

The Return of the Wood Frogs to Shaw Nature Reserve



Wood frogs, *Rana sylvatica*, are an essentially Canadian and New England frog species with southern outlier populations in the eastern US highlands -- Ozarks, Ouachitas, Shawnee Hills and Blue Ridge. If they occurred at Shaw Nature Reserve in the past (as they probably did, since they occur in more pristine parts of Franklin and adjacent

counties), they went locally extinct some time in the past. This might have resulted from the extensive agriculture and clear-cutting of forest that occurred at what is now the reserve back in the late 1800s and early 1900s.

In February 2003, SNR staffers James Trager and Terri Brandt were invited by Dr. Owen Sexton, Washington University herpetologist, to gather egg masses of this species from a woodland pond at nearby Tyson Research Center. The thriving wood frog population at Tyson had developed from egg masses introduced from the wilds of Warren County some years before, and Dr. Sexton felt that SNR seemed a good prospect for restoring a population of this threatened frog species by introducing eggs into appropriate ponds. In February of 2006 for the first time, the soft, truncated chuckle of the male wood frog's song could be heard among the shrill of the more numerous spring peepers at SNR. This diminutive (a little over 2 inches for a good-sized female) frog has the color of fallen oak leaves making it hard to spot. Listening for the call is the easiest way to identify this species.

How can introduction of just a few of the globular egg masses of wood frog result in a genetically viable population? Mating pairs produce their eggs in a large cluster (or raft) on just a few nights each year. Sperm produced by all of the males within this froggy orgy can fertilize the eggs in the masses produced by all of the females in the group. Thus, even a small number of egg masses can contain the genetic diversity of virtually the entire breeding population.