

BEST PRACTICES



The Pacific Northwestern Salamander



A Remarkable Resident of Our Northwest Forests

Deep within the lush, damp forests of the Pacific Northwest lives a small but remarkable creature: the Pacific Northwestern Salamander (*Ambystoma gracile*). This unique amphibian, while often overlooked, plays a key role in our ecosystems and offers a fascinating glimpse into the region's biodiversity. Let's explore its life, habitat, and role in our local ecosystem.

Appearance and Identification

This salamander grows 5 to 8 inches long as an adult. It has smooth, moist skin and is dark brown to black, often with lighter speckling. Juveniles, or larvae, have feathery gills during their aquatic stage.

Interestingly, some Pacific Northwestern Salamanders exhibit neoteny—a phenomenon where individuals remain in their larval stage and retain their gills throughout their lives, even while reaching sexual maturity. This trait allows them to live permanently in aquatic environments, a unique adaptation that sets them apart from many other salamanders.

Habitat and Range

You'll find the Pacific Northwestern Salamander from northern California to British Columbia. It thrives in cool, moist habitats like coniferous forests, wetlands, and stream edges. These salamanders love hiding under logs, leaf litter, and moss—enjoying environments with abundant cover.

As larvae, they live in slow-moving or still waters, eating aquatic insects, small invertebrates, and even other salamander larvae. As adults, they live mostly on land but stay close to water for breeding and moisture.

Life Cycle and Behavior

Breeding occurs from late winter to early spring when adults migrate to ponds and other bodies of water. Females lay up to 200 eggs in gelatinous clusters underwater. Larvae hatch in several weeks and remain aquatic for one to two years before becoming adults—or staying in their larval stage if conditions are right.

Adult salamanders are nocturnal and emerge on rainy nights to eat earthworms, slugs, spiders, and insects. This makes them excellent pest controllers.

Ecological Importance

- Salamanders act as both predator and prey.
- They help control aquatic insect populations.
- Their feeding contributes to regulating soil-dwelling invertebrates.
- Their presence is an indicator of environmental health.

Because amphibians are highly sensitive to changes in water quality, temperature, and habitat disturbance, a stable salamander population signals a healthy, well-balanced ecosystem.

Conservation and Threats

The biggest threats to these salamanders are habitat loss, pollution, and climate change. Logging, urban development, and wetland drainage can disrupt breeding grounds and reduce suitable habitat. Stormwater pollution harms both larvae and adults.

What YOU Can Do

Conservation efforts focused on protecting wetlands, preserving forest habitats, and maintaining water quality are critical to ensuring the long-term survival of this species.

You can help salamanders by:

- Reducing pesticide use.
- Supporting habitat restoration projects in your community.
- Respecting amphibian habitats when outdoors.

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