Welcome to ZOOWOODS! This self-guided tour is designed to walk you through the garden starting on the south path. The guide explains some of the main features – what they are and why we included them in our design.

Before you begin, you may be interested in a brief history of this project. It started with a decision on campus to create a better environment by eliminating the use of pesticides. The idea of a naturalistic landscaping project came from Dr. Ann Zimmerman, Faculty member of the Department of Zoology and Director of the Division of the Environment. The concept was to use the expertise on campus in a joint venture to create areas that were environmentally friendly, act as an education tool, be aesthetically pleasing and less labour intensive. With Ann working within the Zoology building and others in the department expressing interest in the project, the Ramsay Wright Zoological Laboratories seemed the logical place for a test site. The Zoology Landscape Committee was created and after much work in collaboration with Simcoe Hall, Facilities and Services and the School of Architecture and Landscape Architecture, ZOOWOODS has evolved to its current state. This is very much an on-going project and, with continued success, we hope it will expand to surround the entire building. We also hope that others on campus will like this concept and wish to adopt their own version of it in their area.

We hope you enjoy your tour!

1. The broken **concrete berm** along the south wall of ZOOWOODS and the **gabion wall** at the front of the garden were both created by reusing material from construction projects taking place elsewhere on campus. Rather than having the concrete sent to a landfill site, it was brought here allowing us to create some relief and increase the amount of microhabitat for plants and animals.

2. The large **tree stump** and **log** are from one red oak tree. They came to us from High Park where the tree was being removed. These pieces add texture to the garden and help give the appearance of a somewhat more mature ecosystem. We will be planting a birch sapling inside the trunk as this is often seen in a naturally developed forest.* As with the concrete berm, the log provides a place for small animals to find protection and warmth.

* where the only space available for new trees is that left by the death of an older one.

3. Many native plants are currently a part of our maple/beech model. This includes many spring ephemerals (Bloodroot – *Sanguinaria canadensis*, White Trillium – *Trillium grandiflorum*), herbaceous plants (Red Baneberry – *Actaea rubra*, Jewelweed – *Impatiens copensis*), ferns (American Maidenhair – *Adiantum pedatum*, Cinnamon Fern – *Osmunda cinnamomea*), and trees. Three of the trees that we would like to point out are the **Flowering Dogwood**, **Shagbark Hickory**, and **Witch Hazel**. These are important to us because they were planted at a special ceremony at U of T Day, October 1994, respectively, by Marsha Chandler, Dean of the Faculty of Arts and Science, Roberta Bondar, Astronaut, and Robert Prichard, President of the University of Toronto. to mark the beginning of ZOOWOODS

4. One of the requirements of the design of this garden was that it be wheelchair accessable allowing everyone to enter and, hopefully, enjoy this space. The **flagstone path** and **bridge** play a major role in fulfilling this requirement. The path has been created from Ontario sandstone and designed so that water will drain from it into the garden keeping

ZOOWOODS wet and the path dry. The bridge was also neccessary because of our dry stream bed (see #8 below). The bridge allows access all around the garden and, we feel, aesthetically enhances the site. The bridge was constructed of cedar and railway ties. In our continuing effort to reuse material, the railings of the bridge were created from two trees that had died around the Ramsay Wright building and needed to be cut down. The railing furthest from the pond is the trunk of an Ironwood and the one closest to the pond is a Flowering Crabapple. The bridge was designed and built by the University's carpenters.

5. The concept of the **pond** grew from "Let's have a small wet area." to what you see now. One of the goals of this project is to increase biodiversity and a very good way to do that is to add water to the ecosystem. The **waterfall** increases the impact of the pond because many animals are attracted to the sound of running water. Eventually we plan to have the rain water that accumulates on the roof of Ramsay Wright ~~to be~~ redirected to ZOOWOODS rather than going into the sewer system. The pond will act as a resevoir for this water. As an aside, the area around and in the pond is currently rather barren. Plans are in place to put more plants around and in the pond.

6. Immediately to the north of the pond, there is an area of bare soil. This may not look like much, but, in the future, we hope it will be a very important part of our garden. It is a **hibernaculum**. To us, a hibernaculum is a hole in the ground that is at least a metre deep (below the frost line) and filled with sand. That may not sound too exciting, but to a frog or toad, it's a winter home. We plan to stock the pond with tadpoles next spring. When winter comes, they need a place to burrow into and hibernate. Of course, under "normal" circumstances they find a natural site for this. However, as we were not sure if there would be such a haven naturally in ZOOWOODS, we decided to create one.

7. The three large **rocks** that we have in the garden are glacial erratics. In other words, rocks that were picked up by glaciers as they advanced and ~~dumped~~ left behind as the glaciers retreated. The purpose for having them in the garden is, again, to add texture and increase the number of microclimates, but, also, to represent the fact that glaciers went through this region and had a major impact on the ecology of the area.

8. Meandering through the entire length of ZOOWOODS from the pond almost to the street is the **stream bed**. It was put in place to add relief to the area and to provide a channel for water from the pond if the pond were to overflow. At the other end of the system (near the street), we have built a **french drain**. This is a hole in the ground that has been filled with gravel. The purpose of the drain is to provide a place for excessive amounts of water to percolate into the ground without going on to the sidewalk and street. Another reason for putting the drain so close to the sidewalk was out of concern for the salt runoff from the winter snow removal. By providing a localized place for the snow from the road and sidewalk to melt, hopefully much of the salt that can be very damaging to the plants will concentrate in the french drain and stay out of the main part of the garden.

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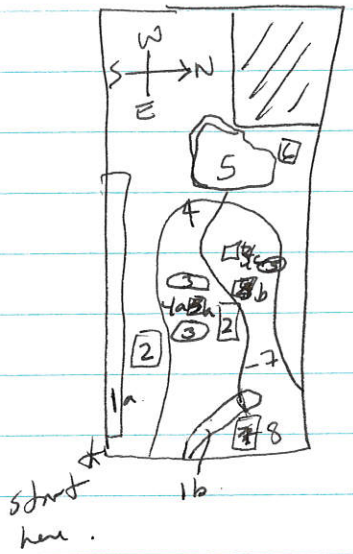
Before you begin, you may be interested in ~~To give you a brief background on the~~ history of this project, ~~It starts~~ ~~begins~~ with a decision on campus to become a better environmental citizen & lead by example by eliminating the use of pesticides. ~~create an integrated pest management policy. (IPM) In essence, no pesticides would be used. This opened the door for delicate native species of plants to be brought on campus.~~ This was coupled with the continual ~~decreases in budgets & the~~ loss of positions in the University Grounds Department due to budgetary constraints. The ~~concept~~ idea of a naturalistic landscaping project ~~was~~ came from Dr. Ann Zimmerman, faculty member of the Department of Zoology & Director of the Division of the Environment. The concept was to use the expertise on campus in a joint venture ~~do~~ to create areas ~~on campus~~ that were environmentally friendly, act as an education tool, be aesthetically pleasing & less labour intensive. The latter would help relieve the increasing demands on the Grounds Department. With Ann working within the Zoology building & others in the ~~the~~ department expressing interest in the project, ~~the~~ Ramsay Wright ~~zoo~~ Zoological Laboratories seemed the logic place for a test site. The Zoology Landscape Committee was created & after much work in collaboration with Simcoe Hall, Facilities & Services and the School of ~~Land~~ Architecture & Landscape Architecture, ZOOWOODS has evolved to it's current state. This is very much an on-going project & , with continued success, we hope it will expand to surround the entire building & that We also hope others on campus will like this concept & wish to adopt their own version of it in their area.

check proposal.

We hope you enjoy your tour!

- Appendix of plant spp.
- Special thanks to Simcoe Hall, F.o.S. & Dustbin for financial support F.o.S. for their efforts & SA+LA for design.

## Self-guided Tour




1. a) Concrete ~~wall~~ berm
   b) Gabion wall
2. Stump + log
3. ~~Glacial erratic rocks~~
   a) Flowering Dogwood
   b) Shagbark Hickory
   c) Witchhazel
4. Bridge – constructed by on campus carpenters. + Flagstone Path.
5. 8. Pond + waterfall.
6. Hibernaculum.
7. ~~French Drain.~~
8. Glacial erratic Rocks.
9. Dry Stream Bed + French Drain.

1. a) ~~Once~~ the/ ~~concrete~~ berm along the ~~north~~ south wall of 200 WOODS and the ~~gabion~~ wall at the front of the garden were both created ~~from~~ by ~~reusing~~ material ~~from~~ construction projects taking place ~~there~~ elsewhere on campus. ~~There were many advantages to this. It allowed us to create microhabitat~~ ~~This allowed us to create some relief on the site, with that, increase the number~~ amount of microhabitats ~~if not brought to this site, the concrete would have been dumped at a landfill site. By using it here, it...~~

Rather than having the concrete sent to a landfill site, ~~having~~ it was brought here allowing us to create some relief and increase the amount of microhabitat for plants and animals. ~~to plants~~

2. The large tree stump + log are from one red oak tree. bold
They came to us from High Park where the tree was being removed. These pieces add texture to the garden + help give the appearance of a somewhat more mature ecosystem. Find out why *
We will be planting a birch sapling inside the trunk as this is often seen in a naturally developed forest. As with the concrete berm, the log provides places for small animals to find protection + warmth.

3. Well over 100 species (?) native plants are currently a part of our maple/beech model. This includes many spring ephemerals (Bloodroot, Trillium, Jack-in-the Pulpit), herbaceous plants (Columbine, Herb Robert, Barberry, Solomon's Seal, Jewelweed), ferns ( ) and trees (Sugar Maple, American Beech, Red Oak). Latin names
~~These trees that we would like to point out are~~
~~They are the~~ Because of the Flowering Dogwood, Shagbark Hickory & Witchhazel. These are ~~special~~ important to us because they were planted at a special ceremony at U of T Day, ~~1993~~ 6th June 1994, respectively by Marsha Chandler, Dean of the Faculty of Arts & Science, Roberta Bondar, Astronaught & ... and Robert Prichard, President of the University of Toronto ~~respectively~~.

4. One of the requirements of the design of this garden was that it be ~~created so~~ wheelchair accessable to allow everyone to enter & hopefully enjoy this space. The flagstone path and bridge ~~are a major part of that~~ play a major role in fulfilling this (?) requirement. The path has been created from Ontario sandstone & designed so that the water will drain from it into the garden keeping the ZOLWOODS wet & the path dry. The bridge was also necessary

because of our dry stream bed (see #8. below). The bridge allows access all around the garden & , we feel, aesthetically enhances the site. The bridge was constructed ~~by~~ of cedar & railway ties. In our continuing effort to reuse material, the railings of the bridge were created from two trees ~~the~~ that had died around the ~~Zoo~~ Ramsay Wright ~~Bu~~ building & needed to be cut down. The railing furthest from the pond is the trunk of a flowering Crabapple & the one closest to the pond is an Ironwood. The bridge was designed & built by the University's carpenters.

5. The concept of the pond grew from, "Let's have a small wet area." to what you see now. One of the goals of this project ~~It only seemed appropriate necessary~~ is to increase biodiversity and a very ~~easy~~ good way to do that is to ~~create~~ add water to the ecosystem. The waterfall increases the impact of the pond because many animals are attracted to the sound of running water. Eventually we ~~a~~ plan to have the rain water that accumulates on the roof of Ramsay Wright be redirected to ZOOWOODS rather than going into the sewer system. The pond will act as a reservoir for this water. As one could see, the area around & in the pond is currently rather barren. Plans are in place to put more plants around and in the pond.

6. Immediately To the north of the pond, there is an area of bare ~~sod~~ soil. This may not look like much, but, in the future, we hope it will be a very important part of our garden. It is a hibernaculum. To us, a hibernaculum is a hole in the ground that ~~goes~~ is at least a metre deep (below the frost line) and filled with sand. That may not sound too exciting, but to a frog or toad, it's a winter home. We plan to stock the pond with tadpoles next spring. Hopefully some of these will ~~mature~~ live & mature to adults. When winter comes, they need a place to burrow into

? hibernate
do sleep. Of course, under ~~so~~ "normal" circumstances they find a natural site for this. However, ~~we~~ as we were not sure if ZOO there would be such a haven naturally in ZOOWOODS, we decided to create one.

7. The three large rocks that we have in the garden are glacial erratics. In other words, rocks that were picked up by glaciers as they advanced & dumped as the glaciers retreated. The purpose for having them in the garden is, again, to add texture & increase the number of microclimates, but, also, to represent the fact that glaciers went through this region & had a major impact on the ecology of the area.

8. Meandering through the entire length of ZOOWOODS from the pond to almost the street is the ~~dry~~ streambed. ~~We expect it to be dry most of the time.~~ It was put in place to add relief to the area. ~~Although we expect it to be dry most of the time, it has been designed~~ to provide a channel for water from the pond if ~~it~~ the pond were to overflow.* At the other end of the system (near the ~~street~~ street), we have built a french drain. This is a hole in the ground that has been filled with gravel. ~~We expect that stream bed will be dry most of the time.~~ The purpose of the drain is to ~~allow~~ provide a place for excessive amounts of water that haven't gone into the garden to percolate into the ground without going on to the ~~str~~ sidewalk and street. Another reason for ~~placing~~ putting the drain ~~not at this location~~ so close to the sidewalk was out of concern for the salt run off from the winter snow removal. By ~~encouraging the~~ providing a localized place for the snow from the road & sidewalk to melt, hopefully much of the salt that can be very damaging to the plants will ~~remain~~ concentrate in the french drain & stay out of the main part of the garden.

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White Trillium - Trillium grandiflorum
Bloodroot - Sanguinaria canadensis
Jewelweed - Impatiens capensis
Flowering Dogwood -
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American Maidenhair Fern - Adiantum pedatum
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