

Amphibian Migrations & Road Crossings

Amphibian Identification Guide



Hudson River
Estuary Program



Cornell University

A Program of the New York State Department of Environmental Conservation

The NYSDEC Hudson River Estuary Program and Cornell University are working with communities to conserve forests, woodland pools, and the wildlife that depend on these critical habitats. This guide is designed to help volunteers of the Amphibian Migrations & Road Crossings Project identify species they observe during spring migrations, when many salamanders and frogs move from forest habitat to woodland pools for breeding. For more information about the project, visit <https://www.dec.ny.gov/lands/51925.html>.



spotted salamander* (*Ambystoma maculatum*)

Black to dark gray body with two rows of yellow spots. Widespread distribution in the Hudson Valley.

Total length 5.0-9.0 in.



Jefferson/blue-spotted salamander complex* (*Ambystoma jeffersonianum* x *laterale*)

Brown to grayish black with blue-silver flecking. Less common.

Note: Hybridization between Jefferson and blue-spotted salamander has created very variable appearances and individuals may have features of both species. Because even experts have difficulty distinguishing these two species in the field, we consider any sightings to be the 'complex.'

Total length 3.0-7.5 in.



marbled salamander*

(*Ambystoma opacum*)

Black or grayish-black body with white or gray crossbars along length of body. Stout body with wide head. Less common. (Breeds in the fall.)

Total length 3.5-5.0 in.

* woodland pool breeding species

0	inches	1	2	3	4	5	6	7	
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eastern newt (*Notophthalmus viridescens*) Terrestrial “red eft” stage of newt (above) is reddish-orange with two rows of reddish spots with black borders. Efts have dry, rough skin and a rounded tail. Aquatic, adult newts (below) are yellowish-brown with a yellow belly with black spots. The adult’s tail is flattened and skin is smooth. Very common.

Total length 1.5-3.0 in.



northern redback salamander (*Plethodon cinereus*) Slender dark gray body with or without (“leadback”) red-orange stripe along back and tail. Four-toed salamander may appear similar in general color and size. Very common.

Total length 2.5-4.0 in.



four-toed salamander (*Hemidactylium scutatum*) Small body with reddish-brown back flecked with dark spots. White belly with black spots. Four toes on each hind foot. Blunt snout. Distinct constriction at the base of the tail. Redback salamander may appear similar in color and size but lacks white belly. Less common.

Total length 2.0-3.5 in.



wood frog* (*Lithobates sylvatica*) Light tan to brown body with solid white or cream undersides and dark "raccoon" mask across eyes. Two distinct ridges (dorsolateral folds) run down its back. Very common.

Total length 1.5-3.0 in.



gray treefrog (*Hyla versicolor*) Light green to gray body with rough skin and dark blotches on back. Yellow inner thighs. Light spot with dark edge beneath eyes. Large toe pads. Common.

Total length 1.5-2.0 in.



northern spring peeper (*Pseudacris crucifer*) Small body with smooth skin that is usually light brown but may be gray or olive. Dark, irregular "X" on its back and pale undersides. Small toe pads. Very common.

Total length 0.5-1.5 in.



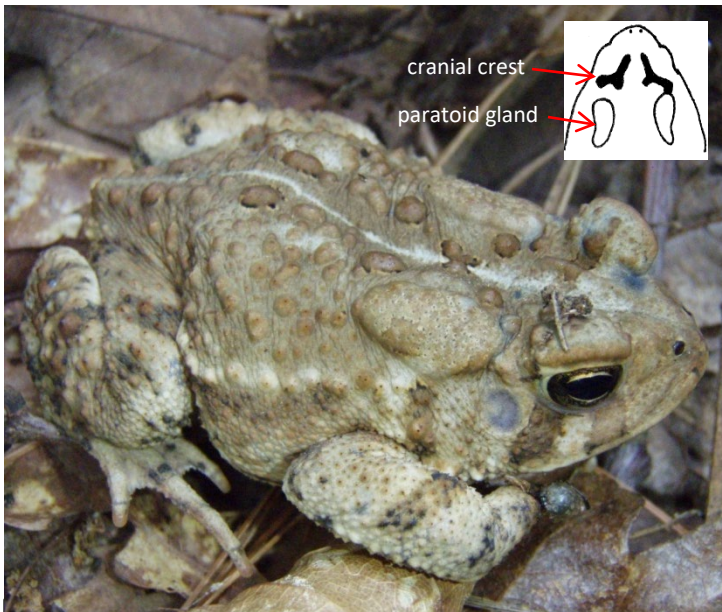
green frog (*Lithobates clamitans*) Variable coloration. Usually green to bronze body, often with dark mottling. Ridges extend from the eye to two-thirds down the back on each side. Bullfrog may appear similar but lacks ridges along back. Very common.

Total length 2.5-3.5 in.



bullfrog (*Lithobates catesbeiana*) Very large body with variable coloration; often dull green with dark mottling and skin folds curving from eye downward around the rear of the tympanum (disc-shaped ear drum behind eye). Green frog may appear similar. Very common.

Total length 3.5-6.0 in.


eastern American toad (*Anaxyrus americanus*)

Stout, rough-skinned toad with variable coloration. Usually light brown to reddish brown, with one to two warts per dark spot on its back (but overall more warty throughout its back) and dark speckles on white belly. Fowler's toad may appear similar. Very common.

Total length 2.0-3.5 in.


Fowler's toad (*Anaxyrus fowleri*)

Stout, rough-skinned toad with variable coloration; usually gray or greenish. Similar to American toad but with 3 to 7 warts per dark spot on its back and no spots on belly (and paratoid glands touch cranial crests, whereas they usually do not on American toads – see inset). Less common.

Total length 2.0-3.0 in.


northern leopard frog (*Lithobates pipiens*)

Green to light brown, elongate body with rows of dark roundish spots with light borders and distinct ridges (dorsolateral folds) along either side of back. Pickerel frog is very similar. Less common.

Total length 2.0-3.5 in.



pickerel frog (*Lithobates palustris*) Tan body with dark rectangular spots and distinct ridges (dorsolateral folds) along either side of back. Inner thighs are bright yellow. Similar to northern leopard frog, which has rounder spots and no yellow coloration inside hind legs. Common.

Total length 2.0-3.0 in.

Information compiled by Lan Tran and edited by Laura Heady of the Hudson River Estuary Program. Photo credits: spotted salamander: Laura Heady | Jefferson/blue-spotted salamander complex: Jim Clayton | marbled salamander: Chris Bowser | eastern newts: Laura Heady | northern redback salamander: Brian Houser (redback phase), Elizabeth Janes (leadback phase) | four-toed salamander: Laura Heady, Amy Bloomfield (spotted belly) | wood frog : Charlie West | gray treefrog: Mark Fitzsimmons | northern spring peeper: Ray Sussman | green frog: Laura Heady | bullfrog; eastern American toad: Amy Bloomfield | Fowler's toad: Vernal Pool Association | pickerel frog: Laura Heady | leopard frog: Vernal Pool Association.