

## Amphibian Calling Periods in Southern Manitoba

April					May				June				July				
2	9	16	23	30	7	14	21	28	4	11	18	25	2	9	16	23	30
Boreal Chorus Frog ( <i>Pseudacris triseriata</i> ) A finger running up the teeth of a comb. In: grassy wooded areas near water.																	
Wood Frog ( <i>Rana sylvatica</i> ) Low, hoarse quacking. In: moist woodlands & grasslands.																	
Northern Spring Peeper ( <i>Hyla crucifer</i> ) Repeated, high pitched peep. In: wooded, bushy areas.																	
Northern Leopard Frog ( <i>Rana pipiens</i> ) Mixed low growls, snores, chuckles. Like rubbing a wet balloon. In: wetlands.																	
Eastern American Toad ( <i>Bufo americanus</i> ) Long, very musical trill. In: forests.																	
Canadian Toad ( <i>Bufo americanus hemiophys</i> ) Shorter, high-pitched, rapid, musical trill. In: shady grasslands or lake margins.																	
Gray Treefrog ( <i>Hyla versicolor</i> ) Very loud, slow trill. In: wooded areas.																	
Cope's Gray Treefrog ( <i>Hyla chrysocelis</i> ) Very loud, rapid trill. In: wooded areas.																	

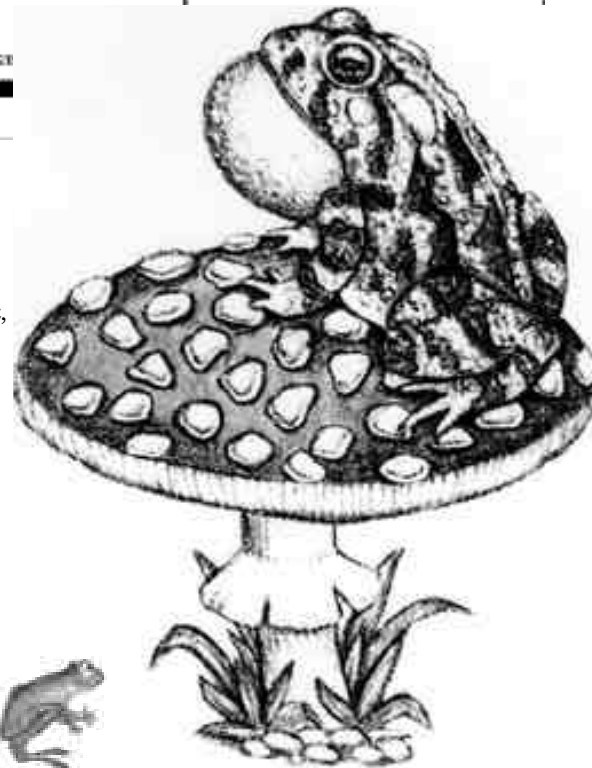
### For More Information Contact:

Education Department  
Fort Whyte Centre  
1961 McCreary Road  
Winnipeg, MB  
R3P 2K9  
(204) 989-8358

email: [programs@fortwhyte.org](mailto:programs@fortwhyte.org)

### References:

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*The Amphibians and Reptiles of Manitoba*, William Preston, 1982.  
Carol Scott (chart), *Manitoba Field Herpetologists*, 1995.  
*Amphibian Voice*, Metro Toronto Zoo, 1997, 1999, 2000.  
[www.everwonder.com](http://www.everwonder.com)  
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[www.cciw.ca](http://www.cciw.ca)



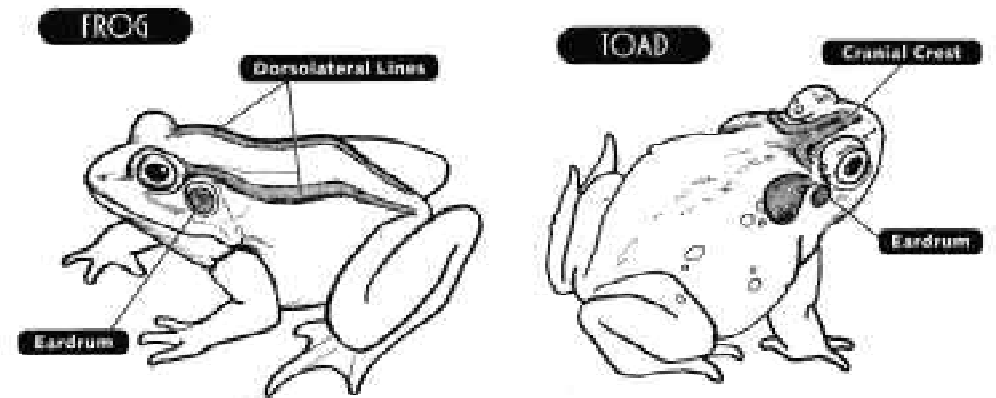
## Amazing Amphibians

Cheryl Bowman

*"It's not easy being green."* - Kermit the Frog

We rarely hear all the good stuff about frogs and toads, but we're no strangers to the myths and folklore! In fairy tales the prince is turned into a frog as punishment, and we are often told that holding a toad will give us warts. In many Native Canadian legends, frogs are seen as evil spirits. In reality, frogs and toads are a very important part of life on earth. Their life cycle is one of the most fascinating in the animal kingdom.

Frogs and toads are part of the amphibian animal group, which also includes mud puppies, salamanders, and caecilians. Amphibian means "two lives", accurately describing the frog's life cycle. They spend the first phase of their life as tadpoles, using gills to breathe underwater. As adults, they have lungs, but can also breathe directly through their skin. Amphibians are the most abundant form of vertebrates (animals with backbones), and began to inhabit the earth 300 million years ago, before reptiles, birds, and mammals. Amphibians were also the first vertebrates to leave water for life on land. In Manitoba we have 8 species of frogs and 4 species of toads.



### So What's the Difference Anyway??

Toads are actually just one of the five families of frogs in Canada, but here are some easy-to-spot differences between the two:

	Frogs	Toads
<b>Skin</b>	Smooth/moist/slimy	Thick/dry/bumpy
<b>Shape</b>	Sleek/ridges down back	Chubby/ridges on head
<b>Legs</b>	Long	Short
<b>Ears</b>	Large membrane	Small membrane
<b>Local Residents</b>	Leopard, Wood, Boreal Chorus Frogs	Canadian Toad



# Amazing Amphibians

continued

## Beware: The Silent Spring

All members of a given ecosystem play a vital role in maintaining the health of the environment. Because frogs and toads can breathe through their skin as adults, they are excellent indicators of environmental health. If they disappeared, Winnipeg would not only be more mosquito-infested than at present, but we would also miss the singing announcement of spring. Would spring be the same without a chorus of frogs?

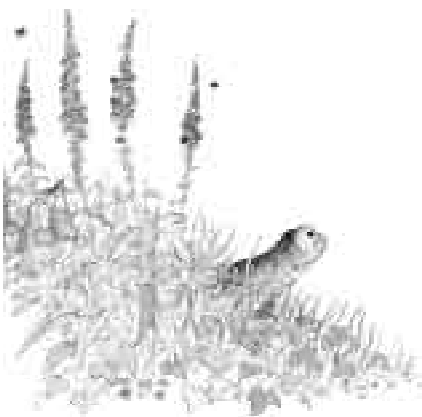
## Leap for Frogs

We are lucky in Manitoba that none of our amphibian species are endangered.....YET! But frog populations are declining around the world. Scientists believe these declines may be a result of increased UV radiation, global warming, and chemical pollutants. The biggest threat to frog and toad populations is the loss of their habitat - wetlands. In Winnipeg, wetland areas are often drained, and ditches are sprayed to discourage mosquitoes. In fact, 75% of Canada's wetlands have disappeared for agricultural purposes. This leaves very little standing freshwater for our frogs to call home.

You can help to make urban areas amphibian friendly by protecting wet areas where they breed. Frogs and toads also depend on shade to move from one body of water to the next. Therefore, it is important to have vegetation around ponds and streams, so they can travel during low water periods without becoming heat stressed. Building a pond in your backyard is a toad-ally awesome way of both helping to protect amphibian habitat, and attracting these bug-eating creatures into your yard. A pond in your yard will not only add beauty and character, but provide a watering hole for neighborhood

visitors such as birds, squirrels, and chipmunks.

For more information on Canadian frog populations and how you can participate in studies check out [www.cciw.ca/emanops](http://www.cciw.ca/emanops).



## Frog Friendly Yards

Have a lot of frogs in your yard? Amphibians love to dine on mosquitoes, flies, grasshoppers, slugs, ants, and almost anything that moves. Frogs therefore help to keep the pest population under control. No more need for sprays and chemicals with frogs in the picture!

## Want to make your yard frog-friendly?

Try the following:

- ✿ Leave leaf litter around hedges and other vegetation. Leaves provide great hiding spots for frogs and collect moisture in the morning.
- ✿ Plant a garden. Toads can often be found hanging out at the edges of gardens, waiting for an insect meal.
- ✿ Place a few logs under bushes or trees in a shady part of your yard. Frogs and toads can stay cool and moist while dining on garden slugs and bugs.

✿ Place stones to form a rocky burrow about 10 cm high with a sandy floor. Toads love to dig in these rocky retreats.

✿ Start composting! Compost heaps are a favorite spot for hibernating frogs and toads.

Frogs and toads are able to recognize the habitat where they grew up. So, your backyard amphibians will return to the same spot to breed year after year.

## Building a Toad Abode

What you'll need: a medium-sized clay flower pot, acrylic paints, a paint brush, and a trowel

What to do:

1. Wash and dry the flower pot.
2. Paint leaf and flower shapes, using browns, greens, and other earth colors on the outside of the pot, including the bottom.
3. Once the paint is dry, go outside and find a sheltered spot among your plants.
4. Lay the pot on its side, and use the trowel to bury it halfway in the soil.
5. Scatter some dead leaves and debris in the bottom of the toad house.
6. Check back in a few days to see if any of the debris has moved. If not, try moving it to another shady location. If so, congratulations on your new tenants!!!!



## Frog Facts and Toad Tidbits

Some amazing amphibian adaptations:

✿ **Breathing skin?** That's right! As grown adults, frogs and toads have lungs but can also breathe through their skin.

✿ Frogs have long sticky **tongues** attached to the front of their mouths. This enables the frog to shoot out it's tongue a long way in order to capture prey.



✿ It is said that a toad can **eat** over 200 insects in one evening!

✿ In order to produce their lovely **chorus**, frogs take air into their lungs, close off their nostrils, and then move a complex series of muscles and tendons to inflate and deflate their vocal sac.

✿ Never seen a frog in your yard? Well, frogs and toads are **nocturnal**, hunting mainly at night and resting during the day.

✿ Frogs are attracted to prey by movement. Their enormous **eyes** bulge down the back of the frog's mouth. When eating they essentially chew with their eyeballs.

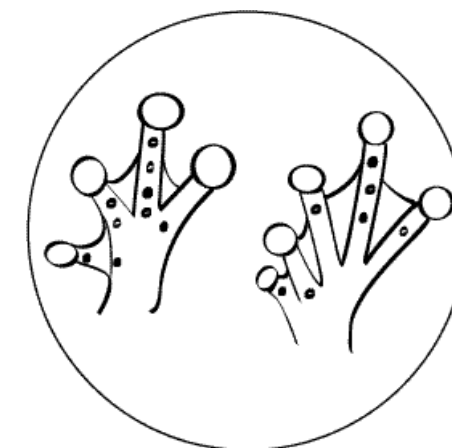
✿ Watch your step! Frogs and toads are so well **camouflaged** they're easy to miss! Tree frogs

can actually change colors between grey and green, to stay hidden from predators.

✿ "Freeze-tolerant" species produce large amounts of glycogen which flows through their blood as anti-freeze during their winter **hibernation**. Other species hibernate in the soil below the frost line. The Wood Frog can be found as far north as the Arctic!!!

✿ The American Toad (yes...we find this guy in Manitoba) secretes a milky **poison** from a gland located behind the eye. But don't worry, it's only poisonous to predators. To be safe, always wash your hands after holding a toad.

✿ Aside from producing poison, toads can **escape** from predators by discharging water from their bladder, or swelling up to twice their body size, making it tough for them to be swallowed. Mink frogs have a nasty odor - smells like rotten onions!



## Frog Feet & Toad Toes

Frogs are perhaps best known for their leaping abilities. It's not surprising that they are such magnificent leapers when you consider the fact that a frog's legs are longer than its body. A Leopard Frog can leap 13 times its own length!!! But these fabulous feet are not only used for leaping from

pond to pond. Toads have big bumps on their hind feet that they use as shovels to help them dig. And how do those frogs climb trees? The Tree Frog has sticky toe pads on the tips of their toes that help them stick to bark and leaves.



## "And the Award Goes to..."

Frog World Records

**Newest Frog:** the *Eleutherodactylus iberia* (has no common name yet) found in Iberia, Cuba in 1996.

**Smallest Frog:** it's a tie...between the Newest Frog (see above) and the Gold Frog (*Psyllophryne didactyla*) of Brazil, each only about 1 cm long (about the size of a penny).

**Biggest Frog:** the Goliath Frog (*Conraua goliath*) of West Africa with a body length = 30 cm, and weight = 3.3 kg (comparable to a large house cat).

**Oldest Frog:** a European Common Toad who lived to be 40 years old (average: 4-15 yrs).

**Earliest Known Frog:** appeared during the Jurassic period, 190 million years ago.

**Longest Jump:** a frog named Santjie at a derby in South Africa jumped ~ 10.2 metres.

