

Invasive Species and the Law



Activity Overview

This activity assesses the consequences of introducing new species into an established ecosystem. Students will examine real life scenarios from a social and environmental context and apply their knowledge to new situations. Students will take on the role of an animal importer working for a pet store.

Curriculum Connections

This activity was designed for the Biology 20 and Science 20 curriculum. It has following learning objectives:

- To apply an understanding of how the introduction of a new species impacts an established ecosystem
- To reflect on the role of science and technology in society

Time Required

Approximately 60 Minutes

Materials Required

- Access to computers with internet connection
- Employee Handbook
- Employee Training Assignment

Lesson Format

- Discussion
- Brainstorming
- Role Playing Activity
- Discussion and Reflection

Pre-requisite Knowledge

- A general understanding of ecological niches

For the Teacher

Instructions

1. Introduce the idea of animal smuggling to the class. You can refer to some of the examples listed below:
 - i. *Drugged Baby Panthers and Leopards Seized at Bangkok Airport in 2011*
www.cbc.ca/news/world/story/2011/05/13/animal-trafficking-freeland.html
 - ii. *Smuggler Who Tied Birds to Legs Awaits Sentence*
www.cbc.ca/news/world/story/2010/04/26/us-bird-smuggler-sentence.html
2. Place students in small discussion groups. Instruct the groups to brainstorm some of the negative consequences of animal smuggling (approximately 5 minutes).
3. Distribute the Employee Handbook handout and assignment.
4. Students will read through the activity and complete the assignment.
5. When students have completed the assignment lead a discussion about laws for importing in Canada. As a class take on the role of the company in the assignment. Discuss whether the company should import capybaras for sale in the store. Students should support their opinion by referring to the invasive species they studied in their assignment.
6. Students will complete the reflection question at the end of the lesson.

Extension Activities

Students could research the role of the shipping industry and globalization in introducing foreign species into new ecosystems.

Additional Information

For more information on the topics covered in this activity, visit the links below:

Invasive Species in Banff National Park

www.pc.gc.ca/eng/pn-np/ab/banff/natcul/Ecosystemes/natcul4.aspx

U.S. officials scour 7 states for exotic pets

www.cbc.ca/news/world/story/2003/06/10/monkeypox_investigation306010.html



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Ethical Pets

Employee Handbook

About Us

Our company does not import animals that might harm the natural environment of Canada if released. We follow Canadian law and advocate for laws that protect the environment. We are located in Southern Alberta.

Ethical Issues

One problem with the pet trade is that sometimes pets can escape or be intentionally released. For example people have released tropical aquarium fish in the hot springs at Banff National Park. This can be very destructive to native species. The introduction of foreign species in Banff has contributed to the extinction of the Banff Longnose Dace.

Exotic Pets, Science, and Canadian Law

In Canada there are federal, provincial, and municipal laws regulating the animals (and plants) that are brought into the country. Many of the restrictions are created to prevent importing invasive species. Invasive species are plants or animals that originated from another part of the world but are brought into Canada on purpose or by accident. Once they establish in Canada they out compete local species and devastate the balance of our ecosystems.

Another reason for the restrictions is to stop the spread of disease. For example importing birds from Asia is not allowed because of the potential to spread bird flu.

Strict regulations were placed on the importation of African rodents after a monkey pox outbreak in the United States. In 2003 several people in the US contracted monkey pox from pet prairie dogs. It was discovered that the disease originated in Gambian Pocket Rats from Africa that had been in contact with prairie dogs in the same pet store. This led Canada and the US to ban imports of African rodents.

Links

Tropical Fish at Banff National Park:

www.pc.gc.ca/eng/pn-np/ab/banff/natcul/Ecosystemes/natcul4.aspx

Canadian Food Inspection Agency – Pet Imports

<http://inspection.gc.ca/english/anima/imp/petani/petanie.shtml>

A Disaster Ignored. The threat to human and animal health from imported exotic wildlife: a review of scientific evidence and opinion

<http://vancouverhumanesociety.bc.ca/downloads/VHS%20animal%20disease%20report%202004.pdf>

Employee Training Assignment

Task 1: Invasive Species Case Study

As part of your training your employer wants to you understand the risks of importing animals from other countries. Pick an invasive species to study and answer the questions below. Suggested species include Zebra Mussels, Round Gobys, Asian Carp, or Starlings.

1. How was this species introduced to Canada?
2. What effect has this invasive species had on the Canadian ecosystem it has been introduced to?

Task 2: Animal Import Scenario - Capybaras

Before deciding to import any animal we do an ethical review. We write a report and then decide with other employees if we will import this animal. A woman has requested we find her a capybara from South America. Answer the following questions:

3. Is this animal protected or endangered species? Does it have large populations in the wild?
4. What ecological niche does it play in its native ecosystem?
5. How could its release or escape in Canada affect our local ecosystems?
6. What guidelines are in place by the Canadian government for importing capybaras? You can consult this website <http://inspection.gc.ca/english/anima/imp/petani/petanie.shtml> for information.
7. Do you feel that it is safe to import capybaras into Southern Alberta as a pet? Explain.

Reflection Question

This is to be completed at the end of the lesson.

8. Should there be stricter guidelines for importing animals and plants into Canada? Why might some people oppose tougher rules?