

Charru Mussel: Invasive Species in Kerala

Charru Mussel (*Mytella Strigata* in Latin) is a species of mussels native to Central and South America first discovered by Alcide d'Orbigny, a French naturalist in 1842.

The Charru Mussel had been in the news lately as it's presence in the backwaters of Kerala is a significant threat to the endemic species in the region.

This article will give brief details about the Charru Mussel within the context of the Civil Services Examination.

What is an invasive species?

Before we go into details about the impacts of how the Charru Mussel is an invasive species in Kerala, one must understand the definition of an invasive species. An invasive species is a non-native organism that is introduced into the local environment either intentionally or by chance.

Its presence more often has a negative impact on the local ecosystem, completely altering it and bringing about environmental or economic damage.

Facts about the Charru Mussel

A mussel is a common term for several families of bivalve molluscs primarily found in saltwater and freshwater habitats

Charru Mussels are found in Panama, Argentina, Brazil and Venezuela. In the Philippines, Thailand and India however, there are invasive species.

- Charru Mussels are also speculated to be native to the Galapagos Islands and the Pacific Coast from Mexico to Ecuador.
- These species of mussels can survive best in temperatures from 20°C - 23°C but they have also been known to thrive in 13°C-36°C. They cannot survive beyond 36°C and have lower chances of survival in colder temperatures.
- A *Mytella Strigata* spawns between the months of July and October. The embryos develop larvae before maturing into a bivalve veliger resembling small clams

Charru Mussels in India

As mentioned earlier, the Charru Mussels are an invasive species in India. It was found through a survey that these species were located in the backwaters of Kerala such as Ponnani, Paravur, Ashtamudi, Vembanad etc.

Ashtamudi Lake, which is a Ramsar Site in the Kollam district was badly affected as the Asian green mussel and the edible oyster, known locally as muringa, had been completely replaced.

It is assumed that Charru Mussels are also located in other estuaries and lakes that dot Kerala's Arabian Sea coast.

It is speculated that mussels found its way to India either through ship hulls or ballast water discharges. Cyclone Ockhi, which struck the Southern Indian Ocean region in 2017 may have hastened its arrival.

Concerns regarding the Charru Mussels in India

- The increasing presence of Charu Mussels is a serious threat to the local water species of Kerala.
- The economic downside is that it threatens the livelihood of fishermen involved in molluscan fisheries.
- In addition to being a Ramsar Site, the Ashtamudi lake also provides livelihood to 3000 people, which is a stake due to the presence of the invasive species.

Conclusion

The case of Charru Mussels further pushes home the fact that exhaustive studies on invasive biology species must be promoted in order to spread awareness and raise concern about biodiversity preservation.

It also proves that an invasive species finds its way to non-native shores either through intentional and accidental means. Although the presence of Charru Mussels cannot be completely eradicated from Indian waters, steps can be taken to limit its spread.