Loggerhead turtles

Prelims: *Current events of national and international importance | Conservation*

Why in News?

Recently, Scientists noticed that the loggerheads turtle has been impacted in at least 4 ways by global warming.

- **Recent Findings -** Sea turtles are ***capital breeders***, relying on energy stored from years of ocean foraging to reproduce.
- Climate change is making parts of the Atlantic Ocean less productive, reducing their reproductive capacity.
- Rising sea levels are eroding and flooding nesting beaches, decreasing suitable nesting sites.
- Nest temperature determines hatchling sex; ***higher temperatures produce more females,*** disturbing sex ratios.
- Female loggerheads now breed less frequently (every four years instead of two), lay fewer eggs, and are becoming smaller in size.
- Changes in ocean circulation affect migration routes and hatchling dispersal.
- Species are forced to shift habitats, increasing their risk of decline or extinction.

Loggerhead turtles

• **Nomenclature -** Named for their massive heads and powerful jaw muscles, loggerhead turtles (Caretta caretta) are the ***world's largest hard-shelled turtles.***
• These ancient mariners are a ***keystone species***, supporting over 100 different types of animals and plants that live directly on their shells.
• **Nesting Hotspots -** Florida (USA) hosts about 90% of U.S. nesting. Other major sites include Oman, Cabo Verde, Greece, and Australia.
• **Diet-** Primarily carnivorous, they use their strong jaws to crush hard-shelled prey like crabs, conchs, and sea urchins.
• **Lifespan -** They are long-lived, often reaching 70–80 years or more in the wild.
• **Navigation -** They possess an extraordinary "internal compass," using the Earth's magnetic field to navigate thousands of miles across ocean basins.
• **Reproduction -** Females exhibit natal homing, returning to the exact beach where they hatched decades earlier to lay their own eggs.
• **Conservation status – IUCN** - Vulnerable.
• **Threats – Bycatch** - Accidental capture in commercial fishing gear (trawls, longlines, and gillnets) is their primary threat.
• **Pollution -** They frequently mistake plastic debris for jellyfish, leading to fatal internal blockages.
• **Coastal Development -** Artificial lighting on beaches disorients hatchlings, leading them away from the ocean and toward hazards.



Reference

[The Hindu | Loggerhead turtles]

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