Summer Safari at the University of Michigan Matthaei Botanical Gardens

Field Notebook

It's summer time! In order to celebrate the season, hike through the natural ecosystems of Michigan to see how plants and animals spend their summer.

Along the way we'll explore ponds, prairies, and meadows, as we look for insects and animals and discover the ways in which the members of the ecosystem interact with each other.
You'll be hiking along the Sue Reichert Discovery Trail for most of your safari today. The trail was made possible by a gift from Rudy Reichert and family in memory of his wife, who was a docent at Matthaei and who loved nature education.

Use the map below for suggested page numbers that have the different types of animals you might see today.

Also, feel free to go backward or forward in this field notebook as you see new animals.
A Successful Summer Safari!

You just completed a successful Summer Safari!

You discovered and observed the plants and animals, drew pictures, and made observations. All while making fun memories on safari!

Didn't find all of the species in the guidebook?

Come back and visit another time! The plants and animals change during the different seasons.

What causes there to be more sunlight and longer days during the summer?

Answer: ________________________________

Warm temperatures in the summer lead to more insect activity. Why are insects important to the ecosystem?

Answer: ________________________________

Why do birds migrate north for the summer?

Answer: ________________________________

The Summer Season

In the Northern Hemisphere, summer starts around June 21st.

In the summer, the Earth tilts towards the sun which means more sunlight and longer days.

Summer time is a very important time of year for the plants and animals of the ecosystem. The increased sunlight allows plants to grow rapidly. More plant growth means more food is available for the animals too!

Why would more sunlight be helpful for plants and animals?

Answer: ________________________________

Wonderful Wildflowers

There are so many pollinators active during this time of the year. It’s also a good time to see many different wildflowers in bloom.

Why is it good for plants to bloom when there are bugs around?

One of the most well-known wildflowers connected to the start of summer is called St. John’s Wort.

The flowers of St. John’s Wort typically bloom during the start of summer. Historically, St. John’s Wort has been collected right when it blooms for its medicinal properties. Stop by the Great Lakes Garden to see if you can find St. John’s Wort!
How to Use a Field Notebook

There are so many things to see when we are exploring our natural environment!

We can remember the things we see in the environment by using a field notebook like this one.

What goes into your field notebook?

Whatever you want!

This field notebook is yours to record your observations about the plants and animals you see today.

Use the pages in your field notebook to draw sketches of the plants and animals you see or describe what you see by writing notes.
During the summer, the water flows freely through this pond. That means more oxygen for the plants and animals. Plants grow and the animals come out looking for food to eat!

Can you find any of these water-dwelling animals on your hike?

- American Toad
- Green Frog
- Painted Turtle
- Tadpole
- Snapping Turtle
- Snapping Turtle Tracks

Use this space to make a tree leaf rubbing!
When things heat up in the summer, the animals that live in and around the water lay eggs and have plenty of bugs to eat.

How would the pond be different between the summer and the winter?

Answer: ____________________________

Make your observations here or draw what these animals might look like in their natural habitat!
So Many Mammals

Summer is an important time for larger animals too! A good safari guide knows how to look for signs of animals nearby. Keep an eye out for signs of these animals on your safari and mark them off as you go.

- **White-tailed Deer**
  - Tracks

- **Squirrel**
  - Tracks

- **Raccoon**
  - Tracks

Make Your Observations Here!

Use this space to make a tree leaf rubbing!
Trees on the Trail

As we walk through Sam Graham be on the lookout for these leaves.

They come from trees that you’ll see on your safari hike. Each one provides food or shelter to the plants and animals that live in the forest.

Silver Maple
Musclewood
Tuliptree
Eastern Cottonwood

Make Your Observations Here!

Did you discover any other mammals on safari?

Make your observations here or draw what these mammals might look like in their natural environment!
Bugs on Safari

Summer time means a lot more bugs crawling and flying around outside. Why do we see more bugs during the summer?
Answer: ________________________________

Use the checklist to mark off any insects you see. In what ways do insects interact with plants?
Answer: ________________________________

☐ Damselfly
☐ Dragonfly
☐ Bumblebee

☐ Monarch Butterfly
☐ Milkweed Beetle

☐ Ant
☐ Water Strider
☐ Diving Beetle

If you didn’t find these bugs, that’s because they live in the water!

Make Your Observations Here!

Use this space to draw the plants and animals you see from the bridge!
Sam Graham Trees Trail

For the next part of our hike we’ll be walking through the Sam Graham Trees Trail.

Sam Graham knew a lot about the forest and taught at the University of Michigan.

He said that everything - from the trembling aspen trees to the pine weevils - has a special job to do for the forest community.

As we walk along the trail, see if you can identify the trees and wildflowers from this field notebook.

We’ll also learn to identify different trees and learn about the jobs they do in their ecosystem!

Make Your Observations Here!

You may not see all of these bugs on safari today. Where might we find them?
Answer: ____________________________________________

What other bugs did you discover? Draw what these bugs might look like in their natural environment!
**Birds at the Botanical Gardens**

Do you hear any birds on this safari? Most of these birds migrate north for the summer so they may not be around. See if you can find any evidence of their tracks!

Why do birds migrate north for the summer?

Answer: ________________________________

- **Red-winged Blackbird**
- **Canada Goose**
- **Mallard Duck**
- **Great Blue Heron**

**Make Your Observations Here!**

Can you draw the birds shown in your field notebook?

Birds also interact with different types of insects. Draw a bird and draw what that bird might eat.