



Marine Turtle Protected Area Network in the Sulu-Sulawesi Seascape

TURTLE ISLANDS PARK

At a Glance

The Turtle Islands Park (TIP) in the Sulu-Sulawesi Sea is all about conserving endangered marine turtles. The islands are located approximately 40 kilometers (km) north of Sandakan, about an hour and 15 minutes by boat. It is comprised of three small islands: Selingan, Gulisaan, and Bakkungan Kecil.

The name Turtle Islands, however, also refers to nine islands that make up the Turtle Islands Heritage Protected Area (TIHPA). Three of these islands are part of the TIP of Malaysia, while six belong to the Municipality of the Turtle Islands, Tawi-Tawi, in the Philippines.

The islands, which cover an area of 1,740 hectares (17.4 km²), were formed over shallow rocky shoals from coral shingles, which constitute the surrounding reefs and seas. They are home to a variety of plant life, which includes mangrove, lantana, the yellow-flowered *Sophora*, the furry silver-leafed *Tournefortia*, and different species of reefs and reef fishes. Most important, they are significant nesting sites for marine turtles.

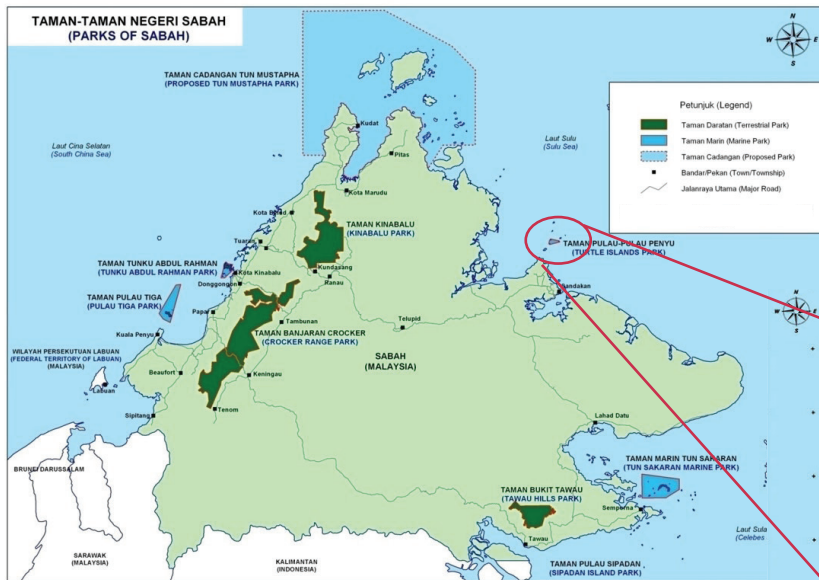
This fact sheet is part of a series of profiles of the marine protected areas (MPAs) that make up the planned Marine Turtle Protected Area Network (MTPAN) of the Sulu-Sulawesi Seascape. These MPAs, found in Indonesia, Malaysia, and the Philippines, are coastal and marine habitats that have been deemed critical to the sustainability of marine turtle populations in the region.



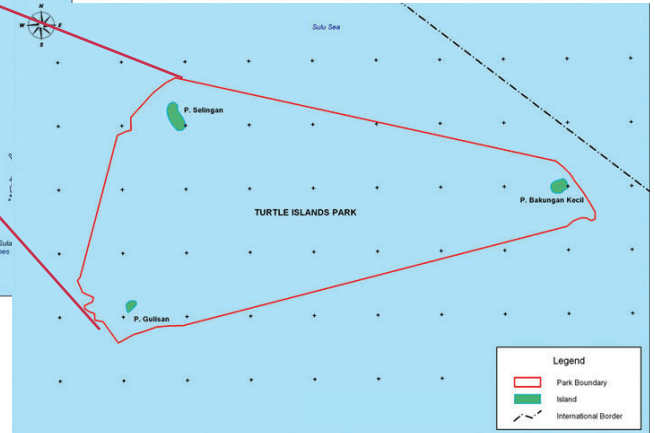
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Legislation

Turtles are protected under the Fisheries Act 1985 and the Fisheries Regulations 1999 (Control of Endangered Species of Fish) for Peninsular Malaysia and the Federal Territories of Labuan, and Wildlife Protection Ordinance 1998 for Sarawak and the Wildlife Conservation Enactment 1997 for Sabah. Under the enforced enactment, anyone caught in possession of a turtle is punishable under Section 41(4)(a) of the same Enactment, which provides for a fine of not less than MYR 50,000 and not more than MYR 250,000, and with imprisonment of not less than a year and not more than five years.



Location of Turtle Islands Park in Sabah



Conservation History

Conservation in the TIP started with the restriction on hunting hawksbill turtles (*Eretmochelys imbricata*) for their shells, imposed by the British North Borneo Chartered Company in 1927. On 1 August 1966, the first hatchery in Malaysia was established on Selingan Island, funded entirely by the Sabah state government.

Turtle hatcheries on the other two islands were established shortly after. In 1972, Selingan, Bakkungan Kecil, and Gulisaan were designated as a Game and Bird Sanctuary, and administered by the Forestry Department as legal protection against over-harvesting. Turtle tagging was also initiated.

In 1977, the area was officially renamed Turtle Islands Park, and administration was handed over to Sabah Parks.





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Conservation Importance

The islands are a safe haven for two endangered species of marine turtles: the green sea turtle (*Chelonia mydas*) and the smaller hawksbill turtle.

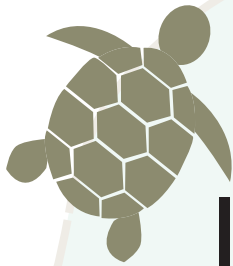
A unique phenomenon for all three islands is that the nightly turtle visits are not confined to certain seasons, but happen year-round. The area around the TIP is also protected by a commercial fishing ban.



Park staff working to maintain the turtle hatcheries in Turtle Islands Park (Photo: Sabah Parks)



The Marine Turtle Protected Area Network (MTPAN)



In 2009, the Tri-National Committee for the Sulu-Sulawesi Marine Ecoregion (SSME) approved the design of a Sea Turtle MPA Network, after scientific studies showed the **connectivity of the marine turtle populations in the three SSME countries** (Indonesia, Malaysia, and the Philippines).

The SSME Tri-National Committee recognized the **need to jointly manage shared marine resources**, and identified the establishment of the Marine Turtle Protected Area Network (MTPAN) as among the key programs through which transboundary cooperation could take place.

Following the expiration of the SSME Memorandum of Understanding (2006–2016), this initiative has continued under the Coral Triangle Initiative for Coral Reefs, Fisheries, and Food Security (CTI-CFF), given that the Sulu-Sulawesi is recognized as a priority seascape in the CTI Regional Plan of Action. The **marine protected area (MPA) managers of the network shall agree on the modalities for cooperation** to actively support each other's MPA management efforts, and collectively contribute to regional initiatives.

The importance of marine turtles

Marine turtles are important for conservation because they play a number of ecologically important roles. They are described as “gardeners of the ocean” because they help keep coral reefs and seagrass meadows healthy as they feed and graze. They need various habitats as they go through their life cycles, such as nesting beaches, coral reefs, open sea, and seagrass meadows. A healthy marine turtle population, therefore, serves as an indicator of the health of these different habitats, and conserving marine turtles also means conserving a wide range of ecosystems and ecosystem services that benefit human communities.



TIHPA

- Established in May 1996 following the signing of a Memorandum of Agreement (MoA) between Malaysia and the Philippines
- The world's first trans-border protected area for marine turtles
- Joint management committee and established programs: marine turtle adoption, conservation and research programs, establishment of a centralized database, information network, and ecotourism programs
- Training and development program for TIHPA staff



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Regional Importance

The TIHPA consists of nine islands that straddle the international treaty boundaries separating Malaysia and the Philippines. Three of these islands—Selingan, Bakkungaan Kecil, and Gulisaan—are located within Malaysian waters. The other six, designated by the Philippines, are Boan, Lihiman, Langaan, Great Bakkungan, Baguan, and Taganak.

The TIHPA, together with the Berau islands in East Kalimantan, Indonesia, forms one of the few remaining major green sea turtle nesting habitats in the world. More than 1,000 turtles nest here annually.

Management Aspects

The islands have no inhabitants, except for the Sabah Park Rangers. Selingan, the largest of the islands, is home to the park's headquarters, a turtle hatchery, and tourist accommodations (25 rooms) with basic facilities for overnight visitors. The other two islands are reserved for conservation activities. Visitors are required to follow strictly enforced park rules and regulations.

Nesting occurs throughout the year, with May to August as peak season, with the highest number of nestings recorded in June. Green sea turtles, spotted mainly on Selingan Island, can live for a century, and weigh as much as 160 kilograms. They are endangered, as their eggs are poached and sold as a delicacy. The female turtle lays between 40 and 120 eggs each nesting, and covers the eggs with sand before returning to sea. Hawksbill turtles are smaller, with the carapace measuring between 70 and 90 centimeters in length, and they lay around 50 to 130 eggs per clutch. They are spotted mostly on Gulisaan Island.

The islands are subdivided into different sections, and the rangers roam the beaches to watch the turtles lay their eggs, without disturbing the process. The beach patrol consists of two shifts, one from



7 p.m. to 1 a.m., and the other from 1 a.m. to 6 a.m. Once the turtles return to sea after laying eggs, the rangers transfer the eggs from the original nests to protected hatcheries. This is done for three main reasons. First is to avoid external disturbance from natural predators such as monitor lizards, rats, and birds. However, some clutches are left untouched to sustain the natural predator-prey food chain dynamics. Second is to avoid the risk of other adult female turtles laying their eggs in the very same spot, burying an existing nest and smothering the eggs that are already there. Third is to ensure the turtle eggs reach their full term before hatching. In about 50-60 days, the turtle hatchlings are ready to be released back to sea.



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During patrolling, the rangers also collect nesting data, measure and tag turtles, and release hatchlings. This is also the time when visitors are allowed, but they can only view one landing per night.

Prospects for Conservation

The Turtle Nests Adoption Program is an initiative of the Research and Education Division of Sabah Parks for diversifying activities and encouraging visitor participation in turtle conservation. This program was implemented on 13 June 2016. As of mid-January 2017, a total of 111 nests had been adopted by visitors.



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References

Sabah Parks; <http://www.sabahparks.org.my/the-parks/turtle-islands-park>

Dr. Jamili Nais, Management of the Turtle Islands Heritage Protected Area, Regional Meeting on Conservation and Management of Sea Turtle Foraging Habitats in South East Asian Waters, Kuala Lumpur 22-24 October 2013. [http://www.ioseaturtles.org/UserFiles/File/elec_lib/Management%20of%20the%20Turtle%20Islands%20Heritage%20Protected%20Area\(1\).pdf](http://www.ioseaturtles.org/UserFiles/File/elec_lib/Management%20of%20the%20Turtle%20Islands%20Heritage%20Protected%20Area(1).pdf)

http://chm.aseanbiodiversity.org/index.php?option=com_content&view=article&id=137&Itemid=223<http://www.endemicguides.com/TurtleIslandMarineParK.htm>

Photos

Courtesy of Sabah Parks, unless otherwise specified

The Sulu-Sulawesi Seascape Project (2012–2018)

The Sulu-Sulawesi Seascape, shared by Indonesia, Malaysia, and the Philippines, ranks among the most diverse and productive marine ecosystems in the world. It is also home to the largest nesting populations of green sea turtles in Southeast Asia. The marine resources in the Sulu-Sulawesi Seascape face major threats such as overfishing, destructive fishing practices, rapid population growth, unsustainable coastal development, and pollution. As a consequence, valuable coastal habitats like mangrove forests, coral reefs, and seagrass beds are at risk of losing their function as breeding and nursery grounds for marine organisms. This situation is exacerbated by the effects of climate change.

Indonesia, Malaysia, and the Philippines see the need for transboundary cooperation to address these threats. This is being carried out under the umbrella of the Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security (CTI-CFF). Designated as a priority seascape under CTI-CFF by the six member countries of the CT (Indonesia, Malaysia, the Philippines, Papua New Guinea, the Solomon Islands, and Timor-Leste), the Sulu-Sulawesi Seascape serves as a geographic focus of investments, action, conservation, and climate change-related results under the CTI-CFF Regional Plan of Action (RPOA).

Funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the project focuses on effective management of MPAs and the establishment of a regional MPA network for marine turtles; an Ecosystem Approach to Fisheries Management in selected areas; and climate change adaptation planning. Included in the approach are scientific research to establish connectivity of marine turtle populations, institutional strengthening, and knowledge sharing through regional exchanges, cross visits, and publication and dissemination of lessons learned.

The project is jointly implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and Conservation International (CI), with the Ministry of Marine Affairs and Fisheries (MMAF) of Indonesia; the Ministry of Science, Technology, and Innovation (MOSTI), the Department of Fisheries Sabah (DOFS), and Sabah Parks in Malaysia; and the Department of Environment and Natural Resources-Biodiversity Management Bureau (DENR-BMB) and the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR) in the Philippines.

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