

Pufferfish

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Pufferfish Latest News

Recently, scientists have confirmed India's first case of pufferfish poisoning.

About Pufferfish

- Pufferfish belong to the **order Tetraodontiformes**.
- **Other names:** They are locally known by names such as **toadfish, patkafish, balloonfish and fugu**.
- **Habitat:** Pufferfish are **omnivorous and benthic in habitat**.
- **Distribution:** It is primarily found in the **Western Ghats** and major basins such as **the Ganga, Brahmaputra and Mahanadi**.
- Freshwater pufferfish species reported from India are **often endemic to specific geographical areas** and serve as indicators of healthy river ecosystems.
- They can **inflate** into a ball shape to **evade predators**.
- **Status in India:** Indian waters currently support **eight genera** and **32 species of pufferfish**.
- **Conservation Status :IUCN:** Vulnerable

Pufferfish Poisoning

- Some puffer fish carry **tetrodotoxin (TTX)** which is one of the most potent **neurotoxins known in nature**.
 - Tetrodotoxin **blocks nerve sodium channels** and can cause paralysis, respiratory failure and death.
 - TTX consists of an **oxygenated 2,4-dioxadamantane** core and a **guanidinium group**.
 - TTX is **heat-stable, water-soluble**, and a **non-protein quinazoline** derivative.
- Evidence suggests that pufferfish **do not synthesise the toxin themselves**.
- Instead, TTX is believed to originate from **symbiotic or ingested bacteria** such as **Vibrio, Pseudomonas, Aeromonas and Bacillus**.

Source: **DTE**

Source: <https://vajiramandravi.com/current-affairs/pufferfish/>

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