

Part 1: Pre-Lab

Answer the following questions in complete sentences. You may use your textbook as a resource to help you answer the questions.

View the PowerPoint Presentation: Owl Pellet

1. What are some possibilities for relationships between species?

Ans. Some of the possibilities of relationships between species are mutualism, which refers to benefits for one while the other is harmed, commensalism, in which one gets benefit but the other one remains unaffected, predation, which reflects one species killing the other, and competition, where both species are harmed (Gunderman, 2022). All of these relationships are essential for our ecosystem.

2. Based on information found in your text, which of these relationships best describes the relationship between an owl and a vole?

Ans. According to the information provided in our textbook, the relationship between an owl and a vole is best described as predation, where the owl is the predator of a vole.

3. What is an owl pellet? How is it formed?

Ans. An owl pellet refers to an oval-shaped compact mass full of indigestible substances, including fur, bones, teeth, and feathers, that are disgorged from the stomach of an owl. This is made when an owl swallows its entire prey; the undigested parts are then filtered with the help of the gizzard (Charley et al., 2025). Then it is compressed into a pellet and brought back to the esophagus after 12 to 20 hours.

4. What information could be obtained from the dissection of an owl pellet?

Ans. We can obtain significant information from an owl's pellets, including the diet pattern of an owl and the prey species that the owl usually eats. Besides this, we can also get to know about the ecosystem in which they generally inhabit.

5. What type of things do you predict you will find in the pellet?

Ans. We can predict to find things that are unable to be digested, like bones, teeth, fur, claws, feathers from an owl's pellet.

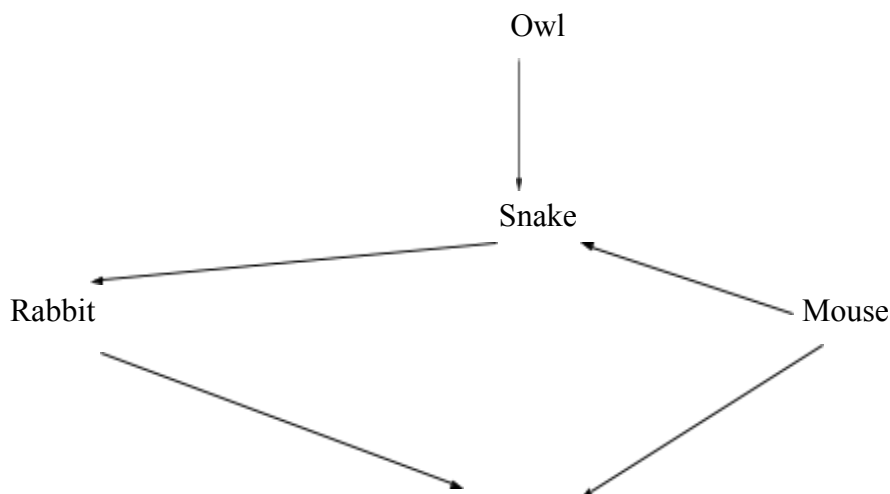
Part 2: Lab Experiment

Complete the Owl Pellet dissection activity. [Links to an external site.](#)

Part 3: Post-Lab

1. The purpose of this lab was to explore food chains, food webs and to show you how energy flows through the different trophic levels. Based on the information provided in your lecture material and this lab, construct a diagram of a food web with an owl at the top of the food chain. Include a minimum of 5 organisms in your food web, including the owl. You may create your diagram using Microsoft Word, PowerPoint, or you may sketch the relationship on paper, include your name, and upload an image of your work.

Ans. Image of a food web including an owl and a minimum of five organisms –



Grass

Fig: Food web

Name: XYZ

2. Perform a generic search on each of the animals in your food web and provide the habitat and food source for each one.

Ans. The habitat of rabbits includes grassland, urban areas, and forests, and they are mainly herbivores as they eat grasses, leafy greens, flowers, fruits, and vegetables.

Snakes have a diverse habitat, from forests to deserts and aquatic areas. They can be found in every corner of the earth except Antarctica. Snakes are carnivorous, hence they eat different insects, rodents, eggs, birds, reptiles, fish, and so on.

The mouse can inhabit a wide range of areas that include fields, forests, and human habitats. They are omnivores and can eat seeds, fruits, and grains.

The owl can be seen in a wide range of habitats such as grassland, forests, desert, and even in cities. The food source of owls greatly varies, but commonly they eat insects, fish, birds, tiny animals, and so on.

3. What parts of the prey were not digested by the owl? How do you know?

Ans. The parts that are hard and next to impossible to digest include the feathers, claws, bones, and teeth. We can know this by observing the owl's pallet.

References

- Charley, C. L., Gray, E. L., & Baker, A. M. (2025). Owl pellet content analysis proves an effective technique to monitor a population of threatened Julia Creek dunnarts (*Sminthopsis douglasi*) throughout a native rodent plague. *Ecology and Evolution*, 15(2), e70922.
- Gunderman, R. B. (2022). Commensalism: we can live without it, but who would want to?. *Academic Radiology*, 29(3), 473-474.