

AQUARIUM WORLD

5. WEEK: POPULAR AQUARIUM FISHES: FRESHWATER AND BRACKISH-WATER SPECIES

WEEKLY TOPICS (CONTENT)

- 1. Week Why there is an interest on aquarium? Introduction and motivation
- 2. Week Aquarium world: To be a fish
- 3. Week Aquarium world: Biodiversity
- 4. Week Popular aquarium invertebrates
- 5. Week Popular aquarium fishes: Freshwater and brackish-water species
- 6. Week Popular aquarium fish: Marine species
- 7. Week Public aquariums: Aquarium world
- 8. Week Personal hobby aquarium: Aquarium world.
- 9. Week Species selection
- 10. Week World aquarium sector
- 11. Week Cleaning an aquarium, main principles
- 12. Week Education: Aquarium world
- 13. Week General evaluation and discussion: About species exhibited in public aquariums
- 14. Week How to keep an aquarium fish healthy

Freshwater fishes: Lives or a critical part of its life in either freshwater or brackishwater systems.

Freshwater fishes:

Primary fishes: defined as salt intolerant or stenohaline organisms (cyprinids).

Secondary fishes: salt tolerant or euryhaline including soda and salt lake fishes (salmon, eels and rays)

It has been estimated that the total number of all fishes is 32,500 species (Nelson, 2006).

Considering that freshwater may constitute less than 0.3% of available global water, it is remarkable that there are more than 15,000 freshwater fish species.

While marine communities contain more species in total, freshwaters are far richer per unit volume of habitat.

This reflects the productivity, physiographic diversity and geographical isolation of freshwater habitats (Ormerod, 2003).

Comprising approximately 25% of all vertebrates, freshwater fishes are an important component of global biodiversity (Reid et al., 2013).

Predominant fish families by species abundance in freshwater:

Cyprinidae (carps and minnows): 2420 species

Gobiidae (gobies): 1950 species

Cichlidae (cichlids): 1350 species

Characidae (characins, tetras): 962 species

Loricariidae (suckermouth armored catfishes): 684 species

Balitoridae (river loaches): 590 species

Predominant fish families by species abundance in freshwater:

Cyprinidae (carps and minnows): 2420 species

Cyprinus carpio, Carassius auratus, Barb species, Danio species, Minnow species (Neon)

Gobiidae (gobies): 1950 species

Gobiinae, Gobionellinae, Oxudercinae

Predominant fish families by species abundance in freshwater:

Cichlidae (cichlids): 1350 species

Astronotinae

Cichlasomatinae

Cichlinae

Etroplinae

Geophaginae

Heterochromidinae

Paratilapiinae

Pseudocrenilabrinae

Ptychochrominae

Retroculinae

Characidae (characins, tetras): 962 species

Agoniatinae

Aphyocharacinae

Bryconinae

Characinae

Cheirodontinae

Clupeocharacinae

Gandulocaudinae

Iguanodectinae

Rhoadsiinae

Serrasalminae

Stethaprioninae

Tetragonopterinae

Incertae sedis (unclassified species)

Predominant fish families by species abundance in freshwater:

Loricariidae (suckermouth armored catfishes): 684 species

Delturinae

Hypoptopomatinae

Hypostominae

Lithogeneinae

Loricariinae

Neoplecostominae

Balitoridae (river loaches): 590 species

Similar in characteristics to the Cobitidae family of loaches if crossed with Catfish, these are distributed throughout Eurasia and belong to the family Balitoridae. There is a large number of fish in this family, around 600 known species, most of which occur in cool and fast-flowing streams.

We have also included the Nemacheilidae family in this category as many of these fish were previously listed in the Balitoridae family under the "Nemacheilinae" sub-family but have since been upgraded to their own family.

The vast majority are freshwater and the most well known and recognisable is the Hillstream Loach, they are often mislabelled in pet shops as "Butterfly Plecos", they are not at all related to the Pleco!

References

Nelson J.S. 2006. Fishes of the world. Fourth Edition. John Wiley & Sons

Ormerod S.J. 2003. Current issues with fish and fisheries: editor's overview and introduction. *Journal of Applied Ecology*. 40:, 204,Äì213.

Reid, G. McG., Contreras MacBeath, T. and Csatadi, K. 2013. Global challenges in freshwater fish conservation related to public aquariums and the aquarium industry. *International Zoo Yearbook* 47(1): 6-45.