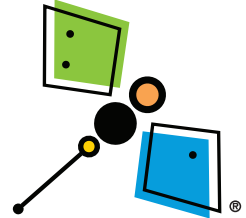


# DragonflyTV: GPS Activity 5 Totally Swamped!



**Museum of Life and Science**  
Durham, NC  
[www.lifeandscience.org](http://www.lifeandscience.org)



## Wetlands

We're Sarah, Valencia, and Sophia, and we all have really different interests—from computers to horses to piano. But one thing we have in common is that we're SciGirls. SciGirls is an after-school program that encourages girls in science. The Museum of Life and Science in Durham, North Carolina is our SciGirls headquarters. We saw a cool outdoor exhibit there on our state's wetlands. That got us inspired to try a mini-bioblitz to look for endangered species in these areas. Our question: What plants and animals live in wetlands?

Working with our mentor, Ariana, who is a wetland ecologist at Duke University, we chose three kinds of wetlands to visit: a cypress swamp, a salt marsh, and a pocosin forest. Then we loaded up our SciGirls van and hit the road! At each location, we kept a list of the plants and animals we saw. We compiled our log notes and compared the three wetlands.





## Icebreaker

Learn how wetlands clean up their act with this simple activity.

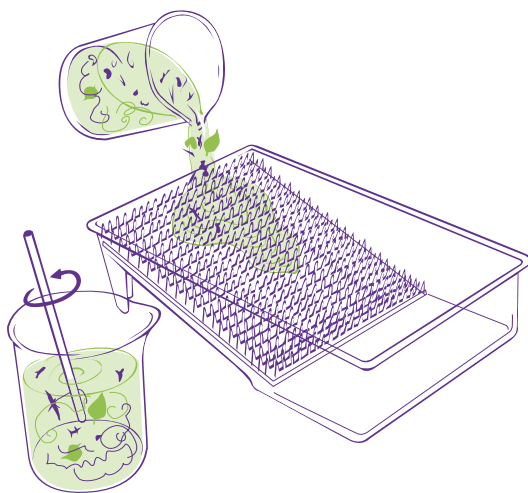


20 minutes

### DragonflyTV Skill: Observing

#### Guide your kids as they

- 1) Add 25 mL each of soil, gravel, and crushed leaves to a 500 mL beaker, then fill with water and stir well.
- 2) Place the carpet piece into the sloped part of the paint tray. This represents the wetland.
- 3) Slowly pour the beaker of dirty water into the top of the paint tray. Give it time to run down the model. Note how the "wetland" trapped most of the large pieces of soil, gravel, and leaves.
- 4) Compare the water at the bottom of the paint tray to the water you poured out of the beaker. How does it differ?



#### You'll need:

- water
- gravel
- soil
- crushed leaves
- a 500 mL beaker
- 3 - 25mL beakers
- a spoon or stirring rod
- a paint tray
- a piece of outdoor carpeting (the kind that looks like fake grass)

### DFTV Science Helper

Try adding other things to the polluted water, such as salt or food coloring, to see how effective the wetland model is at filtering other types of pollution.



For more simple activities like this one, surf to [pbskidsgo.org/dragonflytv/superdoit/index.html](http://pbskidsgo.org/dragonflytv/superdoit/index.html)



## Investigation Wetland Bioblitz



1-2 hours

### Guide your kids as they

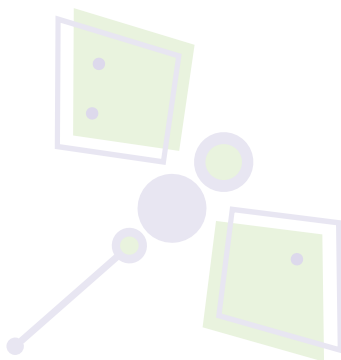
- 1) Find a wetland in which to conduct the bioblitz. If it is not on your property, make sure to get permission to go there.
- 2) Working in pairs or small groups, look for plants and animals. Look over, under, and around the water. Use nets to scoop through the plants and mud at the bottom of the wetland. If they pick up any rocks or logs, be sure they put them back.
- 3) Make a list in their notebooks of everything that they find, and try to identify plants and animals using the field guides.
- 4) Plants are easy to find, but hard to identify. Carefully observe each plant and try to determine how many different species of plants you find. Exact names are not always important. If they cannot identify some plants, take pictures or write detailed notes to identify them later.
- 5) Animals can be hard to find. Many animals camouflage well and are hiding in the plants. Look for movement, and use binoculars to see animals that are far away. Stay quiet. If they catch an animal, handle it very carefully and return it to the place they found it.

### ▶ You'll need:

- boots or shoes that can get wet and muddy
- nets
- binoculars
- field guides
- notebooks
- pencils
- optional: a digital camera

### DFTV Science Helper

Most kids want to find large vertebrates, but many wetland organisms are tiny. Encourage them to carefully look through their nets for insects that may be hiding in the plants.



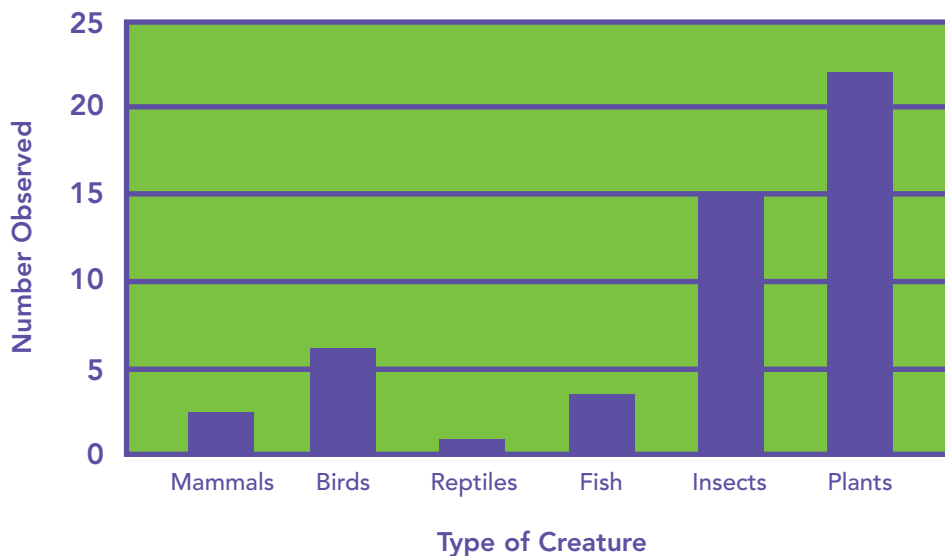


## DFTV Kids Synthesize Data and Analysis

Pool the data from all the groups and determine the total number of species found in the wetland. Scientists call this total "species richness" and they use it to compare the biodiversity of one habitat to another.

The kids can also use their data to compare the relative abundance of types of organisms. Group the data into categories such as mammals, birds, insects, and plants. Make a bar graph to compare the numbers of each type of organism. Which is the most abundant in a wetland? Do you think you would find the same results in another ecosystem?

Bioblitz Observations



## Keep Exploring!

Conduct a bioblitz in another ecosystem, such as a grassland, forest, or different type of wetland. How does the biodiversity of one ecosystem compare with another? Encourage your kids to think about the differences in the abiotic (i.e., nonliving) factors of the ecosystems that may lead to the differences in biodiversity.