

# Kids Guide to Woodland Gardens

## Meet The Animals

Woodland Gardens is a fun place to be a nature explorer!

It has four major habitats: a pond, a wooded area, trails and paths, and grassy parkland; which makes it an ideal home for plants, animals and insects!

Before you go exploring, it's helpful to know a bit about the animals in our park.

**Animals** are living organisms that breathe, eat, grow and reproduce. There are five groups of animals with a backbone, (*known as vertebrates*).

1. **Fish** - breathe through gills, and live in water, lay eggs



2. **Amphibians**- live both on land (breathing with lungs) and in water (breathing through gills).

i.e frogs, and toads.



3. **Reptiles**- breathe with lungs, have scales, and most lay eggs. This include snakes, turtles and lizards.



**Birds**- animals with feathers and wings. They lay eggs, and most can fly.



4. **Mammals**- most are born live and are nourished by their mothers' milk. Most mammals also have body hair.



Animals with no backbone are called **Invertebrates**, and these include insects and spiders.



**BUG FACTS:** There are nearly 5,000 different kinds of ladybugs worldwide and 400 live in North America.



## Trails and Paths

The pathways through the park are mostly shaded, and edged by wild flowers, small trees and bushes which are kept trimmed back. The most common plants along the paths are **bunchberries**, wild lily of the valley, winter-green, partridge berries and blueberries.

In June you can see **Lady Slippers**



growing on the pond banks, in the boggy areas, and on the forest floor. This is an endangered flower, so no picking!

In June the **puffballs** come out as well, and in July up come the **wild mushrooms**.



# Life in the Pond

The pond is the biggest natural habitat in Woodland Gardens. Most of the organisms in the park live in or around the pond, and depend on it for their existence. Plants such as **rushes, cattails** and **bur-reeds** grow along the pond edge, and are protection and food for insects and animals.



Under the surface of the water there are **bacteria** and **fungi**; **bottom-dwelling organisms** such as **insect larvae, snails,** and **worms**; microscopic plants and animals known as **plankton**; **fish, amphibians,** and **reptiles.**



It's easy to tell the time of year in a pond. **Spring** is the season of birth. Plants bloom. Eggs hatch. **Turtles** and **frogs** wriggle out from the shallow bottom after a long winter's nap. The water's surface ripples with **aquatic insect larvae** chasing each other. Tiny spring **peepers** twang for mates all night long.

By **summer**, some of the residents of the pond have started to move out. **Salamanders** and **frogs** which breathed with gills in the spring have grown into air-breathing adults. **Mosquito larvae** started life hanging out at the surface of the pond. Now their new wings carry them away from the water. **Water striders** tiptoe across the calm water. **Turtles** climb

on top of each other to gain the sunniest spot on the floating log. A green blanket of algae coats the surface of the pond. The brown **bullhead catfish** patrols the bottom of the pond in search of food. It is aided by its chin "whiskers" that feel and taste whatever is on the bottom.



The crisp **Fall** air chills the pond. Summer's birds are replaced by **mi-**



**grating geese** and **ducks.** Small mammals feed hungrily on berries to build up fat for the cold season ahead. Many animals will not see the winter. They lay their eggs and die.

As **Winter** comes on, gradually ice creeps out from the shore until one day the whole pond turns to glass. The **frogs** and **turtles** have retreated into the mud. The **muskrats** spend the stormiest days in their lodges, much like beavers. Cold-blooded **fish** aren't bothered by the winter. They just move more slowly, waiting for spring to awaken the pond world.



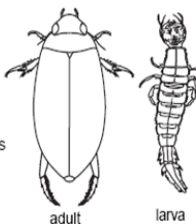
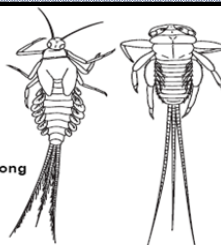






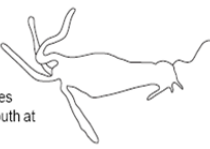
# Meet the Water Bugs!

**Water bugs** are bizarre creatures that spend some or all of their lives in the pond. Some are soft and squishy, some have hard crusts on their bodies, and some carry a 'home' wherever they go.

Most water bugs start life as

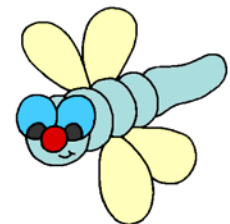
an egg. When they hatch, some look like their parents and have skins that grow, such as **snails** and **leeches**. Some have hard skins that need to be shed so they can get bigger. Others look like their parents but don't have wings, like the **dragonfly nymph**.

Still others hatch looking nothing like their parents and have soft bodies, eventually transforming themselves into winged adults. Although you can't see most of these with the naked eye, **here are some of the water bugs that live in our pond!**

<p><b>Diving Beetle</b></p> <ul style="list-style-type: none"> <li>smooth, oval, streamlined body</li> <li>hairy hind legs shaped like paddles</li> </ul> <p><b>Size: Up to 40 mm long</b></p> 	<p><b>Mayfly Nymph</b></p> <ul style="list-style-type: none"> <li>usually three long tails</li> <li>short antennae</li> <li>three pairs of legs, each leg with single claw</li> </ul> <p><b>Size: Up to 20 mm long</b></p> 	<p><b>Caddisfly Larva</b></p> <ul style="list-style-type: none"> <li>Looks like a caterpillar</li> <li>Sometimes found in cases</li> <li>three pairs of well-developed legs on the three thoracic segments</li> <li>Hooks on the last segment</li> </ul> <p><b>Size: Up to 25 mm long</b></p> 
<p><b>Water Mite</b></p> <ul style="list-style-type: none"> <li>looks like a fat little spider</li> <li>flat, round body</li> <li>four pairs of hairy legs</li> <li>moveable head attached to body by a hinge</li> </ul> <p><b>Size: Tiny! 1-5 mm long</b></p> 	<p><b>Beetle Larvae</b></p> <ul style="list-style-type: none"> <li>look very different from adult beetles</li> <li>cylindrical, segmented body with six legs</li> <li>distinct head but no wing pads</li> <li>there are different kinds of beetle larvae, but all share the above traits</li> </ul> <p><b>Size: 2-20 mm long</b></p> 	<p><b>Stonefly Nymph</b></p> <ul style="list-style-type: none"> <li>two tails</li> <li>antennae on head</li> <li>three pairs of legs, each leg with two claws</li> </ul> <p><b>Size: Up to 50 mm long</b></p> 
<p><b>Flatworm</b></p> <ul style="list-style-type: none"> <li>looks like a flat, trodden-on worm!</li> <li>no body segments</li> <li>soft skin with hair on the sides</li> <li>small species wave hair to swim while larger species glide</li> </ul> <p><b>Size: up to 10 mm long</b></p> 	<p><b>Water Treader</b></p> <ul style="list-style-type: none"> <li>run or walk on water surface</li> <li>smaller than the water strider</li> <li>back legs longer than their body</li> <li>shorter front legs</li> </ul> <p><b>Size: Up to 5 mm long</b></p> 	<p><b>Hydra</b></p> <ul style="list-style-type: none"> <li>small and cylindrical with a soft body</li> <li>bunch of tentacles surround the mouth at one end</li> <li>a disk for attaching to stones or plants on other end</li> </ul> <p><b>Size: Up to 25 mm long</b></p> 

## BUG FACTS

- The fastest known insect is a dragon fly that was clocked at 58 kilometres an hour
- Some mayfly's eggs can take up to 3 years to hatch. Then they live for about 6 hours.
- Grasshoppers make their sound (music) by rubbing their wings or legs together. They can jump 20 times the length of their body.



# The Pond Animals

## DUCKS

The most noticeable animals that call the pond home are the **ducks**. Ducks love to swim! They dip, duck and dive to get at insects, small fish and water plants. Woodland Gardens has two types of ducks: the wood duck and the mallard.

The **wood duck** has a long square tail and white tips on dark colored wings. **It** nests in trees near water. After hatching, the ducklings jump down from the



nest tree and make their way to water. The mother calls them to her, but does not help them in any way. Ducklings require a high protein diet for rapid growth. They eat dragonflies, bugs, beetles, and spiders. The wood duck flies south in September and returns in April. They have their babies in June.

The **mallard duck** is the most common duck in North America. The female mallard duck is a dull brown, while the



male has brown feathers, a green head, and a purple neck-band.

If you want to look for a mallard duck's nest you would find it under boulders, in tree holes, or in open areas. Mallard ducks are not picky eaters, they will eat seeds, bulrushes, willow, mollusks, insects, small fish, tadpoles, freshwater snails, fish eggs, and frogs.



## REPTILES

**Turtles** and **snakes** are the only reptiles known to live in the park. Snakes are generally shy and they stay away from humans.

The **Snapping Turtles** have a long neck, and powerful jaws.



They come on land to lay their eggs which hatch in about 10 weeks. Snapping turtles eat fish, aquatic animals, vegetables, and decaying matter.

The **Eastern Painted Turtles**

can be seen sunning themselves on a log to raise their body temperature which helps their digestive system. They have yellow or red stripes on their heads and neck. They eat water lilies, duckweed, earthworms, snails, insects, crayfish, tadpoles, frogs, and small fish.



## AMPHIBIANS

**Green Frogs**, **Northern Leopard** and **Pickerel Frogs** all live in the pond, as well as **Spring Peepers** and **American Toads**. They lay



their eggs in the pond, and their larvae, called tadpoles, have gills and develop in the water. Small frogs eat insects, worms and snails. Some eat small fish. Larger frogs eat small reptiles and mammals, like mice and lizards. Frogs do not chew, so all of their prey is swallowed whole. Certain frog species have a long sticky tongue that they use to catch flying insects. **Bullfrogs** are the biggest in the frog family. Tadpoles take 2 years to develop into a bullfrog. They eat small birds, other frogs, fish, even their own tadpoles, as well as the usual insects.

# Life in the Wooded Forest

## TREES AND PLANTS

Most of the trees in Woodland Gardens are softwoods. These are trees that produce seeds with no covering (such as pines, firs and spruces which grow their seeds in cones). You will see lots of **lichen** and **moss** growing on the ground, on stumps and branches and trunks of trees. *Lichens are an example of a symbiosis, where two plants live and work together.* The green stuff you see is the fungus, and it collects the sunlight. The part you don't see is the **algae**, which collects nutrients. Lichens can live to be 50 years old!



## MAMMALS

Mammals in the park include the **Norway Rat**, **Muskrats** and **Grey and Red Squirrels**. The **Norway rat** is the most common rat species in the Atlantic Provinces. It is light brown and measures 12 to 18 inches (30-45cm) including the tail. Also known as the brown rat, it burrows into the ground and builds its nest. It likes to eat seeds, grains, fruits, stems, leaves, nectar, flowers, roots, bark, wood, sap, insects, spiders, crayfish, earthworms, frogs, salamanders, fish, lizards, birds, eggs, and fungus. It is good at catching fish with its paws, and will also eat dead animals.



The **Muskrat** is mainly nocturnal, and spends most of its time in the water. It is an excellent swimmer because it uses its hind feet as a propeller, and its tail as a rudder. It can remain under water for long periods of time and it has waterproof fur. Muskrats live and take shelter in the canals and tunnels they



make through the cattails. They eat cattails, bulrush, reeds, water lily, pondweeds, small turtles, frogs, salamanders and slow-moving catfish. In the winter they live in lodges they dig into the ground under the surface of the pond.

Making their home in the trees of the dark, shaded woodland are the **red and gray squirrels**. Both build their dens in tree branches, inside a hollow trunk, or in an empty birds nest. They do not hibernate and can't survive very long without food. **Gray squirrels** eat tree bark and fungi in the winter and buds in the summer, and nuts and acorns in the fall. They bury extra food just below the soil and find it later by smell. **Red squirrels**, which are smaller than the gray squirrel, eat both plants and animals, so in addition to nuts, seeds, buds, bark, fruits and mushrooms, they eat bird's eggs, baby birds, nestlings, young rabbits, frogs, salamanders, and insects. They hoard lots of food to last them over the winter.



## BIRDS

What makes birds different from other animals is that they have feathers! Feathers do many jobs for birds. Soft down keeps them warm, wing feathers allow flight and tail feathers are used for steering. The color of feathers can be used to hide, or to help the bird find a boyfriend or a girlfriend!



Birds lay eggs and hatch their young. Unlike mammals, birds do not feed their young milk. Instead, they feed their young insects like worms. Because they are by the pond, they have plenty to feast on!

# The Parkland

The park known as **Bridgewater Woodland Gardens** was donated to the Town of Bridgewater in 1921 by Mr. H. W. Owen to be used as a recreational park. Lots of people don't know that this area used to be a dump! Really!



Along the edges of the lawns are **hawkweeds, dandelions, clovers and bedstraws**, with **forget-me-nots, deptford pinks** and **common evening primrose** blooming in the summer. **Daisies** and **buttercups** have also found their way into the mix.



**Crabapple trees**, planted in 1967, line the pathway leading to the duck pond. The lovely green lawn behind the museum is used by many people for activities such as picnics and barbecues, Frisbee, and playing with their dogs. The high school grads come here every June in their beautiful dresses and fancy suits to have their pictures taken before Prom, and lots of brides and grooms come here for their wedding pictures.



**CHEESE!**

