

## Sabah plays key role in global sea turtle conservation

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KOTA KINABALU: Sabah has been one of the world's important contributors to sea turtle conservation.

Sea turtles hatched on Sabah's beaches eventually travel across international boundaries, foraging in Vietnam, Indonesia, Thailand and other countries, said Borneo Marine Research Institute, Universiti Malaysia Sabah associate professor Dr Juanita Joseph.

Speaking during a public talk titled "From Local Beaches to Global Oceans" at the International Day for Biological Diversity 2026, themed "Acting Locally for Global Impact", Juanita said Sabah is fortunate to have three sea turtle species nesting on its shores.

The green turtle is the most common, with its population showing encouraging recovery after decades of conservation efforts.

The hawksbill turtle, however, remains critically endangered, while the olive ridley turtle is extremely rare in Sabah, with only one or two nests recorded annually, mainly in Kudat.

Although leatherback turtles no longer nest in Terengganu and are considered locally extinct as a nesting species in Malaysia, they are still found in Malaysian waters, she said.

Sabah's coastal waters also provide important feeding grounds for sea turtles. Juanita said the Sulu Sea, including Turtle Islands Park and Pulau Libaran, is Sabah's most important nesting area.

The Sulu Sea is also home to the world's first transboundary marine turtle conservation agreement, the Turtle Islands Heritage Protected Area (TIHPA), established jointly by Malaysia and the Philippines.

She said Semporna is one of Southeast Asia's largest sea turtle foraging grounds, while Tun Mustapha Park and Brunei Bay are also important feeding areas. Conservation efforts there also protect seagrass meadows and coral reefs. Juanita said turtles nesting in Sandakan do not feed in the Sulu Sea. Genetic studies show they forage in Semporna, Brunei Bay, Thailand, Indonesia and the Philippines.

Likewise, turtles feeding in Semporna do not necessarily nest there. Genetic evidence shows many nest in Sandakan, while others originate as far away as Micronesia.

She said the findings highlight the importance of genetic research.

"To effectively protect sea turtles, we must conserve their nesting beaches, feeding grounds and migration routes," she said.

Sea turtle conservation in Sabah dates back to the 1920s during the British North Borneo administration.

The Sabah Government continued the programme after independence. During the 1970s, the Turtle Islands were gazetted as protected parks under Sabah Parks.

Research expanded significantly during the 1990s and now involves local communities, government agencies, universities, NGOs, the private sector and international partners.

Sea turtles are protected under the Sabah Wildlife Department through the Wildlife Conservation Enactment, while Sabah Parks manages conservation within protected marine parks under its own legislation.

Juanita said one of Sabah's greatest strengths is the close cooperation among all stakeholders.

She said scientific research has transformed local discoveries into global conservation action, with Sabah's genetic data now used throughout the Indo-Pacific region.

Modern conservation, she said, is based on scientific evidence.

For example, hatcheries at Pulau Bakungan are designed with shaded and open sections because sea turtle sex is determined by incubation temperature.

Warmer nests produce more females, while cooler nests produce more males.

She said this research has improved hatchery management and other conservation practices.

Besides studying nesting beaches, researchers also conduct underwater surveys throughout Malaysia, including at Layang-Layang Island.

Juanita said researchers also work closely with local communities and schools to promote marine biodiversity conservation.

She introduced the Sea Turtle Volunteer Programme while working in Terengganu, and the concept has since been adopted in Sabah.

"Our work extends beyond turtles. We also organise activities such as community beach clean-ups.

"Small actions like these contribute significantly to biodiversity conservation," she said.

Juanita said Turtle Islands Park is internationally recognised as a model for sea turtle conservation.

Since the 1970s, the number of green turtle nests there has increased threefold, with the park now recording more than 20,000 nests annually.



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