

## Biodiversity – The Kingdoms of Living Things

### Kingdom Monera

Prokaryotic

Single-celled

Bacteria and Blue-Green "Algae"

Autotrophic and Heterotrophic

### Kingdom Protista

Eukaryotic

Single-celled

Protozoans, single-celled algae, slime molds

Autotrophic and Heterotrophic

### Kingdom Fungi

Eukaryotic

Most Multi-celled (with cell walls composed of chitin)

Fungi in the traditional sense

Heterotrophic

### Kingdom Animalia

Eukaryotic

Multi-celled (without cell walls)

Animals in the traditional sense

Heterotrophic

## Kingdom Plantae

Eukaryotic

Most Multi-celled (with cell walls composed of cellulose)

Plants in the traditional sense

Autotrophic

### Nonvascular Plants

Do not have xylem and phloem

Do not produce seeds

Do not produce flowers or fruits

Mosses, liverworts, hornworts

### Vascular Plants Without Seeds

Do have xylem and phloem

Do not produce seeds

Do not produce flowers or fruits

Fern allies (whisk ferns, club mosses, horsetails, quillworts) and ferns

### Vascular Plants With "Naked" Seeds – Gymnosperms

Do have xylem and phloem

Do produce seeds

Do not produce flowers or fruits

Conifers, cycads, ginkos, gnetophytes

### Vascular Plants With Protected Seeds – Angiosperms

Do have xylem and phloem

Do produce seeds

Do produce flowers and fruits

All flowering plants including monocots and dicots