

## Biodiversity

# How Many Species Are in Your Backyard?

Have you ever wondered how many different birds live in your schoolyard? Or how many different trees are in your neighborhood? Or how many different beetles you can find in your garden? Or maybe you don't think you can find nature in your own backyard? Although humans have changed the natural habitat, you can still find biodiversity almost everywhere you look. In fact, professional scientists, families, college students, high-school groups, scout troops, and enthusiastic amateurs have been gathering together at BioBlitzes to tally biodiversity.

### **What is a BioBlitz?**

BioBlitz is a rapid inventory of all the living species in an area. During a BioBlitz, expert biologists and citizen scientists get together to count and identify as many different species of plants and animals that they can find in a set period of time. Traditionally, a BioBlitz lasts 24 hours so that both night-time and day-time species can be found and counted. The first BioBlitz occurred in 1996 at a park in Washington, D.C. The creators of the BioBlitz idea were looking for a way for communities to learn about the diversity found in local parks and to motivate citizens to protect the species. Since the first BioBlitz, many others have been held all across the U.S. and in many other countries. In Oklahoma, our annual BioBlitz! has been counting the state's biodiversity since 2001. BioBlitz not only contributes to our knowledge of the state's species, but it also is a fun event that inspires participants to learn more about organisms that live in our state and appreciate the natural diversity found everywhere. A BioBlitz event brings together experienced and budding biologists so that they can work together on a real research expedition.

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## **Activity - Attend a BioBlitz!**

A national BioBlitz is organized by National Geographic. Each year they choose a national park for their BioBlitz site. They have held BioBlitzes in a variety of different parks including Florida's Biscayne National Park, Indiana Dunes National Lakeshore, and California's Santa Monica Mountains National Recreation Area. More information about attending the national park BioBlitz can be found on the National Geographic Web site:

<http://www.nationalgeographic.com/field/projects/bioblitz.html>

If you are in Oklahoma (or neighboring state) you can attend Oklahoma's annual BioBlitz! organized by the Oklahoma Biological Survey in coordination with the Oklahoma Department of Wildlife Conservation. A new site is chosen each year and in the past has included Oklahoma state parks, National Wildlife Refuges, state Wildlife Management Areas, city parks, and U.S. Army Corps of Engineers land. To find out about the next Oklahoma BioBlitz! visit the Web site:

<http://www.biosurvey.ou.edu/bioblitz/BioBlitz.html>

**You may also try searching the Internet for BioBlitz locations around the country and world. There is probably a BioBlitz near you!**

Things to think about when preparing to attend a BioBlitz

- Find out when and how to register for the event.
- Will you be camping or staying in cabins? Are meals provided?
- Ask teachers, club sponsors, troop leaders, and parents if they will help you to attend the BioBlitz (encourage them to come, too - they may have fun!)
- You might explore fundraising opportunities to pay for your trip.
- What equipment can you bring to help find organisms? Useful items are: nets (for terrestrial and aquatic creatures), binoculars, microscope, flashlight, field guides, notebook and pencil for recording observations, and camera.

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# Activity - Conduct Your Own BioBlitz!

*Be a botanist, entomologist, ornithologist, or any other biologist!  
Be all of these things in your very own BioBlitz!*

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### Organizing your own BioBlitz

**Decide where to have your BioBlitz** — You can have a BioBlitz in your own schoolyard or in the city park down the street or go to a natural area nearby. Be sure to make a map of the location marking your survey boundaries.

**Decide on the date and length of your BioBlitz** — Biologically, a good time for an inventory is during the height of the growing season, but you will also want to consider when your participants will be able to attend. For schools, a good time might be late spring or early fall. Many BioBlitzes are held for 24 hours, but this may be impractical for everyone. A school BioBlitz can last one school day, or even one morning.

**Ask local biologists to attend** — Biology professors and teachers at local colleges and high schools are often eager to share their knowledge with others. Try contacting the naturalists at nearby parks, the local native plant society, Audubon Societies, and Master Naturalists to find knowledgeable volunteers to help with finding and identifying species.

**Publicize your event** — You may just want to invite other students from your school, or you might want to invite the whole community. You could make fliers, write a news release, or submit information to community calendars.

#### Gather Equipment —

- Clock to time the event
- Map of inventory boundary
- Notebook and pencil to record the species you observe
- Field guides of plants, animals, and fungi for your area
- Camera
- Binoculars
- Hand nets
- Magnifying glass or Microscope
- Tape recorder to record the sounds you hear from birds and insects

**Get Counting!** — Give your volunteers instructions on where and how to record observations. You can give out copies of the data sheet on the next page. Be sure they know when to turn in their lists and who to give them to. At the designated time, sound a horn, ring a bell, or just give a big shout to signal the beginning of the BioBlitz. Designate one person to total all observations. Gather data, have fun, and count up all the species.

### ***Announce Species Total and Celebrate the Diversity!***

**Reflecting on your BioBlitz** — After you have finished your BioBlitz, think about what everyone observed and why biodiversity is important. Did you know you had so many different species in your own community? Did you see ways that humans are reducing or increasing biodiversity in your area? Can you help protect the biodiversity you found? How can the community help to protect the local biodiversity?

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### Still have questions on how to run your BioBlitz?

The coordinators of the Oklahoma BioBlitz! can offer advice and help you to get your event off the ground. Go to the Oklahoma BioBlitz! Web site <http://www.biosurvey.ou.edu/bioblitz/BioBlitz.html> or call the BioBlitz! office at (405)325-7568.





## Biodiversity

# BioBlitz Data Sheet

List species observed during your BioBlitz inventory. If you don't know the name, describe the organism. For example you can record: shiny green beetle, 1.5 cm long; large black bird with long tail; or 2 m tall plant with hairy leaves and yellow flowers. Be sure to tally the total number of different species you see.



### Fungi, Lichens, Algae, Cyanobacteria:



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### Plants:



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### Invertebrates:



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Name: \_\_\_\_\_

Date: \_\_\_\_\_

Location: \_\_\_\_\_

Weather during Observations: \_\_\_\_\_

Fish: \_\_\_\_\_

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Reptiles and Amphibians: \_\_\_\_\_

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Birds: \_\_\_\_\_

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Mammals: \_\_\_\_\_

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Total number of different species observed: \_\_\_\_\_