Green Frog

Lithobates clamitans

General characteristics. This abundant frog is primarily nocturnal. That is, it is most active at night, but moves about and forages a bit during the day as well. Along with the bullfrog, it is more aquatic than many frogs. It is a medium-sized frog, slightly smaller, but otherwise similar in appearance to the bullfrog. Adult average sizes range from 2 ¼ to 3 ½ inches. The north- ern green frog is more gregarious than the bullfrog, but it still maintains a more aloof attitude than some other frogs, living mostly a solitary lifestyle. It is not as wary as many other frogs, although when basking in the sun it sits alert, facing the water. This posture provides a quick escape into the water if danger threatens. A quick dive and it soon is lost among the bottom detritus, or gravel.

The green frog may molt four or more times a year, in or out of the water. If the outer covering is shed while the green frog is in the water, the skin simply floats away, carried by the wind or current. If the molting process takes place on land, the old skin may be eaten by the green frog, a practice also common to the leopard frog and American toad.

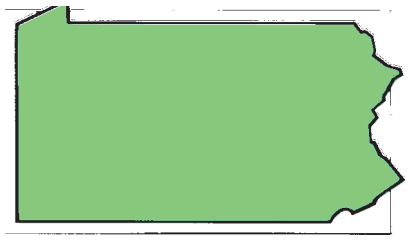
In Pennsylvania, the green frog is protected by seasons and bag limits identical to those protecting the bullfrog.

Identification. The green frog appears in an assortment of colors and patterns. It may be a brilliant metallic green, or vary from greenish brown, or brownish to tan. Dark-brown or gray spots, some large enough to be called blotches, appear on the back, frequently in large numbers. The head and upper lip are green, which is especially noticeable in the adult male. A yellowish band runs along the jaw to the shoulders. The belly is white with dark lines or spots under the legs. The throat of the male is yellow, often brilliantly colored; the throat of the female is white with dark spots. Close examination of the eyes reveals a black, oval pupil with a gold iris.

The forward part of the head ends in a blunted point. The external ear- drum is large, and on the male, bigger in diameter than the eye. The tym- panum is flat, brown and covered with a thin, moist layer of skin.

Folds of skin, called dorsolateral ridges, help separate the green frog from the bullfrog. In the green frog, these folds extend from above the eardrum along the back; in the bullfrog they do not. Unlike many frogs, however, the folds on the green frog do not extend all the way back to the groin, but stop about midway along each side.

Range. The green frog is distributed statewide and is found in all Pennsylvania counties, many with abundant populations. Outside of the state, its range extends from the Maritime Provinces of Canada south to North Carolina. It goes west to Minnesota and Oklahoma.



Habitat. The green frog stays close to shallow water. Although this frog is thought of typically as a frog of brooks and small streams, it also resides in most types of ponds, or in swamps and springs. Fallen logs, with their moist, decaying matter, provide shelter to the green frog. The green frog may remain active through 12 months of the year if the winters are not too severely cold. In the event winter does force it to seek refuge, the mud or moss of a pond or other shallow water offers sufficient protection.

Reproduction. As winter's cold temperatures give way to the warming rays of the spring sun, female green frogs respond to the calling males and "select" a mate. Mating takes place in the water, and the males especially like an area thick with aquatic plants.

The actual breeding ritual, in which the male grasps the female in amplexus, can occur from as early as May to as late as August. The eggs appear in three or four clutches and are fertilized by the male as the female releases each mass. The small masses produce a combined total of 1,500 to 4,000 eggs. Each spherical egg is black on the upper side and white beneath. Once they have passed close to the male, each clutch becomes attached to vegetation at or just below the surface of the water.

The eggs hatch within a few days depending on the temperature of the water in which they were laid. The tadpoles that emerge are olive-green across the back with a cream-colored belly. Dark spots cover the back and brown markings splash the pointed, green tail. The tadpoles of the northern green frog remain in that stage at least through one winter. They may trans- form in less than one year.

Call. The green frog almost always calls from the water, selecting a shallow area where it floats on the surface or squats on the broad leaf of a bullhead- lily or other aquatic plant. The vocal sac is internal and when inflated during calling causes the throat and sides to expand. The green frog emits a low-pitched twangy sound, similar to that produced by plucking one of the lower strings on a banjo or other stringed instrument. A single note is most frequently produced, although it may be repeated three or four times, de- creasing in volume with each successive note. It has been described by some people as resembling the slow tapping of a woodpecker.

Food. The diet of the northern green frog is varied and consists of vertebrates and invertebrates. Water striders, dragonfly larvae (also known as mud bugs) and a variety of other insects are consumed by a hungry green frog. Additional prey includes worms, small fish and small crayfish, all easily found sharing this amphibian's habitat.