



# Taxonomy

The science of classifying.

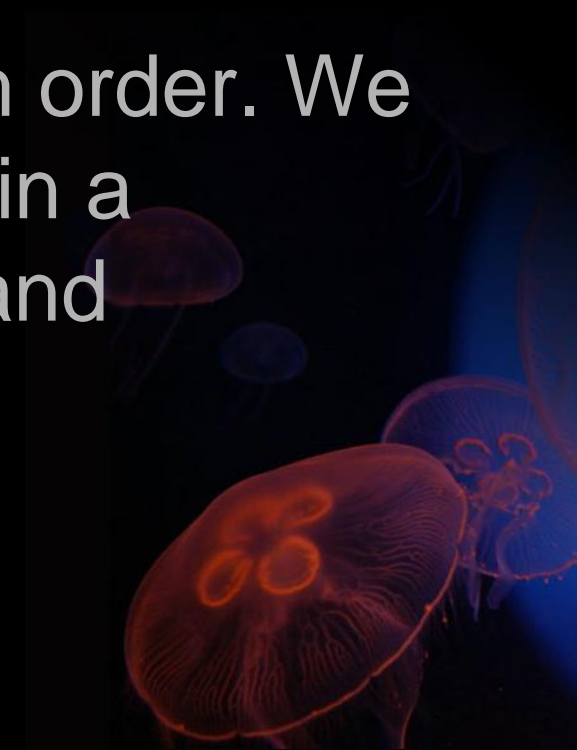
# Common Names

- Spider monkey
  - Gray wolf
  - Mud puppy
  - Black bear
  - Sea monkey
  - Firefly
  - Horned toad
  - Jellyfish
  - Seahorse
- Common names can be confused and names can vary by region,



# Why Classify?

- About 1.5 million species named 2-100 million species yet to be discovered.
- We classify things to give them order. We classify by characteristics and in a hierarchy. To see differences and similarities.



# Taxonomy

- Science of classifying organisms
- Groups similar organisms together
- Assigns each a name



# Naming Organisms

- Organisms have common & scientific name – all organisms have only 1 scientific name
  - Usually Latin or Greek
  - Developed by Carolus Linnaeus



# Binominal Nomenclature

- Written in italics (or underlined)
- 1<sup>st</sup> word is capitalized – genus
- 2<sup>nd</sup> word is lowercase – species
- Examples: *Felis concolor*, *Ursus arctos*, *Homo sapiens*, *Panthera leo*, *Panthera tigris*



Kingdom  
Phylum  
Class  
Order  
Family  
Genus  
Species

**\*\*Kings Play Chess On Fine Grain Sand.**



# The Six Kingdoms:

- Bacteria
- Archaea
- Protista (Protists)
- Fungi
- Plantae (Plants)
- Animalia (Animals)



# The Classification of Humans:

Kingdom	–	Animalia
Phylum	–	Chordata (vertebrate)
Class	–	Mammalia (mammals)
Order	–	Primates
Family	–	Hominidae (human-like)
Genus	--	Homo
Species	–	Sapiens

The scientific name for humans is *Homo sapiens*.



# Dichotomous Key

- Written as a set of choices that leads to the name of an organism.
- Scientists use these to identify unknown organisms.



Bird W



Bird X



Bird Y



Bird Z

## Dichotomous Key to Representative Birds

1. a. The beak is relatively long and slender ..... *Certhidea*  
b. The beak is relatively stout and heavy ..... go to 2
2. a. The bottom surface of the lower beak is flat and straight ..... *Geospiza*  
b. The bottom surface of the lower beak is curved ..... go to 3
3. a. The lower edge of the upper beak has a distinct bend ..... *Camarhynchus*  
b. The lower edge of the upper beak is mostly flat ..... *Platyspiza*