



# Amphibians

## What is an Amphibian?

There are three main groups:

**Frogs and Toads, Salamanders and Newts and the worm like Caecillians**

## Characteristics of Amphibians:

- Most change from aquatic young into terrestrial adults.
- They have moist skin and do not have scales, hair or feathers.
- Young have gills, Adults might breathe via gills, lungs or their skin.
- They normally lay shell-less eggs in wet or damp areas.
- They are ectotherms. They control their body temperature by exchanging heat with their surroundings

### Humans use frogs in medicinal research

Frogs produce a wide array of skin secretions, many of which have significant potential to improve human health through their use as pharmaceuticals. Approximately 10% of Nobel Prizes in Physiology and Medicine have resulted from investigations that used frogs. When a frog species disappears, so does any promise it holds for improving human medicine.

Examples include the White's Tree frog that produces caerin that can block the transmission of HIV and the Fire bellied toad that produces bradykinin that help reduce high blood pressure.



### What's a Caecillian?

Caecilians are amphibians that lack limbs. They look a bit like earthworms or snakes and can grow up to 1.5 m (5 ft) in length. As they generally live underground, they are the most under-studied group of amphibians.

### What's the difference between a frog and toad?

Not much. True toads (bufonids) tend to have short legs and dry 'warty' skin, though there are plenty of frog species that fit this description as well. Toads tend to have toxic secretions, but so do poison dart frogs.

## Amphibian Threats today

Amphibians are without a doubt the most endangered group of animals on the planet: nearly 1/3 of the world's 6,485 species are on the brink of extinction. There are six major factors negatively affecting amphibians, and all are due to human activity: **habitat destruction, infectious diseases, pollution & pesticides, climate change, invasive species, and over-harvesting** for the pet and food trades.

## How you can Help save Amphibians:

**Build a Pond** - create space in your garden for wildlife

**Climate change** - reduce the energy you use, recycle and reuse

Try to find **natural alternatives** to chemical products

The word **amphibian** is derived from Greek and means 'two lives', referring to the fact that most amphibians spend their larval stage as aquatic, herbivorous tadpole, and their adult stage as terrestrial carnivore.