## Wild Things in Your Woodlands

Eastern newt (Notophthalmus viridescens)



The eastern newt is a small- to medium-sized salamander with two irregular rows of reddish spots bordered by black circles. Adults range in size from 2  $\frac{1}{2}$  to 4  $\frac{1}{2}$  inches. During the breeding season, the tail fin of the male gets very broad, and he often waves it around in the water, seemingly displaying his breeding status. Males also have a series of dark, hardened pads on the inside of their hind legs.

During the summer months, the eastern newt often can be spotted in water or on land. The appearance of the eastern newt is somewhat different in each of its three distinct life stages: larva, eft, and adult. As developing larvae in the water, newts are small, with faint red spots, bushy gills, and tail fins. As they grow, they lose their gills, their tail fins disappear, and they emerge from the water as brightly colored orange or red efts. During this stage, which can last from two to seven years, they are very visible, often seen walking out in the open woods during the day. The bright color is a warning to predators, meant to remind them that newts secrete toxic chemicals that make them distasteful or even harmful to eat.

After several years of living on land as immature efts, their color becomes greenishbrown, their skin becomes smoother, their tails flatten out, and they return to the water as adults. In many permanent ponds and lakes, they spend the remainder of their adulthood in the water. However, in temporary ponds or in warmer regions, adults often go back on land during dry periods and throughout the winter. As adults, newts usually are a dull greenish brown in color, and have a yellow belly with numerous small black dots. Aquatic adults have flattened tails that are better shaped for swimming than the rounded tails of the efts.

The eastern newt lives throughout New York State from sea level to elevations above 3,300 ft. Aquatic adults are active throughout the summer and fall and in many areas can be seen swimming during the winter months. In early spring, as the ice is melting in lakes and ponds, adults begin to congregate along the shorelines and around vegetation in preparation for breeding. Females lay from 200-400 eggs, individually attaching each one to objects in the water. The eggs hatch in about four weeks. Larval newts can be seen swimming throughout the summer, until fall, when they transform into efts and move out of the water into the surrounding uplands. The bright orange terrestrial efts actively feed

until late fall, after which they settle under logs, in crevices, or in burrows until early spring.

In both the adult and larval stages, eastern newts are aquatic animals that often live in great numbers in unpolluted, permanent bodies of water with plenty of aquatic plants. The species is extremely adaptable, however, and also inhabits temporary ponds, ditches, streams, and agricultural ponds. Efts are found in a variety of terrestrial habitats, but mainly in moist woodlands that border the ponds where they originated.

On land, efts eat insects, worms, and other ground-dwelling animals small enough to swallow. In the water, the newts' diet includes mosquito larvae, aquatic insects, leeches, clams, snails, and the eggs and larvae of other amphibians. They are also a food source for some predators, such as reptiles, that apparently are not bothered by their toxins. The total life span of an eastern newt can be ten years or more.

The best way to create habitat for newts is to maintain good water quality in lakes, ponds, and other water bodies that provide habitat for the larval and adult newts. Maintaining forest habitat adjacent to, or surrounding, these aquatic habitats will ensure that habitat is provided for all three life stages of this animal. Leaving logs and treetops on the forest floor can provide protection for the efts during times of dry weather, and can provide over-wintering sites during the coldest months of the year.

Adapted from "Hands-On Herpetology: Exploring Ecology and Conservation" by R. L. Schneider, M. E. Krasny, and S. J. Morreale.

Kristi Sullivan coordinates the Conservation Education Program at Cornell's Arnot Forest. More information on managing habitat for wildlife, as well as upcoming educational programs at the Arnot Forest can be found by visiting the Arnot Conservation Education Program web site at arnotconservation.info

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