

FISHERY

LABEO ROHITA

- Kingdom: [Animalia](#)
- Phylum: [Chordata](#)
- Class: [Actinopterygii](#)
- Order: [Cypriniformes](#)
- Family: [Cyprinidae](#)
- Subfamily: [Labeoninae](#)
- Genus: [Labeo](#)
- Species: *L. rohita*
- [Binomial name](#)
- *Labeo rohita*
[F. Hamilton](#), 1822



- The **rohu, rui, or roho labeo** (*Labeo rohita*) is a species of fish of the carp family, found in rivers in South Asia.
- It is a large **omnivore** and extensively used in aquaculture.
- The rohu is a large, **silver-coloured fish** of typical cyprinid shape, with a conspicuously arched head. Adults can reach a maximum weight of 45 kg (99 lb) and maximum length of 2 m (6.6 ft), but average around $\frac{1}{2}$ m (1.6 ft).

- **Distribution and habitat:**
- The rohu occurs in rivers throughout much of northern and central and eastern India, Pakistan, Bangladesh, Nepal and Myanmar, and has been introduced into some of the rivers of Peninsular India and Sri Lanka.
- **Ecology:**
- During the early stages of its lifecycle, it eats mainly zooplankton, but as it grows, it eats more and more phytoplankton, and as a **juvenile or adult** is a **herbivorous column feeder**, eating mainly phytoplankton and submerged vegetation.

- It has modified, thin hair-like [gill rakers](#), suggesting that it feeds by sieving the water
- Rohu reach sexual maturity between two and five years of age.
- They generally spawn during the [monsoon](#) season, keeping to the middle of flooded rivers above tidal reach.
- The spawning season of rohu generally coincides with the southwest monsoon. Spawn may be collected from rivers and reared in tanks and lakes.

ECONOMIC IMPORTANCE:

- the rohu is an important aquacultured freshwater species in south Asia, consumed by a vast population.
- when cultured, it does not breed in lake ecosystems, so induced spawning is necessary. the rohu is also prized as a game fish.

CATLA CATLA

- Kingdom: Animalia
- Phylum: Chordata
- Class: Actinopterygii
- Order: Cypriniformes
- Family: Cyprinidae
- Subfamily: Labeoninae
- Genus: Labeo
- Species: ***L. catla***
- Binomial name ***Labeo catla***
(F. Hamilton, 1822)



- **Catla** (*Labeo catla*), also known as the major (Indian) carp, is an economically important South Asian freshwater fish in the carp family Cyprinidae.
- It is **native to rivers** and lakes in northern India, Nepal, Myanmar, Bangladesh and Pakistan, but has also been introduced elsewhere in South Asia and is commonly farmed.

- Catla is a fish with large and broad head, a large protruding lower jaw, and upturned mouth.
- It has large, **greyish scales** on its dorsal side and whitish on its belly. It reaches up to 182 cm (6.0 ft) in length and 38.6 kg (85 lb) in weight.
- Catla is a surface and mid-water feeder.
- Catla attains sexual maturity at an average age of two years and an average weight of 2 kg.

ECONOMIC IMPORTANCE:

- It is one of the most important aquacultured freshwater species in South Asia.
- It is grown in polyculture ponds with other carp-like fishes, particularly with the rohu labeo (*Labeo rohita*) and mrigal carp.
- Catla is sold and consumed fresh, locally and regionally. Fish of 1–2 kg weight are preferred by the consumers.

CIRRHINUS MRIGALA

- Kingdom: [Animalia](#)
- Phylum: [Chordata](#)
- Class: [Actinopterygii](#)
- Order: [Cypriniformes](#)
- Family: [Cyprinidae](#)
- Subfamily: [Labeoninae](#)
- Genus: [Cirrhinus](#)

Species:

Cirrhinus mrigala
[Hamilton](#), 1822



HABITAT AND ECOLOGY:

- Mrigal is the benthopelagic and potamodromous plankton feeder.
- It inhabits fast flowing streams and rivers, but can tolerate high levels of **salinity**.
- Spawning occurs in marginal areas of the water bodies with a depth of 50 to 100 centimetres (20 to 39 in) over a **sand or clay substrate**. A 6-kilogram (13 lb) female can lay a **million eggs**.

- This fish has a rapid growth rate; by **the age of two, individuals can reach a length of 60 centimetres (24 in) and can weigh as much as 2 kilogram**
- The **mrigal carp** (*Cirrhinus cirrhosus*), **Native to streams** and rivers in **India**, the only surviving wild population is in the Cauvery River, leading to its IUCN rating as vulnerable.
- It reaches a maximum length of 1 m (3.3 ft).

- **ECONOMIC IMPORTANCE:**
- Mrigal is popular as a food fish and an important aquaculture freshwater species throughout South Asia.
- It is widely farmed as a component of a polyculture system of three Indian major carps, along with *rohu labeo* and the *catla*
- .The mrigal carp fails to breed naturally in ponds, thus induced breeding is done.
- The Indian carps are considered as a delicacy compared to other exotic carp species also cultured in Asia, and sell for higher price. India and Bangladesh are the largest producers. In Pakistan, this fish is known by the name of "Morakhi" or "Moree".

POMFRET:

- **Classification**
- Kingdom:Animalia
- Phylum:Actinopterygii
- Class:Actinopterygii
- Order:Perciformes
- Family:Bramidae
- Genus:Taractes
- Scientific Name:
- *T. miltonis*



- Flat bodies
- Long, single dorsal fin (extending along the entire body)
- **Deeply forked tails**
- These are bony fishes. Their body comprises of two nearly isolated fins that include:
 - A dorsal fin near the head
 - An anal fin near the tail
- The **dorsal fins are almost always bigger than the anal fins in size**. In Pomfrets, these taper off to transform into the anal fin. This feature is unique to these fishes.

- **HABITS**

- These fishes are marine, live in **the lower columns** as well as the surface of water.
- Pomfrets are one of the most popular items in the menu of Indians. The fish can be spotted all along the coast of the Indian subcontinent. However, it is mainly found in Gujrat, Coasts of Bombay, Orissa, Eastern coast of lower West Bengal
- The three species of Pomfret, which are mainly found in Indian waters, include: *Parastromateus niger* (Black pomfret), *Pampus Sinesis* (Grey pomfret), *Pampus argentius* (Sliver pomfret)
- The Silver Pomfret is the most common of these three species, followed by *P.niger* and *P.chinensis*. These are commonly found on the west and east coasts of India.

Macrobrachium rosenbergii

- Kingdom: [Animalia](#)
- Phylum: [Arthropoda](#)
- Subphylum: [Crustacea](#)
- Class: [Malacostraca](#)
- Order: [Decapoda](#)
- Infraorder: [Caridea](#)
- Family: [Palaemonidae](#)
- Genus: [Macrobrachium](#)
- Species: *M. **Rosenbergii***
- [Binomial name](#) *Macrobrachium rosenbergii*
[De Man](#), 1879



- *Macrobrachium rosenbergii*, also known as the **giant river prawn** or **giant freshwater prawn**, is a commercially important species of palaemonid freshwater prawn.
- It is found throughout the tropical and subtropical areas of the Indo-Pacific region, from India to Southeast Asia and Northern Australia.
- It is one of the biggest freshwater prawns in the world and is widely cultivated in several countries for food.

- While *M. rosenbergii* is considered a freshwater species, the larval stage of the animal depends on brackish water.
- Once the individual shrimp has grown beyond the planktonic stage and becomes a juvenile, it will live entirely in freshwater.

- *M. rosenbergii* can grow to a length over 30 cm (12 in).
- The rostrum is very prominent and contains 11 to 14 dorsal teeth and 8 to 11 ventral teeth. The first pair of walking legs (pereiopods) are elongated and very thin, ending in delicate claws (chelipeds) which are used as feeding appendages.
- The second pair of walking legs are much larger and powerful, especially in males.

- The movable claws of the second pair of walking legs are distinctively covered in dense bristles (setae) that give it a velvety appearance. The colour of the claws in males varies according to their social dominance
- The giant freshwater prawn *Macrobrachium rosenbergii* is becoming an increasingly important targeted species, as its culture, is considered to have the potential to raise income among impoverished farmers.

CRAB

- Kingdom: Animalia
- Subphylum: Crustacea
- Class: Malacostraca
- Order: Decapoda
- Suborder: Pleocyemata
- Infraorder: **Brachyura**
Linnaeus, 1758



- Crabs are generally covered with a thick exoskeleton, composed primarily of highly mineralized chitin, and armed with a single pair of chelae (claws).
- Crabs are found in all of the world's oceans, while many crabs live in fresh water and on land, particularly in tropical regions. Crabs vary in size from the pea crab, a few millimetres wide, to the Japanese spider crab, with a leg span of up to 4 metres (13 ft).

- About 850 species of crab are freshwater, terrestrial or semi-terrestrial species; they are found throughout the world's tropical and semi-tropical regions.
- Economic Importance:
- Crab meat is are very delicious and nutritive and of medicinal value.
- Important part of marine food web.
- Supply the local protein demand

PINCTADA MARGARITIFERA

- Kingdom: [Animalia](#)
- Phylum: [Mollusca](#)
- Class: [Bivalvia](#)
- Order: [Pterioida](#)
- Family: [Pteriidae](#)
- Genus: [Pinctada](#)
- Species: *P. [Margaritifera](#)*
- [Binomial name](#)
- *Pinctada margaritifera*
([Linnaeus](#), 1758)



- Externally the shell is dark grayish brown or green, though white spots are common across the shell. Adults usually reach between 20 and 25 centimetres (7.9 and 9.8 in) in height.
- A distinctive feature of the species is that the hinge has no teeth.
- (The genera *Pinctada* and *Pteria* are often confused. In *Pinctada*, the hinge is long and straight, the long end of the shell forms a right angle to the hinge, and the left valve is slightly deeper than the right.

- **RANGE**

- *Pinctada margaritifera* occupies a wide range throughout the Persian Gulf, Red Sea, Sudan, Papua New Guinea, Australia, French Polynesia, Cook Islands, Indonesia, Andaman and Nicobar Islands, South-western part of the Indian Ocean, Japan and the Pacific Ocean, and various locations on the coast of India.

- **HABITAT**
- *P. margaritifera* occur in coral reef areas. These suspension feeders are able to thrive in low phytoplankton conditions.
- The pearl oyster attaches itself to barnacles and other hard substrates via byssus threads.
- They thrive at intertidal and subtidal zones, at depths from the low tide to up to 75 meters

- This species is commonly farmed and harvested for pearls, and there is general consensus that the **quality of pearls** from *Pinctada margaritifera* is the **highest quality** out of all the pearl oysters.
- Pearls form when a small particle enters into the oyster and nacre is released by the oyster to coat the particle or object, eventually creating a small pearl.
- The particle might be a grain of sand, organic material, or even a parasite.
- The oyster's release of the nacre serves as an adaptation of the immune system to isolate the invasive particle and irritation. *P. margaritifera* in particular produces gray or black pearls.

THANKS