

CANDIDATE SPECIES AND BIOLOGY OF COMMON ORNAMENTAL FISHES

(Ref. ICAR)

Ornamental fishes provide aesthetic beauty to home and garden along with the mind relaxation. Fishes with attractive colour pattern, swimming behavior and more resistant to captivity stress considered as good candidate species. In aquaculture farmers chooses the criteria of economic value of the fish and the familiarized breeding technology. The ornamental fishes are known to their brand name and top ten groups in the freshwater aquarium are tetra, guppy, gold fish, catfish, molly, gourami, platy, loach, cichlid and the barbs.

Freshwater ornamental fishes

Barbs

Barbs are cyprinid fish group with small one or two pairs of barbels around their mouth. Roughly 400 species over the world only 150 species of barbs have ornamental value. *Puntigrus tetrazona* (Tiger barb), *Pethia conchonius* (Rosy barb), *Puntius titteye* (cherry barb), clown barb (*Barbodes everetti*), Silver shark (*Balantiocheilos melanopterus*), stripped barb (*Desmopuntius johorensis*), Melon barb (*Haludaria fasciata*) are the most dominant species in Indian trade. *Sahyadria denisonii* commonly known as Miss Kerala, most demanded species, wild caught barb species mainly found in rivers of Kerala and Karnataka.



Puntigrus tetrazona



Pethia conchonius



Puntius titteye



Sahyadria denisonii



Balantiocheilos melanopterus

(Source: (Image source: <https://www.thinkfish.co.uk/#>)

Loaches

Loaches, commonly known as cleaners of aquarium are belonging to the family Cobitidae and Balitoridae known as cleaners of aquarium. There are around 40 species of

loaches known today, belonging to the genus *Botia*, *Chromobotia*, *Pangio*, *Ambastaia*. Zebra Loach (*Botia striata*) Clown Loach (*Chromobotia macracanthus*), Dwarf Chain Loach (*Ambastaia Sidthimunki*) Rainbow Shark (*Epalzeorhynchos frenatum*) and Yoyo loach (*Botia almorhae*) are the most demandable specie in Indian trade.



Botia striata



Chromobotia macracanthus



Ambastaia Sidthimunki

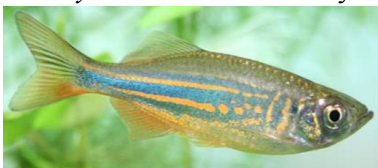


Botia almorhae

(Image source: <https://www.thinkfish.co.uk/#>)

Danio/ Rasbora

Danios, member of the Cyprinidae family, are known as egg scatters. They are found in a variety of habitats from boulder strewn mountain torrents to small pools in dry zone streams with pebbles. There are more than 12 species reported today of which *Danio malabaricus* (Pearl Danio), *D. albolineata*, Celestial Pearl Danio (*Danio Margaritatus*), Harlequin Rasbora (*Trigonostigma heteromorpha*) Giant Danio (*Danio aequipinnatus*), White Cloud Mountain Minnow (*Tanichthys albonubes*) Axelrods Rasbora (*Sundadanio axelrodi*) and *Brachydanio rerio* (zebra fish) are common in the hobbyist market. *Brachydanio rerio* is mainly found in Kerala and Karnataka



Danio aequipinnatus



Danio Margaritatus



Brachydanio rerio



Sundadanio axelrodi



Trigonostigma heteromorpha



Tanichthys albonubes

(Image source: <https://www.thinkfish.co.uk/#>)

Gourami

Gourami, are the ornamental fish with accessory respiratory organ known as labyrinth. *Colisa lalia*, the indigenous fishes found in freshwater ponds, streams and paddy fields of northeastern India and Bangladesh. Important varieties group gourami include The Honey Gourami (*C. chuna*), Indian Gourami (*C. fasciata*), Thick-lipped Gourami (*C. labiosa*), three spot gourami (*Trichopodus trichopterus*), Pearl Gourami (*T. leeri*), Snakeskin (*T. pectoralis*), Moonlight Gourami (*T. microlepis*), Chocolate Gourami (*Sphaerichthys osphromenoides*) Kissing Gourami (*Helostoma temmincki*).



Trichopodus pectoralis



Trichopodus



Trichopterus trichopterus



Helostoma temmincki



Colisa lalia



Sphaerichthys osphromenoides

(Image source: <https://www.thinkfish.co.uk/#>)

Cat fishes

These are beautifully coloured bearded fishes under the order Siluriformes. The common species found in the hobby market are *Corydoras ambiacus*, *C. agaassizii*, *C. leucomelas*, *C. schwartzi*, *C. punctatus*, *C. parallelus*, *C. pulcher* and *C. ornatus*.



Corydoras panda



Chaetostoma sp.



Phractocephalus hemioliopterus



Hexanematichthys seemanni

(Image source: <https://www.thinkfish.co.uk/#>)



Pseudoplatystoma fasciatum

Spiny eels

Spiny eels or swamp eels are members of the family Mastacembelidae. *Macrogathus aculeatus* (spotted spiny eel), *Mastacembalus tinwini*, *Mastacembalus armatus*, (zigzag eel) are of much importance as far as the ornamental fish market is concerned.



Macrogathus aculeatus



Mastacembalus tinwini

(Image source; <https://www.aquariumglaser.de/fischarchiv/>)

Puffer fishes

Puffer fish or balloon fishes comes under the family, Tetraodontidae, distributed in both marine and freshwater. The fresh water puffers include *Carinotetraodon lorteti*, *C. salivator*, *Carinotetraodon travancoricus*, Green Pufferfish (*Tetraodon nigroviridis*), *Chonerhinos amabilis*, *C. nefastus*, *C. modestus*, *C. remotus*, *C. asellus*, *Colomesus asellus*, and *C. psittacus*, are the candidate species of ornamental industry. *Carinotetraodon travancoricus* popularly known as Malabar or dwarf pufferfish is a native of India and is considered as the smallest puffer in the trade.



Colomesus asellus



Carinotetraodon travancoricus



Colomesus psittacus

(Image source: <https://www.thinkfish.co.uk/#>)

Snakehead

The snakehead is the fishes with air breathing organs come under the family Channidae and genus *Channa*. Around 28 species of *Channa* are known today, *C. bleheri*, *C. burmanica*, *C. gachua*, *C. micropeltes*, *C. lucius*, *C. pardalis* and *C. orientalis*, are well known in the aquarium trade. *C. bleheri* is widely known as the rainbow snakehead because of its body colouration.



Channa bleheri



Channa pardalis



Channa gachua



Channa lucius

(Image source; <https://www.aquariumglaser.de/fischarchiv/>)

Glass fish

Glassfish, belonging to the family Chandidae or Ambassidae, have transparent body. There are four species commonly referred to as glassfish in the trade: *Chanda ranga*, *C. lala*, *C. nama* and *C. baculis*, *Parambassis siamensis*



Parambassis siamensis



C. lala,

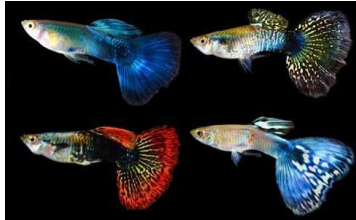
(Image source; <https://www.aquariumglaser.de/fischarchiv/>)

Live bearers (Guppy, Molly, platy and sward tail)

Four groups, guppy, molly, platy and sward tails belonging to family Poeciliidae, give birth to the young ones known as live bearers in aquarium industry. The guppy (*Poecilia reticulata*), Platy (*Xiphophorus maculatus*), Variatus Platy (*X. variatus*) and Swordtail Platy (*X. xiphidium*), Swordtails (*Xiphophorus hellerii*), Black Molly (*Poecilia sphenops*) are the candidate species.



Poecilia sphenops



Poecilia reticulata



Xiphophorus maculatus



Xiphophorus hellerii
(Image source: <https://www.thinkfish.co.uk/#>)



Ameca splendens



Poecilia wingei

Gold Fish

The gold fish (*Carassius auratus*) common and attractive exotic cyprinid fish in the aquarium trade. Large varieties like lion hear, Oranda, fan tail, Lair tail etc. known in trade. Koi carp (*Cyprinus carpio*), known to the garden ponds which is morphologically common carp.



Carassius auratus
(Image source: <https://www.thinkfish.co.uk/#>)



Cyprinus carpio

Oscar

Oscar fish *Astronotus ocellatus* a cichlid fish, have high economic value in international ornamental fish trade. The species also termed as the tigers in the industry, highly carnivore in nature. They are native of Amazone river.



Astronotus ocellatus (tiger)



Astronotus ocellatus (marbled)

(Image source: <https://www.thinkfish.co.uk/#>)

Fighter

Fighter fish (*Betta splendens*) popular live jewel in the industry belonging to family Osphronemidae. Male are beautiful coloured than female and are aggressive towards other males. Apart from coloration, the finnage also have varieties like veil tail, crown tail, half moon, butterfly, double tail etc. Indian fighter also known as paradise fish (*Macropodus opercularis*) an indigenous variety of ornamental fish distributed in ponds and paddy fields of India.



Betta splendens



Macropodus opercularis

(Image source: <https://www.thinkfish.co.uk/#>)

Severum

Severums (*Heros severus* and *Heros efasciatus*) cichlid fish species common in freshwater aquarium trade. There are several different color variations available, including the "Gold," Green, Brown, and "Peruvian Green" strains.



Heros severus

(Image source: <https://www.thinkfish.co.uk/#>)

Angel Fish

Angel fish (*Pterophyllum scalare*) important fish in freshwater aquarium belonging to the family Cichlidae. About 25 varieties of the species available in Asian trade and are single coloured ones like black, silver and gold and multi coloured pattern ones such as leopard, striped or zebra and lacelike, mottled or marble, half black etc. Black veil tail, diamond, ghost, blushing, golden marble, pearl scale and koi are common in trade. They originate from Amzone river where the water bodies have densely over grown by aquatic plants.



Pterophyllum scalare

(Image source: <https://www.thinkfish.co.uk/#>)

Discus

Discus (*Symphysodon discus*), member of cichlid group have high value in aquarium trade. The species is native of Amazone river. The species is an example of lepidophagy, in which young ones feed the mucus of parent fish.



Symphysodon discus

(Image source: <https://www.thinkfish.co.uk/#>)

Tetra

Tetras are the fishes belonging to family Characidae. There are ten varieties of tetras known, which Neon tetras (*Paracheirodon innesi*) are, Cardinal tetra (*Paracheirodon axelrodi*), Black neon (*Hyphessobrycon herbertaxelrodi*), Black tetra (*Gymnocorymbus ternetzi*), Bleeding heart tetra (*Hypessobrycon erythrostigma*), Blood fin (*Aphyocharax anisitsi*), glow light tetra (*Cheirodon erythrozonus*), Head and tail light tetra (*Hemigrammus ocellifer*),

Lemon tetra (*Hyphessobrycon pulchripinnis*), Serpae tetra (*Hyphessobrycon callistus*). They are peaceful and pose no threat to any other fish in the aquarium and are ideal for a community aquarium with other fish of similar disposition. Cardinal Tetra (*Paracheirodon axelrodi*) Golden Pencilfish (*Nannostomus beckfordi*) Blue Tetra (*Boehlkea fredcochui*) Neon Tetra (*Paracheirodon innesi*)



Paracheirodon axelrodi



Nannostomus beckfordi



Boehlkea fredcoch



Paracheirodon innesi