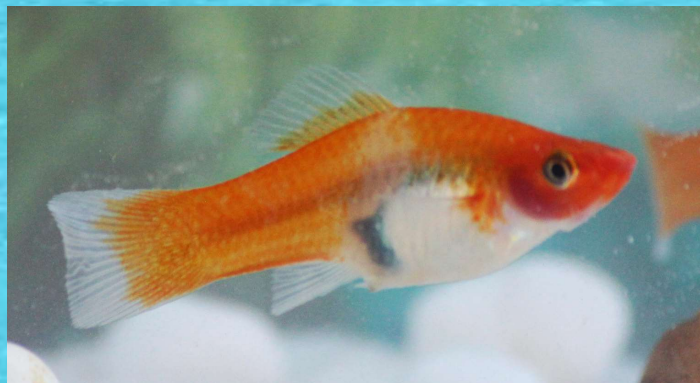


## Swordtail



<b>Scientific Name</b>	: <i>Xiphophorus hellerii</i>
<b>Common Size</b>	: 12-14 cm
<b>Life span</b>	: 2-3 years
<b>Attains maturity</b>	: 5-6 months
<b>Reproduction behavior:</b>	Viviparous
<b>Breeding session</b>	: throughout the year
<b>Fecundity</b>	: Give birth to young once
<b>Require substrate</b>	: Small plants
<b>Types of Swordtail</b>	: Koi Swordtail Common Swordtail
<b>Market cost</b>	: ₹ 150 - 350/-



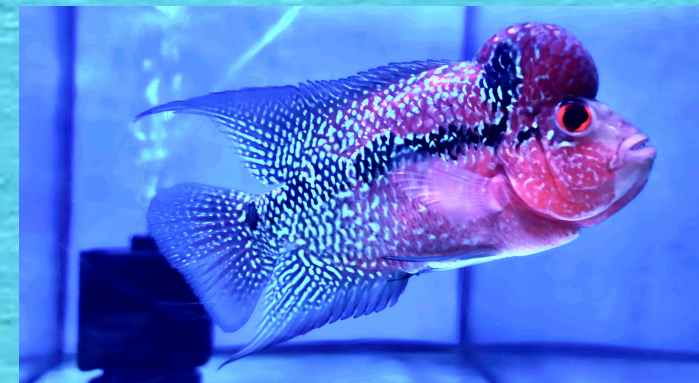
## Molly



<b>Scientific Name</b>	: <i>Poecilia sphenops</i>
<b>Common Size</b>	: 7-9 cm
<b>Life span</b>	: 2-3 years
<b>Attains maturity</b>	: 5-6 months
<b>Reproduction behavior:</b>	Viviparous
<b>Breeding session</b>	: Throughout the year
<b>Fecundity</b>	: Give birth to young once
<b>Require substrate</b>	: Small plants
<b>Types of Molly</b>	: Milky white Molly Black molly White molly Yellow molly
<b>Market cost</b>	: ₹ 100 - 300/-



## Flowerhorn



<b>Scientific Name</b>	: <i>Amphilophus hybrid</i>
<b>Common Size</b>	: 25-0 cm
<b>Life span</b>	: 10-12 years
<b>Attains maturity</b>	: 8-10 months
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: Throughout the year
<b>Fecundity</b>	: 700-1000 eggs
<b>Require substrate</b>	: a solid base of soil/ earthen pot
<b>Market cost</b>	: ₹ 500/-

**Prepared by:**  
**Shri Trivesh Mayekar**  
Scientist (Fish Genetics and Breeding)  
**Dr. Sreekanth G. B.**  
Scientist (Fisheries Resource Management)  
**Shri Sharan S. Sawal**  
(Field Assistant)

**Designed by:**  
**Shri Vishwajeet Prajapati**  
Technical Officer (Computer)

**Published by:**  
**Dr. Parveen Kumar**  
Director  
ICAR - CCARI, Goa

**Contact:**  
**ICAR - Central Coastal Agricultural Research Institute**  
Ela, Old Goa, Goa - 403402  
Tele : 0832-2293097, Email : Director.ccari@icar.gov.in  
Website: www.ccari.icar.gov.in

Extension Folder No. 108/2023  
Funded by NABARD



## FRESH WATER ORNAMENTAL FISHES OF GOA: Biology & Commercial Potential Part - I



भा.कृ.अनु.प.- केंद्रीय तटीय कृषि संशोधन संस्थान  
इला, जुने गोवा, गोवा  
ICAR - Central Coastal Agricultural Research Institute  
Ela, Old Goa, Goa



## Gold Fish



<b>Scientific Name</b>	: <i>Carassius auratus</i>
<b>Common Size</b>	: 10-16 cm
<b>Life span</b>	: 10-15 years
<b>Attains maturity</b>	: 8-10 months
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: 4 – 5 times a year
<b>Fecundity</b>	: 2000-3000 eggs
<b>Require substrate</b>	: Vegetation, woollen threads / nylon twines/ plastic stripes.
<b>Types of Goldfish</b>	:
Common Goldfish	Comet Goldfish
Black Moor Goldfish	Red cap Goldfish
Fantail Goldfish	
<b>Market cost</b>	: ₹ 90 - 300/-



## Koi



<b>Scientific Name</b>	: <i>Cyprinus rubrofuscus</i>
<b>Common Size</b>	: 90-120 cm
<b>Life span</b>	: 40 years
<b>Attains maturity</b>	: 4 - 6 Years
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: May to June
<b>Fecundity</b>	: 2000-3000 eggs
<b>Require substrate</b>	: Fry mat / small plants
<b>Types of Koi</b>	: Indian koi Karp Japanese koi
<b>Market cost</b>	: ₹ 300 - 1,500/-



## Angel Fish



<b>Scientific Name</b>	: <i>Pterophyllum scalare</i>
<b>Common Size</b>	: 15-20 cm
<b>Life span</b>	: 12-15 years
<b>Attains maturity</b>	: 6-12 months
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: March-May & September
<b>Fecundity</b>	: 234-1082 eggs
<b>Require substrate</b>	: stone slate at 45-degree angles
<b>Types of Angel fish</b>	: Common Angle fish Koi Angle fish Zebra Angle fish Black Angle fish
<b>Market cost</b>	: ₹ 100 - 500/-



## Guppy



<b>Scientific Name</b>	: <i>Poecilia reticulata</i>
<b>Common Size</b>	: 4-5cm
<b>Life span</b>	: 1-2 years
<b>Attains maturity</b>	: 5-6 months
<b>Reproduction behavior:</b>	Viviparous
<b>Breeding session</b>	: Throughout the year
<b>Fecundity</b>	: give birth to young once
<b>Require substrate</b>	: Small plants
<b>Types of Guppy</b>	: Common Guppy Black Guppy Blue Guppy Red Guppy
<b>Market cost</b>	: ₹ 150 - 350/-





## Discus



<b>Scientific Name</b>	: <i>Symphysodon sp.</i>
<b>Common Size</b>	: 12.3-15.2 cm
<b>Life span</b>	: 10-15 years
<b>Attains maturity</b>	: 9-13 months
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: 3-4 times
<b>Fecundity</b>	: 200-400 eggs
<b>Require substrate</b>	: vegetation, plastic con or on the glass surface
<b>Types of Discus</b>	: Red Discus Blue Discus Heckel cross Discus Albino Discus
<b>Market cost</b>	: ₹ 1000 - 1400/-



## Barbs



<b>Scientific Name</b>	: <i>Haludaria pradhani</i>
<b>Common Size</b>	: 5-7 cm
<b>Life span</b>	: 2-3 years
<b>Attains maturity</b>	: 6-8 months
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: Throughout the year
<b>Fecundity</b>	: 200-500 eggs
<b>Require substrate</b>	: Vegetation
<b>Types of Barbs</b>	: Tiger Barb Melon Barb Tin foil Barb Filament Barb Indigo Barb
<b>Market cost</b>	: ₹ 100 - 150/-



## Sucker Fish



<b>Scientific Name</b>	: <i>Hypostomus plecostomus</i>
<b>Common Size</b>	: 25-50 cm
<b>Life span</b>	: 10-15 years
<b>Attains maturity</b>	: 2-5 years
<b>Reproduction behavior:</b>	Oviparous
<b>Breeding session</b>	: Early spring - early summer
<b>Fecundity</b>	: 200-300 eggs
<b>Require substrate</b>	: 2.5 inch thick aquarium sand
<b>Market cost</b>	: ₹ 100 - 500/-

**Prepared by:**  
**Shri Trivesh Mayekar**  
 Scientist (Fish Genetics and Breeding)  
**Dr. Sreekanth G. B.**  
 Scientist (Fisheries Resource Management)  
**Shri Sharan S. Sawal**  
 (Field Assistant)

**Designed by:**  
**Shri Vishwajeet Prajapati**  
 Technical Officer (Computer)

**Published by:**  
**Dr. Parveen Kumar**  
 Director  
 ICAR - CCARI, Goa

**Contact:**  
**ICAR - Central Coastal Agricultural Research Institute**  
 Ela, Old Goa, Goa - 403402  
 Tele : 0832-2293097, Email : Director.ccari@icar.gov.in  
 Website: www.ccari.icar.gov.in

Extension Folder No. 109/2023  
 Funded by NABARD



## FRESH WATER ORNAMENTAL FISHES OF GOA: Biology & Commercial Potential Part - II



भा.कृ.अनु.प.— केंद्रीय तटीय कृषि संशोधन संस्थान  
 इला, जुने गोवा, गोवा  
**ICAR - Central Coastal Agricultural Research Institute**  
 Ela, Old Goa, Goa



