Animal Classification

The hierarchical classification of animals is based on vertebrates and invertebrates.

Vertebrates
Vertebrates are characterized by an internal skeleton with a backbone of vertebrae.

Invertebrates
Invertebrates do not have a backbone. Common invertebrates include: crustaceans, mollusks, worms, and jellyfish.

Vertebrates vs Invertebrates
- Vertebrates: have a backbone, well-developed brain, gills or lungs, advanced nervous system, and digestive system.
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6 Animal Groups
Vertebrates
- Fish
- Amphibians
- Reptiles
- Birds
- Mammals
- Invertebrates

Fish: Properties
- Cold blooded
- Live in water entire life
- Lay eggs
- Gill to breathe
- Have fins

Amphibians: Properties
- Cold blooded
- Moist and smooth skin (no scales)
- Breathe through lungs
- 2 pairs of limbs and webbed feet
- Most lay unhatched eggs in water

Reptiles: Properties
- Cold blooded
- Scales or scutes on skin
- Lay shelled eggs on land
- Breathe through lungs
- Some reptiles bear live young

Birds: Properties
- Warm blooded
- Beaks or bills
- Lay hard shelled eggs (usually in a nest)
- Breathe through lungs
- Wings for flight or swimming
- Feathers for warmth

Mammals: Properties
- Warm blooded
- Hair or fur
- Birth live young
- Young fed milk
- Four chambered hearts

Fun Fact!
- Over 95% of animal species are invertebrates! While we usually think about birds, reptiles, and mammals, invertebrates actually make up less than 5% of all species.

Wildlife Photography by Dan Doucette