NEWT EXPLORATIONS

at Filoli's Nature Preserve

Have you ever been to Filoli's Nature Preserve on a field trip or guided hike with your family? If so, you may have seen a very special creature called a newt! There are many newts living in Filoli's pond and creek habitats, and also in the redwood forest where they find homes in cool, moist places. Newts love to come out on the trails after it rains.

Newts are amphibians, just like frogs and salamanders. The word amphibian means "to live a double life". This refers to the newt's ability to live both in water and on land. Newts breathe underwater with gills in the early stages of life. They develop lungs as the newt matures into an adult. This ability is a protective adaptation for their survival.

Here is how a newt's life begins:
Egg sacs can be seen attached to submerged vegetation in Filoli's pond. Larvae are newt tadpoles. They have gills to breathe underwater. Adults can breathe for a short time through their skin when underwater, and they come up for a breath of air as needed. Adults also grow lungs to breathe outside of water.

Newt Egg Sacs

Larvae

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Adult Newt

Some other fun facts about newts are that they have the ability to regenerate body parts. They have superhero powers! Their tongues have a sticky texture, which helps them catch prey. They mostly eat earthworms, snails, sowbugs, and slugs.

Protection from Predators

Newts have several ways to protect themselves from being harmed by predators. One way, as mentioned previously, is their ability to live both on land or in water.

The newts that live at Filoli have webbed feet and a variable shaped and sized tail. Adult males have a larger tail during its aquatic stage in order to swim faster. If newts had a larger tail while living on land, it would tend to slow them down as they move. Speed of movement in water and on land is important to help them escape from predators.

The skin of a newt's back is brown in color which provides camouflage for the newt when living on land or in murky water. They blend in with the dirt and leaf litter on the forest floor so predators don't see them as easily. Also, if a newt is in a body of water that is not very clear, it is better able to camouflage itself.

Newts have an orange-colored underside. Orange is the color of caution and when a newt flashes its orange underside to a predator it is a warning to back off and beware. Newts secrete a poisonous substance through their skin. There are very few animals who can eat a newt and survive.

When a newt feels threatened by a predator it will raise its head, point its tail, and arch its back. This posture exposes their bright orange underside which serves as a warning to its predators.

Watch the video and see if you can fill in the activity page with the adaptations that newts use to protect themselves from predators.

List adaptations that help the newt avoid or survive attacks from predators:

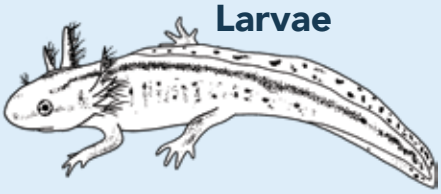
1) _____

2) _____

3) _____

Egg Sac

Larvae

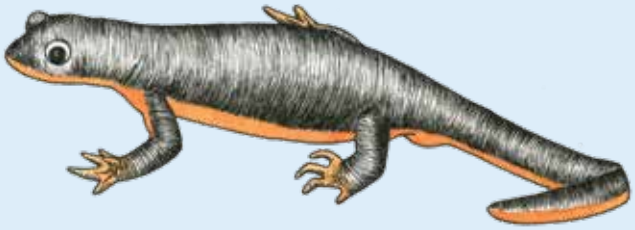


Larvae have gills to breathe underwater. Adults grow lungs to breathe outside of water.

Aquatic Adult

The shape of the male's tail changes in the aquatic stage. Why?

Adult on Land



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We hope you enjoyed our exploration about newts found on Filoli's Nature Preserve. We look forward to you visiting Filoli on your next hike!