

WATER – the Essential Necessity for Amphibians

Amphibians are cold-blooded animals that spend time both in water and on land.



Amphibians are in the class *Amphibia* which includes 6000 living species. The three orders include: **Anura** (no tail) – **Frogs and Toads**, **Caudata or Urodela** (visible tail) - **Salamanders, Newts and Mudpuppies**), and **Gymnophiona or Apoda** (no legs) **Caecilians**. Amphibians have an aquatic gill-breathing larval stage that lives in water followed by an adult lung-breathing stage that lives on land.

Frogs and toads are the largest group of Amphibians. Most frogs and toads live in areas where there is fresh water. Frogs and toads live on land but require water in which to lay their eggs. The eggs hatch into tadpoles and the tadpoles live in the water for about 3 months before metamorphosis occurs and they become frogs and toads.

Frogs live on both land and in water and require habitats near ponds, swamps or other damp places as death occurs if their skins dry out. Frogs have permeable skins allowing them to both breathe and drink through their skins. If the water in their habitat is polluted, the health of the frogs will be affected. For this reason frogs are one of the earliest indicators of the wellbeing or endangerment of an ecosystem.

Toads go into the water only for breeding purposes. Because of their permeable skins, toad habitats include watery lands, pools, gardens, agricultural lands – any place providing moisture and humidity. Toads require soggy places under small digs in which to hide during the day before venturing out at night to catch their prey. However, they will come out of their hiding places on a rainy day. During hot dry weather, toads burrow into the ground and become inactive.

Salamanders have long tails and are usually found in or near water. Adults spend most of their time on land, often residing in moist soil under rocks or logs. Salamanders have permeable skins and night vision. Most salamander species begin their lives in water with some remaining aquatic and others living on land.

Newts begin life as larvae in water, when fully metamorphosized become efts (juveniles) living on land and then as adults often return to live in water. Newts also have permeable skins and along with their salamander cousins serve as bio-indicators of the health of their ecosystems.

Amphibians share a common necessity for healthy, accessible water. Unfortunately, there has been an alarming decline in the amphibian population worldwide in the last fifty years. Pollution of freshwater ecosystems, habitat loss, silting of streams and chytrid fungus have all been responsible for the decline. Loss of habitat has been realized through agricultural activities, logging and encroachment of human settlements.

As the number of amphibians – the bio-indicator species – declines, so do the numbers of healthy ecosystems in our world and as a result, other animal and plant species dependent on those ecosystems decline as well.

Source: scienceclarified.com