

## **Quadrant II – Transcript and Related Material**

**Programme:** Bachelor of Science (Second Year)

**Subject:** Zoology

**Paper Code:** ZOS:101

**Paper Title:** Aquarium Fish Keeping

**Unit:** 01

**Module Name:** Exotic and Endemic species of Aquarium Fishes

**Module Number:** 06

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### **NOTES**

#### **Exotic and Endemic species**

##### **Exotic Species**

Exotic species or alien species are those which are introduced from one geographical region to another geographical area.

Exotic fishes in India are those species that are non-indigenous having their origin in another country and has been introduced into the Indian waters. They generally have established breeding culture technologies and the economics of production and marketability.

### Exotic fishes and their origin

Common Name	Origin
Oscar	South America
Bala shark / Silver Shark	Malay Peninsula, Sumatra, and Borneo
Guppy	Antigua and Barbuda, Barbados, Brazil, Guyana, Jamaica, Netherlands , Trinidad and Tobago, U.S. Virgin Islands, and Venezuela.
Marble Molly	Mexico.
Siamese Fighting Fish	Thailand, Cambodia
Goldfish	East Asia.
Rasbora, Harlequin Fish	Malaysia, Singapore, Sumatra and southern Thailand.
Discus / Pompadour fish	Amazon river basin in South America
Swordtail	North and Central America
Platy	East coast of Central America and southern Mexico
Kissing gourami	Thailand to Indonesia.
Angel fish	Amazon Basin

### Indigenous Ornamental fishes:

**Indigenous fish species-** Originating and occurring naturally ( in a country, region, etc.) or Native.

*Puntius arulius, Puntius filamentosus, Aplocheilus panchax, Amblypharyngodon mola, Channa orientalis, Garra gotyla gotyla, Gonoproktopterus curmuca, Macrognathus aral, Nandus nandus, Notopterus notopterus, Horabagrus brachysoma, Mystus vittatus* are the freshwater indigenous ornamental fishes of India.

*Pomacentrus caeruleus*, *Ostracion cubicus*, *Scarus ghobban*, *Odonus niger*, *Narcine timlei*, *Chelonodon patoca*, *Thalassoma lunare*, *Abudefduf saxatilis* are the marine indigenous ornamental fishes of India.

### **Endemic Species**

Endemism refers to the species restricted to a geographical range

A fish species is considered to be endemic to a location if that is the only place it occurs naturally. It may have evolved in that region or over time has become so adapted to that specific environment that it cannot survive elsewhere and are unavailable in other such regions.

The Western Ghats of India is one of the biodiversity hotspot amongst 'hotspot' areas of the world. The rate of endemism is well reflected with regard to fishes in the western ghat. Of the 300 species of freshwater fishes in the Western Ghats, 155 are considered ornamental fishes, of which 117 are endemic to the Western Ghats

*Puntius arulius arulius*, *Puntius arulius tambraparniei*, *Puntius denisonii*, *Puntius filamentosus*, *Nandus nandus* and *Notopterus notopterus* are the examples of endemic ornamental fishes of Western ghat.

Endemic species are facing serious threat due to Pollution, Industrial effluents discharge, Habitat loss, Habitat dégradation, Pesticides discharged, Natural system modifications, Over fishing for aquarium trade, Invasive alien species, Déforestation and Climate change