



# Tilapia Parvovirus

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## Why in News?

India has witnessed its first encounter with **Tilapia Parvovirus (TiPV)**, in Tamil Nadu causing a significant impact on the **country's aquaculture**.

- This virus has been reported in **farm-bred tilapia**, a freshwater fish species, and has raised concerns due to its high mortality rates.

## What is Tilapia Parvovirus?

### ▪ About:

- TiPV is a **viral pathogen** that primarily affects tilapia.
- It belongs to the **Parvoviridae family**, known for its small, non-enveloped, single-stranded DNA viruses.

### ▪ Emergence and Impact

- First reported in China in 2019 and Thailand in 2021. India is the third country to report the occurrence of TiPV.
  - TiPV has caused mortality rates ranging from 30% to 50% on fish farms.
  - In laboratory settings, it has led to 100% mortality, highlighting its devastating impact.

### ▪ Consequences of TiPV Outbreak:

- TiPV outbreak can also pose a threat to the biodiversity and ecology of freshwater bodies as tilapia is an invasive species that can compete with native fish for food and space.
- TiPV outbreak can also affect the food security and nutrition of the people who depend on tilapia as a source of protein and income.

## What are the Key Facts About Tilapia Fish?

### ▪ About:

- Tilapia is a freshwater fish species that is widely cultured and consumed in India. It belongs to the **family Cichlidae** under the **order Perciformes**.
- These fish are **native to Africa** and have gained popularity as a widely cultivated and harvested food source. [//](#)



▪ **Tilapia Farming in India:**

- Tilapia farming is carried out in various parts of the country, particularly in **Andhra Pradesh and Kerala**.
- The introduction of different tilapia species, including **Nile tilapia and Mozambique tilapia, has led to diverse farming practices.**
  - Nile tilapia, introduced in the 1970s, is favoured for **its larger size and scale of cultivation.**
  - **Mozambique tilapia, referred to as "Jilabi" in Tamil,** was introduced to Indian freshwater bodies in the 1950s.
    - Mozambique Tilapia is known for its **adaptability to low-oxygen levels in water.** It can survive in a variety of aquatic environments.
- The Indian government authorized the import of specific tilapia species, namely ***Oreochromis niloticus* and red hybrids,** in 1970. These species were favored for their **fast growth and market demand,** maintaining a level of control over the aquaculture.

## UPSC Civil Services Examination, Previous Year Questions (PYQ)

### Prelims

**Q. The release of which one of the following into ponds and wells helps in controlling mosquitoes? (2008)**

- (a) Crab
- (b) Dogfish
- (c) Gambusia fish
- (d) Snail

**Ans: (c)**

**Exp:**

- The western mosquitofish (*Gambusia affinis*) and eastern mosquitofish (*Gambusia holbrooki*) are a species of freshwater fish, known commonly as mosquitofish or by its generic name, *Gambusia*, or by the common name gambezi.
- It survives in all kinds of water, thereby it is widely used to curtail the mosquito menace.
- Each *Gambusia* consumes over 250-300 mosquito larvae a day.
- It was first detected in Italy in 1931 that *Gambusia* consumes mosquito larvae.
- Larvicidal fish such as *Gambusia* and *lebistes* (guppies) are stated to be very effective in controlling the breeding of mosquitoes without disturbing the ecological balance.
- **Therefore, option (c) is the correct answer.**

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