

Salamander Secrets

Salamanders may be found in rivers and streams, ponds and lakes, wetlands, **vernal pools** and even dry forests. Salamanders that live in the water are called aquatic. Those that live on land are called terrestrial. Salamanders have many special adaptations that allow them to survive in a wide variety of environments.

A breath of fresh air

Not all salamanders breathe the same way. Each species may use one or more methods to breathe.

Gills: Some aquatic species have gills for their entire life, such as the mudpuppy. These gills look like feathery tufts on either side of the head. Keeping **larval** characteristics into adulthood is called **neoteny**.

Lungs: Some terrestrial salamanders have lungs. Their lungs are simple rather than complex like the lungs of mammals.

Skin: Some terrestrial species do not have lungs. They have thin skin that has many blood vessels near the surface that absorb oxygen.

Life on land

Salamanders must keep their skin moist. They stay under the cover of wet leaves or logs and rocks and only come out at night when the air is damp. They also have skin glands that secrete mucus to help keep them moist when on land. Some salamanders, such as the Northern slimy salamander, even secrete a toxic or sticky substance to help protect themselves from predators.

Sneaky salamanders

Some salamanders, such as the seal salamander, can use their tail to escape danger. Their tail will break off and wiggle around if a predator catches them. The wiggling tail distracts the predator, giving the salamander a chance to escape. The missing tail may re-grow within a few weeks.

Meal time

All salamanders are **carnivores** (meat-eating). Their diet depends on their size and habitat. Terrestrial salamanders usually catch food by extending a sticky tongue and pulling it into their mouths. Some will even lunge forward and grab prey with their jaws. Most aquatic species grab prey with their jaws.

