

Zoology = Study of animal life

What makes animals unique among living organisms?

- **Animals are Eukaryotes**
 - Group includes plants and fungi
 - Cells contain membrane-enclosed nuclei
- **Nutrition comes from other organisms**
 - Animals lack photosynthesis, cell walls, absorptive abilities of fungi
 - Many animals must capture food

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Origin of Life

- **Earliest life about 4 billion years ago**
- **Thought to be Heterotrophs – derived nutrition from the environment**
- **Autotrophs thought to evolve slightly later – could synthesize their food from inorganic sources (e.g., light)**

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Origin of Life

- **Variety of cyanobacteria (prokaryotes) arose about 3 billion years ago**
- **Dominated oceans for 1-2 billion years, producing atmospheric oxygen**
- **First eukaryotes appear about 1.5 billion years ago**
- **Animals first appear in the early Cambrian nearly 600 million years ago**
- **“Cambrian explosion” – many phyla within a short time period (few million years)**

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