



# Amphibian Voice

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Summer 2009

## Summer at Adopt-A-Pond

### Adopt-A-Pond Welcomes New Coordinator

*Article by: Julia Phillips, Adopt-A-Pond*

Greetings fellow wetland and wildlife lovers! Please allow me to introduce myself. My name is Julia Phillips, and I've recently had the good fortune of being welcomed to the Toronto Zoo's Adopt-A-Pond Wetland Conservation Programme as the new Coordinator! I am very excited to get to know each and every one of you, and I'm very excited to meet the dedicated volunteers participating in our



Julia with possum in Point Pelee NP © Kellie Libera

FrogWatch and Turtle Tally programmes at Adopt-A-Pond's upcoming FrogWatch and Turtle Tally Appreciation Day taking place in November!

I come to the Zoo from the Ontario Ministry of Natural Resources (OMNR) in London where I was working as a Species at Risk biologist on a project to engage landowners in creating desirable habitat for forest-dwelling birds like Acadian Flycatchers and Red-headed Woodpeckers. Before my time at the MNR, I studied six different turtle species in Point Pelee National Park as part of my M.Sc. research for Trent University, documenting strategies to mitigate negative impacts of predation on Species at Risk turtles in the park and elsewhere. I come to my new position eager to apply the knowledge I have gained through these experiences toward making Adopt-A-Pond an enjoyable, educational and genuinely inspirational resource for members of the community motivated to improve our ever-urbanizing world through stewardship and conservation initiatives that protect our natural resources.

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Continued from page 1... My first season as the new coordinator started off with a bang as I was introduced to the chaotic world of Adopt-A-Pond in the summer time! I was quickly immersed in a flurry of Adopt-A-Pond activities, gaining valuable insight into wetland conservation objectives through participation in various outreach presentations, research projects, interactive meetings and day-to-day tasks associated with running a not-for-profit, community-based programme. Now just three months in to my new job, I'm already starting to realize the benefits that come with working with people who are passionate about protecting wetlands and the amazing creatures that live there. Every day presents a new challenge, a new person who teaches me something I never knew before, and a new outlook on all the good that can come from people when they decide to take action!

I look forward to working with all of you in the future! Please do not hesitate to share your conservation plans, concerns or questions with me, or any other member of the Adopt-A-Pond team. After all...that's what we're here for!

#### But where is Ian?

Although Toronto Zoo was sad to see him go, Ian McIntosh, Adopt-A-Pond's Coordinator for the past 3 years, left the programme late in May to pursue his life-long dream of becoming a fire fighter. Ian bids each of you a kind farewell as he heads back to school to build his body and mind for what will surely be a challenging new career!



Ian with Snapping Turtle © AAP Staff

## An Opportunity to Learn About Turtles

The Adopt-A-Pond team at the Toronto Zoo is inviting local area groups to take part in our free Turtle Education Program. This is an opportunity for both children and adults to learn about the importance of wetlands and Ontario turtle species, as well as what you can do to help protect them.

**If you are a teacher, camp organizer, or anyone involved in a group that you think our programme could benefit please contact us at:**  
[aap@torotozoo.ca](mailto:aap@torotozoo.ca) / 416-392-5999



Gray Treefrog on flower © Mike Furino, FrogWatch Participant

#### Editor's Note:

Summer is a busy time of year for most people, and for Adopt-A-Pond staff there is no exception. With this edition we wanted to give you an inside look into the works of Adopt-A-Pond team members during some of the most rewarding moments of the season. Unfortunately, with the coordinator position sitting empty for a while, and the new coordinator familiarizing herself with the programme once she arrived, the publication of this edition of *Amphibian Voice* was pushed back to September. We apologize for the delay, and pledge to deliver future editions in a consistent, timely manner! Be sure to watch your inbox for the fall edition of *Amphibian Voice*, coming in October!



# Wetland Bloggers

Article by: Jennifer Chambers & Victoria Snable, Adopt-A-Pond

We are Victoria and Jennifer, two Wetland Conservation Biologists working for the Adopt-A-Pond Programme at the Toronto Zoo. This summer we have been working on a variety of wetland projects funded by the Habitat Stewardship Programme. Recently, we returned from an exciting adventure at Wasauksing First Nations Reserve on Parry Island! While there, we completed a number of wetland evaluations to document some important characteristics of Wasauksing's swamps, bogs, and marshlands, recording significant plant and animal species, unique collections of biological communities, and several different water quality parameters to illustrate diversity across the landscape. This data, gathered from a Western Science perspective, will eventually be integrated with traditional knowledge gathered from a First Nations cultural perspective.

In order to complete this project, we headed up North for two weeks to live, eat and breathe wetlands (insert amazingness). To give you an idea of what a typical day in the field consists of:

## Field Checklist:

Start the day off well by eating a healthy, balanced breakfast (suggestions include, but are not limited to: yogurt with frozen blueberries and a bagel with honey).

Get dressed in proper field attire.

Desirable items might include: a well designed bug jacket to keep the mosquitoes at bay, a hat, sunglasses, sunscreen, and of course, don't forget to tuck your pants into your socks to prevent unknown critters from entering! Pack your field bags with high-tech equipment: GPS unit, compass, aerial maps, data sheets and, oh yes, extra bug spray!

*Park on the side of the road and hike through the bush until you arrive at your destination (a.k.a. the point where you get your feet wet). Enjoy the beautiful scenery!*



# The Decline of the Amphibian

*Speech written by: Natalie Mason (Grade 4)*

One of my favourite things to do in the spring is go to my grandparent's pond and watch the incredible metamorphosis of the frog. From egg, to tadpole, to frog.....to me it's a fascinating part of nature.

I heard on the national news one night that the world's frogs and other amphibians, which include toads, newts and salamanders, are dying. After thriving for over 360 million years, a third to half of the world's 6,000 known amphibian species could go extinct in our lifetime, which would be the single greatest mass extinction since the disappearance of the dinosaurs. Mrs. Leek and fellow classmates, today I am here to speak to you about THE DECLINE OF THE AMPHIBIAN.

You may be saying to yourself..."So what! Who cares? Amphibians don't play a part in my life!" You may be thinking that, but frogs and amphibians are important. They teach us about the way animals live. They are so different from us, but they live in our backyards and we can learn a lot from them.

They play an important role in the food chain as both predator and prey and maintain the delicate balance of nature. They eat an enormous amount of insects benefiting farming around the world and they minimize the spread of diseases, such as malaria. They provide food for fish, birds and mammals. Many medicines, such as pain killers and antibiotics come from frogs. Amphibians are also important to the world's "environmental health". They breathe through their skin which may make them more susceptible to pollution than other species and this means they can provide us with an early warning of serious problems.

There are several reasons why amphibian populations are declining. The main reason is loss of habitat. Their habitats are drained and filled in and then converted into parking lots,

roads, agricultural land or housing developments. In Ontario, 80% of our wetlands and ponds have been destroyed. Preserving healthy habitats is important for the survival of all wildlife species. Pollution is another reason amphibians are disappearing. Pesticides are just one contaminant that can be dangerous to wildlife. Amphibian skin is very porous and, therefore, amphibians are much more sensitive to toxins than most creatures.

A deadly disease called chytrid fungus is attacking amphibians all over the world. It makes their thin skin much thicker which blocks the transfer of oxygen and water. They stop moving and then they die. There is no known cure for chytrid fungus and once it invades an ecosystem there is no way to get rid of it.

Amphibians are very sensitive to climate change. Many wetlands and ponds have dried up in recent years and with fewer wetlands in which to find shelter and reproduce, amphibian populations are decreasing.

What is being done about amphibian declines? Many zoos around the world, such as the Toronto Zoo and the Vancouver Aquarium are working together and have created special bio-secure facilities to raise amphibians in captivity. Hopefully, in the future they will be able to reintroduce extinct frogs back into nature and discover a cure for chytrid fungus.

What can YOU do to help protect the frog? Don't pollute! Learn more about amphibians and other "at risk" species. If you see an amphibian, leave it alone, unless it is in danger such as crossing a road. One last thing.....PLEASE DO NOT ORDER FROGS LEGS AT A FRENCH RESTAURANT!

We must act and act now! It's important that everyone contributes to the well being of our planet as we have a moral and ethical responsibility to all species. Amphibians are precious fragments of our broken world and we must work together to save them! THANK YOU!



# TICI Outdoor Education Program Takes Off!

Written by: Andrea Harquail, TICI

The Turtle Island Conservation Initiative (TICI) is a non-profit conservation programme at the Toronto Zoo. This initiative works to educate not only First Nations people, but everyone on the importance of Ontario turtle species at risk with an aboriginal perspective.

TICI has been working hard organizing an outdoor education program in Wasauksing First Nation on Parry Island. In collaboration with Steve Styers, the principle of Wasauksing School, Chance King and Trevor Tobabandung, alumni of Wasauksing School and employees of the Toronto Zoo, and an advisory committee of elders, Turtle Island Conservation was able to get this program up and running for the beginning of July 2009. The program offers an opportunity for children living on the reserve to attend an eight week



Chance King  
© TICI Staff

science program educating them on Ontario turtle species at risk, and conservation methods that can help them to study and protect

wetlands and wetland wildlife. Education on how to perform a wetland analysis, how to identify benthic (aquatic, bottom-dwelling) invertebrates, and how to become familiar with Ontario frog calls are important components of the program. TICI also provides resources for the program such as turtle identifiers, turtle road crossing signs, and frog call CDs translated into both the Ojibway and Mohawk language.

What is interesting about the program is the integration of First Nations Traditional Knowledge with western science, and education on the importance of both. Many

people are unaware of the parallels of traditional knowledge and western science, and TICI tries to build these bridges through education and stewardship. Students attending the outdoor education program have had opportunities to partake in a variety of exciting activities, broadening their knowledge of traditional teachings and species at risk. Some of these activities include a day-long canoe trip around Parry Island, learning different traditional teachings about sacred spots on the island while also being responsible



Jane Chartrand with Bush Campers  
© TICI Staff

to the zoo to attend Bush Camp, which involved traditional ceremonies and teaching from an elder, Jane Chartrand.

Turtle Island Conservation is a quickly changing program, with many new exciting activities and events on the horizon. Stay informed about upcoming events by visiting our website at [www.turtleislandconservation.ca](http://www.turtleislandconservation.ca). Please email Kim Wheatley (TICI Coordinator) at [turtleisland@torontozoo.ca](mailto:turtleisland@torontozoo.ca) if you have any inquiries!



Bush Camp, July 2009 © TICI Staff

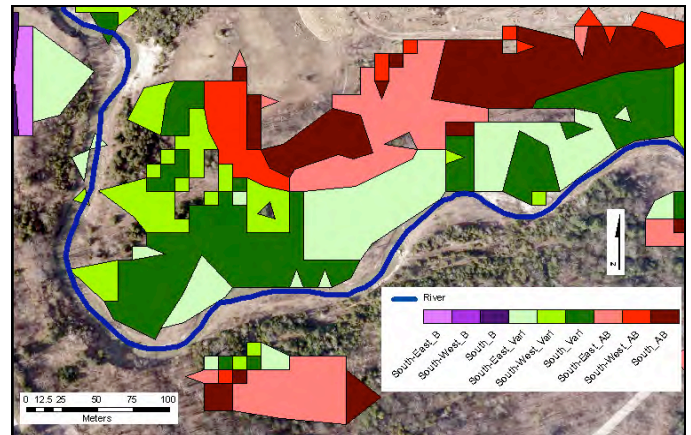
# How to Restore Turtle Habitat by Sitting at Your Computer

Written by: Lisa Webster & Julia Phillips, Adopt-A-Pond

In partnership with Rouge Park and Environment Canada's Habitat Stewardship Programme, the Toronto Zoo Adopt-A-Pond Programme launched the Urban Turtle Initiative (UTI) in 1999, a long-term urban research project designed to help protect turtles and preserve critical habitat within the Rouge Valley. The major goal of the UTI is to determine the population size, distribution and habitat use of turtle species in Rouge Park and the greater area of the Rouge River watershed in order to make recommendations for the conservation and management of turtle populations. Between 2000 and 2008, Adopt-A-Pond researchers tracked the movements of three different turtle species (Blanding's Turtles, Northern Map Turtles, and Snapping Turtles) to determine what type of characteristics each species was using to select nesting and overwintering sites. Once we had pinpointed common habitat selection criteria among each turtle species, it was then possible to look for other areas within the watershed that fit these same criteria. More importantly, it became possible to search out ideal sites situated in good turtle habitat where wetland restorations, or the creation of new ponds, could truly benefit turtle populations by increasing habitat quality, and availability.

Enter Geographic Information System (GIS) technology! GIS is a mapping and analysis tool which allows the user to view and interpret ecological data in ways that reveal patterns and trends across landscapes. In 2009, GIS was incorporated into our UTI project to help identify ideal sites for wetland restoration. Specifically, we were interested in finding spots where good quality turtle nesting and overwintering sites already existed, or spots where these features could easily be added to a wetland. We also wanted to locate areas that had historically been known to hold water (e.g. deep farm field depressions, oxbows along river beds, etc.).

By using GIS technology, common criteria that define known turtle habitats in Rouge Park can easily be applied to the rest of the landscape. Similar habitats in areas outside of the park can then be mapped and located. For example, the type of soil a turtle chooses for nesting is important for the incubation and health of that turtle's eggs. Using soil type data from areas that contain soil properties turtles have chosen in the past, we can locate other areas within the watershed that have similar soil types to select wetland restoration sites that lie in close proximity to appropriate turtle nesting soils. This same principle can be applied to any other criteria common throughout a species' selected nesting and/or overwintering sites.



GIS map illustrating different quality soil habitats for nesting turtles. Soil types are ranked on a sliding scale where dark red represents the highest quality soil type (e.g. sandy soil), and light purple represents the lowest quality soil type for nesting turtles. © Lisa Webster

Once "ideal" habitats are identified through GIS, individual sites are examined at a finer scale (i.e. via field study) by our wetland biologists, Victoria and Jenn, to verify whether these locations are truly suitable for turtles.

Ultimately, this project will help secure the future of turtle populations in the Rouge River watershed by improving habitat connectivity throughout the landscape and ensuring that turtles are provided with high quality habitat near restored wetlands. In 2009, we celebrated the first physical manifest of our longstanding desire to build more habitats for turtles - we created #1 of what we hope will be a series of many "turtle-friendly" ponds to come!

# MK and Erin's Awesome Page of Wetland Fun!

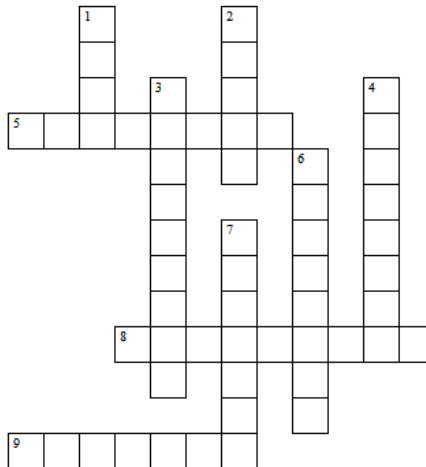
Created by: Erin Nadeau & Mary Kate Whibbs, Adopt-A-Pond

## Turtle Word Search

SNAPPING  
BLANDINGS  
MAP  
PAINTED  
SOFTSHELL  
WOOD  
STINKPOT  
SPOTTED  
SLIDER  
WETLAND  
HABITAT  
SHELL  
NEST  
MARSH  
REPTILE

I	F	C	B	D	N	S	S	H	L	P	G
E	L	I	T	P	E	R	N	A	K	A	S
A	D	N	O	S	S	H	A	B	N	M	G
U	E	O	P	L	T	E	P	I	D	G	N
H	T	D	K	I	M	M	P	T	N	W	I
H	N	N	N	D	H	L	I	A	A	O	D
S	I	B	I	E	C	V	N	T	L	O	N
R	A	Z	T	R	B	Y	G	B	T	D	A
A	P	J	S	P	W	P	S	H	E	L	L
M	S	P	O	T	T	E	D	T	W	O	B
L	L	E	H	S	T	F	O	S	N	X	J

## Pond Crossword



### ACROSS

- 5 Before they become frogs, they are \_\_\_\_\_
- 8 This turtle's shell blends in with duckweed
- 9 This frog has spots much like a jungle cat of the same name

### DOWN

- 1 Turtle that stomps the ground to get worms
- 2 This frog is named after a colour
- 3 The only turtle in Ontario with a flexible shell
- 4 Biggest frog in Ontario
- 6 Turtle with a dinosaur-like tail
- 7 These turtle hatchlings spend the winter in their nest

\*Answers will be provided in the fall edition of Amphibian Voice



# Ribbit's Review – The Portrayal of Turtles in Movies

Summer 2009

Written by: Mary Kate Whibbs, Adopt-A-Pond



Although not always the focal point of Hollywood blockbusters, turtles tend to sneak their way into popular cinema in a variety of ways. Turtle-based characters shape our view of these long-lived creatures and may indirectly spark turtle stewardship in viewers both young and old.

Moving outside the boundaries of how most people think about turtles, the live-action film, 'Teenage Mutant Ninja Turtles' kicks ideals of these relatively slow animals into high gear. Suddenly we see turtles taking the main stage and stepping into the hero role in a big way. After being exposed to radioactive goo as hatchlings, the four turtles rapidly grow to the size of Arnold Schwarzenegger and fight crime in an attempt to thwart the plots of the evil ninja, Shredder. Perhaps these unlikely heroes were chosen simply because of the far-fetched nature of it all – or maybe it was because in many ways, turtles are inherently heroic – for example, they are able to live 75 years or longer (rare in the animal kingdom outside of humans), surviving drastic changes in land formations, predation, human expansion and the detrimental effects of pollution in their habitat.

While crime fighting and a regular diet of pizza do not immediately jump to mind when thinking of turtles, the image of an old, wise sage is a more common depiction of the species. Such is the case in 'The Neverending Story;' as their world crumbles beneath them, the inhabitants of Fantasia send the boy Atreyu to find a solution to the problem. On his travels, he is sent to the Shell Mountain to find Morla, all the while unaware that Shell Mountain IS Morla - she is in fact an extraordinarily large turtle. Buried deep within the Swamps of Sadness, Morla is lonely, disgruntled and not impressed to be disturbed by a child – even so, she imparts key information to Atreyu that ultimately helps him on his journey to save Fantasia.

In 'Finding Nemo', surfer sea turtles Crush and Squirt help Nemo find his way back home by riding the ocean current, illustrating a significant life-history trait of the species – their ability to travel great distances in the water.

Simply having characters such as this in different cinematic roles gives these shy animals the chance to be in the spotlight. Many people do not have the opportunity to see turtles in nature; and while movies may not highlight the various threats to turtles in the wild, they have potential to generate empathy towards the species by giving a voice to a silent creature.

Volume 19, No. 1

*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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Human Resources and Development Canada

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

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