

## Backyard BioBlitz Field Guide

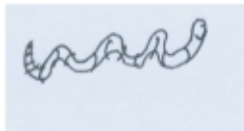
## INTRODUCTION:

Biodiversity is simply the number of different living things. You can think of it as an elegant puzzle whose pieces together form a healthy ecosystem. An ecosystem is any area where living things (plants and animals), interact with non-living things (such as rocks and water), and reproduce and thrive. Biodiversity can be measured in areas as large as a rainforest and as small as your own backyard.

Scientists are concerned that we are rapidly losing many species on land and in the seas, due to loss of habitat and pollution. When one species disappears the other species that live in the same ecosystem will be affected. They may begin to disappear too. In order to protect the remaining species and ecosystems we must learn what species live in them.

There are many tools used to explore an area, like satellite imagery and aerial photography. The best tool however is your own eyes. One way to discover quickly what is in an area is a BioBlitz. This is where scientists gather to explore and find as many species as they can in a 24 hour time frame. A BioBlitz does not find every form of life, but it gives a good snapshot of the variety of species alive in a specific area during a specific period of time.

You can do a BioBlitz in your own yard, school playground or park. Read this Field Guide, then go outside. Choose an area to survey. Look closely for yourself.



## FIELDWORK: GET READY TO EXPLORE.

There are many ways to conduct a BioBlitz. The following is our suggested method, but you may have other good ideas of how to survey your site.

1. Choose a site
2. Draw the site and make a key, symbols that represent each of the natural things in your site (see example)
3. Divide the area into manageable sections and number them. This will give you a simple way to label where your sample plot is located. These sections should be of equal size and no smaller than your study plot.
4. Now choose one of the sections and measure one square meter (or yard). This will be your study plot. If you have a large group, you can have more than one study plot, in different sections.
5. Fill in the Site Log (see example).
6. Use your eyes, ears, sense of smell, and a magnifying glass if you have one. Look between blades of grass, at the soil, at tree trunks, plant leaves, leaf litter, branches, stems, logs (these are great to turn over. Turn over rocks too. Make sure you put them back. Be a snoop!)
7. List all the things you find and where you found them and describe them with simple sketches and notes (see example).
8. Ask permission before collecting any specimens of anything.
9. Study, counts and investigate, what you found. Repeat in a month to see if your results are different or the same. Try this in different seasons too at the same site.

Field equipment and some guide lines. Have respect for nature and only leave footprints.

1. Suggested materials for your BioBlitz are: a magnifying glass, binoculars, a yard stick, a butterfly net (gently release all butterflies and insects after identifying them)
2. Bring all materials to your site.
3. Be a slow careful observer. Take detailed notes and make detailed sketches.
4. Handle animals as little as possible. put them back where you found them.
5. Try to replace plants, logs, & rocks gently where you found them.
6. Carefully cut leaf samples if you need to off the stem. Please don't tear them. Make sure you can recognize Poison Ivy so you don't touch it by mistake.
7. Never put anything you find in your mouth, and wash your hands after handling plants or animals before rubbing your eyes or mouth.
8. Look inside before reaching into rocks or logs or hollow trees to make sure there is nothing dangerous in there, like a nest of wasps.
9. Important to remember! Silence and stillness will bring animals near you. You will see more if you are quiet and move slowly.

Site MY BACKYARD Date 9/15/04 Time 4:00 PM

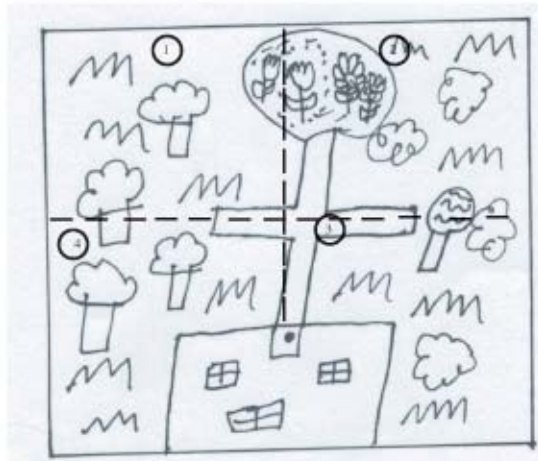
City CLAYTON Weather SUNNY

State MISSOURI Team Members me

Temperature 80

Description (what the area looks like in general) THERE'S ALOT OF GRASS AND TREES  
THERE'S LOTS OF BUGS AND DIRT IN THE GARDEN

Sketch of Site:



Key !!  
Grass: M  
Bushes: (bush icon)  
Trees: (tree icon)  
Flowers: (flower icon)  
Rocks: O

Site \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

City \_\_\_\_\_ Weather \_\_\_\_\_

State \_\_\_\_\_ Team Members \_\_\_\_\_

Temperature \_\_\_\_\_

Description *(what the area looks like in general)* \_\_\_\_\_

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Sketch of Site:



INVENTORY SKETCHES, NOTES, LISTS:

SKETCHES:

NOTES

SPECIES:

( appearance/habitat description )

PLANTS



GREEN LEAF WITH MANY FEEBLY EDGES

NEED TO LOOK UP



BLACK INSECT, 6 LEGS, 2 FEELESS

INSECTS

ANT

INVENTORY SKETCHES, NOTES, LISTS:

SKETCHES:

NOTES

CLASSES:



( appearance/habitat description )  
YELLOW BIRD, BLACK MARKINGS

BIRDS  
GOLD FINCH



SMALL, BROWN, MAMMAL WITH  
BLACK AND WHITE BACK STRIPE.

MAMMALS  
CHIPMUNK

INVENTORY SKETCHES, NOTES, LISTS:

<u>SKETCHES:</u>	<u>NOTES</u>	<u>CLASSES:</u>
	( appearance/habitat description )	REPTILES

AMPHIBIANS

OTHER

And last.....

CALLING ALL  
EXPLORERS... ADVENTURES... SCIENTISTS... PARENTS...  
TEACHERS... SCOUT LEADERS... NATURALISTS.....  
.....

Here are ideas that can enrich your BioBlitz. Do them as a family, a class, a troop, or team project.....

- Go to the library to find field guides and research the species found in Missouri.
- Call the Missouri Department of Conservation to request biodiversity materials they can supply in the form of maps, charts, and pamphlets.
- Gather all materials you need by doing fundraising projects to buy those materials.
- Invite a scientist from one of the universities in the area to your planning meeting and practice good interviewing skills, while learning about the species you might encounter during your BioBlitz.
- Invite an artist/ naturalist to teach field sketching skills. Practice anywhere outside or with plants material brought in from a hike.
- Invite a nature photographer to learn how to investigate with a camera, to enrich your field research.
- Practice any/ all of the techniques learned, until you see which fits you best.
- Plan how you will use those techniques, in the field during the BioBlitz.
- Scout Leaders.....Research which badges these activities can satisfy and encourage the entire troop to earn those badges, while learning additional team-building skills.
- Read the best nature writers you can find. Discuss how they saw the world and how that affected their writing. Try it yourself. Go outdoors and observe the day or night and write while you are outside. Read aloud to your group and dazzle them with your keen observations, written down.
- Make a video of each activity and the BioBlitz, itself. Invite friends and parents for a BioBlitz party.
- Repeat your BioBlitz each month or each season. What remained the same? What is different? What does this tell you about your world.

The Forest Park BioBlitz wishes to thank the following sponsors of this event:

St. Louis Chapter of The Explorers Club, Inc  
The Missouri Botanical Garden  
St. Louis Zoo  
The St. Louis Science Center  
Forest Park Forever  
St. Louis Department of Parks

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## BIBLIOGRAPHY:

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- Birds of Missouri, Call number: QL 684 .M8 J 24... Jacobs, Brad
- Birds the St. Louis Area: Where and When to Find Them, Call number: QL 684 .M8 W43 Webster Groves Nature Study Society number: QL 684 .M8 W43...Webster Groves Nature Study Society
- Butterflies and Moths of Missouri, Call number: QL 551 .M8 H4... Heitzman, J. Richard
- The Crayfishes of Missouri, Call number: QL 444 . M33... Pflieger, William L.
- The Fishes of Missouri, Call number: QL 628 .M8 P45...Pflieger, William L.
- Missouri Wildflowers, Call Number: QL 628 .M8 P45.... Denison, Edgar

### Titles from The University of Missouri Press, Columbia, MO

- Trees of Missouri, Call Number: QK 170 .S47... Settergren, Carl
- The Wild Mammals of Missouri, Call number: QL 719 .M8 S3 2001 .... Schwartz, Charles W.

For more information the Education Departments from these organizations would be happy to help plan your BioBlitz:

MO Department of Conservation  
IL Department of Natural Resources  
Watershed Nature Center, Edwardsville, IL  
Powder Valley Nature Center, Kirkwood  
St. Louis Zoo  
The Missouri Botanical Garden  
The St. Louis Science Center