

## Pythons Invade the Florida Everglades



When Tommy Owen, a tour guide in the Everglades National Park, saw the animal, he immediately went after it. Owen was giving a tour of Florida's famous national park wetlands. He and a group of tourists were floating in a boat through the shallow water that makes up the Everglades. One of the women in the boat he was steering saw a snake in the water. She got Tommy's attention and pointed the snake out to him. When Tommy saw the snake, he acted fast. He reached into the water and grabbed the animal by the head. He got a good grip and didn't let go. Tourists in the boat were worried when the snake wrapped itself around Tommy's arm. After several minutes, he got control of the animal and removed it from the water. The snake was a ten-foot-long Burmese python. It was a snake not native to Florida and, quite simply, it didn't belong there.

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The Florida Everglades teem with life. Situated at the southern end of the state, between Lake Okeechobee and the Gulf Coast, the Everglades are the largest wilderness east of the Mississippi River. Migratory and wading birds tiptoe through marshy grasslands. Orchids and ferns dot the hardwood forests. Alligators lounge in the shallows and on muddy riverbanks. Mangrove leaves rustle in the wind as the brackish water laps at their roots.

All of this life is made possible by the presence of water. The Everglades is a natural region of subtropical wetlands. Water flows from the Kissimmee River into the wide, shallow Lake Okeechobee. From there the lake drains south, into the Everglades marsh and the Florida flats. The Everglades are sometimes called the “River of Grass” after a book of the same name by author Marjory Stoneman Douglas. The phrase illustrates the fact that the Everglades are basically a very wide and shallow river.

The Florida Everglades once covered 11,000 acres across the southern end of the state. Wetlands are an important ecosystem. For centuries, however, humans thought of wetlands as unhygienic swamps. Draining the Everglades was suggested in the late 19<sup>th</sup> century. As soon as Florida became a state in 1845, its legislature asked permission from Congress to drain the Everglades. Canals were dug to remove or redirect the water. Land that dried out was

reclaimed for agriculture or building purposes. This reclamation allowed for significant development in south Florida. Sugar farmers moved into the area and prospered. The city of Miami took root.

Approximately 50% of the Everglades has been reclaimed for agricultural or urban use. Much of the northern area has been polluted with phosphorus. This phosphorus is agricultural runoff from the farms near the Everglades.

Concerned Floridians had been advocating for saving the area since the 1930s. Their efforts paid off in 1947 when Congress created the Everglades National Park. Starting in the late 1970s environmental concerns at both the national and international levels refocused attention on the Everglades. The area was designated as one of the world's most important wetland areas.

Since then efforts have been underway to safeguard the park and return the Everglades to health. Water levels are monitored, as are nutrient levels in both water and soil samples.

This has been the largest environmental conservation project in the history of the United States. Much of it is designed to reverse-engineer the canal system that was built in the

19<sup>th</sup> and mid-20<sup>th</sup> centuries. Ecological indicators are showing some improvements. The crayfish population is up. Wading and migratory birds have improved their nesting habits.

Despite all the good news, the Everglades now face a new threat.

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The Burmese python is native to tropical and subtropical zones in Southeast Asia. In their native habitat, Burmese pythons are nocturnal carnivores. When they live close to human habitations, pythons eat rats, mice, and rabbits that are attracted to human dwellings and farms. They can also eat small farm animals like chickens. When they live away from human habitations, pythons eat birds and small wild mammals. The python is a solitary animal. The python kills by constricting its body around its prey. Python eggs and hatchlings are a food source for other animals. In the wild, pythons grow to be on average 12 feet long. (Habitat loss and the exotic pet trade in Asia are depleting the python's numbers in the Asian wild.)

In the United States the Burmese python is a popular pet. Docile and beautifully patterned in brown and gold diamond shapes, these snakes can be purchased at pet stores or reptile shows. Owners keep them in cages or tanks and feed them rats or mice. Most people

buy pythons when the animals are small. Pythons can grow very quickly. For many pet owners, the pet pythons become too big to manage.

The first Burmese python was found in the Florida Everglades in 1979. It's presumed the animal was originally kept as a pet and then released by its owner. Starting in 1992—when it's thought that numerous Burmese pythons escaped pet stores and cages damaged in Hurricane Andrew—the numbers have grown at a faster rate.

The Burmese pythons that have been released in southern Florida have found a habitat they like in the Everglades. They are breeding in the Everglades and have reached numbers that designate them as an invasive species. Pythons are eating machines. They can eat anything from deer to bobcats, to raccoons to alligators. They especially enjoy dining on small mammals and birds. Studies have shown that since their appearance in the Everglades, the numbers of small mammals in the area are down significantly. Additionally, this population loss is not observed in areas where the python has not established itself.

Many agencies and individuals are trying to put a stop to the python invasion. The National Park Service has begun a program to study these animals in the Florida Everglades. Park Service scientists have implanted tracking devices into seventeen large pythons that were

later re-released into the wild. They have provided scientists with information regarding python behavior.

In 2013 the Florida Fish and Wildlife Conservation program issued permits to hunt the snakes within state wildlife-managed areas of the Everglades. Sixty-eight animals were captured.

In the meantime, python records are still being broken.

In May of 2013 Jason Leon was driving in a rural area near Florida City when he spotted a python's head protruding from the brush. The man was a biologist, and was familiar with pythons. He approached the snake and pulled it out of the bush. The animal was bigger than he expected. After a struggle with the animal, Leon killed it. The python was 18 feet long and 128 pounds. Leon contacted the Florida Fish and Wildlife Conservation Commission, who agreed to pick up and examine the snake. The snake was found to be the largest ever in the state of Florida.

The state later issued a statement:

"Jason Leon's nighttime sighting and capture of a Burmese python of more than 18 feet in length is a notable accomplishment that set a Florida record. The Florida Wildlife Commission is grateful to him both for safely removing such a large Burmese python, and for reporting its capture."

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

1. What habitat in America does the Burmese python currently live in?

- A the Mississippi River
- B the Appalachian Mountains
- C the Mojave Desert
- D the Florida Everglades

2. Fifty percent of the Everglades have been reclaimed for agricultural or urban use. Which of the following is an effect of this agricultural or urban use?

- A The Burmese pythons spread throughout the Everglades.
- B The crayfish population increased.
- C Much of the northern area of the Everglades has been polluted with phosphorous.
- D Significant developments in surrounding states took place.

3. The decreasing numbers of small mammals in the Everglades is most likely due to the presence of Burmese pythons in the area. Which of the following evidence from the text best supports this conclusion?

- A Python eggs and hatchlings are a food source for other animals.
- B The Burmese pythons have reached numbers that designate them as invasive species in the Everglades.
- C The population loss of small mammals is not observed in areas where the python has not established itself.
- D The first Burmese python found in Florida was probably kept as a pet and then released by its owner.

4. Based on the information in the passage, what kind of effect have Burmese pythons had on the Everglades?

- A They have had a mainly positive effect.
- B They have had both a negative and positive effect.
- C They have had no effect on the Everglades.
- D They have had a mainly negative effect.

5. What is this passage mostly about?

- A how Jason Leon was able to capture and kill a Burmese python
- B the reclamation of the Florida Everglades for agricultural and urban use
- C the Florida Everglades and the Burmese pythons that live in them
- D efforts to decrease the number of Burmese pythons in the Florida Everglades

6. Why did the author most likely include the story about Jason Leon in the passage?

- A to give an example of how python records are still being broken
- B to prove that humans are the biggest threat to Burmese pythons
- C to show that it should be easy to lower the number of pythons in the Everglades
- D to end the passage with an entertaining account of what happened to Jason Leon

7. Choose the answer that best completes the sentence below.

The Burmese python is native to tropical and subtropical zones in Southeast Asia, \_\_\_\_\_ it has managed to establish itself in the Florida Everglades.

- A since
- B so
- C but
- D because

8. The reclamation of the Everglades for agricultural and urban use has had harmful effects on the Everglades. List at least two of these harmful effects.

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9. How has the python invasion of the Everglades affected the other animals that live in the Everglades?

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10. Identify the two main threats to the Everglades mentioned in the passage, and describe the efforts to fight these two threats.

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**Teacher Guide & Answers**

**Passage Reading Level:** Lexile 940

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8. The reclamation of the Everglades for agricultural and urban use has had harmful effects on the Everglades. List at least two of these harmful effects.

**Suggested answer:** Answers may vary but should include:

- the crayfish population decreased
- the nesting habits of the wading and migratory birds were disrupted
- much of the northern area of the Everglades has been polluted with phosphorous

9. How has the python invasion of the Everglades affected the other animals that live in the Everglades?

**Suggested answer:** The python invasion of the Everglades has threatened other animals that live in the Everglades because the pythons prey on some of them. The pythons can eat deer, bobcats, raccoons, and alligators. They especially enjoy dining on small mammals and birds. Studies have shown that since their appearance in the Everglades, the numbers of small mammals in the area are down significantly.

10. Identify the two main threats to the Everglades mentioned in the passage, and describe the efforts to fight these two threats.

**Suggested answer:** Students should identify the reclamation of the Everglades for agricultural and urban use and the invasion of the Burmese python as the two main threats to the Everglades.

In order to protect the Everglades, Congress created the Everglades National Park in 1947, which was also designated as one of the world's most important wetland areas in the late 1970s, when environmental concerns at both the national and international levels refocused attention on the Everglades. Since then efforts have been underway to safeguard the park and return the Everglades to health. Water levels are monitored, as are nutrient levels in both water and soil samples. Much of the conservation project is designed to reverse-engineer the canal system that was built in the 19th and mid-20th centuries.

To combat the Burmese pythons, National Park Service has begun a program to study these animals in the Florida Everglades. Park Service scientists have implanted tracking devices into seventeen large pythons that were later re-released into the wild. They have provided scientists with information regarding python behavior.

In 2013 the Florida Fish and Wildlife Conservation program issued permits to hunt the snakes within state wildlife-managed areas of the Everglades. Sixty-eight animals were captured.