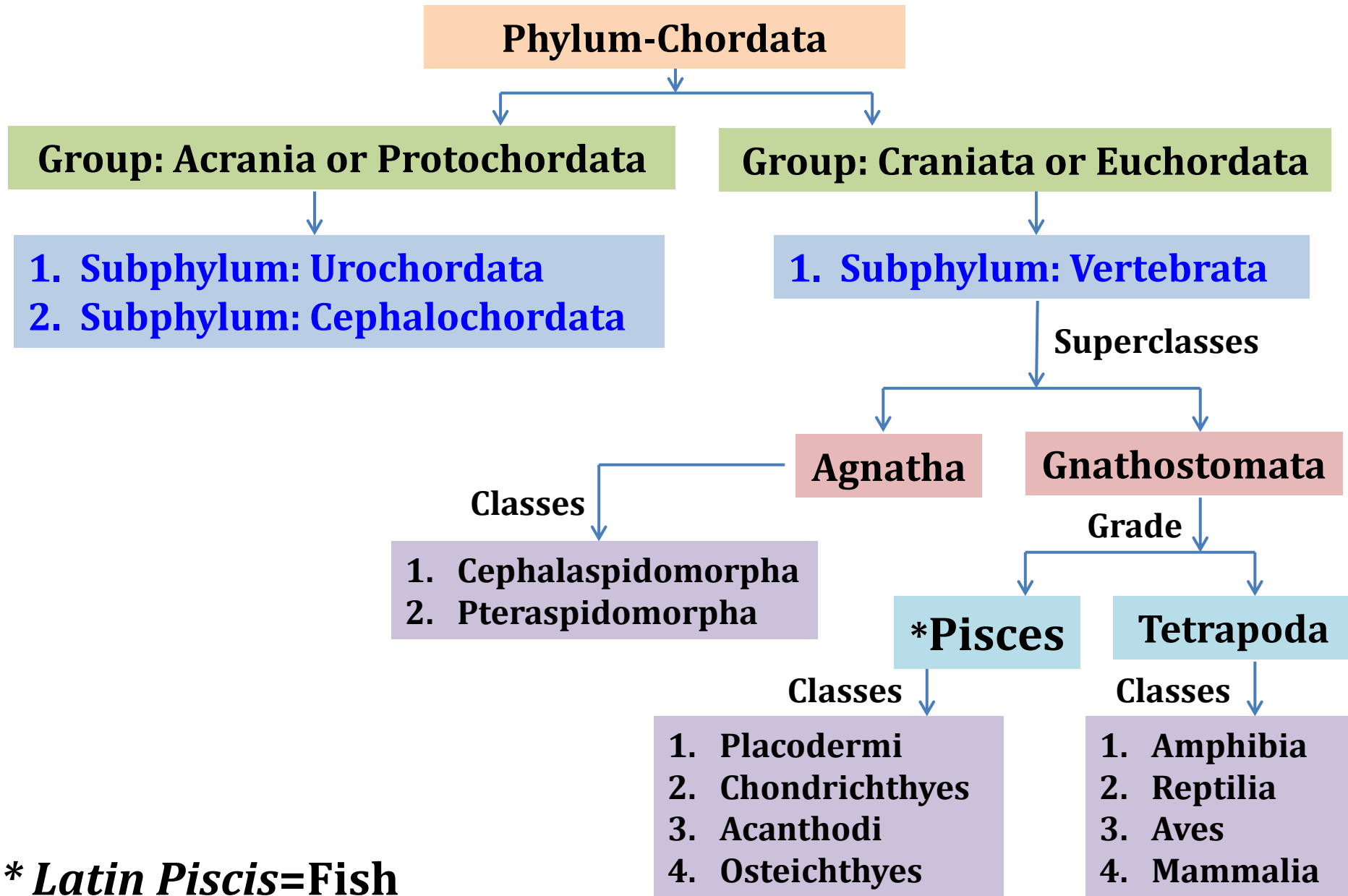


# **Classification of Fishes**

# Position of Fishes in Phylum Chordata



## History of Classification of Fishes

- **The first fossil vertebrates were found in the rocks of ordovician period and named as Ostracoderms. They are small, jawless, bony, fish like form related to cyclostomes.**
- **Devonian period is known as “The Golden Age of Fishes”.**
- **Swedish naturalist, Peter Artedi (1705-1735) is known as “Father of Ichthyology”.**
- **Artedi established the methods and principles of systematic Ichthyology so perfectly even Linnaeus could not alter it.**
- **Cuvier was the first to frame the classification on the basis of external and internal characters of fishes.**
- **The classification proposed by Muller, Jordan, Regan, Berg, Romer and Nelson considered to be the recent classification of bony fishes.**
- **Currently, Nelson (1994) classification of fishes is in practice.**

# Muller's Classification

Muller classified fishes into six (6) sub-classes

**Class: Pisces**

**Subclasses: Six**

- 1. Dipnoi (Lung fishes)**
- 2. Teleostei (Bony fishes)**
- 3. Ganoidei (Polypterus, Amia, Lepidos)**
- 4. Elasmobranchi (Sharks, Rays, & Rat fishes)**
- 5. Marsipobranchii (Cyclostomes)**
- 6. Leptocardii (Amphioxus)**

# Berg's Classification (1940)

L. S. Berg classified fishes into seven (7) classes

**Series: Pisces**

**Class: Seven**

1. Pterichthys

2. Coccostei

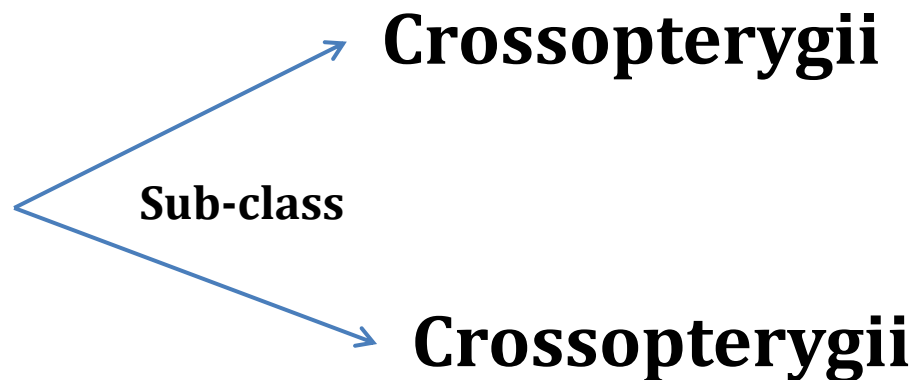
3. Acanthodii

4. Elasmobranchii

5. Holocephali

6. Dipnoi

7. Teleostomi



# Romer's Classification (1971)

**A. S. Romer (1971) arranged fishes into four classes under super-class pisces.**

**Super-class: Pisces**

**Class: Four**

- 1. Agnatha (Jawless vertebrates)**
- 2. Placodermii (armoured or plate skinned fishes)**
- 3. Chondrichthyes (Cartilagenous fishes)**
- 4. Osteichthyes (Bony Fishes)**

# Romer's Classification (1971)

## 1. Class: Agnatha (Jawless vertebrates)

**Subclasses: 1. Monorhina**

**2. Diplorhina**

## 2. Class: Placodermi (Armoured or plate skinned fishes)

**Orders:**

**1. Petalichthyida**

**2. Rhenanida**

**3. Arthrodira**

**4. Phyllolepida**

**5. Ptyctodontida**

**6. Antiarchi**

# Nelson's Classification (1994)

J. S. Nelson (1994) presented the classification of fishes in particular and chordata in general in a linear order which reflects their postulated evolutionary relationship (cladistic approach).

**Subphylum: Vertebrates**

**Super-classes: 1. Agnatha**

**2. Gnathostomata**

**Class**

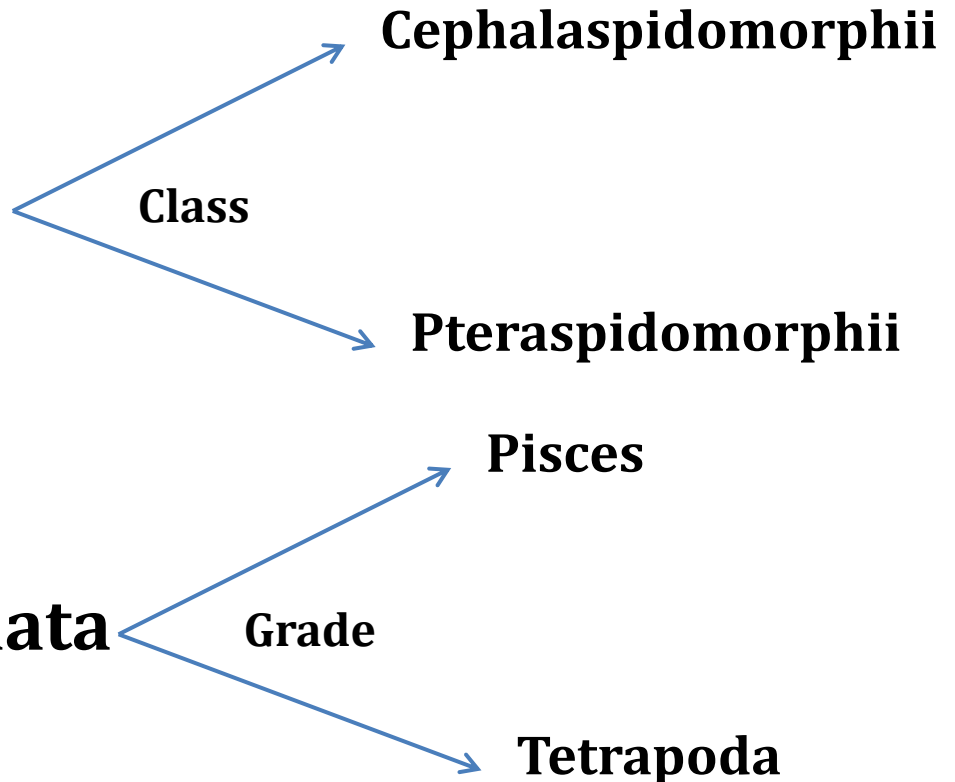
**Cephalaspidomorphii**

**Pteraspidomorphii**

**Grade**

**Pisces**

**Tetrapoda**





# Nelson's Classification (1994)

**Grade: Pisces**

**Subgrade**

**Elasmobranchomorphii**

**Class**

1. Placodermii
2. Chondrichthyes

**Subclass**

1. Elasmobranchii
2. Holocephali

**Teleostomi**

**Class**

1. Acanthodii (extinct)
2. Osteichthyes

**Subclass**

1. Dipeustei
2. Crossopterygii
3. Brachiopterygii
4. Actinopterygii

**Infraclass**

1. Chontrostei
2. Holostei
3. Halecostomi (extinct)
4. Teleostei