



Amphibian Voice

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Winter 2002

FROGWATCH-ONTARIO

Frogwatch-Canada: Answering the Call!

By: Elizabeth Kilvert, Volunteer Coordinator, Ecological
Monitoring & Assessment Network (EMAN) Coordinating Office

Every day thousands of Canadians record their observations of the natural world. Naturalists track the migrations of birds and butterflies, scientists conduct wildlife surveys, teachers take students on field trips to identify frogs.

The Canadian landscape is changing due to global warming and human activity. No one is in a better position to monitor the effects of these changes than the Canadians who live, work and recreate in their

communities. If we are to respond to these changes and conserve our environment we need to find out what is happening in our backyards. Frogwatch helps us accomplish these tasks.

timings). Participants record and report the presence or absence of amphibians by mailing in their observations or using the website.



Frogwatch is a community based monitoring program administered through a partnership between the Ecological Monitoring and Assessment Network Coordinating Office (EMAN), Environment Canada, the Canadian Nature Federation and coordinators in each Province and Territory. In Ontario the Toronto Zoo

administers and promotes Frogwatch through the Adopt-A-Pond program!

The information that is submitted to the program is assessed to identify changes in local ecosystems which helps to locate areas of concern so further research can be done. Scientists gain a better understanding of the responses of amphibians to the stresses of pollution and climate change.

All of the observations from Frogwatch are compiled and used with other amphibian information to help Environment Canada to identify, measure and assess the rate of amphibian decline across Canada. The

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Frogwatch was the first Naturewatch program launched in the spring of 1999. Observers report the first calls and choruses of frogs and toads (also known as phenology- the study of seasonal events and their

observations also provide information on information on wetland biodiversity. Other ways the Frogwatch information has been used is in the production of reports on topics such as the status of the Western Chorus frog. Parks and protected area managers can use Frogwatch information as part of their ecological integrity monitoring programs and to develop conservation plans.

Meanwhile on the education front, some exciting Frogwatch initiatives are underway. The Frogwatch Teachers' Guide for grades 7-12 is now available free through a program called Green Street, launched nationally in September.

The Frogwatch Teachers' Guide is a wonderful compliment to the Frogwatch volunteer monitoring program. A Frogwatch Junior Guide for grades 1-6 is also under development.*

Community groups have embraced Frogwatch across Canada as an exciting environmental education and monitoring program. Groups including Guides, Scouts, conservation authorities, provincial parks, outdoor education centers, zoos and museums are using Frogwatch to teach the public the importance of amphibians. We would like to thank all of our volunteer observers and our coordinators for making this program possible. We would also like to invite you to become a participant by logging onto www.frogwatch.ca

***Editor's Note:** Adopt-A-Pond's Wetland Curriculum Resource is available at www.torontozoo.com/adoptapond or by contacting Adopt-A-Pond at Toronto Zoo.

Frogwatch-Ontario: A Regional Perspective

By: Phung Tran

Since March 30th, 1999 the Adopt-A-Pond Wetland Conservation Programme has been the provincial coordinator of Frogwatch-Ontario. As of October 1st, 2002 the current number of Frogwatch-Ontario observers is 227 with 323 different locations including lakes, ponds, marshes and other wetland areas. The total observation count includes 3,540 since 2000.

The observers of Frogwatch-Ontario and other regions are invaluable for detecting patterns in nature and every year, the number of observers increases. In its first year, Frogwatch-Ontario had 123 observers, by the end of 2001, there were 180 observers and this year, 47 more observers have signed up. Their observations are used to track changes in climate as well as the status of amphibians in Ontario.

The success of Frogwatch-Ontario is dependent on the efforts of our dedicated volunteers. THANK YOU FROGWATCHERS!

Why Watch Frogs?

By: Phung Tran



My usual answer to this question would be because it's fun, and I am sure most Frogwatchers would agree. However, there are many

important reasons why Frogwatch observations are critical to understanding climate change, amphibian status and distribution.

As much as 90% of wetlands in Canada have disappeared since early settlement. Worldwide, wetlands continue to disappear, especially with the pressures of population growth and the increased demand for resources.

Amphibians depend on wetlands. Amphibians are sensitive to pollution, habitat alteration and climate and so they serve as indicators of environmental change and health.

Frogwatchers collect the information that amphibians provide. Observations help to monitor changes in climate, the yearly south to north movement of calls as temperature increases northward during the spring and the status of amphibians in Ontario.

So, why Frogwatch? Well, there are dozens of reasons and if it is not because Frogwatching is fun, then maybe it is just because we believe there is a little magic when a frog sings.

Lily Pads & Cattails

2002 Frogwatch Promotion

By: Sarah Ingwersen

Every year, as part of Frogwatch-Ontario, Adopt-A-Pond participates in a variety of events to educate people about wetlands, amphibians and the opportunities available to become involved with Frogwatch-Ontario and other Adopt-A-Pond Programmes. Here is a synopsis of some of the events that were attended in 2002.

The Cottage Life Show-April 5-7

The Cottage Life show is hosted by Cottage Life Magazine and is held at the International Centre. It is *the* tradeshow for anything and everything related to the cottage. Over 37,000 adult visitors attended the 2002 show! Toronto Zoo's Adopt-A-Pond Programme had a booth in the Wildlife Discovery Centre. With the help of 14 Toronto Zoo volunteers, Margaret Calderon, Dorothy Hofstetter, Mary Mortimer, Penny Cullingworth, John Bromley, Nedra Buell, Erma Feldheim, Susan Bowman, Shauna Winters, Paul Brown, Jim Brown, Nancy Hickinbottom, Ron Groshaw and Margaret Allen, Adopt-A-Pond was able to answer hundreds of amphibian and reptile questions. We gave four slide presentations on Frogwatching at the Cottage Life Show and practiced some frog calls with the participants. The Cottage Life Show is an important part of the launch of the Frogwatching season.

Environmental Sustainability Conference-April 19

I conducted two one-hour workshops at the Environmental Sustainability Conference on the Adopt-A-Pond Programme and Frogwatch-Ontario. The conference was hosted at York University and education students from across the GTA participated.

Green Acres Earth Day Event-April 23

The Green Acres Outdoor Education Centre's Earth Day Event is designed to increase environmental awareness. I presented four one-hour workshops to students attending from across York Region. The students learned about amphibians, the Adopt-A-Pond Programme and Frogwatch-Ontario.

2002 Spring Toad Festival-May 4-5

The 2002 Spring Toad Festival was a huge success. Over 1500 visitors were able to see American toads calling in their natural environment and they were informed about the opportunities available through Frogwatch-Ontario and Adopt-A-Pond. Numerous volunteers helped make this event a success. Plan to attend Toronto Zoo's Adopt-A-Pond 2003 Spring Toad Festival on May 3rd and 4th.

Roots and Shoots Conference-May 6-7

Roots and Shoots is an environmental education project initiated by the Jane Goodall Foundation. The conference was held in Sudbury and was hosted by the Jane Goodall Foundation, Science North and Laurentian University. This conference was geared towards elementary students in Northern Ontario. Adopt-A-Pond conducted four one-hour workshops on wetlands and amphibians in Ontario. Frogwatch-Ontario was discussed and the students learned the 13 frog calls.

Toronto Zoo's Customer Appreciation Day-June 1

At the Toronto Zoo, we appreciate each and every visitor! At this year's event, Adopt-A-Pond set up a table at the America's Wetlands Exhibit to inform Zoo visitors about the programme. Visitors enjoyed hearing frog calls at the exhibit and they learned about Frogwatch-Ontario.

Zoo Camp-June 13, July 10

Every summer the Toronto Zoo organises unique summer camps for students in the region. Adopt-A-Pond participated in the counsellor training and presented workshops to some of the campers. Campers and counsellors were encouraged to Frogwatch on the Zoo site and to report their findings.

The Frost Centre-July 11

Every summer the Frost Centre in Dorset organises a programme called 'Discovery Days' for local residents and cottagers. Adopt-A-Pond conducted a Frogwatch-Ontario workshop and led a hike on the trails behind the centre.

At each of the events the Adopt-A-Pond Programme provided resources (Amphibians of Ontario poster, and ID Guide, Frog Call cassette tape, Frogwatch-Ontario poster) to those people interested in participating in Frogwatch-Ontario.

Frogwatching for Dummies

A Guide to Monitoring with Frogwatch-Ontario

Frogwatch-Ontario is an exciting opportunity for individuals and families to participate in a province-wide amphibian monitoring program. Frogwatch is a fun and easy way for community members of all ages to get involved with wetland conservation. Frogwatch-Ontario participants, a.k.a. "Frogwatchers", explore local wetlands and collect valuable information about amphibians. Amphibians are indicators of environmental health, so by monitoring them we can monitor the state of Ontario's wetlands.

Frogwatch Goals

The goals of Frogwatch-Ontario are:

- Encourage community members of all ages to take an interest in their local environment
- Collect data on the status and distribution of amphibian species across the province and yearly changes in call dates
- Provide a fun and educational opportunity to promote the importance of wetlands and wetland biodiversity

How do I benefit from becoming a Frogwatch Observer?

There are many benefits to becoming a Frogwatcher. You will:

- Receive Toronto Zoo's *Ontario Frog and Toad Call* cassette tape, a Frogwatch-Ontario poster, an *Amphibians of Ontario* poster and an *Amphibians Identifier* (a laminated identification card)
- Learn to identify the calls of Ontario's 13 frog and toad species (use our tape or our website at www.torontozoo.com/adoptapond)
- Learn about the importance of wetlands and the species that depend upon them for survival
- Have fun with family and friends
- Take action to protect wetlands and amphibians in Ontario

What are Amphibians?

Amphibians – frogs, toads, salamanders and newts - are moist skinned animals who spend

part of their life in water and part on land. Eggs are usually laid in water (except for Red-back salamanders, who lay their eggs on land) and hatch into free-swimming larvae (tadpoles) who eat algae, plants or decomposing matter on the bottom of the pond. Salamander larvae, however, are carnivorous (meat-eating) and feed primarily on aquatic invertebrates. Tadpoles typically metamorphose (change) into a terrestrial adult form with a carnivorous diet.

Environmental Health

Amphibians and other species of plants and animals can be used as a measure of environmental health. Amphibians are often used as "indicator species" because:

- They are highly vulnerable to changes in the environment – both on land and in water
- Disturbance or destruction of aquatic or terrestrial habitat can disrupts the various stages of the amphibian lifecycle
- The delicate skin of amphibians is sensitive to environmental contaminants and increased levels of ultraviolet (UV) rays

Monitoring changes in amphibian populations contributes to the understanding of climatic and environmental change. *When amphibians disappear, we are warned that all is NOT well in the environment.*

You Can Help!

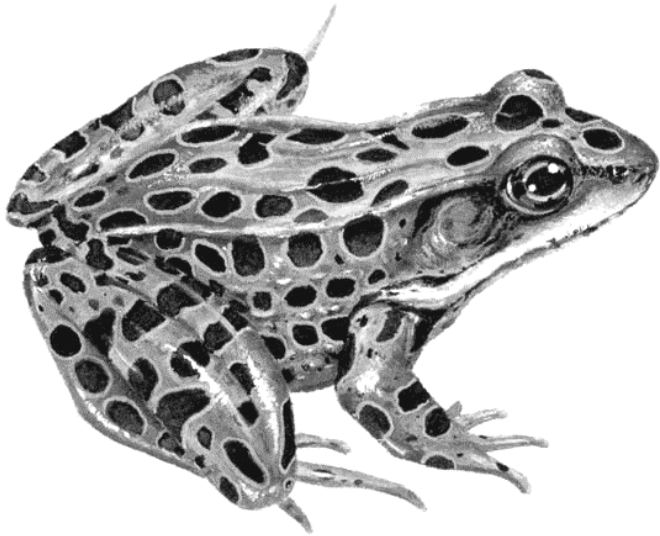
By participating in Frogwatch-Ontario, you can take action in your community to help amphibians and their wetland habitats! By simply listening for the calls of frogs and toads in your backyard, a local wetland or pond, or at the cottage, you can help to collect valuable information on the status and distribution of calling amphibians and their habitats in Ontario. The presence of calling amphibians is a good indicator of the quality of freshwater and wetland habitats. You can tell us where healthy – and not-so-healthy – habitats are located by recording the abundance or absence of calling frogs and toads!

As the frog and toad songs and warm temperatures "hop, skip and jump" northward, we can also monitor the south to north progression of amphibian calls as they wake

from hibernation and prepare to breed. Changes in calling dates over time may also contribute to an understanding of climate change!

Celebrate the coming of spring with the "quacking" call of the Wood frog and the "peeping" call of the Spring peeper! Listen for the deep, bass "JUG'O'RUM" call of the Bullfrog to know when summer has arrived!

If you believe there is magic when frogs sing, become a Frogwatcher! No one wants a silent spring!



How to Monitor with Frogwatch-Ontario*

Frogwatching is fun and easy! Just follow the six steps below to become an expert Frogwatcher!

STEP 1

Visit the *Frogwatch-Ontario website* through the link at www.torontozoo.com/adoptapond. Register as a Frogwatch-Ontario observer and create your secret Frogwatch Observer number* using the on-line registration forms. If you do not have access to the Internet, contact Adopt-A-Pond for a registration form by mail at: 361A Old Finch Ave. Scarborough, ON M1B 5K7 or fax at: (416) 392-4979.

*Remember to record your Frogwatch Observer number, you will need it to register all future observations by mail, fax, or internet.

STEP 2

Select a local wetland, pond or stream and register your location(s) as a Frogwatch-Ontario observation station. To register on-line or by contacting Adopt-A-Pond, you will need to know the following information:

- *Latitude and longitude* of your station (available on Frogwatch website, at your local library or by contacting Adopt-A-Pond)
- Name of the *nearest named city or town*
- *Distance* from the nearest named city or town
- *Direction* (north, south etc.) from nearest named place
- *Habitat Type* (e.g. pond, swamp, urban area)

★If you would like to Frogwatch at more than one location, please be sure to register each observation station, as each location requires a separate location identification number with unique location information. You do not require a separate Frogwatch Observer number for each location. You can register as many locations as you wish under the same Observer number. Remember to keep track of the location identification numbers for each observation station for ease in registering your data.

STEP 3

Learn the calls of Ontario's 13 frog and toad species. Don't worry! Each species has its own distinct call, and with a little practice they are easy to recognize. Visit the "Amphibians of Ontario" guide on the Adopt-A-Pond website to listen to frog and toad calls while viewing pictures of the species calling. Contact Adopt-A-Pond for our *Ontario Frog and Toad Call* cassette tape.

STEP 4

In the early spring, begin listening for frog calls at your observation station. Listen for 3 minutes each time you monitor. We encourage Frogwatchers to monitor their observation stations once or twice a week, but even a single report is valuable! Dusk is the best time to monitor, but some species call during the day, especially after rain, and you may prefer to monitor then.

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STEP 5

While at your Observation station, record the following data:

- Date and time of your observation
- The species of frog(s) or toad(s) you hear
- The abundance of frogs or toads, using the following codes:

0–No frogs or toads seen or heard
1–Frog or toad seen but not heard
2–Individuals can be counted, calls not overlapping
3–Some individuals can be counted, other calls overlapping
4–Full chorus, calls continuous and overlapping, individuals NOT distinguishable

- Air and water temperature (if possible)
- Additional information (e.g. presence of eggs, tadpoles or other animals)

Data collection forms are available by contacting Adopt-A-Pond or can be printed from the Frogwatch website.

STEP 6

Submit your data via mail or fax to Adopt-A-Pond, or Frogwatch-Ontario website:

www.frogwatching.ca. You will need to know your Frogwatch Observer number and Observation location identification number to submit your data. Data submitted will be sent directly to the database at the Natural Heritage Information Centre in Peterborough, Ontario and will be used to update frog and toad distribution maps for Ontario. These maps are available on-line, so that you can see how your data has contributed to the long-term collection of amphibian population data across the province.

SAFETY FIRST!

- Monitor from your own backyard or cottage dock, if possible
- If monitoring at night, always carry a flashlight and wear visible clothing
- Inform someone of where you are going and when you will be back
- Work in pairs or small groups

- Monitor in areas you are familiar with and never explore places at night
- Get permission before entering private property
- Never enter the water! It is not necessary to see the species, only hear them

Congratulations! You are now a Frogwatcher!
Hoppy Frogwatching!

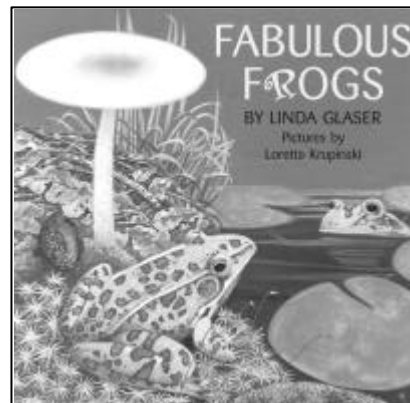
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Ribbet's Review

By: Phung Tran

Fabulous Frogs

By Linda Glaser; Pictures by Loretta Krupinski
The Millbrook Press, 1999



With big, colourful artwork and a rhyming flow to the text, Fabulous Frogs introduces children to the lives of frogs. Using Leopard frogs, Bullfrogs and Spring peepers, the book starts off with the singing of frogs in the spring and simply explains the mating process, breeding and tadpole development. The book also does well to explain some of the ways frogs will protect themselves from danger and the other unique behaviours.

Fabulous Frogs is a great book for young children of about 2 to 6 years old. In the back of the book, older children will enjoy some "Fabulous Facts About Frogs". Children can learn the difference between frogs and toads, what frogs do in the winter and about different kinds of frogs around the world. Frogs are fabulous and this book tells you why!

Call'um of the Wild

Diary Of A Frogwatcher

By: *Barbara Pratt*

July 2001

The results of the Canadian Nature Federation's Lady Beetle Survey arrived today (July 16th), together with a clarion call to join the Frogwatch AND Wormwatch programs. I am quite happy to know the worms are working in my garden but I have no desire to spy on their private lives, but frogs are another story. Since I moved here in 1969, I have become aware that the spring frog chorus has become less and less noticeable. In my youth I remember seeing frog spawn in any country roadside stream, collecting tadpoles in a jar and watching them grow hind legs, then front legs, until, finally, the tail was absorbed. How hard can Frogwatching be fifty years later?...my time is free, the physical exertion is minimal because of the close proximity of the creek, and I would like to know the state of nature in my little world since it is reported that the Bay of Quinte is one of the most toxic places in the province.



August 2001

Received the package of Frogwatch material.

October 2001

Early in the month the tape arrived and I finally began to think this was a viable project because I could at last identify the sounds I had been hearing. I play the tape at bedtime frequently to prepare myself for the coming season.

April 2002

In the last half of the month after a series of warm days I began to hear the infrequent sweet trill of an American toad. Then the weather turned cold again and he went silent.

May 2002

Early in May I began to hear the American toad trilling again, but it wasn't until the 23rd that the weather warmed up enough to make it a regular performance. I was surprised how unique their vocalizations are.....one had a very tremulous trill (like an adolescent whose voice is changing!) and another sounded impatient and irascible at being kept waiting during mating season! At no time were there more than two or three individuals calling. As the toads called in earnest, carp cruised the banks, thrashing about in the weedy shallows for days, then disappeared.

In the early part of May on sunny morning strolls along a short stretch of the creek, I surprised several small frogs that were sunning themselves on the banks. They hurtled into the water too quickly for identification as they were very wary, probably with good reason: the creek is patrolled by Great blue herons, Belted kingfishers, gulls, crows, and hawks. It wasn't until May 29th on one such stroll that I eventually identified my elusive jumpers....Green frogs....a male AND a female (I knew by the size of their eardrums). Shortly after this sighting I heard one calling in a snuffly grunt, but it was obviously not warm enough for them to be in top form yet.

At the end of the month also, I heard one rusty Bullfrog give one croak late one afternoon and he was heard no more.

June 2002

American toads are calling less distinctly now from further along the shore of the Bay. On the 11th I saw one in the garden looking for bugs and on the 18th I nearly got a female with the Weed Eater while trimming the grass. I saw her just in time as she snuggled down into the grass, drawing in her eyes as if trying to shut out the noise and vibration above her. I gave her a gentle pat on the head to ensure she was all right. Shortly after, she disappeared, wise girl!

Later in the month the weather warmed and Green frogs took over the main chorus, calling both day and night. The carp returned again for several days with deadly intensity. It was very frustrating because I could not see any signs of frog or toad spawn and I despaired for their survival this season. On the 11th I did finally get a

good look at a Green frog in my yard about 6:15 pm. She obligingly let me have one photo before giving one prodigiously high leap, landing about two feet away. She remained there for a considerable period of time. At the end of June I heard a Bullfrog in the wee small hours, he seemed to be calling without success or competition. A Painted turtle has begun to sun himself on the rocks along the bank and on flotsam in the creek. Visits to an adjoining Park along the shore of the Bay of Quinte turned up more turtles in various sizes.

July 2002

The weather is getting hot, hazy and humid now and the Green frogs are in good vocal form. As the month progressed there were six calling, most were audible during the night hours. This continued until the third week of July when they fell totally silent. That was about the time I began to notice cicadas calling during the day. A Bullfrog was heard in early July and the toads have obviously finished singing for the season.

Early morning on the 2nd I spotted a large Snapping turtle in a driveway across the street. I didn't get too close, as he looked positively evil-tempered. Later in the day eight unidentified turtles were spotted from a distance in a small bay down the shoreline. It was an ideal day for sunbathing and several had taken position on a floating log in the water just offshore. They struggled to maintain their place in the sun as the log rolled from side to side.

August 2002

We are now in the dog-days of August; the creek has dropped a good two feet and the water is stagnant. For some nights now I have taken to prowling the garden with a flashlight in case evening dampness may have stirred the toads to foray for insects. In other years I have seen sooty black toadlets in the garden in small numbers but there were none this year.

Inspection trips along the creek during the warm, sunny mornings have occasionally elicited only several small "plops" into the water, surely small enough for froglets. I have concerns that the carp I saw earlier when the toads and Green frogs were calling have dashed all possibility of there being a successful spawn.

September 2002

Mid-month I took a walk up the creek at about 10am and gratifyingly saw eight small bodies "plop" into the stream. Their survival instincts are strong and they would not allow me to get close enough to see them. It was annoying but I am pleased to know that some species have been successful. On the 30th I finally saw a half-grown Green frog in the creek!

***Editors Note**

Barbara Pratt is a Frogwatch-Ontario participant. Every month we look forward to her observations because of her attention to detail...and her labeled photographs! Thanks Barbara for being a fabulous Frogwatcher!

Volume 12 No. 4

Amphibian Voice is distributed to schools and communities participating in the Adopt-A-Pond programme. The purpose of this newsletter is to provide information on amphibian, turtle and wetland conservation issues and efforts in Ontario.

Send in your stories, drawings and photographs to the address below and we will "hoppily" include them in future issues.

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We welcome support of our programme! Please make cheques payable to "Toronto Zoo" and send them to the following address. Thank you!

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