

Spotted Knapweed Activities

Pirates and the Backcountry
Play Audio Track #13
(15 minutes)

Levels
Grades 3-6

Subjects
Geography, Science, Language Arts

Skills
Outlining, Examining, Describing, Comparing, Solving, Discussing

Concepts
Structure and functions of living things; interactions among technology, science and society

Objectives
Students will learn how seeds are spread in compost and organic manure.
Students will learn how seeds are spread in hay that is transported for feed and recreation.

Materials (20 student class-size)
What's in Your World? CD audio track #13 (inside the back cover) - 1 per class
laminated trail map -1 per class
raisins
labels from weed-free forage programs (your local BLM, Forest Service or Dept. of Agriculture)

Time Considerations
Preparation - 30 minutes
Activity - 15 minutes

Lesson Overview

- Pirates of the Backcountry (15 minutes)

Background

Some weeds like spotted knapweed can live in the soil for many years. Like sea-roaming pirates for all eternity, weed seeds can show up just about anywhere--even in places where they were never found in the past. Long-living seeds are one defense system that the plant species have to better the chances for germination and new growth. Just as seeds travel from continent to continent, seeds travel around within the continent.

Did you know that weed seeds and other seeds get distributed in animal droppings?

Do you think the manure encased seeds have a built-in nutrient bed to aid in germination?

If livestock feed is contaminated with weed seed, the horses eat it and drop it wherever they go. This is extremely troublesome for land managers of wilderness and backcountry areas.

PIRATES AND THE BACKCOUNTRY LESSON DETAILS

STEP ONE. Tell the students that they may be interested in taking a horse trip into the backcountry. Explain that feed and bedding is required to be “certified weed-free” if they will travel on Federal land (public land). Each state has a program in which professionals inspect a farmer’s forage crop for weeds and if it is clean they receive a “certified weed-free status” and every bail of hay must be tagged as such to enter the back-country.

If you are able to secure tags from your local Bureau of Land Management, Forest Service, or State Department of Agriculture offices, pass out one tag per student and explain that Resource Rangers must see this tag on hay and bedding when they stop hunters, horse-back recreationists, and dog sled teams. The students who are about to enter the backcountry will not have “certified weed-free” feed and bedding for their trip. Instead, they have straw that is contaminated with weed seeds.

STEP TWO. Tell the students to agree on a trailhead from the laminated map and begin their journey.

STEP THREE. Ask the students--*How will you track where you’ve been?* Next ask the students to dot the trail they take as they go with raisins so that a dotted line of raisins shows where they began and how far they’ve come along the trail. The raisins represent horse droppings.

STEP FOUR. Once the trip is over, ask the students to discuss where they have been and how far weed seeds in the horse droppings have spread into the backcountry--*Will you receive a citation (ticket) for not having “certified weed-free feed? Would you prefer to retrace your steps and pick up the animal droppings? What would you do differently?*

When you go into the backcountry, make sure you inspect your feed and bedding--that the label is tagged appropriately, and that you trust the vendor. There will be paperwork available for your inspection stating that the materials are “certified weed-free”. You will see tags attached with purple or yellow, or older versions of blue or orange on one side. These are good indicators that your feed and bedding were inspected by qualified professionals. Keep the paperwork, labels, and twine with you at all times during your trip.