



What's For Dinner?

Outcomes:

- Investigate and interpret evidence of interaction and change (e.g. availability of food in an ecosystem)
- Analyze ecosystems to identify producers, consumers and decomposers

Key Terms:

Habitat

Niche

Predator

Prey

Background Information: Owl pellets are neat little packages of fur, bones, and other indigestible stuff that are regurgitated (spit up) sometime after an owl has finished digesting several meals. You can find owl pellets on the ground under trees where owls like to roost or nest. An owl pellet can tell you a lot about what the owl has been eating. It can also tell you something about the prey animal itself, because its remains are nicely preserved in the pellet. Biologists who study owls depend on this kind of information, and frequently analyze owl pellets as part of their work in protecting wild owls.

Problem: In this investigation, we will examine owl pellets to give us some clues about the owl's niche.

Hypothesis: What kind of niche do you think a typical owl occupies? What evidence would you expect to see in the pellet to support your hypothesis?

Materials:

Owl Pellet

Bone Sorting Chart

Forceps

Skewer / toothpicks

Magnifying glass

Paper towel

Procedure:

1. Place the owl pellet on a piece of paper towel. Using a ruler, measure and record the length and width of the pellet. Describe what the pellet looks like on the outside.
2. Using the forceps, carefully break the pellet apart, separating out all of the smaller pieces. It may help to wet the pellet slightly.
3. Sketch and describe each item you were able to remove from the pellet. Be as specific as possible. If the same item appears more than once, make a note of how many there are in the bottom corner of your sketch.
4. Use the bone sorting chart to identify as many of the items from the pellet as you can.

This investigation / activity has been adapted from:

Bullard J, Krupa G, Krupa M, et al. *Science Focus 7*. Toronto, ON: McGraw-Hill Ryerson.

Observations:

Length of Pellet _____

Width of pellet _____








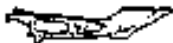


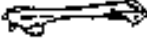
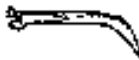




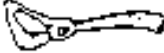





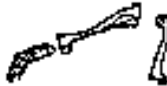
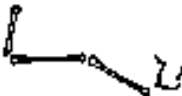




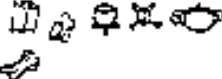


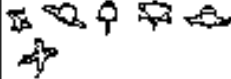


Overall description of the pellet:

Sketch of Item	What animal does it belong to?	What type of bone?	Possible niche?

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Bone Sorting Chart

	RODENTS	SHREWS	MOLES	BIRDS
Skulls				
Jaws				
Shoulder blades				
Front legs				
Hips				
Hind legs				
Vertebral ribs				
Vertebral vertebrae				
	Coracoid humerus and radius 		Interphalangeal decapages 	

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Analysis:

1. How many **different** organisms were represented by the remains in the pellet?
2. Can you determine how many organisms the owl ate? Why or why not?
3. Did you find a complete skeleton? What is one reason you may not find a whole skeleton?
4. Is there evidence of any plant or other material in the pellet? Describe and explain what it might be.
5. What habitat do you think this owl would be hunting in? How do you know?
6. Is the owl a producer or a consumer?

Conclusion: Describe or illustrate in a picture the niche of the owl that produced the pellet. (Be sure to include where it lives, what it eats and what role in the food chain it plays).

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Extension:

Research 2 different species of North American owls that occupy different niches. Create a pictorial collage that illustrates the differences between the two species and their niches.