

# Invasive Aquatic Species of India: A Growing Threat

## What Are Invasive Aquatic Species?

Invasive aquatic species are non-native plants, fish, and organisms that rapidly spread, outcompeting native species and disrupting ecosystems.

Definition (CBD, 2002):

- Alien Species: A species introduced outside its natural distribution.
- Invasive Alien Species: Alien species that threaten biodiversity through rapid spread and ecological disruption.



## Why Are They a Threat?

- Disrupt local biodiversity and food webs.
- Reduce native fish populations.
- Degrade water quality and aquatic vegetation.
- Spread exotic pathogens and diseases.
- Threaten livelihoods of inland fisherfolk.

## Common Invasive Aquatic Species in India Plants

- Water Hyacinth (*Eichhornia crassipes*) – Clogs waterways, depletes oxygen.
- Water Lettuce (*Pistia stratiotes*) – Forms dense mats, blocks sunlight.
- Giant Salvinia (*Salvinia molesta*) – Disrupts aquatic ecosystems.

## Fish

- African Catfish (*Clarias gariepinus*) – Predates on native fish, disrupts food chains.
- Suckermouth Catfish (*Pterygoplichthys pardalis*) – Cause ecological damage through competition, habitat alteration, and potential harm to native fish populations.

## Other Species

- Apple Snail (*Pomacea canaliculata*) – Destroys aquatic crops.
- Zebra Mussel (*Dreissena polymorpha*) – Clogs water systems, damages infrastructure.
- Charu mussel (*Mytella strigata*). outcompetes the native filter-feeding bivalves

## How Can We Control Them?

Prevention: Avoid introducing non-native species into water bodies.

Removal: Use manual, biological, or chemical control methods.

## Policy & Conservation Efforts

Convention on Biological Diversity (Aichi Targets):

By 2020, invasive alien species and pathways should be identified, controlled, and eradicated. However, progress is slow, with only species identification completed.

Current Situation:

🌱 600+ introduced fish species in India; 55 have established wild populations.

🔗 Pathways for introduction are identified for only a handful of species.



### Prepared by

Dr. Annam Pavan Kumar  
Mr. Abuthagir Ibrahima S.

Mr. Bejawada Chanikya Naidu



**Published by Aquatic Biodiversity Museum and  
Repository @2025**

**ICAR- CENTRAL INSTITUTE OF FISHERIES  
EDUCATION, MUMBAI.**