

Unit II

Taxonomy and Evolution

Classification and naming

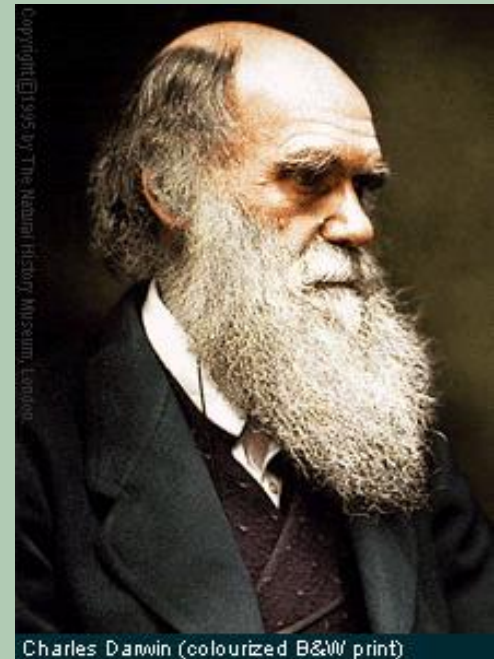
Change over time



Carolus Linneaus



Pan troglodytes



Charles Darwin (colourized B&W print)

Taxonomy

Comes from taxi = arrange

and nomy = name

Aristotle (a rather smart, greek dude) used how organisms mate to classify them

Others used how they move

- Walkers
- Fliers
- Swimmers

But what about

the **DUCK??**



Enter..... **LINNAEUS**

He came up with a *hierarchical* system of classification

Based on **physical characteristics** = MORPHOLOGY



Kingdom

(lots o' variety, very general)

Genus Genus Genus

(some variety, more specific)

Species Species Species Species

Species Species Species Species (very similar, most specific)

Swedish, monkish

You may recognize we skipped a few groups.

We've improved upon ol' Linnaeus' great idea.....

Modern classification

A *taxon* is a classification group

e.g animal or vertebrate or bryophyte (moss)

Modern taxons are based on:

Physical characteristics and evolutionary relationships

There's a bunch and we need to know 'em in order! From most general to specific it goes.....

Domain (a new one), Kingdom, phylum, class, order, family, genus, species

How do we know what groups to
put things in?

Dichotomous keys! = a series of either/or
questions that lead to an identification.

And so.....

.....to the lab!