

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF FISH & WILDLIFE

ENDANGERED & NONGAME SPECIES PROGRAM

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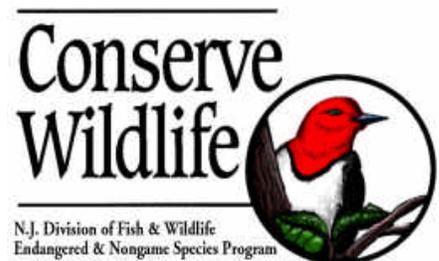
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FIELD GUIDE TO REPTILES AND AMPHIBIANS OF NEW JERSEY

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TOADS AND FROGS OF NEW JERSEY

Eastern Spadefoot (toad) (*Scaphiopus holbrookii holbrookii*)

Identification: 1 3/4" - 2 1/4". This toad is essentially some shade of brown, with two yellow lines running from each eye down the back. These two lines are usually quite obvious; however, some spadefoots are highly melanistic and the lines are very faint. Large yellow eyes with elliptical pupils protrude out of their heads. On each hind foot there is a sharp, black spade. The skin of the spadefoot is rather smooth for a toad, and the parotoid glands are absent or indistinguishable.

Where to find them: Spadefoots are found in sandy or loose soil habitats.

When to find them: Active April through September. However, spadefoots remain burrowed underground, sometimes for years, only to come to the surface after warm, heavy rains.

Voice: A short, low-pitched grunt, rather explosive. Some have compared it to the call of a young crow.

Range: Entire state.

American Toad (*Bufo americanus*)

Identification: 2" - 3 1/2". Though this toad is common in the Northern Region of the state, it is easily confused with the Fowler's Toad. However, the American Toad has four distinct features. First, they have only one or two large warts (bumps) in each of the largest dark blotches. Second, the chest is usually spotted with a darker color. Third, the warts on this toad's tibiae are enlarged. Finally, the parotoid gland is either separated from the ridge behind the eye, or connected with it by a short spur. The warts of this toad can be yellow, orange, red, or brown and the blotches the warts are in are a deeper color of brown or black. The toad is basically brown, gray, olive, or brick red in color.

Where to find them: American Toads can be found anywhere from backyards to remote woodland areas. For breeding purposes, these toads require shallow bodies of water, like vernal ponds or the shallow edges of streams.

When to find them: Active March through late September. Breeds from March to June.

Voice: Long, musical trill. Often considered to be a pleasant sign of early spring. Calls can be as short as six seconds or as long as thirty seconds. About thirty or forty trills per second.

Range: All of Northern Region except southern Monmouth County.

Fowler's Toad (*Bufo woodhousii fowleri*)

Identification: 2" - 3". Four key characteristics of Fowler's Toads are: (1) three or more warts (bumps) in each of its dark blotches, (2) chest is essentially unmarked, (3) warts on tibiae are not greatly enlarged, and (4) the parotoid gland usually does touch the cranial ridge behind the eye. Fowler's Toads are basically brown or gray, and usually have a light line running from between their eyes down the length of their backs.

Where to find them: The Fowler's Toad occurs mainly in sandy habitats throughout the state. They breed in vernal ponds, ditches, and the shallow edges of lakes and ponds.

When to find them: Active April through late September. Breeds from spring to mid-August, about the same time as the American Toad.

Voice: A nasal *w-a-a-a-h*, similar to the sound of a baby crying, that lasts for one to four seconds.

Range: Entire state.

Note: Fowler's Toad is known to hybridize with other species of toads. The offspring may show characteristics of both parents, and the calls of male hybrids may be intermediate and difficult or impossible to identify.

Treefrogs and their allies: Family characteristics include adhesive toe discs, and color changes in some species depending on light, moisture, temperature, stress, or breeding activity.

Northern Cricket Frog (*Acris crepitans crepitans*)

Identification: 5/8" - 1 3/8". Dark stripes run from the eyes of the Northern Cricket Frog down its back. It is generally brown on the sides, blending to more of a green hue on the back. A key characteristic is the dark triangle-shaped blotch between the eyes. The head is blunt and dark stripes are found on the thighs.

Where to find them: Cricket frogs are found near shallow areas of permanent bodies of water vegetated with shrubs and trees.

When to find them: Breeds April to June.

Voice: Sounds like two pebbles or metal balls being clicked together repeatedly—*gick, gick, gick, gick*. The call is slow at first, but picks up speed and lasts as long as twenty to thirty beats.

Range: Entire state.

Pine Barrens Treefrog (*Hyla andersonii*) State Endangered Species

Identification: 1 1/8" - 1 3/4". This vibrant frog is easy to identify with its lavender stripes outlined in white against the bright green ground color of its body. The concealed surfaces of its legs are bright orange.

Where to find them: The Pine Barrens Treefrog requires the acidic waters of Atlantic white-cedar swamps and bogs in the New Jersey Pine Barrens. They will typically call from trees standing in or near water, and will return to a more terrestrial habitat after breeding. Essentially only seen by following the calling male to its location.

When to find them: Can be found by their breeding calls in May, June, and July. Breeds in late spring and early summer.

Voice: Like the sound of a horn honking—*quonk, quonk, quonk, quonk*. Call is slower in cooler weather.

Range: Burlington, Ocean, Atlantic, Camden, and Gloucester Counties in the Southern Region: primarily restricted to Pine Barrens.

Northern Gray Treefrog (*Hyla versicolor*) and Southern (Cope's) Gray Treefrog (*Hyla chrysoscelis*) Southern Gray Treefrog is a State Endangered Species

Identification: 1 1/4" - 2". These two species are identical with the exception of their calls. They are both moderately large in comparison with most other members of the treefrog family. These treefrogs are typically gray, with some individuals having some green or brown in them. Their skin is warty (for a treefrog) and the concealed parts of their legs are bright orange or golden yellow.

Where to find them: Gray treefrogs are typically high in the trees, except when they are at the water's edge during breeding season. Highly camouflaged on the bark of tree trunks, the gray treefrogs are often only seen when their call gives them away. They breed in gravel pit ponds or swamps, and remain in mixed forest uplands during the rest of the year. Gray treefrogs call from the ground and from the treetops.

When to find them: Breed from May through July. High humidity and temperatures above 17° C initiate breeding activity.

Voice: The Northern Gray Treefrog has a slow trill while that of the Southern Gray Treefrog is quicker, shorter, and higher-pitched. Because it is sometimes hard to distinguish between the two where their ranges overlap, a tape recording of the call along with the temperature and humidity will aid in identification. The speed of the trills in both species is slowed when the weather is cool.

Range: Northern Gray Treefrog: Entire state.

Southern (Cope's) Gray Treefrog: Cape May and southern Cumberland, Ocean, and Atlantic Counties in the Southern Region.

Northern Spring Peeper (*Pseudacris crucifer crucifer*)

Identification: 3/4" - 1 1/4". Spring Peepers are marked by an imperfect, dark-colored "x" on their backs. Peepers can be olive, brown, gray, yellow, or any shade in between. This particular subspecies has a plain or virtually plain belly.

Where to find them: Spring Peepers tend to congregate where trees and shrubs are standing in water. This woodland species is often found near swamps and vernal ponds, as well as in cutover woods.

When to find them: Breeds from early March through May. Occasionally heard through August depending on weather.

Voice: *Peep, peep, peep, peep*—the call sounds like a high-pitched whistle. The single note repeated in well-defined intervals can be deafening when there is a full chorus of hundreds of individuals.

Range: Entire state.

Upland Chorus Frog (*Pseudacris triseriata feriarum*)

Identification: 3/4" - 1 3/8". The basic color of this chorus frog varies from brown to gray, but three characteristics remain constant. First, there is a light line through the upper lip. Second, a dark stripe from snout to groin passes through the eye. Third, there are three dark stripes or rows of small spots down its back. A dark triangle between the eyes (or a suggestion of one) is usually present. There are usually dark flecks on its otherwise cream-colored breast.

Where to find them: Swamps, moist woodlands, and the surroundings of marshes, bogs, and ponds are suitable habitats for the Upland Chorus Frog.

When to find them: Breeds from February to May.

Voice: Regularly repeated creaking sound—*crreek* or *prreep*.

Range: Northern Region: Sussex, Warren, Hunterdon, Morris, northwestern Bergen, and western Somerset and Passaic Counties.

New Jersey Chorus Frog (*Pseudacris triseriata kalmi*)

Identification: 3/4" - 1 1/2". The middle stripe of three dark stripes running down the back of the New Jersey Chorus Frog typically forks into two. Like the Upland Chorus Frog, a dark triangle or other dark figure may be present between the eyes and there is always a light line along the upper lip. These chorus frogs are pale gray to dark brown in color, with their markings always darker. Its belly is white and usually very plain, with only some individuals having a few dark spots.

Where to find them: This chorus frog is found in a variety of habitats, including dry areas or those disturbed by human activity.

When to find them: Breeds from February to June.

Voice: Sounds like someone running their fingers over the teeth of a comb—*crreek* or *prreep*.

Range: All of Southern Region.

True Frogs: Family characteristics include long legs, narrow waists, and rather smooth skins. Fingers free and toes joined by webs. Check for the presence or absence of dorsolateral ridges, which are raised longitudinal folds of glandular tissues.

Bullfrog (*Rana catesbeiana*)

Identification: 3 1/2" - 6". The Bullfrog is by far the largest frog, marked by a netlike pattern of gray or brown on an overall green background. Underneath is usually whitish, with males often having a yellow wash. There are no dorsolateral ridges on the trunk of the body; they end near the eardrum.

Where to find them: Bullfrogs are found in permanent, fish-inhabited bodies of water, unlike most other frogs. Lakes, bogs, ponds, and slower portions of streams are common Bullfrog habitats. They are usually found amidst the vegetation at the water's edge.

When to find them: Breeds late April through July.

Voice: Bellowing *jug-o-rum*.

Range: Entire state.

Carpenter Frog (*Rana virgatipes*)

Identification: 1 5/8" - 2 5/8". The Carpenter Frog is easily identified by its four light stripes and the lack of dorsolateral ridges.

Where to find them: The Carpenter Frog is sometimes called the "sphagnum frog" because of its close association with sphagnum bogs. It has a tolerance for acidic waters, and is often found in the emergent vegetation of standing waters. When approached, the head vanishes downward but may reappear seconds later, a few feet away.

When to find them: Breeds April to August.

Voice: Sounds like carpenters hitting nails with hammers—*pu-tunk', pu-tunk', pu-tunk'*.

Range: All of Southern Region, except northern Salem, and western Camden and Gloucester Counties and the Cape May peninsula. Northern Region: southeastern Monmouth County.

Green Frog (*Rana clamitans melanota*)

Identification: 2 1/4" - 3 1/2". Despite its name, the Green Frog can actually be more brown than green in color. Dark brown or grayish blotches are usually present on the back, and the belly is generally white, but usually with some dark spots or mottling under legs and head. Adult males have bright, yellow throats. The dorsolateral ridges end on the Green Frog's body, and do not reach the groin. The center of the tympanum is elevated.

Where to find them: Green Frogs are found in any body of freshwater.

When to find them: Breeds April through August.

Voice: Sounds like a loose banjo string, with each note becoming less and less loud. The young Green Frogs issue an alarm call when frightened—a high-pitched peep—as they jump into the water.

Range: Entire state.

Wood Frog (*Rana sylvatica*)

Identification: 1 3/8" - 2 3/4". The Wood Frog looks as though it is wearing a robber's mask because of the dark patch extending backward from the eye. This characteristic is its key identifying mark. The Wood Frog can be so dark that it is almost black, or varies in color from pink shades to darker shades of brown.

Where to find them: Although the Wood Frog often wanders considerable distances from water, it is typically found in moist, wooded areas.

When to find them: An early breeder, March through May.

Voice: Sounds somewhat like the quack of a duck, but with little carrying power.

Range: Entire state.

Southern Leopard Frog (*Rana utricularia*)

Identification: 2" - 3 1/2". The Southern Leopard Frog can be brilliant green or rich brown with two or three rows of dark, round spots down its back. The dorsolateral ridges are marked with a normally yellow coloration. The sides of the body typically have fewer spots than the back. There is usually a distinct light spot the center of the tympanum, and a light line along its upper jaw.

Where to find them: The Southern Leopard Frog is usually found in shallow freshwater, but will even venture into brackish water near the coast. In the summer, they are often found in the shade of nearby grasses and other vegetation

When to find them: Breeds late April through June.

Voice: Sounds like a chuckle, with a guttural trill.

Range: Entire state.

Pickerel Frog (*Rana palustris*)

Identification: 1 2/4" - 3". Two rows of imperfect dark squares run down the back of the Pickerel Frog. These dark markings and similar ones on the sides are uneven, but are definitely not circular as in the Southern Leopard Frog. The concealed surfaces of the hind legs are bright orange or yellow.

Where to find them: Pickerel Frogs are found in a variety of habitats, particularly the clear waters of ravines and meadow streams. In the Coastal Plain, the Pickerel Frog is found in brown, turbid waters. In the summer, they wander well away from water and into vegetation. Males will often call while completely submerged underwater.

When to find them: Breeds March to May.

Voice: Sounds like a snore--low-pitched and with a short duration.

Range: Entire state.

Eastern Spadefoot (toad) (*Scaphiopus holbrookii holbrookii*)



American Toad (*Bufo americanus*)



Fowler's Toad (*Bufo woodhousii fowleri*)



Northern Cricket Frog (*Acris crepitans crepitans*)



Pine Barrens Treefrog (*Hyla andersonii*) (State Endangered Species)



Northern Gray Treefrog
(Hyla versicolor)



Southern (Cope's) Gray Treefrog
(Hyla chrysoscelis) State Endangered

Note: Gray Treefrogs are identical in physical appearance.

Northern Spring Peeper (*Pseudacris crucifer crucifer*)



Upland Chorus Frog
(Pseudacris triseriata feriarum)



New Jersey Chorus Frog
(Pseudacris triseriata kalmi)

Bullfrog (*Rana catesbeiana*)



Carpenter Frog (*Rana virgatipes*)



Green Frog (*Rana clamitans melanota*)



Wood Frog (*Rana sylvatica*)



Southern Leopard Frog (*Rana utricularia*)



Pickerel Frog (*Rana palustris*)

