# Eastern Newt (*Notophthalmus viridescens*)

***Family Salamandridae***

**Subspecies: Central Newt (*Notophthalmus viridescens louisianensis*)**

***Updated 2025**

*Terrestrial Eft. © Garret Adamek*

*Terrestrial Eft. © Mike Day*

*Aquatic Adult. © Matthew Ignoffo*

**Description/Identification:** Adult Eastern Newts are predominately aquatic, and range in size from about 2 ½ to 4 inches snout-to-tail length (or about 1.18 to 2.0 inches snout-to-vent length). The skin is dry and granular, and can vary in color from dark olive-green to yellow-green with two or more rows of small red or orange spots. These spots can sometimes be absent or obscured in some specimens. The ventral surface of the aquatic adults ranges from brighter yellow to orange-yellow, and both the dorsal and ventral surfaces are covered with smaller, darker spots or flecks. Tail fins are most prominent in aquatic adults, and are absent or reduced in the efts and other life stages. Costal grooves are absent in newts, and the fore-feet have four toes, and the hind feet have five. A faint darker ocular stripe may run on each side of the head as well. Inside the mouth, Eastern or Central Newts have 3 different rows or groups of very tiny, vomero-palatine teeth, much more like sandpaper, which are perhaps best observed and seen under an electron microscope. Interestingly, Eastern Newts have a small movable tongue which can also change seasonally from aquatic to terrestrial stages, developing a more complex adhesive tongue during terrestrial adult stages in order to capture food.

*© Michael Benard. Aquatic Larval Form.*

The Eft, which are the terrestrial, juvenile lifestages of Eastern Newts, can vary in dorsal color from dark rusty-brown, orange, or orange-brown, to yellowish-orange on the ventral surface. The advanced larval stages are similar to the aquatic adults, but have more reduced tail fins. Aquatic larval Eastern Newts have distinctive bushy reddish external gills, and two rows of light yellow spots or stripes on a rusty-brown, yellowish, or darker ground color. Male and female newts are similar in appearance, except

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during the breeding season when males will have swollen cloacas, and 6 hedonic pits. During breeding, males will also develop black, hardened excrescences on their inner thighs and ends of their toes, as well. The subspecies occurring in Wisconsin is the Central Newt (*Notophthalmus viridescens louisianensis*).

*© WDNR.*

**Range and Distribution:** Eastern Newts are broadly and widely distributed over much of southern Canada (Nova Scotia, Quebec and Ontario), and eastern United States westward to central Minnesota, and southward to eastern Texas. In Wisconsin, newts are also widely distributed, and may be found statewide in appropriate breeding habitats. They are noted to be scattered, however, and there still are probably many more counties in Wisconsin lacking documentation.

**Habitat:** Newts can occur in a variety of aquatic habitats, with the aquatic adults inhabiting weedy or well-vegetated permanent ponds, shallow lakes, or permanent to semi-permanent backwater sloughs or swales, ditches, or marshes. They may occupy river-bottom forests, kettle or ephemeral ponds, and lowland hardwood or mesic forests, as well as more open areas such as marshlands, oak savannahs, and woodlots. The terrestrial juvenile Efts can be found secretively in, under, or amongst rotting logs, fallen bark, railroad ties, leaf litter, or other humus or moist ground debris adjacent to or nearby to their adult aquatic breeding habitats.

*Aquatic Adult Ventral/Belly View. © Connecticut's Beardsley Zoo. Terrestrial Eft is similar, but more granular.*

**Feeding and Diet:** Eastern Newts are predominately carnivorous. The aquatic adults likely feed on small

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aquatic crustaceans, worms, aquatic insects and their larvae, small mollusks such as snails, small fish and their fry and eggs, as well as eggs or larvae of other amphibians. Terrestrial eft stages likely consume small insects, arachnids, worms, tiny mollusks, or other tiny microinvertebrates living in and amongst the moist leaf litter or debris.

**Natural History:** Newts may be active throughout the year, and they are occasionally captured or trapped in fish traps under the ice in winter by ice fishermen. In the spring and summer, they may be active throughout the day, but tend to become more nocturnal or crepuscular during the fall and winter. Newts normally walk or crawl across the bottom of their aquatic environments, or climb amongst aquatic vegetation, but can also swim well using bodily undulation much like most fish. Courtship and mating typically occur late in the fall or throughout winter, as well as in the spring, although eggs are not usually deposited until early to late spring of the following year.

Eastern Newts may lay their eggs singly, or in clusters of about 12 to 140 amongst a thick, jelly-like substance coating each egg. In about 20 to 40 days, the eggs will hatch into their aquatic larval stage. By late summer, the larvae either metamorphosize and leave the water as terrestrial efts, or bypass the eft stage and remain in the water as air-breathing aquatic adults. Whether newts metamorphosize into efts or not is probably related to different local environmental factors, water levels, and/or available surrounding habitat. Newts also possess the ability to infinitely oscillate or transition to and from their aquatic and terrestrial life stages as well, and in some areas, the terrestrial eft stage may last as long as two or three years, depending on the climate.

Newts are also often found in association with Blue spotted Salamanders (*Ambystoma laterale*), Spotted Salamanders (*Ambystoma maculatum*), and/or Eastern Tiger Salamanders (*Ambystoma tigrinum*). When threatened or disturbed, the aquatic adults can swim rapidly, and the bright ventral coloration of the efts are displayed in defensive postures known as the unken reflexes where the head, neck, and/or tails are arched upwards and backwards to warn predators of their potential toxicity. Efts also contain glands along their backs which secrete a distasteful substance to many predators. Newts also seem to possess excellent bodily regenerative abilities as well.

Larval and aquatic stages of newts may be eaten and consumed by large aquatic invertebrates such as large crayfish or water bugs, fish, or other amphibians and/or predatory amphibian larvae. Many different species of birds, turtles, snakes, and carnivorous small mammals, such as shrews, weasels, and other mammals (such as skunks, opossums, raccoons, and foxes) may also eat newts.

**Conservation Status:** In Wisconsin, Eastern Newts are listed as “Common”, but are scattered throughout the state, and many more counties are still probably lacking documentation. However, they are still regulated and protected along with all other of Wisconsin’s herptiles under N.R. 16. Eastern Newts are currently not protected or regulated federally. Eastern Newts are currently IUCN Red-List Least Concern (LC).