

## Science Journal: Python Problems

**MAKE A COPY OF THIS JOURNAL TO  
RECORD YOUR UNDERSTANDING!**

### Engage

1. One word that comes to mind when I hear the word ECOSYSTEM is...
2. Some plants and animals that are in a Florida ecosystem are...
3. A healthy ecosystem in Florida looks like...
4. The GRAPHICAL MODEL on the right is telling me...

### Explore

#### Task 1

1. Some NATIVE plants or animals that I see in Florida are...
2. Some EXOTIC plants or animals I see in Florida are...
3. Some INVASIVE plants or animals I see in Florida are...
4. In order to decrease the Number of Black Racers, the relationship between snakes added and snakes taken away has to be...
5. Some other things that I changed in the simulation were...

6. Some other things that I saw when I played with the slider were...
7. Some of the questions I still have about how populations of **NATIVES**, **EXOTICS**, and **INVASIVES** change are...

## **Task 2**

1. The **INVASIVE** species in this ecosystem story is...
2. The **NATIVE** species in this ecosystem story are...
3. Now describe, in your own words, how the **INVASIVE** species is affecting the **NATIVE** species:
4. Some questions that I still have about this ecosystem story are...

### Task 3

Variables Causing an <b>Increase</b> in Python Population	Variables Causing a <b>Decrease</b> in Python Population

1. Now describe, in your own words, how the **INVASIVE** Burmese python is affecting **NATIVE** species:
2. Some questions that I still have about how the Burmese python is impacting Florida ecosystems is...

## Explain

1. Copy an image of your MODEL STRUCTURE or link to it here. Your model should show the causal connections in the Burmese python/native Florida species ecosystem.

**What is your answer to our Big Question? Complete the prompts below in your SCIENCE JOURNAL using what you have learned from this entire lesson to support your answer.**

**What caused the decline?**

1. CLAIM: The decline native mammal populations in the Everglades is caused by...
2. One thing I learned in this lesson, or in other words my EVIDENCE, that helped me answer this question is...
3. Another piece of EVIDENCE from the lesson that helped me answer this question is...
4. My last piece of EVIDENCE from the lesson is...
5. WHY? Connect your EVIDENCE to your CLAIM. How does it help explain your CLAIM.



### What can we do about it?

1. CLAIM: The most effective thing we can do to prevent the decline of native species is...
2. One thing I learned in this lesson, or in other words my EVIDENCE, that helped me answer this question is...
3. Another piece of EVIDENCE from the lesson that helped me answer this question is...
4. My last piece of EVIDENCE from the lesson is...
5. WHY? Connect your EVIDENCE to your CLAIM. How does it help explain your CLAIM.

### Extend

1. Create a **MODEL** representing the ecosystem of one of the invasive species above. You can do additional research if you like, but be sure to represent all of the variables that you think are having an impact on the problem species. Paste or link your MODEL below.



**Then, reflect in your journal:**

2. What structures do you see that are similar in both of your concept maps? In other words, what things about invasive species, are the same, no matter what species it is?
3. If you see things that are similar between your invasive species systems, are there things that we can do to reduce their populations, no matter what species it is? Or, is every management plan unique?

## **Evaluate**

**How has your answer to our Big Question changed? Complete the prompts below in your SCIENCE JOURNAL using what you have learned from this entire lesson to support your answer.**

1. What is one thing that you learned from your peers?
2. What is one thing that you have learned from the experts?
3. What is one question you **STILL** have about Burmese pythons in Florida?