






## “iBiome Wetland: School Edition”

### Introduction:

**iBiome-Wetland: School Edition** is a game developed by Springbay Studio. You will learn about 54 species by building 4 wetland ecosystems, and verify your understanding of how ecosystems work through simulation.



### Instructions:

1. Open a browser and go to this URL: <https://schools.springbaystudio.com/log-in/>
2. Use the user name and password provided, and click “Play” to start the game.
3. **“Fresh Water Marsh”** is the first dome for you to build. Go through the tutorial. Every time you finish a level, a window with Professor Bio pops up.
  - a. Click on the  button to learn more about your new species.
  - b. Click on the  button to see a neater version of the web you just made.
  - c. Click on the  button to re-arrange the food web you just made.
  - d. When you are done, click on the arrow to move onto the next stage.
4. As you continue playing, you’ll start to unlock more options on the dome screen.
5. On the dome screen, you’ll see several buttons.
  - a. The “Map” button will lead you to the previous screen with the 4 domes.
  - b. Clicking on the “Badge” button will show you your badge progress. You earn badges as you play the game.
  - c. The “Add species to dome” button allows you to experiment with your dome by making changes to the populations of the species that live inside.
  - d. The “Journal” button shows you how much progress you’ve made in-game. It shows you which species you have collected so far. You can even click on any of the species to learn more about them!
  - e. The “Task” button takes you to the next level.
  - f. The  button opens up a mini menu that lets you turn on/off the game sound. If you open this menu in the middle of a level, if you click on the  button, you will go back to the previous page.
6. As you are completing the **Fresh Water Marsh** biome, answer the questions below that relate to this biome (if you ever feel a need to replay a stage, click on a star to replay a stage).
7. Make sure that once you complete the biome, you test the simulation by clicking the “Add Species to Dome” button on the right-hand side and record your results in Question 1 in the **Post-Game** section below.
8. If you have time, continue with the second biome of this game – **Salt Water Marsh**. As you are completing the **Salt Water Marsh** biome, answer the questions below that relate to this biome.
9. If you have time after the second biome, talk to your teacher. If you get the permission to

continue, start to build the third biome of this game – **Mangrove Swamp I**. As you are completing the **Mangrove Swamp I** biome, answer the questions below that relate to this biome.

10. If you have time after the third biome, continue with the fourth biome of this game – **Mangrove Swamp II**.

Fresh Water Marsh (fill out during the game)

Place checkmarks to label which parts of the ecosystem are classified as Environment (Env), Producer (Pro), Consumer (Con), Prey (Prey), and Predator (Pred). Some may have more than one classification:

	Env	Pro	Con	Prey	Pred		Env	Pro	Con	Prey	Pred
Soil						Wasp					
Sun						Hoverfly					
Water						Willow					
Algae						Viceroy Butterfly					
Cabomba						Mosquito					
Water Lily						Dragonfly					
Snail						Blue-winged Teal					
Pickerelweed						Red-winged Blackbird					

Using the space below, draw a diagram of the entire **Fresh Water Marsh** food web:

Salt Water Marsh (fill out during the game)

Place checkmarks to label which parts of the ecosystem are classified as Environment (Env), Producer (Pro), Consumer (Con), Prey (Prey), Decomposer (Decom) and Predator (Pred). Some may have more than one classification:

	Env	Pro	Con	Prey	Pred	Decom		Env	Pro	Con	Prey	Pred	Decom
Soil							Mummichog						
Sun							Shrimp						
Water							Largemouth Bass						
Detritus							Bobolink						
Plankton							Muskrat						
Cordgrass							Green Heron						
Sea Oat							Osprey						
Crayfish							Northern Harrier						

Using the space below, draw a diagram of the entire **Salt Water Marsh** food web:

Mangrove Swamp I (fill out during the game)

Place checkmarks to label which parts of the ecosystem are classified as Environment (Env), Producer (Pro), Consumer (Con), Prey (Prey), Decomposer (Decom) and Predator (Pred). Some may have more than one classification:

	Env	Pro	Con	Prey	Pred	Decom		Env	Pro	Con	Prey	Pred	Decom
Soil							Oyster						
Sun							Anole						
Water							Oak Toad						
Detritus							Pig Frog						
Black Mangrove							Hognose Snake						
Mangrove Fern							Green Sea Turtle						
Hibiscus							Blue Crab						
Butterfly Orchid							Night Heron						
Mangrove Buckeye							White Ibis						
Eastern Lubber Grasshopper													

Using the space below, draw a diagram of the entire **Mangrove Swamp I** food web:

## **Post-Game Analysis:**

1. Write down what you did in the simulation part for the **Fresh Water Marsh** biome. What changes did you make? What became of the ecosystem as a result of those changes?
2. Why is it so important to maintain the balance of an ecosystem?
3. What can we do to ensure that we are preserving the ecosystems around us?
4. What are some possible challenges that could prevent us from preserving the ecosystems?