



Red-Eared Slider Turtles

For Prelims: Red-Eared Slider Turtles & its presence in India

For Mains: Distinct Features of Red-Eared Slider Turtles, Effect of Invasive Species on Environment

Why in News?

Recently, experts have expressed the concern that the presence of **invasive and non-native** south Red-Eared Slider Turtles would lead to the **extinction of native species of their own kind.**

- India is home to **29 freshwater turtles and tortoise species** of the 356 turtle species recognised worldwide and **around 80% of them are threatened.**

What do we need to know about the Red-Eared Slider Turtle?



- **About:**
 - The red-eared slider is **primarily aquatic** and will emerge from the water for basking on rocks and logs.
 - When basking, red-eared sliders **commonly pile on top of each other**, and when startled by the sound or sight of a potential predator, **they will slide off their basking spot back into the water**, hence their name, “slider.”
 - Red-eared slider turtles are classified as controlled **pest animals** under the **Victorian Catchment and Land Protection Act 1994.**
- **Scientific Name:** *Trachemys scripta elegans*
- **Habitat:** They can tolerate a wide range of habitats and are sometimes found in estuaries and coastal wetlands with brackish water.

- They can also tolerate a range of water quality and accept high levels of organic pollutants such as effluent and inorganic pollutants.
- **Geography:** The red-eared slider is native to **South-Eastern USA and Mexico.**
- **Protection Status:**
 - **IUCN Red List:** Least Concern
 - **CITES:** N/A
 - **Wildlife Protection Act 1972:** N/A
- **Distinctive Features:**
 - They have a **broad red or orange stripe** behind each eye with **narrow yellow stripes** marking the rest of the **black body, neck, legs and tail.**
 - They have distinctive **long claws on their front and hind legs** where claws are **longer and more prominent in males** than females.
 - They retract their head straight back into their shell when threatened. Native turtles **tuck their neck to one side underneath the shell.**

Why is the Turtle's Presence in India a Concern?

- **Favorable Pet:** In India, **keeping indigenous turtles as pets is prohibited** under the Wildlife Protection Act.
 - But the **foreign breeds are not restricted** and are kept as pets in many families across India.
 - They are **small and easy-to-maintain** species and therefore a hit in the pet market.
 - The species **breeds faster** compared to other local turtle varieties. As their size increases, **they no longer fit in small tanks or ponds.**
 - The owners release them in the **wild or nearby waterbodies** and once released, **they become a threat to the local fauna.**
- **Presence in India:** In India, these turtles are mainly found in urban **wetlands** such as Sukhna lake in Chandigarh, temple ponds of Guwahati, lakes of Bengaluru, Sanjay Gandhi national park in Mumbai, Yamuna River in Delhi, etc.
- **Effect on Native Species:**
 - As they mature fast, grow larger, and produce more offspring, and are very aggressive, **they can out-compete native turtles for food, nestling, and basking sites.**
 - They **eat plants and animals** and can finish off a wide range of aquatic species, including fish and rare frogs.
 - They can also **transfer diseases and parasites to native reptile species.**
 - The species is considered **as one of the world's 100 worst invasive non-native species.**

What can be done to Control the Invasion?

- There should be **more rules to prevent the species** from entering the Indian environment and negatively impacting it.
- **Manual intervention is required** to procure and rehabilitate these turtles from urban wetlands.
 - A **campaign to declare or give up turtles** should be held to take these turtles in custody.
- These turtles should be **restrained, captivated and sent to local zoos.**

What are some International Programmes on Invasive Species?

- **Cartagena Protocol on Biosafety (2000):** The Protocol seeks to **protect biological diversity** from the potential risks posed by **Living Modified Organisms** resulting from modern biotechnology.
- **Convention on Biological Diversity (CBD):** It was one of the **key agreements** adopted at the **1992 Earth Summit in Rio de Janeiro.**
 - **Article 8 (h) of the Convention** calls on Parties to prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species.
- **Convention on the Conservation of Migratory Species (CMS) or Bonn Convention (1979):** It is an **intergovernmental treaty** that aims to conserve terrestrial, marine and avian migratory

species throughout their range.

- It also aims to control or to eliminate already present invasive alien species.

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** It also considers the **problems of invasive species** when they are involved in trade and threatens the survival of living animals or plants.
- **Ramsar Convention (1971):** [The Ramsar Convention on Wetlands](#) of International Importance also addresses the environmental, economic and social impact of invasive species on wetlands within their jurisdictions and to take account of the methods of control and solutions for combating invasive species.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Consider the following statements: (2019)

1. Some species of turtles are herbivores.
2. Some species of fish are herbivores.
3. Some species of marine mammals are herbivores.
4. Some species of snakes are viviparous.

Which of the statements given above are correct?

- (a) 1 and 3 only
- (b) 2, 3 and 4 only
- (c) 2 and 4 only
- (d) 1, 2, 3 and 4

Ans: (d)

Exp:

- Green sea turtles are adapted to mostly vegetarian diet of sea grasses and algae. As adults, these are the only predominantly herbivorous sea turtles, although they are carnivorous from hatching until juvenile size. **Hence, statement 1 is correct.**
- Surgeonfish and parrotfish are two species of fish often seen feeding on reef algae. **Hence, statement 2 is correct.**
- Manatees, sometimes called sea cows, are large mammals that live in the warm sea waters. They live in shallow coastal areas and feed on sea vegetation. **Hence, statement 3 is correct.**
- Snakes that are viviparous nourish their young ones through a placenta and yolk sac. Boa constrictors and green anacondas are two examples of viviparous snakes. **Hence, statement 4 is correct.**
- **Therefore, option (d) is the correct answer.**

Source: DTE