

The Jeff Corwin Experience

Brazil: Exploring the Wetlands

Teacher's Guide

Grade Level: K-8

Curriculum Focus: Life Science

Lesson Duration: Two class periods

Program Description

Deep within the immense landmass of Brazil, hundreds of miles away from its famous beaches and bustling cities, lies the Pantanal. This region is the largest system of wetlands in the world and its inhabitants are masters of this lush and perilous world.

Video Index

Segment 1: The Wetlands of Pantanal (13 min.)

Description

Explore the Pantanal, an area of wetlands in western Brazil. Watch giant river otters swim, observe an anaconda up close, and see the scutes of a caiman.

Pre-viewing question

What characteristics do animals in the wetlands share?

Answer: Answers will vary, but students may mention that these animals survive in or near water and in a warm climate.

Post-viewing question

How do anacondas catch their prey?

Answer: They are constrictors, which means that they suffocate their prey and then eat them whole.

Segment 2: On the Road (10 min.)

Description

Travel the Transpantaneira Road and see amazing animals along the way – a caiman, porcupine, tarantula, and the capybara, the world's largest rodent.

Pre-viewing question

What do you know about tarantulas?

Answer: Answers will vary, but many students may know that a tarantula is a venomous spider.

Post-viewing question

How does a porcupine use its tail?

Answer: A porcupine uses its tail as a fifth limb, which helps it climb trees easily.

Segment 3: At the Cattle Ranch (10 min.)

Description

Explore the animals that live in and around a cattle ranch in the Pantanal. Meet a couple of toucans, and listen to the cry of a howler monkey.

Pre-viewing question

Where does the howler monkey get its name?

Answer: Answers will vary, but students may say that it makes a howling sound.

Post-viewing question

What animals does a caiman lizard resemble?

Answer: It has a body similar to an alligator, a face like a monitor lizard, and a forked tongue like a serpent.

Segment 4: The Island of Queimada Grande (9 min.)

Description

Travel to the island of Queimada Grande in search of the golden lancehead viper. Then watch Jeff capture and observe this rare snake. See a baby booby along the way.

Pre-viewing question

Why does Jeff want to see a dangerous golden lancehead viper?

Answer: Answers will vary, though some students may point out that it is rare and found only on this island.

Post-viewing question

What is unique about the golden lancehead viper?

Answer: Over time, females of this species developed a male sexual organ, called a hemipenis. It is not functional, but it may become so in 10,000 years. If that happens, a new species could evolve.

Lesson Plan

Student Objectives

- Learn about wetlands.
- Find the Pantanal on a world map and discuss why the land here is considered to be wetlands.
- Write a report about the Pantanal and the many different animals that live there.

Materials

- *The Jeff Corwin Experience: Brazil: Exploring the Wetlands* video and VCR, DVD and DVD player
- Computer(s) with Internet access



- Map showing the Pantanal (from an online or print source)
- Newsprint and markers
- Paper and pencils

Procedures

1. Begin the lesson by asking students if they have ever heard of the Pantanal. You can find a map online at www.piersallison.co.uk/travel/brazil/map.htm. Point out that the Pantanal is the largest wetland area in the world.
2. Discuss the meaning of wetlands with students. Write their ideas on a sheet of newsprint. The point to make is that wetlands are areas saturated with water at least part of the year. Wetlands can be thought of as transition zones between land and water.
3. Point out that the Pantanal is a wetland area especially rich in wildlife. The reason for its biodiversity is that it floods between October and March, which enriches the soil and makes it a good spot for animals to bear their young.
4. Tell students that they will research two or three animals in the Pantanal and write a report that should include the following information:
 - map of the Pantanal
 - physical description of the animals
 - discussion of the animals' food
 - original ideas about why the Pantanal is a good place for these animals
5. To spark interest in the topic, show students the first two segments ("The Wetlands of Pantanal" and "On the Road") of *The Jeff Corwin Experience: Brazil: Exploring the Wetlands*. The video features close-up shots of river otters, anacondas, prehensile-tailed porcupines, caimans, and capybaras. The Web sites listed below have useful information:
 - <http://www.pantanal.org/Mainpant.htm>
 - <http://www.ladatco.com/PAN-GATE.htm>
 - <http://www.wnf.nl/wnf/website/index.cfm?id=C3E9690B-FB03-4750-80B06C409D9A21ED>
 - <http://www.wnf.nl/wnf/website/index.cfm?id=22F3E068-D142-416B-9ECE648384BCC864>
6. Give students time in class to complete their reports. Suggest that they include pictures to make them visually interesting.
7. Have students share their reports in small groups (three or four students). Ask them to explain the main points and answer any questions. As a class, summarize what the students learned. Make sure they understand the definition and significance of wetlands. They should be able to describe in detail some animals in the Pantanal.

Assessment

Use the following three-point rubric to evaluate students' work during this lesson.

- **3 points:** Students were highly engaged in class and group discussions; researched the topic carefully and thoroughly; produced a clear, complete report that included all of the requested information.
- **2 points:** Students participated in class and group discussions; researched the topic adequately; produced a satisfactory report that included most of the requested information.
- **1 point:** Students participated minimally in class and group discussions; did not complete the research; created an incomplete report that included little or none of the requested information.

Vocabulary

biodiversity

Definition: Biological diversity in an environment as indicated by numbers of different species of plants and animals

Context: The Pantanal's great biodiversity includes about 650 species of birds and 80 species of mammals.

capybara

Definition: The largest rodent in the world, often exceeding four feet in length and weighing as much as 200 pounds; lives in South America

Context: The capybara is a sociable animal that eats many kinds of vegetation.

Pantanal

Definition: The largest wetland in the world, covering central-western Brazil through eastern Bolivia and northeastern Paraguay

Context: The Pantanal is home to some of the world's most interesting wildlife species.

prehensile- tailed porcupine

Definition: A porcupine that lives in the trees and has a prehensile tail, which it uses as a fifth limb for climbing

Context: The prehensile-tailed porcupine climbs through tree branches with the help of its tail.

river otter

Definition: A semiaquatic, web-footed carnivore species, a rare and large otter known for its strength and intelligence

Context: Known for its strength and intelligence, the river otter always wins when facing down a caiman.



wetland

Definition: A lowland area that is saturated with moisture, especially when regarded as the natural habitat of wildlife

Context: The Pantanal, the world's largest wetland, is inundated with water between October and March.

Academic Standards

National Academy of Sciences

The National Academy of Sciences provides guidelines for teaching science in grades K–12 to promote scientific literacy. To view the standards, visit this Web site:
<http://books.nap.edu/html/nses/html/overview.html#content>.

Grades K-4

- Life Science: Organisms and environments

Grades 5-8

- Life Science: Populations and ecosystems, Diversity and adaptations of organisms

National Council for Geographic Education

The National Council for Geographic Education (NCGE) provides 18 national geography standards that the geographically informed person knows and understands. To view the standards online, go to <http://www.ncge.org/publications/tutorial/standards/>.

- The World in Spatial Terms: How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.

Mid-continent Research for Education and Learning (McREL)

McREL's Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education addresses 14 content areas. To view the standards and benchmarks, visit <http://www.mcrel.org/compendium/browse.asp>.

This discussion guide addresses the following national standards:

- Language Arts – Viewing: Uses viewing skills and strategies to understand and interpret visual media; Writing: Gathers and uses information for research purposes

Support Materials

Develop custom worksheets, educational puzzles, online quizzes, and more with the free teaching tools offered on the Discoveryschool.com Web site. Create and print support materials, or save them to a Custom Classroom account for future use. To learn more, visit

- <http://school.discovery.com/teachingtools/teachingtools.html>



