

## Protecting Sea Turtles

### What is the issue?

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The rising death toll of sea turtles call for integrated conservation measures to protect the protectors of marine ecosystem.

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### How diverse are sea turtles in India?

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- There are five species of sea turtles in Indian waters:

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1. Leatherback

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2. Loggerhead

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3. Hawksbill

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4. Green

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5. Olive Ridley

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- The turtle breeding season is usually between November and December.
- E.g. Olive Ridley nests between December and April along the Chennai-Kancheepuram coastline in Tamil Nadu.
- The eastern coastline is the feeding area for Olive Ridley, juvenile Hawksbills and Green turtles.
- Off-shore waters are also migratory routes for the Olive Ridley while moving towards beaches in Andhra Pradesh and Odisha.

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### What is the significance?

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- Sea turtles, especially the leatherback, keep **jellyfish** under control.
- This in turn helps maintain healthy **fish stocks** in the oceans.
- The Green turtle feeds on sea grass beds.
- Turtle populations could improve **seagrass ecosystem** health by removing

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seagrass biomass and preventing sediment formation.

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- By cropping the grass, they provide a nursery for numerous species of fish, shellfish and crustaceans.

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- The Hawksbill feeds on sponges in the coral reef ecosystem and opens up crevices for other marine life to live in.

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- Turtles are also **transporters of nutrients and energy** to coastal areas.

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- Unhatched eggs, eggshells and fluids help foster decomposers and create much needed **fertilizer** in sandy beaches.

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## What are the threats?

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- In India, sea turtles are protected under the Indian Wildlife Protection Act of 1972, under the Schedule I Part II.

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- Despite this legal protection they face grave threats.

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- Bycatch is one such example, which is the name given to ocean animals that are unintentionally caught by fishing gear.

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- Notably, high number of dead turtles washing up ashore is recorded each year.

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- Thousands of sea turtles are accidentally captured, injured or killed.

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- The mechanised boats, trawl nets and gill nets operated and used by commercial fishermen are the major causes.

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- The heavy toll of injuries and deaths occurs when turtles begin migrating.

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- It could be to their nesting grounds on beaches or fishing areas that are their feeding grounds.

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## How are the protective measures working?

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- **Limits** - Under current regulations, mechanised trawl boats have operation limitations ranging from 5 to 8 kms in different states.

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- They include Andhra Pradesh, Tamil Nadu and Odisha.

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- There are also limitations on use of nets, especially those designed for bigger ones like ray fish, during the turtle breeding season.

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- However, the enforcement and monitoring of these limits and regulations are weak.

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- **TEDs** - Turtle Excluder Devices (TEDs) are two-dimensional net inserts with large escape openings for turtles.

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- By law, trawlers meant for shrimp fishing are required to be fitted with TEDs, in India.

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- If used correctly, TEDs have been found to reduce turtle captures by 90%; but the practice is very less.

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- **Closed Seasons** - There are closed seasons for certain types of fishing vessels, at different times in different states.

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- Trawlers and motorised craft with an engine output greater than 25 hp are banned during this period.

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- Unfortunately, none of these closed seasons takes into account the sea turtle nesting season that falls between January and April.

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## What is the way forward?

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- Declining turtle populations in general, signify the declining role of turtles in maintaining the health of the marine ecosystem.

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- Integrated conservation measures are needed to rebuild their populations to healthy levels.

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- Proper law enforcement and monitoring by the respective fisheries

departments, marine police and Indian Coast Guard are essential.

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- All trawl boats should be fitted with a vessel monitoring system traceable by the Coast Guard.

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- Areas where sea turtles forage and congregate need to be identified.

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- Additional seasonal closures need to be implemented within these areas.

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- Ongoing work to have new fishing nets and gear that reduce the amount of bycatch while fishing should be encouraged further.

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**Source: The Hindu**

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