

# Taxonomic Hierarchy

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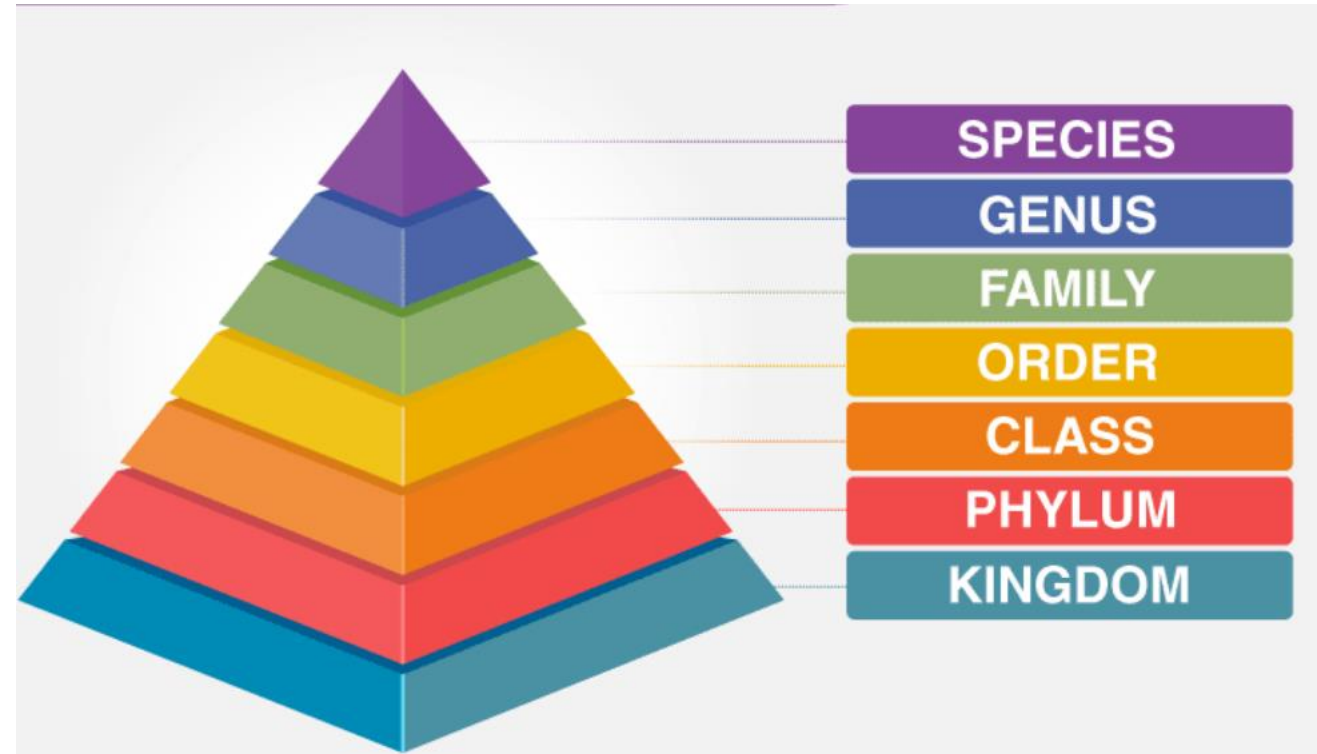
# Taxonomic Hierarchy

- According to the history of biological classification, **Aristotle**, a Greek philosopher **classified different animals based on the habitat, characteristics, etc.**
- Later, a Swedish botanist **Carolus Linnaeus** **introduced Taxonomic Hierarchy** Categories during the **18th Century**, and this system of classification is followed globally till date.
- Taxonomic **hierarchy refers to the sequence of categories in increasing or decreasing order.**
- **Kingdom is the highest rank** and species is the lowest rank in the hierarchy.



# What is Taxonomic Hierarchy?

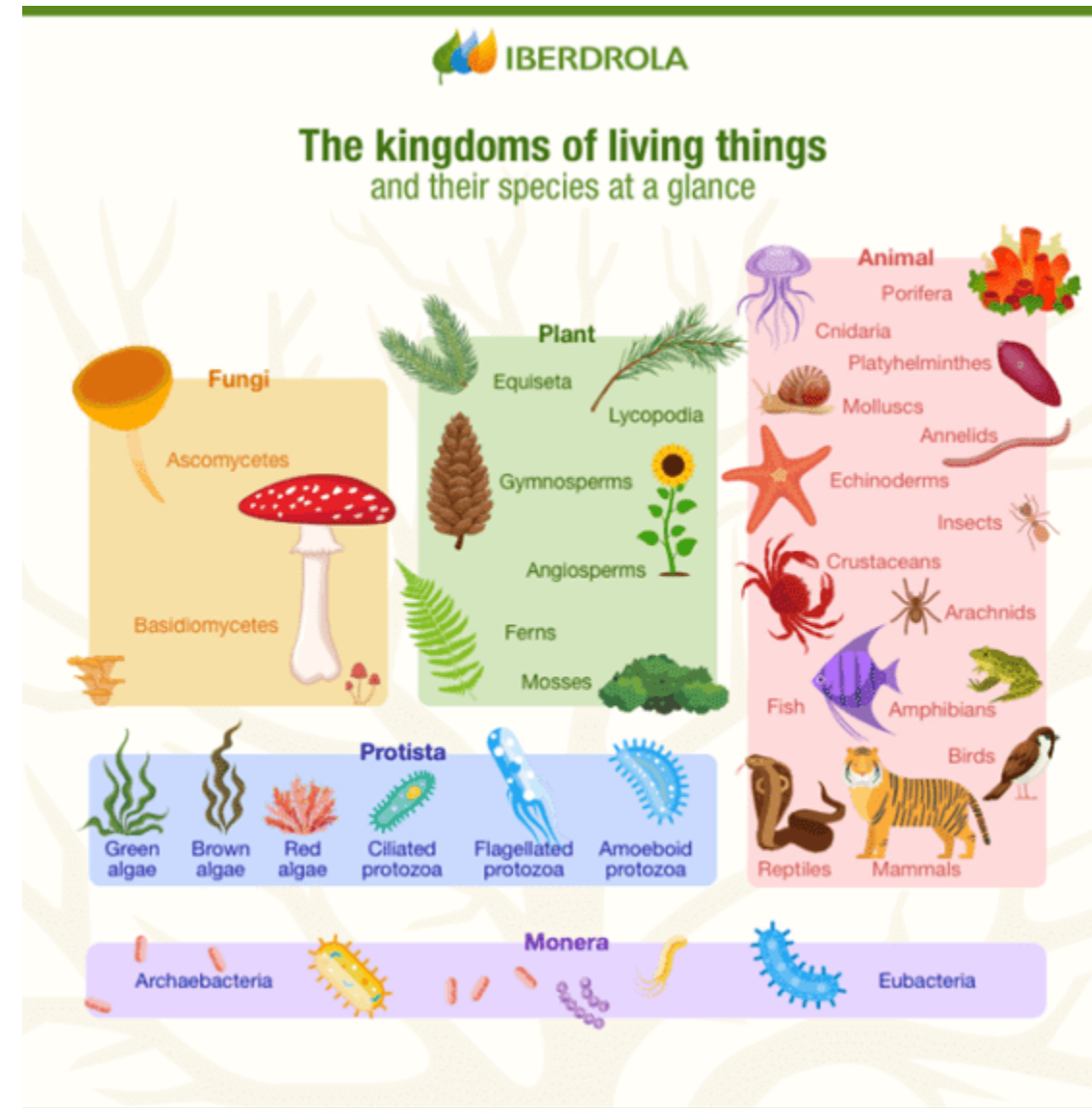
- *“Taxonomic hierarchy is the process of **arranging various organisms** into **successive levels** of the biological classification **either in a decreasing or an increasing order** from kingdom to species and vice versa.”*



# Taxonomic Hierarchy Categories

## 1. Kingdom

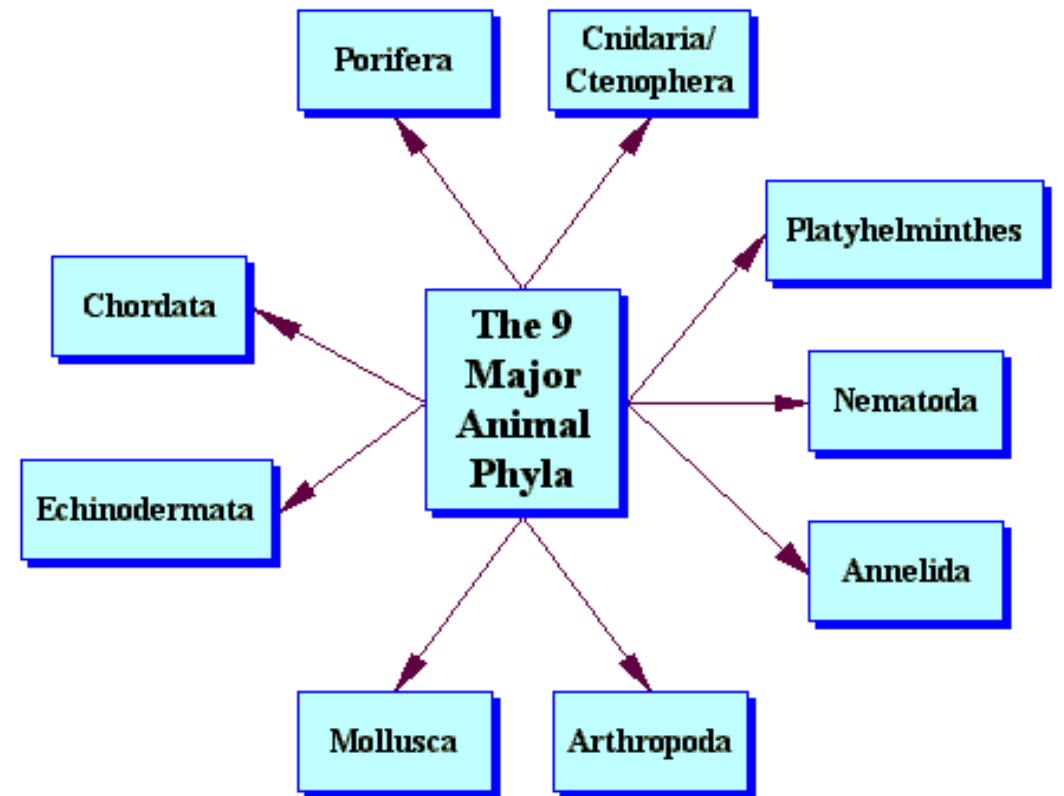
- The **kingdom** is the highest level of **classification**, which is divided into subgroups at various levels.
- There are **5 kingdoms** in which the living organisms are classified, namely, Animalia, Plantae, Fungi, Protista, and Monera.



# Taxonomic Hierarchy Categories

## 2. Phylum

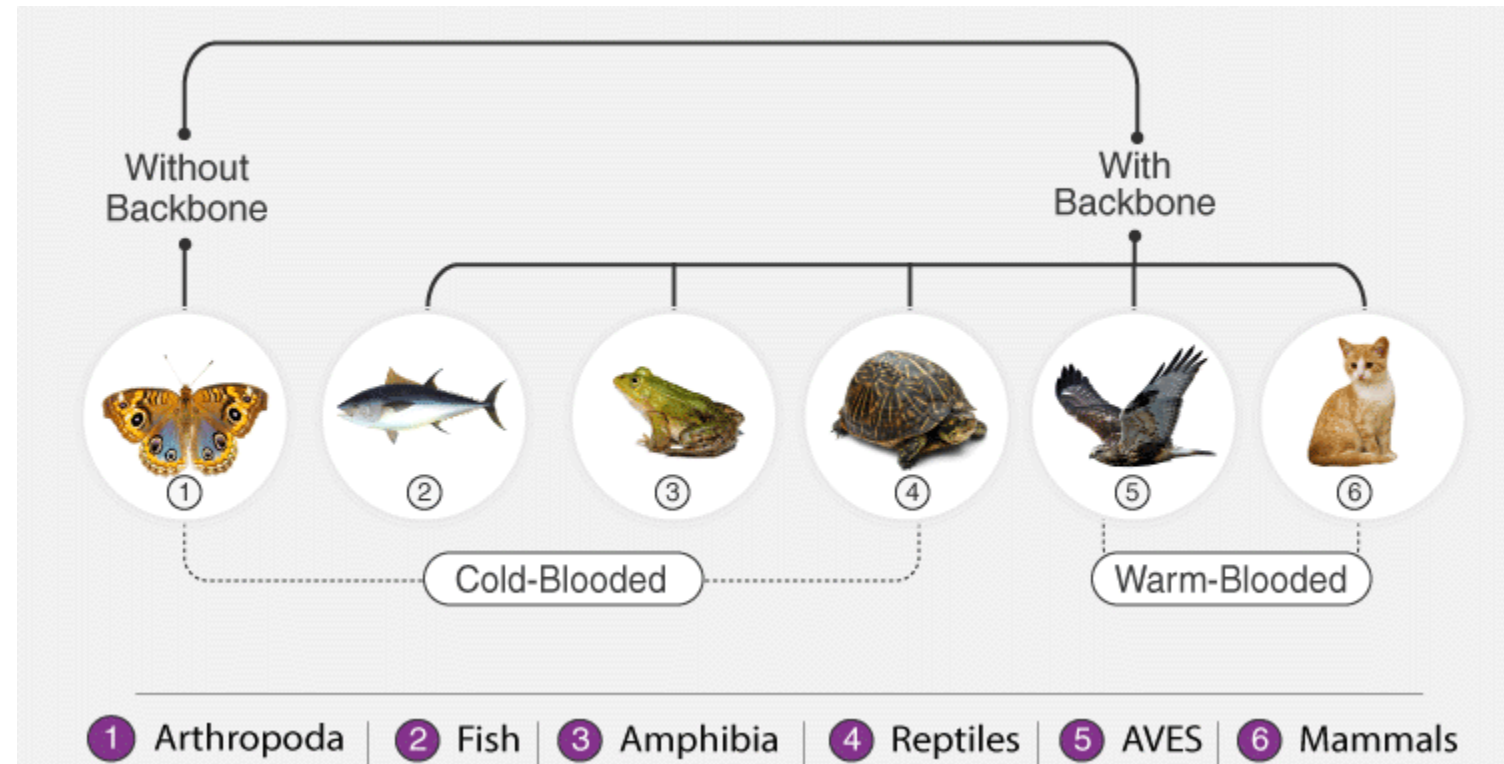
- This is the **next level of classification** and is more specific than the kingdom.
- There are **35 phyla in kingdom Animalia**.
- For Example – Porifera, Chordata, Arthropoda, etc.



# Taxonomic Hierarchy Categories

## 3. Class

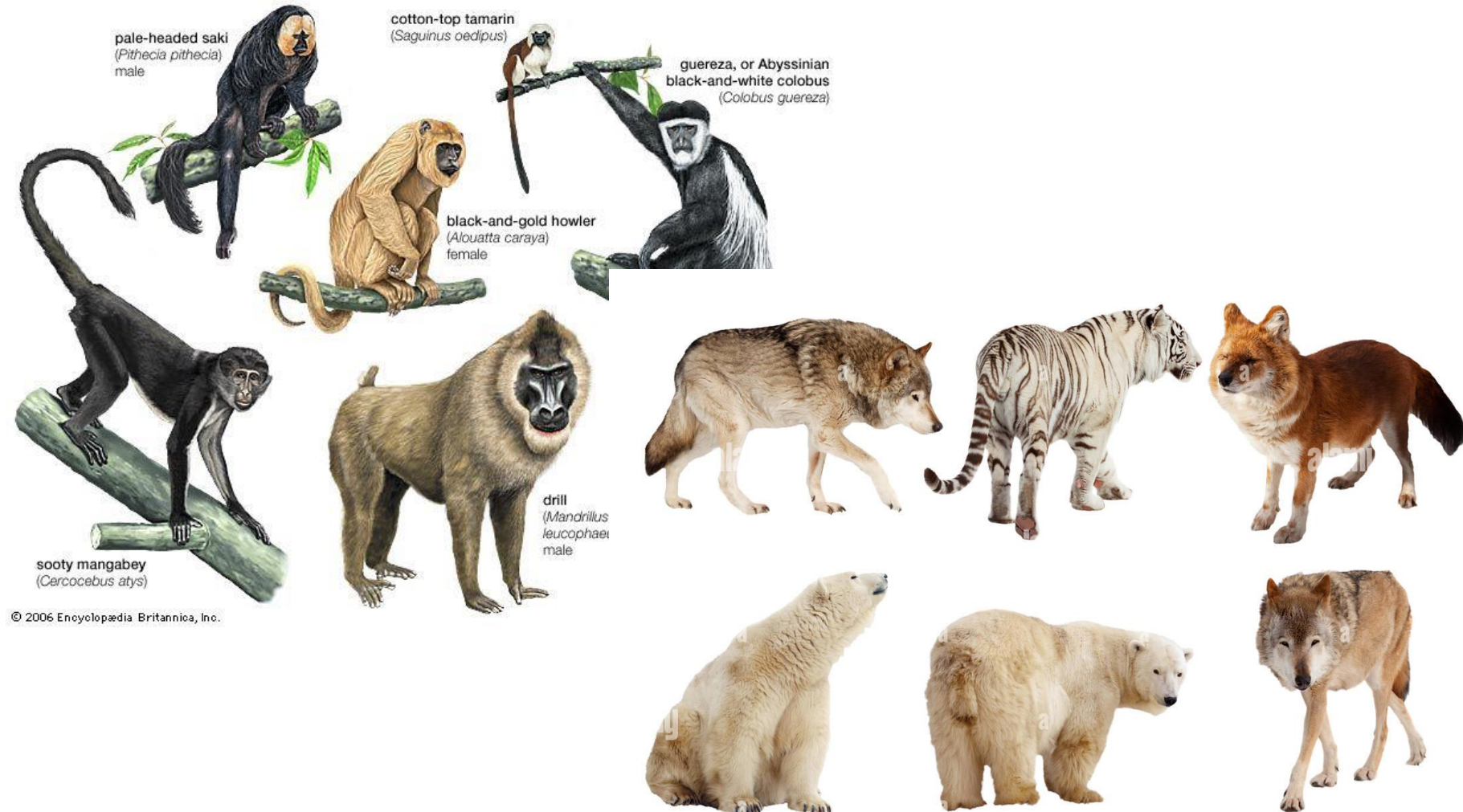
- Class was the most general rank in the taxonomic hierarchy until phyla were not introduced.
- Kingdom **Animalia** includes **108 classes** including class Mammalia, Reptilia, Aves, etc.
- However, the classes used today are different from those proposed by Linnaeus and are not used frequently.



# Taxonomic Hierarchy Categories

## 4. Order

- Order is a **more specific rank than class.**
- The order constitutes one or more than one similar families.
- There are around 26 orders in class Mammalia such as **primates, carnivora,** etc.



# Taxonomic Hierarchy Categories

## 5. Family

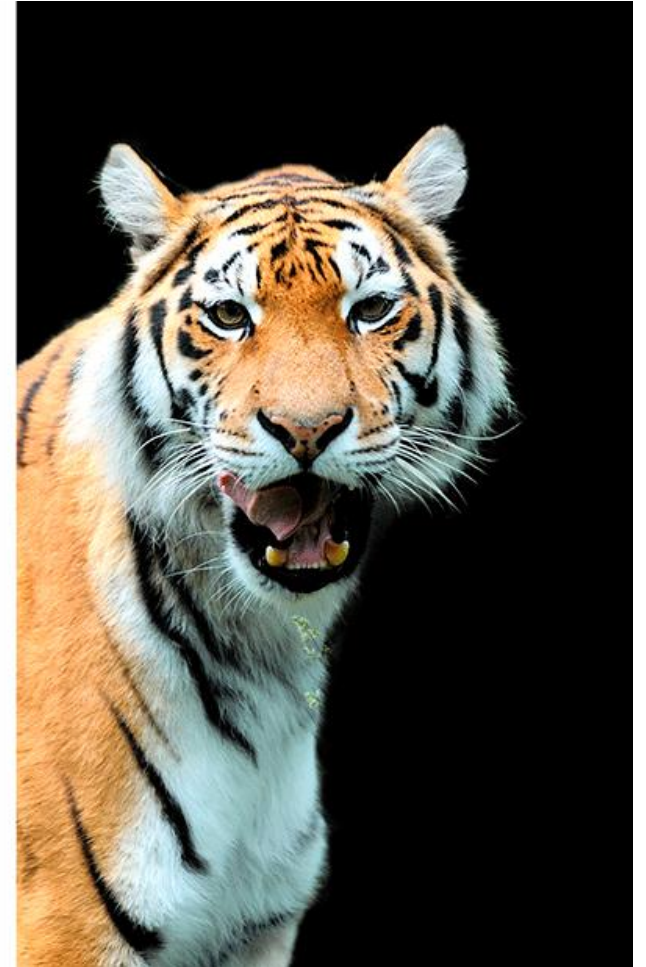
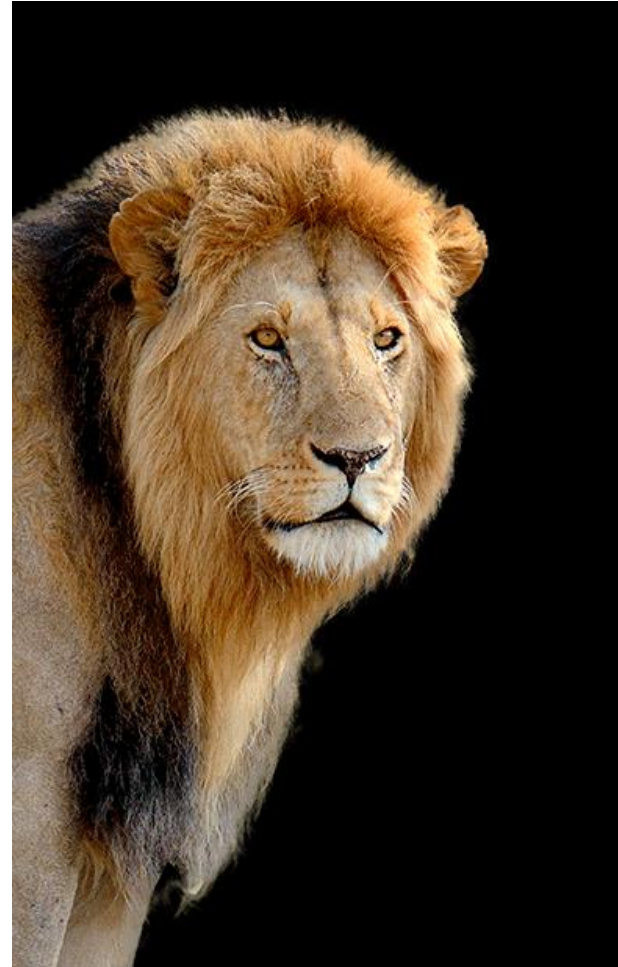
- This category of taxonomic hierarchy includes various genera that share a few similarities.
- For eg., the families in the order Carnivora include **Canidae**, **Felidae**, Ursidae, etc.



# Taxonomic Hierarchy Categories

## 6. Genus

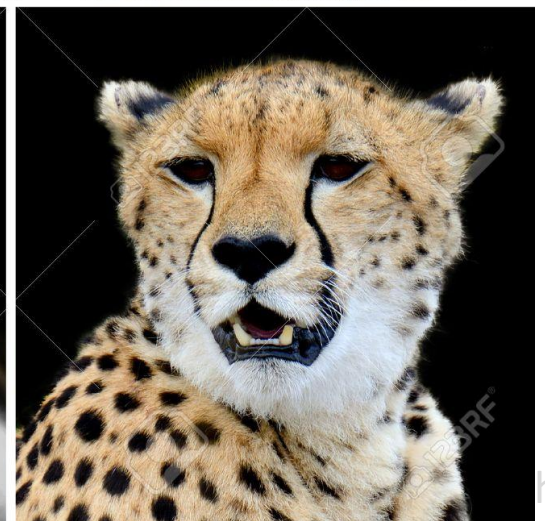
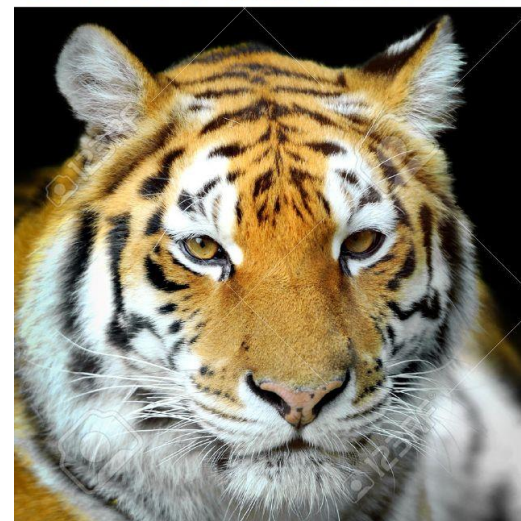
- A **group of similar species** forms a genus.
- Some genera have only one species and is known as monotypic, whereas, some have more than one species and is known as polytypic.
- For e.g., lion and tiger are placed under the genus *Panthera*.



# Taxonomic Hierarchy Categories

## 7. Species

- It is the lowest level of taxonomic hierarchy.
- There are about 8.7 million different species on earth.
- It refers to a group of organisms that are similar in shape, form, reproductive features.
- For e.g.,
  - ✓ *Panthera tigris*
  - ✓ *Panthera leo*
  - ✓ *Panthera pardus*





*Thank  
You*