

RESOURCE LIBRARY
ACTIVITY : 50 MINS

Captive Breeding Case Studies

Students complete a case study for one species in a captive-breeding program and evaluate the effectiveness of the program.

GRADES

9 - 12+

SUBJECTS

Biology, Geography, Human Geography, Physical Geography

CONTENTS

1 Link, 1 PDF

OVERVIEW

Students complete a case study for one species in a captive-breeding program and evaluate the effectiveness of the program.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/captive-breeding-case-studies/>

DIRECTIONS

1. Introduce the activity.

Tell students they will complete a detailed case study for one species in a captive-breeding program and evaluate the effectiveness of the program. Have students go to the Smithsonian National Zoological Park's Captive Breeding page to choose and research a species.

2. Have students complete their case studies.

Students' case studies should include the following information:

- species name, natural range, and habitat
- a simple world map showing the species' historic and current ranges and/or historic and current population statistics
- reason the species is threatened or endangered
- when the captive breeding program began
- difficulties with maintaining the species' population in the wild
- difficulties with breeding the species in captivity
- assessment of whether or not the captive-breeding program has been successful and why
- explanation of how the program might help the overall biodiversity of the regions where the species naturally lives

3. Have students present their findings to the class.

Have each student present their findings to the class. Encourage students in the audience to ask questions.

OBJECTIVES

Subjects & Disciplines

Biology

Geography

- Human Geography
- Physical Geography

Learning Objectives

Students will:

- complete a case study for one species in a captive-breeding program
- present their findings

Teaching Approach

- Learning-for-use

Teaching Methods

- Discussions
- Research

Skills Summary

This activity targets the following skills:

- Critical Thinking Skills
 - Applying
 - Evaluating
 - Remembering
 - Understanding
- Geographic Skills
 - Answering Geographic Questions

National Standards, Principles, and Practices

NATIONAL GEOGRAPHY STANDARDS

- Standard 14:

How human actions modify the physical environment

NATIONAL SCIENCE EDUCATION STANDARDS

- (9-12) Standard C-4:

Interdependence of organisms

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Paper

- Pencils
- Pens

REQUIRED TECHNOLOGY

- Internet Access: Required
- Tech Setup: 1 computer per learner

PHYSICAL SPACE

- Computer lab

GROUPING

- Large-group instruction

BACKGROUND & VOCABULARY

Background Information

Captive-breeding programs breed endangered species in zoos and other facilities to build a healthy population of the animals. By becoming familiar with the issues surrounding these programs, you can make judgments about whether or not they save species from extinction.

Prior Knowledge

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Recommended Prior Activities

- [Captive Breeding and Species Survival](#)
- [Introduction to Captive Breeding](#)

Vocabulary

Term	Part of Speech	Definition
biodiversity	noun	all the different kinds of living organisms within a given area.

Term	Part of Speech	Definition
captive-breeding program	<i>noun</i>	plans, research, and work done by an organization, such as a zoo, to control reproduction of rare species in that organization's facilities (not in the wild).
habitat	<i>noun</i>	environment where an organism lives throughout the year or for shorter periods of time.
species range	<i>noun</i>	native, geographic area in which an organism can be found. Range also refers to the geographic distribution of a particular species.

For Further Exploration

Websites

- [IUCN: Red List of Threatened Species](#)
- [U.S. Fish & Wildlife Service: Endangered Species Program](#)
- [Smithsonian National Zoological Park: Endangered Species Science](#)
- [Association of Zoos and Aquariums: Species Survival Plan Program](#)



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