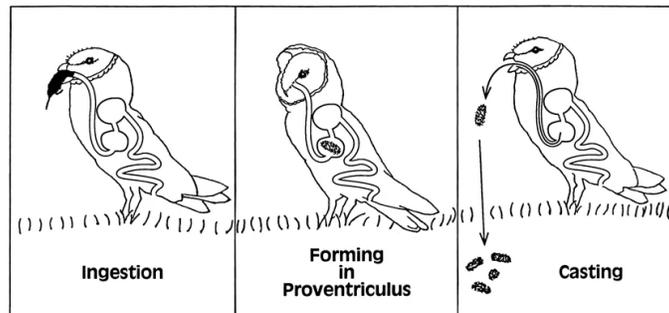


# Owl Pellet Dissection

Owls are usually nighttime hunters. Depending on the species, they can eat a lot of different prey, such as mice, rats, moles, voles, rabbits, birds, frogs, and even insects. After the owl eats its prey, the soft digestible parts are dissolved and pass further in the digestive system to provide nutrition for the owl. The hard, non-digestible parts, such as fur, bones, teeth, and feathers are formed into what is called a pellet, which is then coughed back up. This is also known as casting.



Pellets are not just coughed up by owls; Many species of birds, including other raptors, form pellets. Pellets from other raptors are not as exciting to dissect as they only contain the fur or feathers of their prey. Their digestive systems are different from owls and allows them to dissolve bones and other hard bits. This is why we choose owl pellets to dissect.



Your pellet is from a wild Barn Owl nest in the Lower Mainland. This means that the pellets could contain a wide variety of bones from many different species of prey, depending on what the Barn Owl finds in its preferred hunting grounds. They typically hunt in open habitats, such as fields, marshes, and grasslands. Barn Owls usually favour the field Vole in BC as their preferred food (up to 80% of their diet), but they will catch other prey items such as mice, shrews, rats, rabbits, and even some birds, bats, or amphibians. As they are mostly nocturnal, they will hunt prey that is active at night, but if the owls have babies, you can sometimes find them hunting during the day.

Pellets can provide valuable information about the diet and the amount of animals in a particular area. Inside your pellet, you will find bones from one or more different prey animals. As you dissect it, you will pull out any bones you find and identify them and if you are lucky, you may find enough bones to put together a whole skeleton.

## Procedure

Your owl pellet has been sterilized with heat and then frozen so it is safe for you to dissect. You can use gloves for the dissection or your bare hands. Be sure to wash your hands before and after handling the pellet.



### **What you will need:**

- Tweezers
- Probe (toothpick, wooden coffee stirrer, etc.)
- Tray (paper plate, pie plate, newspaper, etc.)
- Owl pellet

### **What you will do:**

1. Observe your owl pellet and record information about it on your lab.
2. Use tweezers or some sort of probe to gently break apart the pellet and observe what you see.
3. Pull out the bones from the fur with tweezers and see if you can identify the different bones.
4. Examine the bones and try to identify the species of prey using the bone chart. See if you can assemble the bones into a full skeleton.

## Questions

1. What are owl pellets?
2. How are owl pellets formed?
3. What is inside an owl pellet?
4. Do only owls produce pellets?
5. Why are owl pellets important?

Name: \_\_\_\_\_

## Owl Pellet Bone Chart

	Bird	Mouse	Shrew	Mole
Skull				
Jaw				
Shoulder Blade				
Front Leg or wing				
Hip				
Back Leg				
Rib				
Back Bone (Vertebrae)				

# Skull Identification



Family Talpidae • Mole



Genus *Rattus* • Rat



Subfamily Microtinae • Vole



Family Mustelidae • Weasel



Family Geomyidae • Pocket gopher



Family Leporidae • Rabbit



Family Soricidae • Shrew

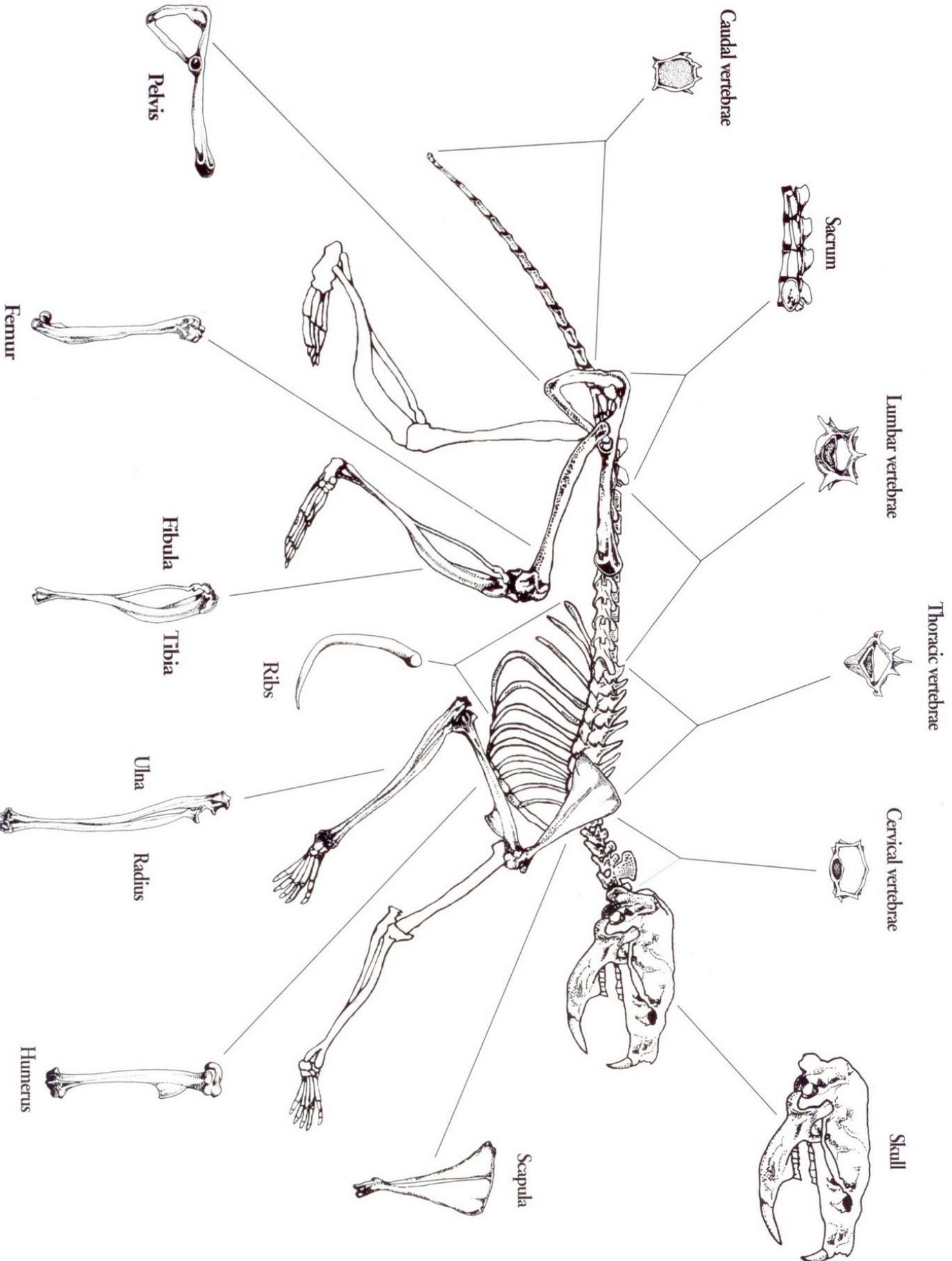


Genus *Mus* - House mouse



Subfamily Cricetinae • Deer mouse

# Vole Skeleton



# Owl Pellet Lab Report

Name: \_\_\_\_\_

Date: \_\_\_\_\_

I predict I will find this in my owl pellet:

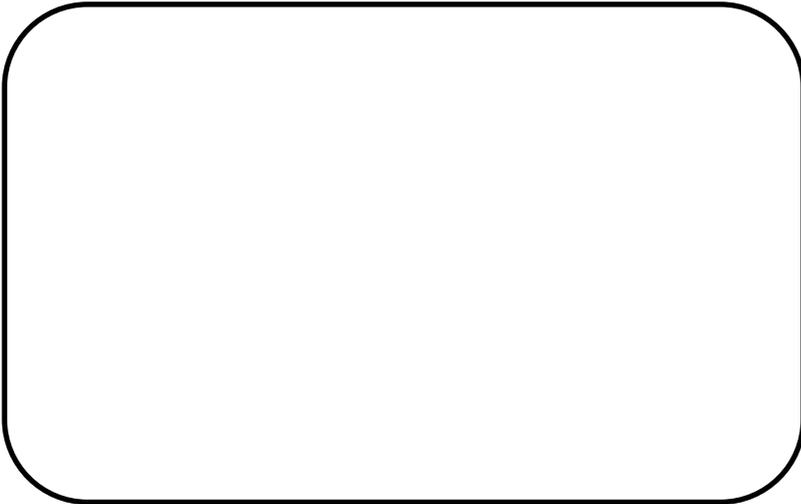
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## Outside of the Owl Pellet

Sketch the outside of your owl pellet



Length: \_\_\_\_\_

Width: \_\_\_\_\_

Weight: \_\_\_\_\_

My owl pellet feels like:

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My owl pellet looks like:

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These are the steps I followed to dissect my owl pellet:

First: \_\_\_\_\_

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Next: \_\_\_\_\_

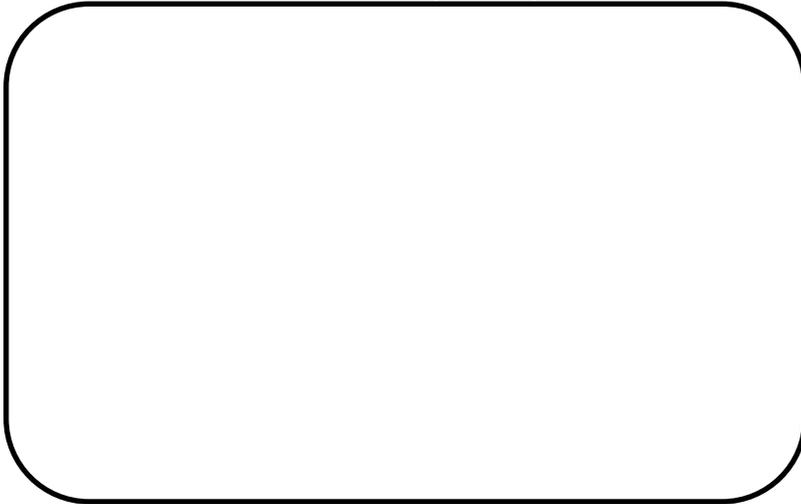
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Last: \_\_\_\_\_

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# Inside of the Owl Pellet

Sketch the inside of your owl pellet



What I found inside:

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I found this many of the following bones during the dissection:

Skull: \_\_\_\_\_

Lower Jaw: \_\_\_\_\_

Vertebrae: \_\_\_\_\_

Shoulder Blade: \_\_\_\_\_

Ribs: \_\_\_\_\_

Humerus: \_\_\_\_\_

Radius/Ulna: \_\_\_\_\_

Pelvic Bone: \_\_\_\_\_

Femur: \_\_\_\_\_

Tibia/Fibula: \_\_\_\_\_

Feet: \_\_\_\_\_

Not Sure: \_\_\_\_\_

I found the bones from this many skeletons: \_\_\_\_\_

My owl ate these types of animals: \_\_\_\_\_

My prediction was confirmed or denied: \_\_\_\_\_

Write about what you did today. What was your favourite part? What was your least favourite? What kinds of things did you learn by dissecting the pellet?

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