

Wading Birds of the Everglades

Teacher Background: The following are the fourth grade ELA Annually Assessed Benchmarks that are assessed using this reading passage of 516 words, with a Lexile level between 1010L - 1200L. You will see that this reading passage includes three graphs that contribute to the information provided in the text. In addition to questions about the reading passage we have created a number of questions that ask students to draw information from the provided graphs.

Please note that the x-axis of each graph depicts years that data was collected with every other year listed. Discuss with students how they can still identify information for years not listed by closely looking at the line graph between each listed year.

There is a glossary provided on page 4 for vocabulary words in the text.

Directions: Use the guided questions to discuss these graphs on page 5 with your students. We have provided an answer key on page 10 for the student questions.

Standards:

LAFS.4.RI.1.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

LAFS.4.RI.1.2 Determine the main idea of a text and explain how it is supported by key details; summarize the text.

LAFS.4.RI.1.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

LAFS.4.RI.3.7 Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

LAFS.4.RI.3.8 Explain how an author uses reasons and evidence to support particular points in a text.



Wading Birds of the Everglades Reading Passage

There are two seasons in the Everglades: the wet and the dry season. During the **wet season** (May-November) rain falls almost every day and water levels in the Everglades rise dramatically. This high water provides expanded habitat for **aquatic life**, such as fish. During the **dry season** (December-April) the rains **diminish**, the water levels drop and the habitat for fish and other animals shrinks. Aquatic life becomes more **concentrated** in pools of remaining water.

The **wading birds** of the Everglades are adapted to this cycle of wet and dry seasons. They nest and have young during the dry season when food is easier to catch. By the start of the December nesting season, water depths in the Everglades have to be just right if wading birds are to have a successful nesting season. If there has not been enough rain in the wet season and water depths have been too low, then there may not be as many fish for food. If there are large rainfall events during the dry season, water levels rise. This deeper water allows

prey to **disperse**. This makes it difficult for wading birds to find enough food for their chicks. Consequently, many species of wading birds, including Great Egrets, Wood Storks, and Roseate Spoonbills, may abandon their nests because they are unable to find enough food to feed their young.

In the last century, the Everglades has been altered and much of its wetland habitat lost. Consequently, South Florida has lost over 90% of the wading bird population. Tracking wading birds' nesting is one important way scientists **gauge** the success of efforts to restore the Everglades. Over the last 20 years, populations of wading birds in the greater Everglades have soared through both high and low points. For example, in 2018, the wading bird nesting season had over 138,000 nests counted. Unfortunately, in 2019, the wading bird nesting season was not as good. Only 37,000 nests were counted. Bird species like White Ibises, Great Egrets, Wood Storks, and Roseate Spoonbills all had fewer nests. This was because water levels in the Everglades were too low in the wet season for fish and other aquatic life to reproduce. Therefore, there wasn't enough food available when the dry season arrived and wading birds began to nest.



A wet habitat in the Everglades during the wet season.



A dry habitat in the Everglades during the dry season.

Estimating the number of nests is **painstaking** work. During the nesting season, multiple surveys are conducted by helicopter or airplane throughout the Everglades. Even with all that effort, observers can miss nests. So, scientists use mathematical models along with the actual counted numbers to arrive at an estimate of the total number of nests. The graphs on page 5 below show the estimated total nests for a number of wading bird species over the last 25 years.

Wading birds are important to the Everglades. Restoring the Everglades will increase the overall numbers of nesting wading birds. Many critical **restoration** projects, predicted to help wading bird populations, are planned. We can all help the wading bird population by making sure the Everglades is clean and protected. This means that wading birds and other animals can find plenty of food to survive.

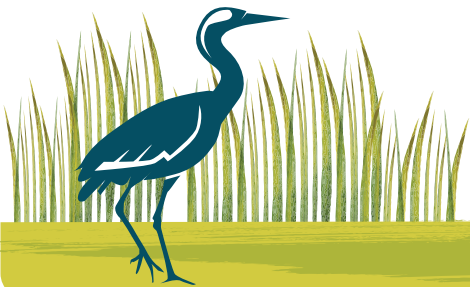


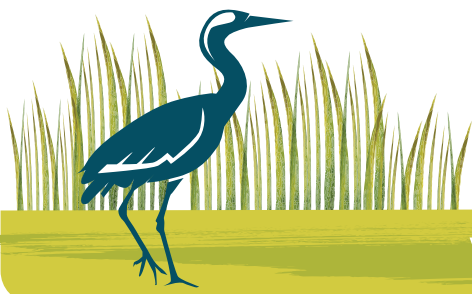
A Woodstork wading in the water looking for food.



A Roseate Spoonbill using its bill to find food in the water. *Russ, 2015*

Wading birds are identified by their style of eating. Some eat by using their sense of touch and others use their sense of vision. Birds that eat using their touch put their bills in the water and wait for fish and crayfish to touch them before they snap their bills shut. Birds that eat using their vision can find food easier because they can see and explore different areas.





Name: _____

Vocabulary Glossary

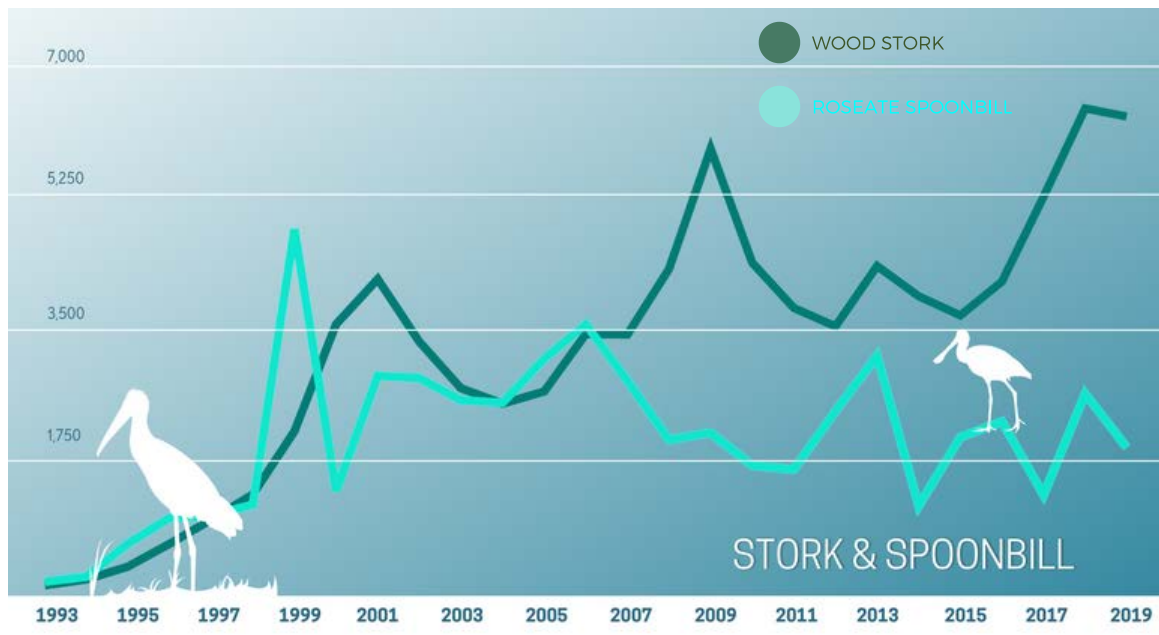
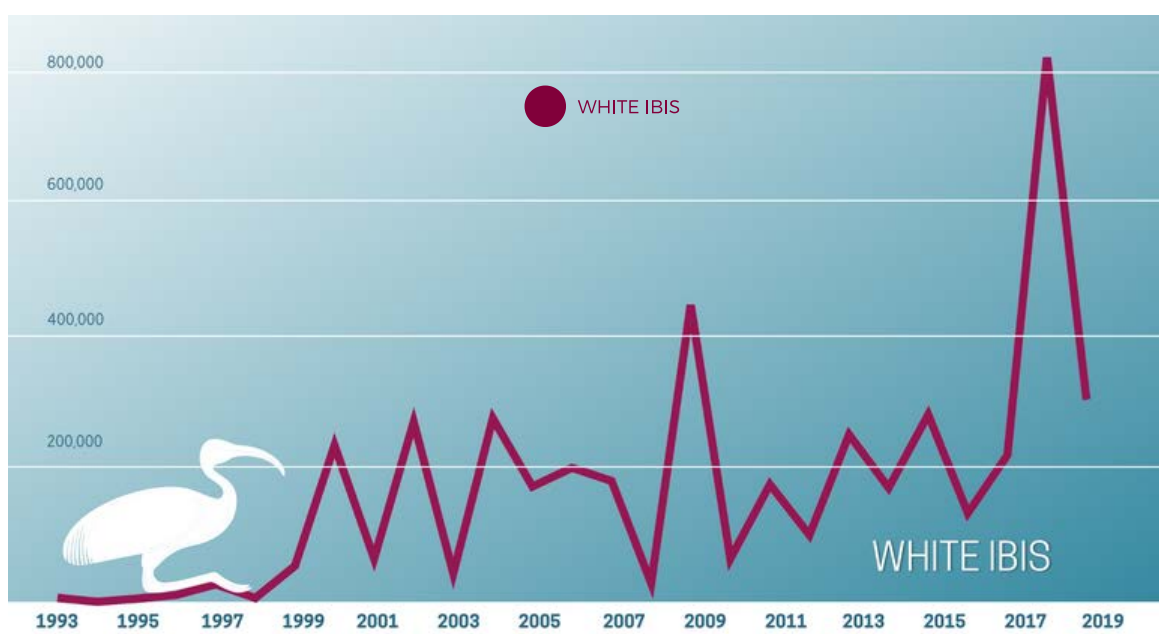
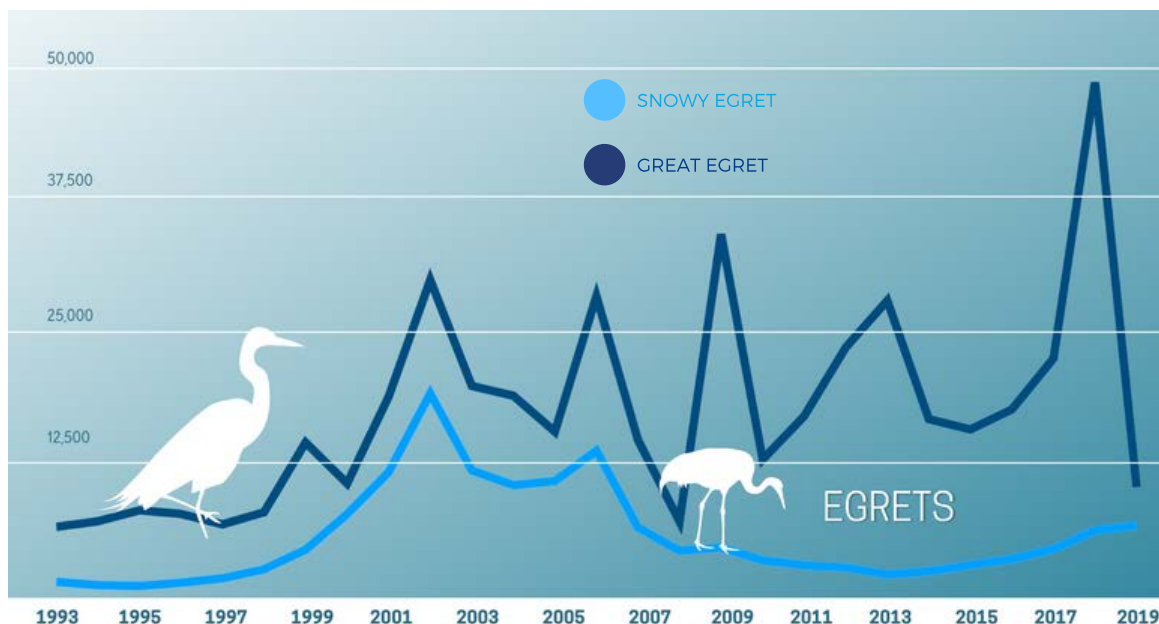
Use the glossary below to look up the vocabulary words from the Wading Birds of the Everglades Reading Passage

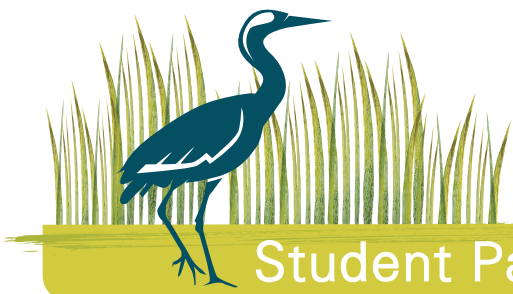
Vocabulary for Wading Birds of the Everglades

Aquatic life	An animal or plant that lives or grows on or in water.
Concentrated	Gathered together in numbers or in a mass; not spread out.
Diminish	To make or become less.
Disperse	Distribute or spread over a wide area.
Dry season	In southern Florida, December-April, the rains diminish and surface water levels drop.
Gauge	Estimate or measure the amount of.
Painstaking	Done with or employing great care and thoroughness.
Prey	An animal taken by a predator as food.
Restoration	The action of returning something to its former condition.
Wading birds	Long-legged birds (such as herons, storks, and ibises) that wade in water in search of food.
Wet season	In southern Florida, May-November, where rain falls almost every day and surface water levels rise dramatically.

TRENDS IN PREDICTED NESTING NUMBERS

WADING BIRDS OF THE GREATER EVERGLADES





Student Page – Wading Birds of the Everglades

Directions: Answer the following questions using the Wading Birds of the Everglades reading passage.

1. This question has two parts. First, answer Part A. Then, answer Part B.

Part A

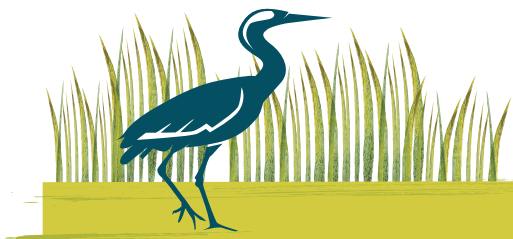
Why do wading birds in the Everglades nest in the dry season?

- A. Because it is easier for them to move around.
- B. Because fish are concentrated in smaller pools of water.
- C. Because there are more materials to build their nests.
- D. Because the weather is cooler.

Part B

Which sentence supports the answer in Part A?

- A. There are two seasons in the Everglades: the wet and the dry season.
 - B. During the **wet season** (May-November) rain falls almost every day and water levels in the Everglades rise dramatically.
 - C. This high water provides expanded habitat for **aquatic life**, such as fish.
 - D. During the **dry season** (December –April) the rains **diminish**, the water levels drop and the habitat for fish and other animals shrinks.
 - E. Aquatic life becomes more **concentrated** in pools of remaining water.
2. Which statement below best summarizes this text?
- A. Wading birds have a life cycle that depends on the wet and dry season of the Everglades.
 - B. Wading birds find the Everglades to be an excellent habitat for raising their young.
 - C. Wading birds must hunt for fish and other aquatic life to survive and feed their young.
 - D. Wading birds build their nests in the Everglades in order to feed their young.



Student Page Continued

3. Graphs provided with the reading passage contribute to the ideas in the reading. Bubble in the letter or letters in the table below to show which graphs contribute to which ideas.

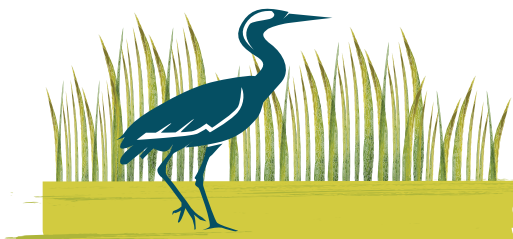
	Graph 1	Graph 2	Graph 3
Graphs show nesting highs and lows	(a)	(b)	(c)
Overall, Wood Storks have more nests each year than Roseate Spoonbills.	(a)	(b)	(c)
White Ibis had a very successful nesting season in 2018.	(a)	(b)	(c)

4. If scientists find that wading bird nesting is very low in a particular year, what might be the cause?

- A. Wading birds were not able to find enough dry places to build their nests.
- B. The scientists did not accurately estimate the number of nests.
- C. The water levels in the dry season were too high.
- D. The wet season had almost daily rainfall.

5. Select three sentences that the author uses to provide evidence that wading bird nesting can change from year to year.

- A. Tracking wading birds' nesting is one important way scientists **gauge** the success of efforts to restore the Everglades.
- B. Over the last 20 years, populations of wading birds in the greater Everglades have soared through both high and low points.
- C. For example, in 2018, the wading bird nesting season had over 138,000 nests counted.
- D. Unfortunately, in 2019, the wading bird nesting season was not as good.
- E. Only 37,000 nests were counted.



Student Page Continued

6. This question has two parts. First, answer Part A. Then, answer Part B.

Part A

If we have a drought during the wet season, what might you infer about the impact on wading birds?

- A. Wading birds will have a successful nesting season.
- B. The dry season will experience an abundance of rainfall.
- C. There will be plenty of food for the wading birds.
- D. Wading birds will have an unsuccessful nesting season.

Part B

What details provided in the text support your inference?

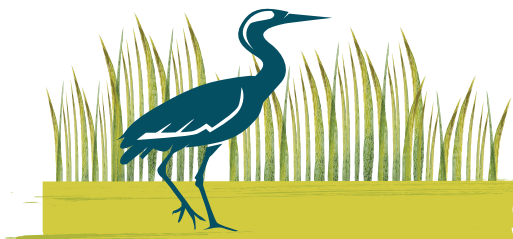
Using the Wading Bird Trends graphs provided in the reading passage, answer questions 7-12. Note: You can identify information for years not listed by closely looking at the line graph between each listed year.

7. Over time, what pattern holds true for Great Egrets nests versus Snowy Egret nests?

8. In which years were Great Egret nests over 25,000?

9. What were the two best years for White Ibis nesting?

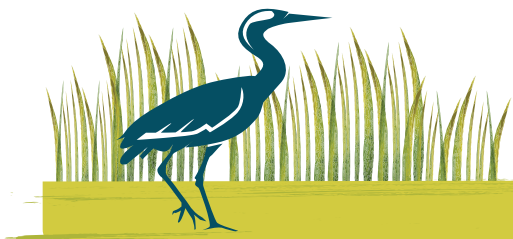
10. Which of the following three years were the lowest for White Ibis nesting?



Student Page Continued

11. Over time, how do estimated numbers of nests for Wood Storks compare with Roseate Spoonbills?

12. Over time, how do estimated numbers of nests for Wood Storks and Roseate Spoonbills compare to the estimated number of nests for Great Egrets and Snowy Egrets?



Teacher Key

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Part A

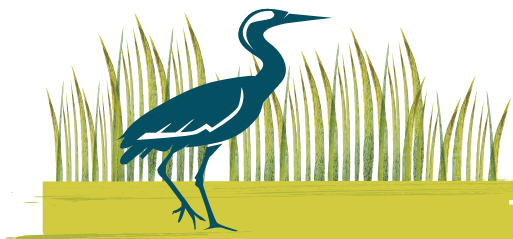
Why do wading birds in the Everglades nest in the dry season?

- A. Because it is easier for them to move around.
- B. **Because fish are concentrated in smaller pools of water.**
- C. Because there are more materials to build their nests.
- D. Because the weather is cooler.

Part B

Which sentence supports the answer in Part A?

- A. There are two seasons in the Everglades: the wet and the dry season.
 - B. During the **wet season** (May-November) rain falls almost every day and water levels in the Everglades rise dramatically.
 - C. This high water provides expanded habitat for **aquatic life**, such as fish.
 - D. During the **dry season** (December–April) the rains **diminish**, the water levels drop and the habitat for fish and other animals shrinks.
 - E. **Aquatic life becomes more concentrated in pools of remaining water.**
2. Which statement below best summarizes this text?
- A. **Wading birds have a life cycle that depends on the wet and dry season of the Everglades.**
 - B. Wading birds find the Everglades to be an excellent habitat for raising their young.
 - C. Wading birds must hunt for fish and other aquatic life to survive and feed their young.
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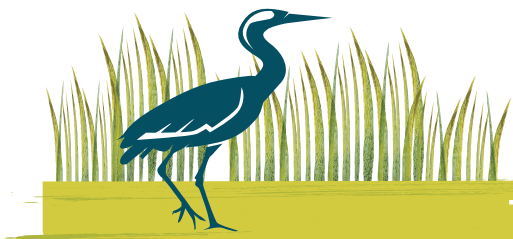
	Graph 1	Graph 2	Graph 3
Graphs show nesting highs and lows	(a)	(b)	(c)
Overall, Wood Storks have more nests each year than Roseate Spoonbills.	(a)	(b)	(c)
White Ibis had a very successful nesting season in 2018.	(a)	(b)	(c)

4. If scientists find that wading bird nesting is very low in a particular year, what might be the cause?

- A. Wading birds were not able to find enough dry places to build their nests.
- B. The scientists did not accurately estimate the number of nests.
- C. **The water levels in the dry season were too high.**
- D. The wet season had almost daily rainfall.

5. Select three sentences that the author uses to provide evidence that wading bird nesting can change from year to year.

- A. Tracking wading birds' nesting is one important way scientists **gauge** the success of efforts to restore the Everglades.
- B. Over the last 20 years, populations of wading birds in the greater Everglades have soared through both high and low points.
- C. **For example, in 2018, the wading bird nesting season had over 138,000 nests counted.**
- D. **Unfortunately, in 2019, the wading bird nesting season was not as good.**
- E. **Only 37,000 nests were counted.**



Teacher Key Continued

6. This question has two parts. First, answer Part A. Then, answer Part B.

Part A

If we have a drought during the wet season, what might you infer about the impact on wading birds?

- A. Wading birds will have a successful nesting season.
- B. The dry season will experience an abundance of rainfall.
- C. There will be plenty of food for the wading birds.
- D. **Wading birds will have an unsuccessful nesting season.**

Part B

What details provided in the text support your inference?

Unfortunately, in 2019, the wading bird nesting season was not as good. Only 37,000 nests were counted. Bird species like White Ibises, Great Egrets, Wood Storks, and Roseate Spoonbills all had fewer nests. This was because water levels in the Everglades were too low in the wet season for fish and other reproduce. Therefore, there wasn't enough food available when the dry season arrived and wading birds began to nest.

7. Over time, what pattern holds true for Great Egrets nests versus Snowy Egret nests?
Great Egrets have more nests each season than Snowy Egrets.

8. In which years were Great Egret nests over 25,000?

2002, 2006, 2009, 2013, 2018

9. What were the two best years for White Ibis nesting?

2009, 2018

10. Which of the following three years were the lowest for White Ibis nesting?

1998, 2003, 2008

11. Over time, how do estimated numbers of nests for Wood Storks compare with Roseate Spoonbills?

There are more Wood Stork nests than Roseate Spoonbill nests.

12. Over time, how do estimated numbers of nests for Wood Storks and Roseate Spoonbills compare to the estimated number of nests for Great Egrets and Snowy Egrets?

Overall, Great Egrets and Snowy Egrets have many more nests each year than Wood Storks and Roseate Spoonbills.