# M. Sc. - II Sem.

Interdisciplinary Course

# ZOO206: Ornamental Fishery & Aquarium

# **Commercially Important Ornamental Fishes**

#### **Egg-layers Ornamental Fishes**

The majority of aquarium fishes are egg-layers with external fertilization. Egg-layers can be divided into five groups- egg-scatterers, egg-depositors, egg-burriers, mouth-brooders and nest-builders.

# Goldfish (Carassius auratus)

### **Physical Description**

The common Goldfish has an elongated, stocky body. The basic body colour is greenish-grey to orange with a variable iridescence in reflected light.

### Size

Up to 45 cm in nature, although most domesticated breeds are considerably smaller.

# Rosy Bard (Barbus conchonius)

#### Physical Description

The Rosy Barb has no barbels and has slight lateral compression. The back is with darker green-gold colouration. The flanks are bright orange to red and metallic looking. Near the caudal peduncle is a black spot. The reddish fins may (anal and dorsal fins) are elaborate with black borders along the upper-parts. Males turn a deep, but bright red colour particularly at spawning times.

# Size

Up to 15 cm in nature, although rarely larger than 10 cm in captivity.

#### Tiger Barb, Sumatra Barb (Barbus tetrazona)

### **Physical Description**

The Tiger Barb is high backed fish with no barbels. Its back is brown to orange and the belly is white to silver. The flanks are silvery orange with a white iridescence. The body is marked with four transverse bands; the first running through the eye and the last running along the base of the caudal fin. The caudal fin is light orange but transparent. The dorsal fin is mostly black with a red fringe in the edge. The other fins are transparent with an orange tint. The tip of the snout may be reddish.

# Size

Up to 7.5 cm

#### Bala shark, Tricolour Shark, Silver Shark (Balantiocheilus melanopterus)

# **Physical Description**

A slender, elongated fish with a forked caudal fin. The head is small but is dominated by the eye. The body is dark gray with a silver iridescence. The rear parts of all fins have wide, black edges. This species has a streamlined look.

#### Size

Up to 40 cm

# **Red-tailed Black Shark (Labeo bicolour)**

# **Physical description**

The fish is elongated with slightly lateral compression. The mouth faces downward and two pairs of barbels are present. The main body colour is black which provides an impressive contrast with the striking bright red tail. Specimens kept in unsuitable conditions become pale.

### Size

Up to 15.0 cm

# Siamese Fighting Fish (Betta splendens)

# **Physical description**

The Siamese fighting fish is an elongated, laterally compressed fish with an upturned mouth. The fins may be long and flowing or cropped. Colour varies as do the fins.

# Size

Up to 7.0 cm.

# Zebra Danio (Brachydanio rerio)

# **Physical Description**

A slender fish with pairs of barbels. The back is brownish-gold, while the body has gold and blue alternating lateral stripes. The fins have the same colouration and the belly is white. The fins may be elongated depending on the variety. The mouth is up turned.

# Size

Up to 6.0 cm.

# Dwarf Gourami (Colisa lalia)

# **Physical description**

The body is oval-shaped with strong lateral compression. The anal and dorsal fins begin in the frontal part of the body, and extend nearly to the fan-shaped caudal fin. The ventral fins are long and filamentous. Males are generally orange-red with numerous transverse strips which are light blue in colour. The back is orange and the belly is silverturquoise. The dorsal, caudal and anal fins orange with patterns of light blue markings. The ventral fins are also orange. Females are dull in colour. Up to 5.5 cm

#### Three-spot Gourami (Trichogaster trichopterus)

#### **Physical description**

An elongated, moderately compressed species with a small dorsal fin and a long anal fin. The original colouration is fairly bland. The back is brown and the flanks are lighter brown with a greenish iridescence. The flanks are marked with faint transverse strips and two obvious spots mark the body, one at the caudal peduncle and the other at the mid-section. The third spot from which this gourami gained its name is the eye. The fins are generally graybrown, same for the anal fin, which has orange spots and an orange edge, the iris of the eye may be red. Several variants are available.

Size

Up to 15.0 cm

#### Kissing Gourami (Helostoma temmincki)

#### **Physical description**

An elongated, oval shaped fish with usually large lips. The head is pointed and the body is laterally compressed. Two colour variations exist. One is olive green with a greenish iridescence. The other is pinkish white with a whitish iridescence. Both colour types have colourless fins, with only the rays retaining the body colour.

### Size

Up to 30 cm, although larger in nature.

#### Angelfish (*Petrophyllum scalare*)

#### **Physical Description**

At laterally compressed cichlid with a disc-shaped body with large, elongated fins. The dorsal and anal fins stand tall and erect, while the caudal fin is fan-shaped. The iris of the eye is often red colour. The colouration depends on the variety.

# Size

Up to 15 cm

#### Live bearers ornamental fishes

Live bearers are fish that bear live young. There are two types of types of live-bearers; ovoviviparous, where the eggs form and hatch within the female before birth and viviparous, where no eggs are formed and the young are nourished through an umbilical-like cord or from secretion by the female. Live-bearers are generally prolific and are easily bred. The following general characters are shows-

- 1. Smaller sized fish suitable for aquarium.
- 2. Sociable and peaceful.
- 3. Hardy.
- 4. Native of tropical waters.

#### Size

- 5. Survive in hard and alkaline waters.
- 6. Grazers and mollies especially picking at plant.
- 7. Prolific and continuous breeders.
- 8. Mostly omnivorous.

### **Guppy (Poecilia reticulate)**

The males, which grow to about 2.5 cm, possess beautiful colouration, which may be combination of red, green, yellow, black, blue with dark markings super imposed. The tail fins are also very variable in the shape. It is a very hardy species that can tolerate wide temperature variations. It is a prolific breeder. The females are usually unardoned by colour and much larger in size of 5.0 cm. The female reaches a maximum size of 5.0 cm. It breeds at the size of 2.5 cm. The male reaches a maximum size of 2.5 cm and it breeds at the size of 1.8 cm. The optimum temperature range for best growth and breeding is 22 to 24  $^{\circ}$ C and the pH 7 to 8.

#### Molly

These are large fish growing to 9.0 cm in total length. It requires warm climate with temperature ranging between 24 and 28 <sup>o</sup>C and being largely vegetarian. They are best kept in large aquaria with plenty of strong illumination to encourage the growth of soft green algae. Mollies must be kept in a salt water environment. If teaspoon of Epson salt plus a drop of 5% solution of methylene blue is added to each 5 litre of aquarium water, fishes will fare much better. There are so many varieties in the Molly

- (1) *Poecilia latipinna* (Sail fin molly)
- (2) *Poecilia velifera* (Sail fin molly)
- (3) *Poecilia sphenops* (Marble molly)

### Sword Tail (Xiphophorus helleri)

The Sword tail is a shiny green marked with red horizontal stripes, the red line along the centre of the body is particularly distinct. Males grow to about 8.0 cm excluding the sword and females to about 12. 0 cm. The females breed at a size of 5.0 cm. It prefers live artificial plant food materials. The optimum water for the breeding temperature range should be 20 to 25 <sup>0</sup>C and the pH should be 7 to 7.5.

#### Platy (Xiphophorus maculatus)

The males grow to a size of 4.0 cm and females to about 5.0 cm. The optimum temperature for growth and breeding range should be 20 to 27  $^{0}$ C. It takes all kinds of prepared and live foods. It requires the pH of 7.0 to 7.5 for better growth.

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