

The Spring Frog Chorus - A Soundscape for the Keddy Nature Sanctuary July 2016

On April 15, both Spring Peepers and Wood Frogs started calling in ponds at the Keddy Nature Sanctuary in Drummond/North Elmsley Township. The mix of forests and wetlands on this property creates ideal conditions for frogs. Many of the smaller frogs, including Spring Peepers and Gray Treefrogs, over-winter in the forest, and must travel overland to find the temporary ponds in which they breed. They then return to the forest to overwinter under fallen logs or in dead trees. The earliest frogs on the list, like Wood Frogs, breed in temporary ponds left by melting snow, while the later ones, like Green Frogs and Bullfrogs, require permanent bodies of water with emergent plants. Temporary pools are vital for frogs to successfully reproduce, since tadpoles are eaten by fish. Hence, larger bodies of water, at least those large enough for fish, may not be suitable areas for smaller frogs to reproduce. This, by the way, is another reason why you should not introduce fish to ponds; it can have devastating consequences for frog populations. The Keddy Nature Sanctuary has several species of minnows, but no populations of larger fish. Hence, the ponds have large and healthy populations of native frogs.

	April	May	June	July	August
Wood frog	●				
Leopard frog	●●				
Spring peeper	●●●●				
American toad			●		
Gray tree frog			●●●●		
Mink frog			●●●		
Green frog				●●●	
Bullfrog				●●●●	

Eight species of frogs can be heard at KNS. The earliest are usually wood frogs and spring peepers. Wood frogs are rapid breeders in small temporary ponds, also known as vernal ponds; mating and egg laying are completed in just a few days. Gray treefrogs, on the other hand, have a much longer calling period. They call from the trees before moving to water, they call from the water while mating, and then they call while leaving the pond for the forest. Back in 2009 there were hundreds of tiny gray treefrogs wandering on trails, climbing shrubs, and even sitting on the walls of the Keddy home. Another year was a bumper year for toads; there were so many young toads wandering the forest and the lane that we had to leave the car in the garage for a few days until they dispersed.

There are eight known species of frogs living in the wetlands of the Keddy Nature Sanctuary, and their breeding calls are a prominent part of the soundscape from April to July.

This year had the loudest and longest mink frog chorus in our memory. These frogs sound somewhat like someone knocking two stones together; when dozens of such frogs are calling, the sound is memorable. Now that July has arrived, the green frogs and bullfrogs are becoming the dominant night sound. These are the

two largest frogs on the property, and both call from open water with floating aquatic plants. The booming sound of bullfrogs is a good reminder that KNS has substantial areas of open water in permanent ponds.



A young gray treefrog is smaller than a penny. 2009 was a bumper year for tree frogs, and we eagerly await another such lively year.

The Keddy Nature Sanctuary illustrates that there are a few important steps we can take to maintain the delightful sound of spring frogs in our landscape. The first is to protect wetlands, both the wetlands that arise locally from spring snow melt, and the larger wetlands along the shores of our lakes and rivers. It is also important to protect adjoining forests for the species that live in forests, like wood frogs, American toads and gray treefrogs. A major source of mortality is death by automobile, when frogs are forced to cross roads to reach their breeding ponds. So drive carefully if you are traveling on such a night, usually a warm night in May or early June with light rain.

A landscape with many different species of frogs is a good indicator of generally healthy environmental conditions, which is why an increasing number of groups of volunteers track the sounds of frogs each year. Since frogs are so dependent upon precise temperatures to breed, the timing of their calls also provides valuable information about changing climate.

If you want to learn more about local frogs, you can consult [Frogwatch Ontario](#). This site has the advantage that it lists only frogs found in Ontario, with audio clips for each frog. You can also learn how to monitor frog calls to share this information with other citizen scientists. A good reference book to own is Harding, J.H. 2006. Amphibians and Reptiles of the Great Lakes Region by the University of Michigan Press.

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