

HSSU Bio. 201 Plants and People
Chapter 8 Study Guide: Plant Systematics and Evolution

Important Terms and Concepts

Taxonomy
Classification
Nomenclature
Phylogeny

Western Science

Aristotle
Dioscorides
Herbals
Polynomial

Linnaeus

Species Plantarum
Common Name
Binomial Name
Scientific Name
Genus
species
Author Citation
Rule of Priority
Code of Botanical Nomenclature
Sexual System
Artificial System
Hierarchical Classification

Plant Families

Species Concepts

Morphological Species Concept
Biological Species Concept

Evolution

Lamarck
Inheritance of Acquired Characters
Charles Darwin
Voyage of the Beagle
Origin of Species
Thomas Malthus
Artificial Selection
Natural Selection
Phylogeny
Phylogenetic Tree
Clades
Cladistics
APG System
Phylogenetic Classification
Orders of Plants
Biodiversity
DNA Barcoding

Discussion Questions

1. What three parts does a scientific name consist of? What are some advantages of using scientific names for plants?
2. Distinguish between the terms Classification, Taxonomy, Nomenclature, and Phylogeny. How are all of the important in modern plant biology?
3. What did Linnaeus contribute to the field of plant taxonomy? Name at least three things he is known for today.
4. If a plant is found to have two published names in the literature, how do we decide which is the correct valid name?
5. List and describe the 4 major conditions or features in Darwin's theory of evolution by natural selection. How does it work? What is evolution?