

Neoteleostei

- More than 15.000 species
- Incredible diversity
- Not established systematics

Stenopterygii

- Stomiiformes, Ateleopodiformes
- Long independent evolution
- Tropical – temperate deep sea fishes
- Photophores, large mouth, (adipose fin)
- Black (silvery)

Bristle mouth *Cyclothone sp.*

Viperfish *Chauliodus sp.*

Dragonfish *Idiacanthus sp.*

Scopelomorpha

- Aulopiformes, Myctophiformes, Lampriformes, Polymixiiformes
- Similar to salmoniform fishes
- Adipose fin
- 14 families 600 species
- Deep sea

Daggertooth *Anotopterus pharao*



Lancetfish *Alepisaurus sp.*



Lanternfish *Myctophum sp.*



Percopsiformes

- 3 families 9 species
- small fish 5 – 20 cm
- freshwater habitats in North America

Sandroller *Percopsis sp.*



Ophidiiformes

- 3 families, 200 species
- Seawater, freshwater and brakishwater, Deep-sea
- Also in caves (blind)
- Eel-like fishes

Pearlfish *Carapus sp.*



Gadiformes

- 4 families, 500 species
- Bottom-oriented fish
- Mainly marine, deep sea, continental shelf, freshwaters

Cod fish-*Gadus morhua*

Ordo: *Gadiformes*

Family: *Gadidae*



Burbot-*Lota lota*

Ordo: *Gadiformes*

Family: *Gadidae*



Merluccius merluccius



Batrachoidiformes

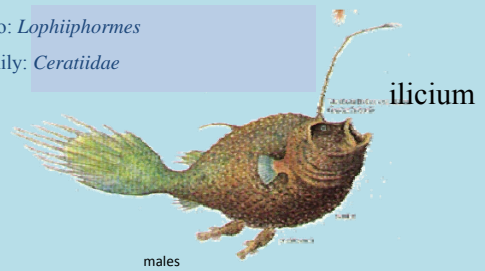
Lophiiformes



Ceratias holboelli

Ordo: *Lophiiformes*

Family: *Ceratidae*



Mugiliformes

Atheriniformes

Beloniformes



Belone belone ordo Beloniformes

Cyprinodontiformes

Poecilia sp.



Poeciliidae Cyprinodontiformes

Stephanoberyciloformes

Beryciloformes

Zeiformes

Synbranchyformes

Gasterosteiformes

Gasterosteus aculeatus

Ordo: *Gasterosteiformes-volnoostní*

Family: *Gasterosteidae-koljuškovití*



Hypocampus sp.

Ordo: *Gasterosteiformes*

Family: *Syngnathidae*



Scorpaeniformes

Scorpion fish-*Scorpaena scrofa*

Ordo:*Scorpaeniformes*

Family:*Scorpaenidae*



Bullhead *Cottus gobio*

Ordo:*Scorpaeniformes*

Family:*Cottidae*



Perciformes

Perciforms (Perciformes)

- double dorsal fin
- front of dorsal fin rays with spines
- ktenoid scales
- gas bladder is connected with the esophagus
- largest order of vertebrates (6900 species)
- quarters of global fish catches
- number of families: for example Mackerels, perches, cichlids

European perch *Perca fluviatilis*

Ordo:*Perciformes*

Family: *Percidae*



Tuna Tuna sp.




Ordo:*Perciformes-ostnoploutvi*

Family:*Scombridae-Makreloviti*





Macrel Scomber scombrus

Ordo: *Perciformes*
Family: *Scombridae*






Lates niloticus – Nile perch in Lake Victoria





Sea bass (*Dicentrarchus labrax*)
Sea bream (*Sparus aurata*) - Aquaculture

- Freshwater, brakish water
- America, Africa, Asia *Pterophyllum altum*
- Interupt lateral line
- One dorsal fin
- Moth breedrs,
- Cichlidae
- Cichlids




Cichlidae - Nile tilapis (*Oreochromis niloticus*)
important species in aquaculture



Symbiotic relation with anemone
lives Amphiprion ocellaris ,
Pomacentridae

Gobids Gobiidae

- fresh and salt water tropics and subtropics
- ventral fins are sucking discs
- Climbers (*Periophthalmus* spp.)
- without water lasts several days
- Eyes on the surface - see the land
- mangroves

Pleuronectiformes

Flat fishes Pleuronectiformes

- adult-slim body without bilateral symmetry
- from eggs to larva symmetrical
- body gradually begins to move one eye to another,
- the body flattens



Tetraodontiformes

Takifugu vermicularis

Ordo: *Tetraodontiformes* - čtverzubci

Family: *Tetraodontidae* - čtverzubcoviti

