

# WOOD FROG

*Rana sylvatica*



Adult female wood frogs in breeding condition (note abdomens swollen with eggs) on migration night in spring.

vernal pool to return to nearby uplands. The adults sometimes overwinter partially frozen under the leaf litter of the forest floor.

Listen for wood frog choruses at vernal pools in March and early April. Frogs will call at night and on warm days. Adults are secretive during daylight and seek cover when disturbed. At night, chorusing adults can usually be observed by flashlight. Other than the breeding season, look for wood frogs in woodlands and adjacent habitat. Encounters will be by chance since they are very difficult to see among the leaves of the forest floor, but may be seen hopping away when disturbed.

## Eggs

An egg mass is a gelatinous fist-sized blob consisting of up to 1,500 individual eggs. Individual eggs are .25-.5" spheres containing a black embryo. There is no outer matrix unifying the mass. While in amplexus, females attach their eggs to vegetation in shallow water near or at the water surface. Egg masses are attached to tussock sedges and woody stems in sunny locations of a vernal pool, particularly in the



Recently deposited wood frog egg masses. Eggs are still spherical and show no development. Matrix has not been colonized by algae yet.



Communal cluster of wood frog egg masses. Such clusters may number hundreds of masses and serve to trap solar heat and accelerate development.

northwest section. If the pool is dominated by emergent vegetation such as buttonbush, eggs are often found in clearings or other locations which receive maximum sunlight. Often, many females lay eggs in the same area in large communal clusters. Within a few days of deposition, growth is obvious and embryo development can be observed. Larvae hatch in about 28 days. Egg masses quickly become colonized by a symbiotic algae (*Oophila amblyostomatis*). Green egg masses floating at the water surface might easily be mistaken for clumps of algae.



Recently hatched tadpoles resting on egg mass. The green color is from symbiotic algae growing in the egg mass which produces oxygen.

## LARVAE

Wood frog larvae are dark brown to blackish tadpoles. Immediately after hatching the tadpoles are black, about .25" long and found on or near the egg mass. They remain with the egg mass for a few days grazing on the symbiotic algae before swimming throughout the pool. As they grow, the dorsal color becomes brown and the venter develops gold flecking. The tail fin ends near the base of the tail.

They feed on algae and leaf material on the pool bottom and grow rapidly so as to undergo metamorphosis before the pool dries. By June, these tadpoles will have developed legs and begun their emergence onto land. Tadpoles are preyed upon by various aquatic insects (diving beetle adults & larvae, giant water bugs, etc.) as well as northern water snakes, ribbon snakes, turtles and various wading birds.

Tadpoles hatch from egg masses in April. Spent egg masses appear as green blobs in the water but have the gelatinous feel and appearance of eggs. Tadpoles often school in shallow areas of the pool or float near the surface. Both activities provide solar heat to warm them in the relatively cool waters of a vernal pool. Running a net through the water is sure to capture some of these tadpoles if they are present, since they are usually in abundance. Toad eggs are laid a few weeks after wood frog eggs and toad tadpoles will be smaller than wood frog larvae when both are present.



Wood frog tadpole in close-up side view and clustered in hands held in the water (inset). A coppery flecking over the belly and sides develops.



Developed wood frog larva near metamorphosis. The froglet is an air-breather and will be found within vegetation and at pool edge.