



MINISTRY OF HIGHER EDUCATION



Sea Turtle Biology & Conservation

UNIVERSITI MALAYSIA TERENGGANU

Topic 5

Anthropogenic threats



Topic Outline:



Direct threats:

Egg collection & turtle poaching

Indirect threats:

Bycatch

Ingestion of marine debris

Habitat loss

Artificial lighting



Egg Collection/Turtle Poaching

Sea turtles poaching continues to be a threat.

Harvested for their meat and eggs, for human consumption and considered a delicacy.

Harvesting continue even though populations have declined



Egg Collection/Turtle Poaching

Historically, sea turtles and their eggs were of cultural significance for coastal communities -prized as an aphrodisiac item.

Nowadays, in many countries, including Malaysia, the trade in turtle eggs is a big industry that provides income to many people.



In South East Asia:

Demand for turtle products remains high with many shops in Hainan Island and Vietnam - selling turtle products openly.

Slaughtered and sold as food, medicine and decorative items.



In South East Asia:

Harvesting turtles from the wild has a devastating effect on the natural population of the turtles

Their shells and skins - used to make jewelry, sunglasses, tourist trinkets, instruments, and wall hangings.

The hawksbill is particularly valued for its shell which is used for ornamental purposes



In Malaysia:



A fresh sea turtle eggs sold at RM5/1EURO per egg - incomes to local people OR the egg collectors.

Local and foreign demand promote poaching activities especially during the nesting season.

Many locals have outlawed due to lack of enforcement and communities still continue to poach the eggs.



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In Malaysia:



Poaching has become a serious threat - usually caught in large numbers, thus drastically reducing the turtle population in Malaysian waters.

There has been a subsequent decline of about 38% in the last 10 years, believed to be caused by poaching.



In Malaysia:



Between 2004 and 2008, several turtle poaching cases made headlines.

In May 2004, the Malaysian Marine Police arrested 16 fishermen from Hainan Island + 160 dead marine turtles

In 2005, > 100 marine turtles were seized from a Hainanese trawler - off Labuan.



In addition, an international turtle poaching syndicate was busted in March, 2007, with nearly 260 protected turtles recovered from a trawler, off Sabah waters.



Bycatch



Worldwide, hundreds of thousands of sea turtles are accidentally caught in shrimp trawl, longline hooks and in fishing gillnets every year. They become fisheries bycatch – which means they are unintended catch of non-targeted species.

Incidental capture by commercial fishing gear is the greatest threat to most sea turtles, especially endangered loggerheads, greens and leatherbacks. This threat is increasing as fishing activity expands.



For example, shrimp trawlers without turtle excluder devices or TED, trap and drown sea turtles. Gill nets also snare turtles, because sea turtles need to reach to the surface to breathe and therefore many drown once caught OR they were not pulled soon enough for the turtles to breathe. A trapped turtle will struggle, significantly reducing its oxygen supply and shortening the time it has before it needs to reach air.



Trawls that are not outfitted with turtle excluder devices (TEDs) do not allow turtles to escape, which may result in mortality through drowning.

In addition to entangling turtles, longline gear can also hook turtles in the jaw, esophagus, or flippers. Also, fishing dredges, extremely heavy metal frames dragged along the ocean floor, can crush and entrap turtles, causing death and serious injury.



Ingestion of Marine Debris

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In the 13 (federated) states, it's a complex mix; from **full ban** 😊 to **nothing** 😞 at all!



- **Total ban** on species exploitation in Sabah and Sarawak (both located in East Malaysia, Borneo)
- These states have long regulated the exploitation of sea turtles, well before they became part of Malaysia in 1963 (ex: Gazette notification Nos.227 and 228 of **1928** prohibited the capture of turtles for 12 month in Sabah)
- Their state legislations:
 - 1) the Sabah Wildlife Conservation Enactment 1997
 - 2) the Sarawak Wildlife Protection Ordinance 1998



[Map developed using Map of Malaysia with Regions - Outline by FreeVectorMaps.com](#)

- “**Selective protection**” in Terengganu (as explained in earlier subtopic) and some other states

- These states in Peninsular Malaysia have legislations related to the exploitation, licensing for egg collection and killing or possession of sea turtles, turtle watch and conservation.

- In Perlis and Selangor, there’s **no sea turtle related legislation at all** while the legislation in other states mainly describes the procedures and fees for securing licenses for turtle egg collection and operating turtle watch areas, as well as the penalties incurred for the possession or killing of turtles.



Sea Turtle Administration Framework (ex: in Terengganu)



Federal Office Department of Fisheries Terengganu (Pegawai Berkuasa)

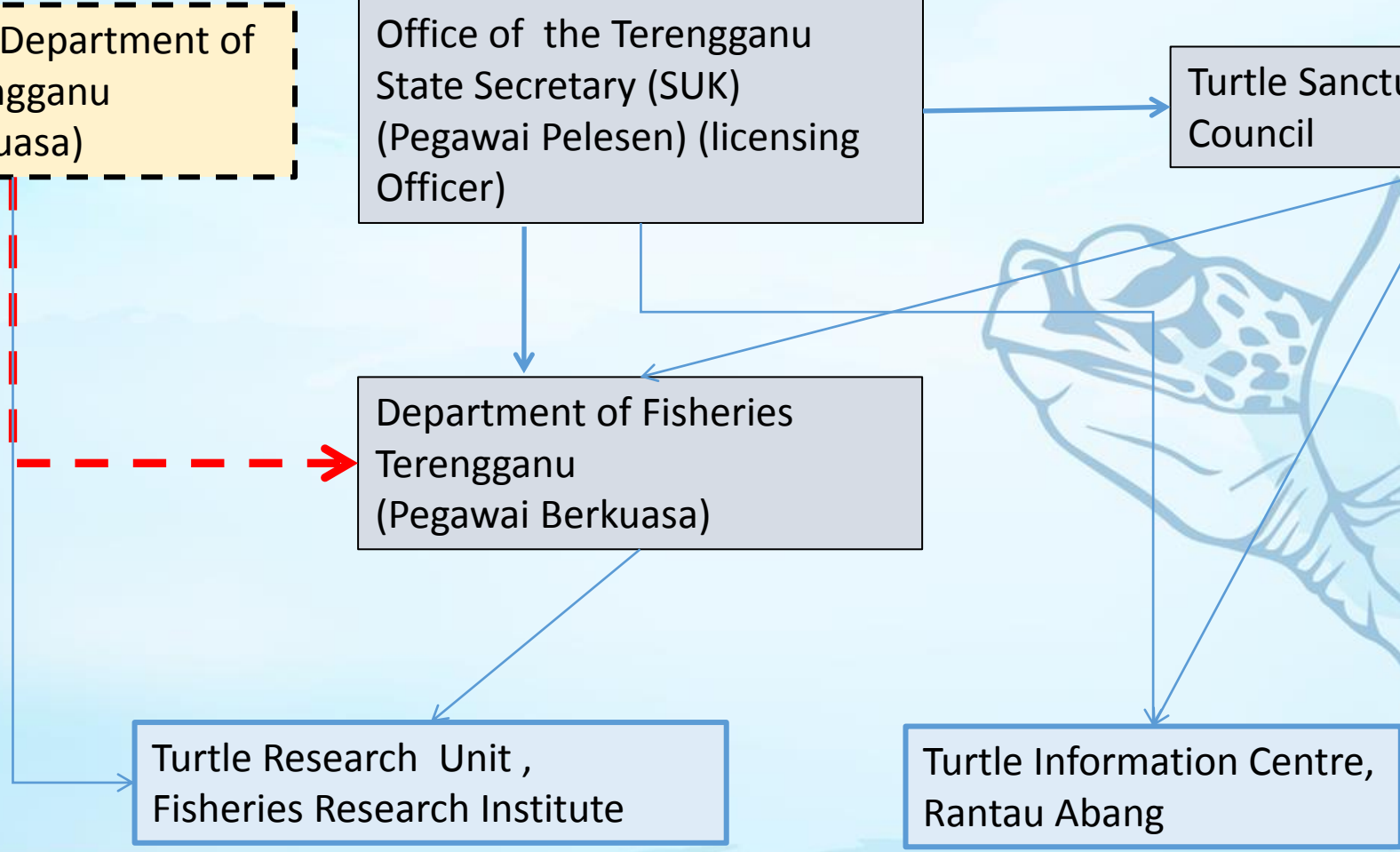
Office of the Terengganu State Secretary (SUK) (Pegawai Pelesen) (licensing Officer)

Turtle Sanctuary Advisory Council

Department of Fisheries Terengganu (Pegawai Berkuasa)

Turtle Research Unit, Fisheries Research Institute

Turtle Information Centre, Rantau Abang



So, to date there is still no comprehensive legal protection. Also the existing administrative framework often have implementation issues 😞

Ex: No sea turtle egg sale in Sabah and Sarawak, but they could be traded elsewhere once they cross state border!

[Click here to read full article](#)



A total of 19,000 turtle eggs were seized from Filipino smugglers today. Sabah Marine Police Chief Assistant Commissioner Mohamad Madun said the eggs were found on board four pump boats - wooden vessels powered with modified water pumps - along with 11 Filipinos aged between seven and 63 off Sungai Batu Dua about 1.45am. Pix courtesy of Marine Police

Part 3: The way forward!

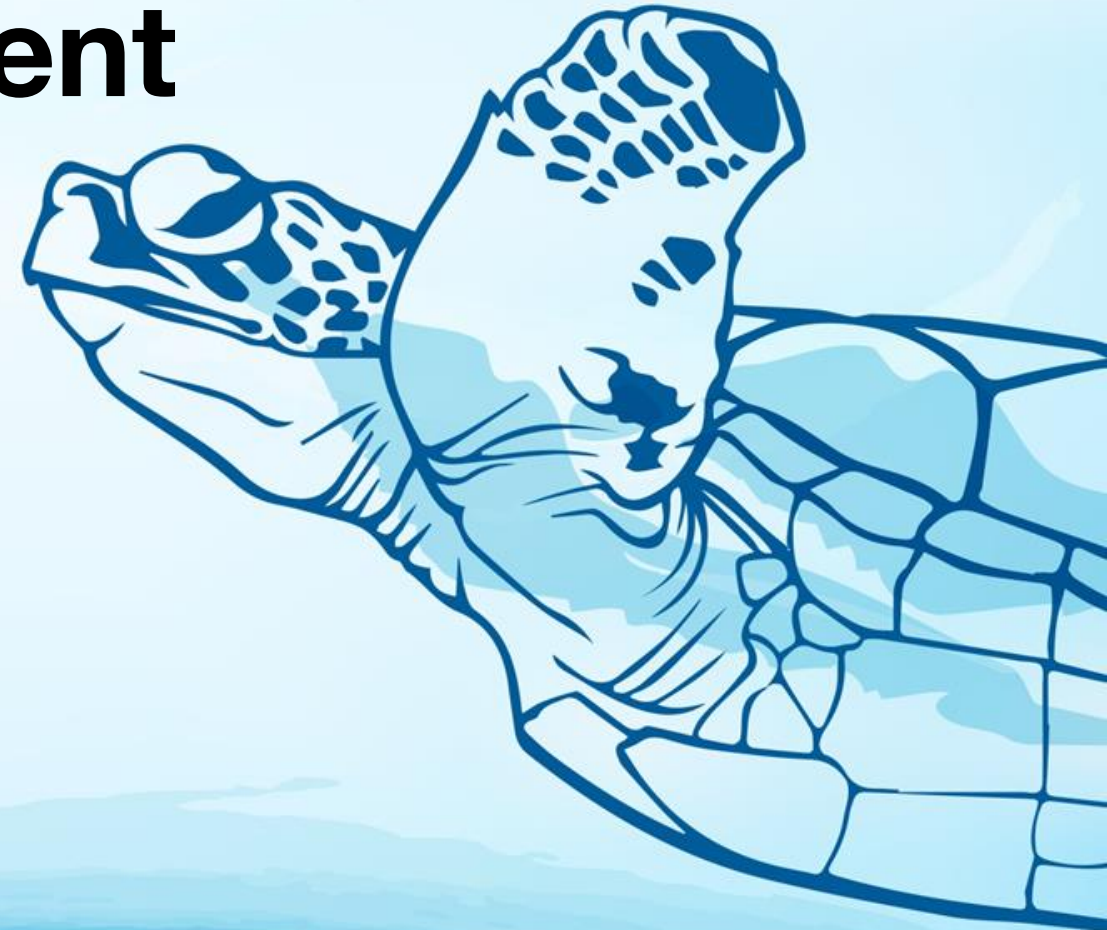


Law & Enforcement



Research

Outreach



More law enforcement!

Encourage and **support** the federal and authorities in increasing their enforcement of the existing rules and regulations, and **offer/share** resources!

* the MSTWG is working on a federal level ban of sea turtle egg trade

Help with enforcement work!

Ex: When you spot an illegal activity, **report it!**

Share and **insist** on **best practices**, even if there are no legal or administrative framework in place for it yet. Then **lobby** for **increased** protection to ensure better enforcement if necessary



More understanding on the complex human sea-turtle dimensions!

More studies beyond the biological aspects of sea turtles is needed to solve the problems that are mainly of anthropogenic nature

Note: See [Jacques' \(2010\)](#) call for “social oceanography” for inspiration



More effective public and local community engagement!



Traditions and habits that are proven harmful and culturally insignificant **can be changed** through dialogues to foster better understanding and acceptance

Promote **community-based conservation**, especially when it creates **sustainable livelihood options** for participating individuals

Support sea turtle conservation efforts whenever possible



**Let's do our part in
saving our sea
turtles, in Malaysia
and beyond!**

Terima kasih

