025.
2. Increase action and improve accountability to further monitor and report on hawksbill take, use, and trade nationally, and cooperate regionally to exchange data, share intelligence, and strengthen collaborations.
3. Further research that evaluates the level of impact that trade and fishery activities have on hawksbill populations and deliver on-the-ground implementation projects by 2027.

Although critical gaps remain in our knowledge of hawksbill turtle trade, we must act now, before it is too late. Areas for further research have been identified, and action plans are in place. Now we need to mobilize the resources and political will to safeguard and recover hawksbills in this region for generations to come. ●