

# Eagle Point Nature News

Adventure Awaits....

[www.epbrparkscouncil.org](http://www.epbrparkscouncil.org)



June 3, 2020



## The Wonders of Wetlands

Kathy Schwengler, Education & Outreach Coordinator, Eagle Point-Blue Rapids Parks Council

Did you know that nearly one third of Earth's organisms reside in wetlands of one kind or another? In Alberta, wetlands provide habitat to over 600 species of plants and they are also critical habitat for birds, amphibians, reptiles, fish and mammals.

When you pass a wetlands near your home, consider that wetland's many jobs:

- protect water quality by acting as a water filter and purifier
- provide important habitat for plants, animals, insects and microorganisms
- absorb excess water during heavy rain to prevent flooding
- act as sponges to release moisture to surrounding land during times of drought
- absorb and store carbon from the atmosphere (Canadian Geological Survey of Canada estimates that Canada's wetlands store almost 60% of all carbon stored in soil in the country - [www.ducks.ca](http://www.ducks.ca))

Unfortunately, wetlands are disappearing as humans drain and develop these areas for residential, agricultural or industrial developments. Help your children appreciate the value of our wetlands with this issue's activities and links.



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## Activity I. Pond Dipping!

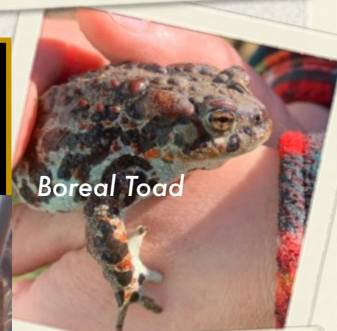
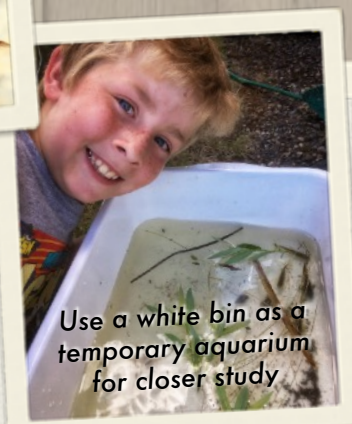
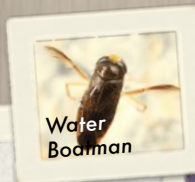
"If you truly love nature, you will find beauty everywhere." Vincent Van Gogh

Wonders of Wetlands is our most popular program. Kids love pond dipping! Turn it into a family adventure by visiting a wetland to discover who and what lives there. The best time for pond dipping is early June until early September. Remember - you are visiting a community which includes many important organisms, so go quietly, be gentle and leave no trace.

### Pond Dipping Equipment (stuff you have at home)

- \* white or clear plastic bin or tub
- \* turkey baster
- \* ice cube tray (white is best)
- \* small buckets with handles
- \* small sieve or net with a handle
- \* magnifying glass
- \* binoculars (optional)
- \* field guides for aquatic insects, amphibians, birds
- \* tall rubber boots
- \* note book & pencil to document discoveries
- \* Eagle Point worksheet (optional)

1. Find a pond with a shallow zone that's safe to wade in.
2. Get a bucket of pond water. All participants should wash their hands in the bucket of pond water before exploring. *Dump that pond water out away from shore., insect repellent, hand sanitizer, lotions and perfumes are all toxic to wetlands organisms. NOTE: Amphibians should be handled with great care or not at all - any residue on your hands can be absorbed through their skin! Wash hands after handling pond organisms too as amphibians and reptiles may carry salmonella bacteria.*
3. Use buckets to collect a sample of pond water near reeds or other water plant. Gently pour pond water into the white bin. Keep this bin in a shady spot. Don't allow mud or leaves to enter the bin.
4. You can use a turkey baster to gently suck up organisms and put them in ice cube trays or small jars filled with pond water to get a closer look.
5. If you're using a net, turn it inside out and pour water on the back of it to gently empty the net contents into your bin.
6. Try to identify the pond organisms you find in and around the pond, using field guides (for I.D. guides and further activities, visit [www.epbrparkscouncil.org/pond-dipping/](http://www.epbrparkscouncil.org/pond-dipping/)).
7. Make a lesson out of it with [Eagle Point's Wonders of Wetlands Worksheet](#).





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## II. Build a Wetlands Water Filter

Did you know that one of the great benefits of wetlands is their ability to filter run-off before it enters open water? Sediments and pollutants (including manure and chemicals) that pass through a wetlands before entering open water are filtered out. **In wetlands, water flow slows** and sediments drop to the bottom. Many chemicals and pollutants collect in wetlands and are broken down by wetland microorganisms or taken up through wetlands plant roots.

Find out for yourself by filtering water through 3 natural filters, including pond soil & plants.



**For Full Details Visit :**  
[www.epbrparkscouncil.org/wetlands-filter](http://www.epbrparkscouncil.org/wetlands-filter)

### Materials

- ▶ 3 two litre bottles or milk cartons (remove screw cap). These will be your "filter housing."
- ▶ 4 glass jars
- ▶ 3 cups of sand
- ▶ 3 cups of garden soil
- ▶ 3 cups of wetlands soil with plants/moss attached
- ▶ measuring cups
- ▶ tape
- ▶ large pitcher & stir stick
- ▶ dirty water (add 5 tsp coffee grounds, 5 tsp dirt, 5 tsp cocoa powder, 5 drops of food colouring to 8 cups water in a large pitcher and stir well)

- ▶ labels, notebook, pencil
- ▶ 3 pieces of cheesecloth and 3 elastic bands (optional)

### Procedure

1. Get help to cut the three bottoms off the bottles or cartons to make funnels. Discard/recycle the bottom of each bottle.
2. Optional: Tightly secure cheesecloth or screen to the mouth of each bottle to prevent filter material from passing into jar.
3. Position each bottle upside down in the mouth of a jar. Secure each bottle to its jar with tape. See *diagram*. Label them B, C, D
4. Mix up your 8 cups of dirty water in a large pitcher.
5. Pour 2 cups of dirty water into a glass jar (this is your control). Label this jar A.
6. Fill filter #B with sand, fill filter #C with garden soil and fill filter #D with pond soil/plants.
7. Slowly pour 2 cups of dirty water through each "filter." Try to pour at the same speed for each filter. If you have helpers, each of you can pour into a filter at the same time and same speed.

### Questions

1. Which filter let the water pass through it the fastest?
2. Which filter let the water pass through it the slowest?
3. Using the colour of the unfiltered water in jar A as a guide, which filter cleaned the water best?
4. If you didn't use a cheesecloth, how would that have improved your experiment?

Filter #	SPEED of FILTRATION:	WATER COLOUR AFTER FILTER
A (Control) NO FILTER	N/A	DARK BROWN
B (SAND)		
C (GARDEN SOIL)		
D (POND SOIL/PLANTS)		



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## Further Learning

### III. Citizen Science & Amphibian Monitoring



Photo by K.R. Schwengler, EPBRPC

Take your wetlands study to the next level by participating in Alberta Conservation Associations's Alberta Volunteer Amphibian Monitoring Program (AVAMP). AVAMP is a citizen science program which helps participants learn about the amphibians in their communities while helping conserve amphibian populations.

Through AVAMP, individuals, families, schools, naturalist groups and organizations monitor frogs, toads, salamanders and reptiles. Observations are submitted online.

The AVAMP site includes excellent identification keys for Alberta's amphibians and reptiles, including sounds!

[www.ab-conservation.com/avamp/overview](http://www.ab-conservation.com/avamp/overview)



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### IV. Track of the Week!

*These tracks may be found along the muddy shores of forest ponds, rivers and creeks.*

- A. Black Bear
- B. Skunk
- C. River Otter
- D. Beaver

*Last issue's track was made by an Elk*





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## Questions or Suggestions?

### Contact:

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### Visit our website:

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## Links & Learning

### WETLANDS LINKS

#### Pond Dipping with Eagle Point Video

[Experiment: Build a Water Filter](#)

Wetlands Activity Sheets (Bingo, Crosswords and More): [www.epbrparkscouncil.org/pond-dipping](http://www.epbrparkscouncil.org/pond-dipping)

### Identification:

\* [Aquatic Plants of Alberta](#)

\* [Insects of Alberta's Wetlands](#)

\* [Amphibian and Reptile Identification](#)

[Wetlands Alberta](#) (What is a wetland, how to become a steward and more).

Government of Alberta, [Wetlands: An Overview](#)

**Share your pond dipping photos! Email your photo to [outreach@epbrparkscouncil.org](mailto:outreach@epbrparkscouncil.org) and we'll post it on our Facebook page!**

Eagle Point-Blue Rapids Parks Council thanks our supporters for their continued support during this challenging time!

Our featured supporter of the week is Drayton Valley Community Foundation.





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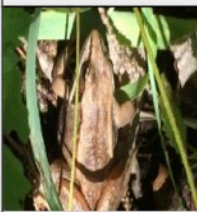




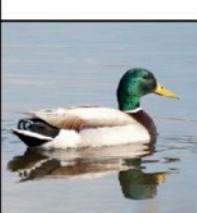

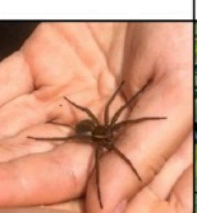
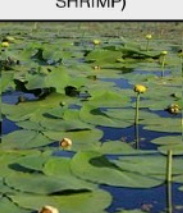
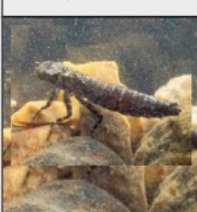
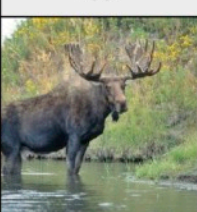

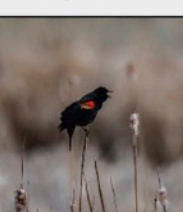

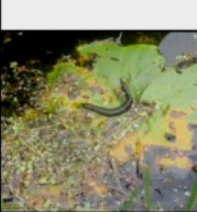



## B O N U S A C T I V I T Y



EAGLE POINT-BLUE RAPIDS PARKS COUNCIL

### WETLANDS BINGO

				
				
DIVING BEETLE	CATTAIL	TOAD	WATER BOATMAN	DRAGONFLY
				
FROG	BEAVER	GIANT WATER BUG	OSPREY	SCUD (FRESHWATER SHRIMP)
				
DAMSELFLY LARVA	DUCK	WATER MITE	FISHING SPIDER	POND LILY
				
DRAGONFLY LARVA	MOOSE	RED SIDED GARTER SNAKE	TADPOLES	RED WINGED BLACKBIRD
				
CADDIS FLY	LEECH	WATER STRIDER	SNAIL	MINNOW