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| Classification of Organisms |
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**What is classification?**

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**What are the benefits of classification?**

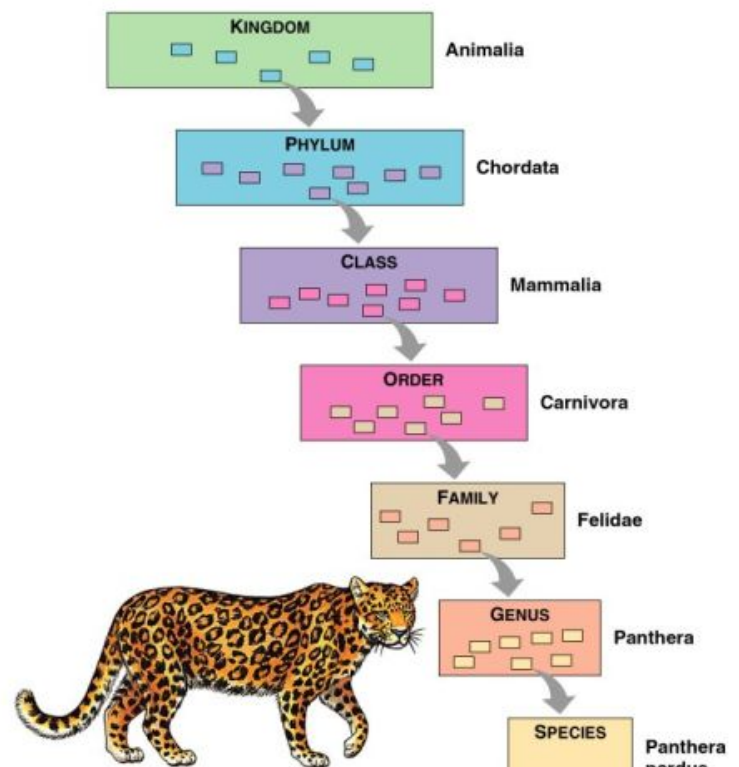
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**Early Taxonomists: Carolus Linnaeus (1707-1778):**

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**Classification Groups:**

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- There is a hierarchy of groups (taxa) from broadest to most specific:
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Did King Phillip Cry Out "For Goodness Sakes"!

## Binomial Nomenclature:

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## Domains:

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## Prokaryotes vs. Eukaryotes:

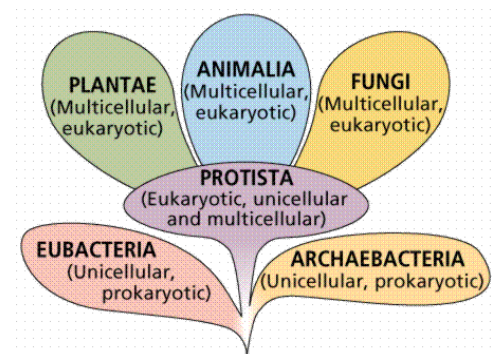
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## Archaea:

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- Found in: sewage treatment plants, thermal volcanic vents, hot springs or geysers that are acidic, very salty water (Dead Sea, Great Salt Lake)

## Eubacteria:

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- Commercially important in making cottage cheese, yogurt, buttermilk, etc.



## Eukarya:

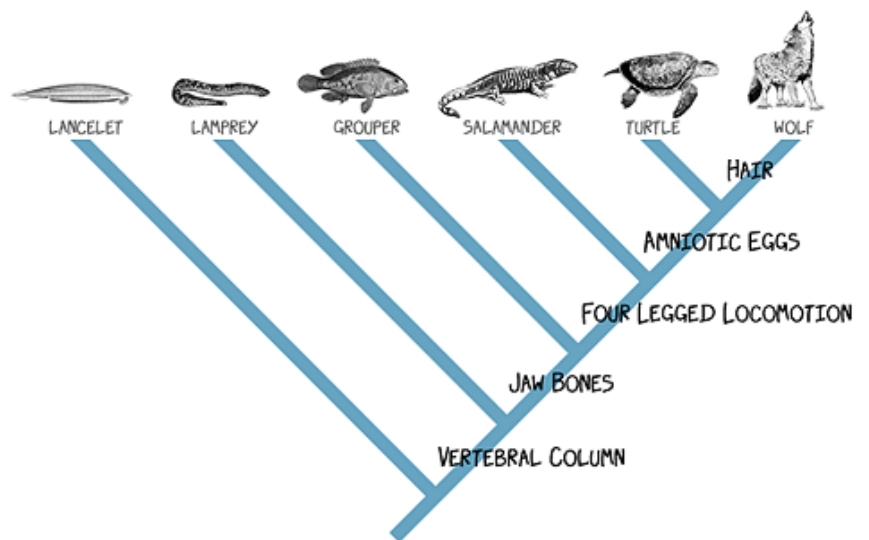
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- Divided into 4 kingdoms:
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## Basis for Modern Taxonomy:

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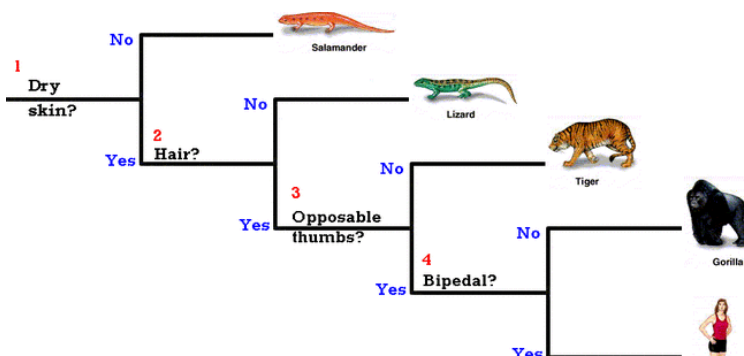
## Cladogram:

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## Dichotomous Key:

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## Dichotomous Key

1. Has pointed ears .....go to 3  
Has rounded ears .....go to 2
2. Has no tail .....Kentuckyus  
Has tail .....Dakotus
3. Ears point upward .....go to 5  
Ears point downward .....go to 4
4. Engages in waving behavior .....Dallus  
Has hairy tufts on ears .....Californius
5. Engages in waving behavior .....WalaWala  
Does not engage in waving behavior .....go to 6
6. Has hair on head .....Beverlus  
Has no hair on head (may have ear tufts) ....go to 7