

# Wildlife Express – October 2021 - Wildlife Health

## Activities:

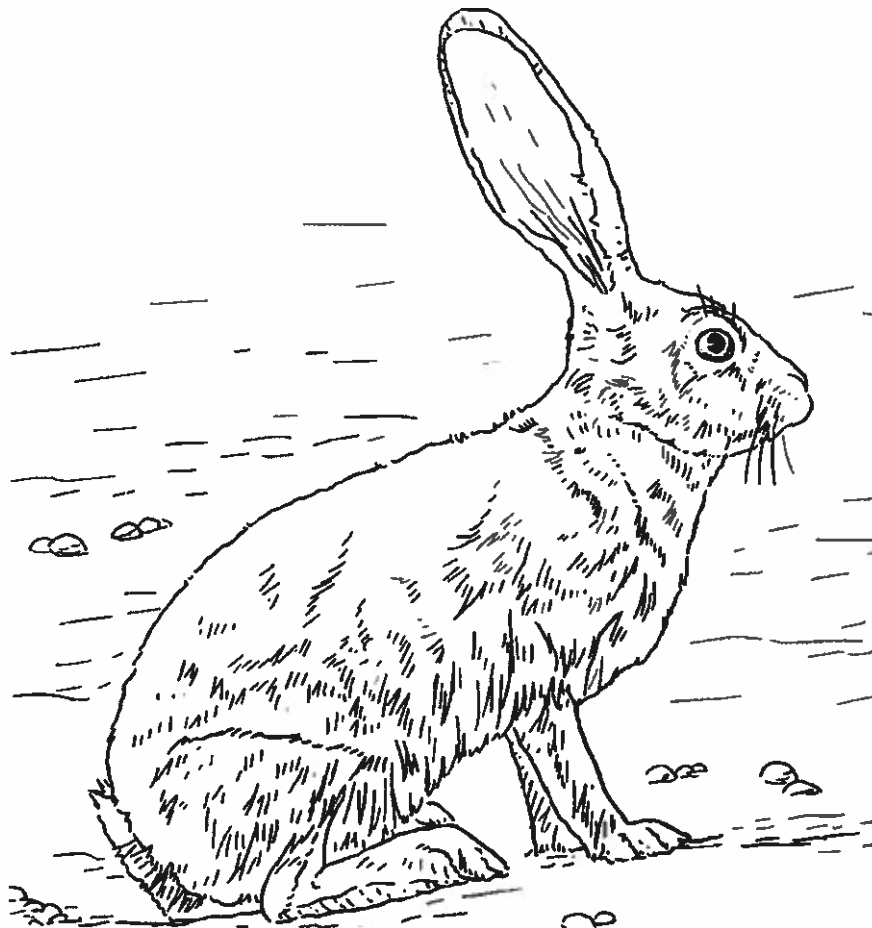
**Who Sneezed My Disease? :** In this hands-on activity, a vinegar and baking soda reaction teaches kids how easily diseases can transfer.

**CWD Mapping:** Color a map with CWD positive states.

**Matching Worksheet:** Test your knowledge of wildlife diseases by matching clues.

**Project WILD's Wildwork:** Students research wildlife-related careers and present their findings to the class.

**Share Your Knowledge:** Students choose an appropriate way to share knowledge gained.



# Who Sneezed My Disease?

Objective: Students will be able to describe how diseases spread according to population density.

Approximate time: 30 - 45 minutes, depending on extensions

## Materials:

- One - three small cups (7 - 9 oz.) per student (one cup per procedure)
- Water approximately 9 oz. per student (3 oz. per part in procedure)
- Baking soda solution (2 teaspoons of baking soda & 3 oz of water for each part of the procedure)
- Sharpie Marker
- Vinegar (in a small wide mouth plastic container)
- Medicine dropper (for vinegar)

## Preparation:

Do the following out of student sight. Number the 7 oz. cups on the side. Pick a cup other than #1 and pour 3 oz. of baking soda solution into it. Put 3 oz. of water in the remaining cups. (The extra room will help prevent spills.)

## Procedure:

### *Part I - Dispersed Populations*

1. Take the students outside to a large area or field.
2. Have them sit at random locations inside the marked area.
3. Give each child a cup and let them know that they are all elk in a single herd. Tell them that the grazing is good, so they're spread out over a wide area.
4. Explain that a new disease has been discovered in elk and deer that causes them to foam at the mouth. Wildlife officials know that the disease is spread by direct contact between elk through moms feeding their babies, sparring, etc.
5. Have the students reach out to each other. If they can touch cups, they are too close. Have them exchange their fluids by pouring one cup into another and then pouring half back.
6. Go around the area and drop vinegar in all of the cups (3-6 drops) and let them know that if it fizzes, they have been infected.
7. Ask the students to record how many of the elk were infected with the fizzy virus.

### *Part II - Compacted Populations*

1. Mark off a smaller area.
2. Give the children new cups (or really rinsed out ones) that have been filled per the preparation section above.

3. Let them know that now their elk herd has gathered together in the autumn for mating and migration. They are all now closer together.
4. Have the students reach out to each other. If they can touch, they are to exchange their fluids, like before, making sure to mix cups with everyone they touch.
5. Go around the area and drop vinegar in the cups (3-6 drops). Let them know that if it fizzes, they have been infected.
6. Ask the students to tell you how many elk were infected with the fizzy virus. Record the information and compare results from first time.

### *Part III - Overcrowded Populations*

1. Mark off an even smaller area!
2. Give the children new cups (or really rinsed out ones) that have been filled per the preparation section above.
3. Let them know that now their elk herd has been rounded up to a refuge area and is being given food over the winter, so they are now really crowded in the same area. Have the students reach out to each other. If they can touch, they are to exchange their fluids, making sure to mix all the cups with everyone they touch.
4. Go around the area and drop vinegar in the cups (3-6 drops). Let them know that if it fizzes, they have been infected.
5. Ask the students to tell you how many elk were infected with the fizzy virus. Compare all results.

### **Follow-Up:**

**Questions:** How would a crowded population affect the rates of disease transmission?  
What types of diseases spread faster in crowded conditions in people?





**DIRECTIONS**

Label all the states with their two letter postal abbreviation.

Choose colors to indicate the following:

Idaho (no CWD present).

States that are CWD positive.

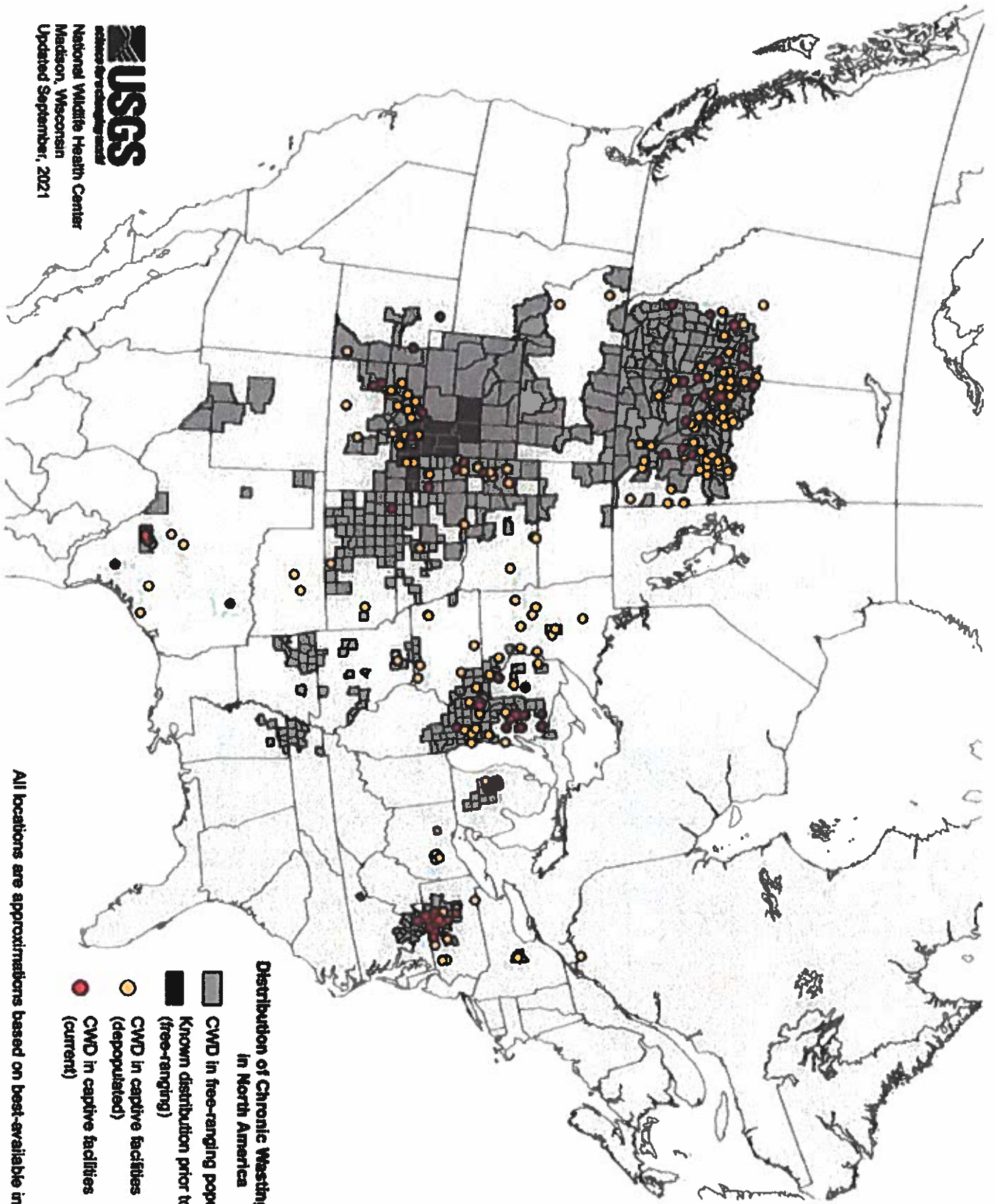
Create a key in the box and color map accordingly using map provided.

Create a title for your map.

Answer the question on the lines below the map.

Key:

Do you think it will be possible to keep CWD out of Idaho? Why or why not?



- Distribution of Chronic Wasting Disease  
in North America**
- CWD in free-ranging populations  
Known distribution prior to 2000  
(free-ranging)
  - CWD in free-ranging populations  
Known distribution after 2000  
(free-ranging)
  - CWD in captive facilities  
(depopulated)
  - CWD in captive facilities  
(current)

All locations are approximations based on best-available information



## Test your wildlife health & disease knowledge.

Write the proper matching letter on the line provided.

A. Rabies

B. Hemorrhagic Disease

C. Chronic Wasting Disease

D. Salmonellosis

\_\_\_\_\_ **Zombie Deer Disease**

\_\_\_\_\_ **Pets are vaccinated against this disease.**

\_\_\_\_\_ **This disease is found in 26 states, but not in Idaho.**

\_\_\_\_\_ **This disease is caused by intestinal bacteria.**

\_\_\_\_\_ **This disease can cause heavy breathing & fever. Animal may not eat.**

\_\_\_\_\_ **An animal with this disease might bite or act aggressive.**

\_\_\_\_\_ **This disease was found near Boise in March 2021.**

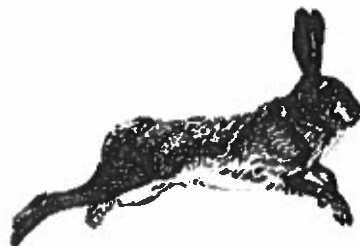
\_\_\_\_\_ **Groups of birds can get this highly contagious disease.**

\_\_\_\_\_ **Any mammal can get this disease, including humans.**

\_\_\_\_\_ **Cleaning feeders and raking seed hulls will help to keep this away.**

\_\_\_\_\_ **Internal bleeding happens in animals affected with this disease.**

\_\_\_\_\_ **This disease is related to folded prions or proteins.**



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C Zombie Deer Disease

A Pets are vaccinated against this disease.

C This disease is found in 26 states, but not in Idaho.

D This disease is caused by intestinal bacteria.

C This disease can cause heavy breathing & fever. Animal may not eat.

A An animal with this disease might bite or act aggressive.

B This disease was found near Boise in March 2021.

D Groups of birds can get this highly contagious disease.

A Any mammal can get this disease, including humans.

D Cleaning feeders and raking seed hulls will help to keep this away.

B Internal bleeding happens in animals affected with this disease.

C This disease is related to folded prions or proteins.





# Wildwork



## Objective

Students will identify and describe a variety of wildlife occupations.

The major purpose of this activity is for students to become familiar with career possibilities in wildlife-related fields.

## Method

Students research wildlife-related careers and present their findings to the class.

## Procedure

## Materials

Writing materials

1. Ask students what careers they might be interested in pursuing. What kinds of jobs sound interesting? What about working with wildlife?
2. In a class discussion, find out what kinds of jobs students imagine exist in animal-related fields. Do any of their family or friends have animal-related occupations, involving either wild or domesticated animals, or both?
3. Compile a list of possible wildlife-related occupations.
4. Ask each student or group of students to select one occupation to research. Find out what preparation (e.g., college) is needed for the job; what the responsibilities of the job entail; what special equipment, techniques or skills are needed, if any; and whether the demand for people in this occupation is growing, diminishing or unchanged.
5. Have each student or group of students report on their wildlife-related occupation. This reporting can take a variety of forms, from skits about each job with props to help their portrayal, to a Wildlife Careers resource fair. The resource fair could have booths for each job, complete with visual aids, background information and local contacts for additional information.

## Background

State and federal government agencies employ many specialists to help preserve and manage wildlife and wildlife habitats. These employees do field work, conduct laboratory research and oversee human interactions with wildlife. Universities and colleges, private and nonprofit wildlife-oriented agencies, zoos and museums, private industry and others all employ people trained in the wildlife field. Some photograph, paint, draw or write about wildlife for magazines, books, films and television.

**Grade Level:** 5-8

**Subject Areas:** Social Studies

**Duration:** 10-minute introduction; one 40-minute session for presentations or longer depending on group size

**Group Size:** any

**Setting:** indoors

**Conceptual Framework Reference:** WMIIC2

**Key Terms:** occupation, vocation, career

**Appendices:** Local Resources

*continued*

## Extensions

1. Contact someone in a wildlife-oriented job. Ask that person if he or she would be willing to contribute a class visit or letter describing the job. Have the students prepare questions in advance for the visitor. (Government wildlife agencies usually have a page of their website dedicated to jobs. They also print descriptive career leaflets. Write for a copy.) Compile a class letter to that individual, incorporating any questions that students might have. Some good questions to ask:
  - Why did you choose this career?
  - What education was necessary to prepare you for this job?
  - What do you do in a typical day's work?
  - How much do you actually work with wildlife? How much with people? How much with record keeping, reporting, etc.?
  - Do you work with people who have other wildlife-related careers?

Share the letter of reply with the class or have the professional visit the class to answer questions.

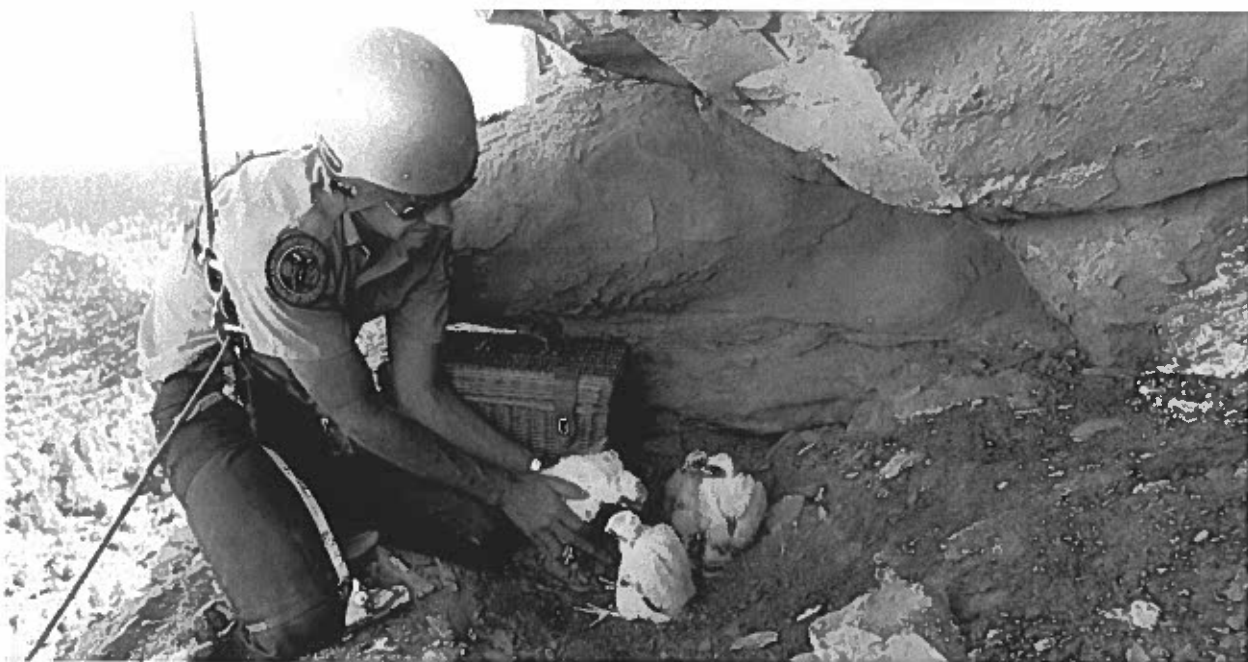
2. Investigate jobs related to a range of natural resources—from forestry to mining to litigation. Look at volunteer and private organizations as well as public and commercial, from attorneys for the National Wildlife Federation to public land coordinators for major oil companies.
3. Make a “wild web” showing the agencies, organizations and occupations that typically could be involved in a wildlife management issue. Refer to the activity “History of Wildlife Management” to help explain each role in wildlife management.

## Aquatic Extension

Focus specifically on the variety of aquatic-related careers that are available.

## Evaluation

1. Identify and describe three jobs in which someone works with wildlife or other animals. Describe the training and qualifications required for each job.
2. Are there many jobs available in wildlife-related fields? Please explain your response.
3. Why, if at all, do you think careers in wildlife and other resource-related fields are important?



# Share your knowledge!

One of the best ways to ensure a student understands a concept is to have them share it!

Besides the traditional ways, here are other ideas:

1. Design a t-shirt, bumper sticker, or flier.
2. Create a social media post or PowerPoint.
3. Give a presentation to a small group of younger students or peers.

Using *Wildlife Health* as a topic, here are some suggested subjects.

1. Importance of keeping bird feeders clean
2. Importance of habitat
3. Staying safe from rabies
4. Chronic Wasting Disease
5. Diseases in general
6. Transmission of diseases

