

## Skulls of Barn Owl Prey

Pacific Northwest and Northern California

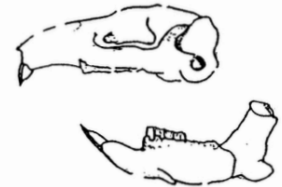
While closely observing your skull, follow the steps until you reach the species of prey found in your owl pellet. Make a decision at each step, choosing the answer that best describes the characteristics of your skull. Listen to hints from the teacher!

If you have the CRANIUM or MANDIBLE, follow these steps to determine the identity of the prey:

### Step 1

If it has a beak and no teeth, it is a **BIRD**.

If it has teeth, go to step 2.

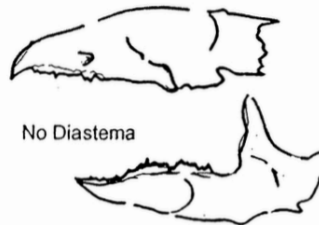


Diastema- gap between the incisors and molars

### Step 2

If it has a diastema (*the large toothless space between the incisors and cheek teeth/molars*), go to step 3.

If there is no diastema, go to step 5.



No Diastema

### Step 3

Pull one molar. Look at the side of it with the magnifying lens.

If the molar looks the same from top to bottom and has no roots, then go to step 4.



Molars with no roots

If the molar has cusps on top and individual roots on the bottom, it is a **MOUSE** or **RAT**. (*If skull is more than 25mm, it is a rat; if skull is less than 25mm, it is a mouse.*)



Molars with definite roots

## Step 4

Now look at the top of the molars in the skull or jaw.

If the teeth form many pointed triangles, it is a **VOLE**.

Molars with many pointed triangles

If you can easily see that the molars form 4 or 5 separate teeth and do not form pointed triangles, then it is a **POCKET GOPHER**.

Molars are 4-5 separate teeth

## Step 5

If there are no distinct canine teeth and, instead, 2 incisors at the front of the mouth, followed by a row on each side of sharp pointed teeth, go to step 6.

If the mandible has distinct canine teeth present, OR if the upper jaw has distinct canine teeth with a notch or gap between the incisors, it is a **BAT**.

## Step 6

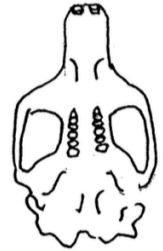
If the teeth are reddish-brown on the tips, it is a **SHREW**.

If the teeth are white, it is a **MOLE**.



Did you know?

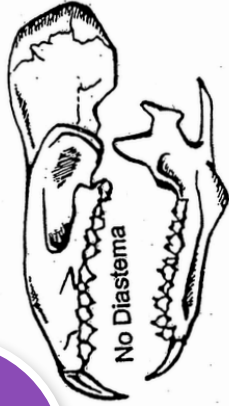
Vole and pocket gopher teeth grow continuously throughout their lives, which is why their teeth don't have roots!



# Dichotomous Key

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**START**

Skull

Beak with no teeth

**BIRD**

No Diastema

Distinct canines

**BAT**

No distinct canines  
w/two front incisors

Reddish-brown tips  
on teeth

**SHREW**

White teeth

**MOLE**

Molars with  
no roots

Molars with many pointed  
triangles

**VOLE**

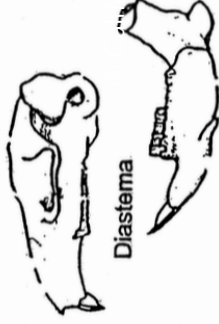
Molars are 4-5  
separate teeth

**POCKET GOPHER**

Molars  
with  
definite roots

**MOUSE  
or  
RAT**

Diastema- gap between the incisors  
and molars



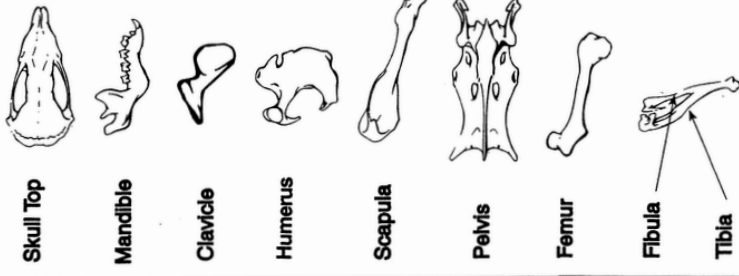
While closely observing your skull, follow the branches of the key downwards until you reach the species of prey found in your owl pellet. Make a decision at each "fork in the road," heading down the path that best describes the characteristics of your skull. Listen to hints from the teacher!

# Bone-Sorting Guide

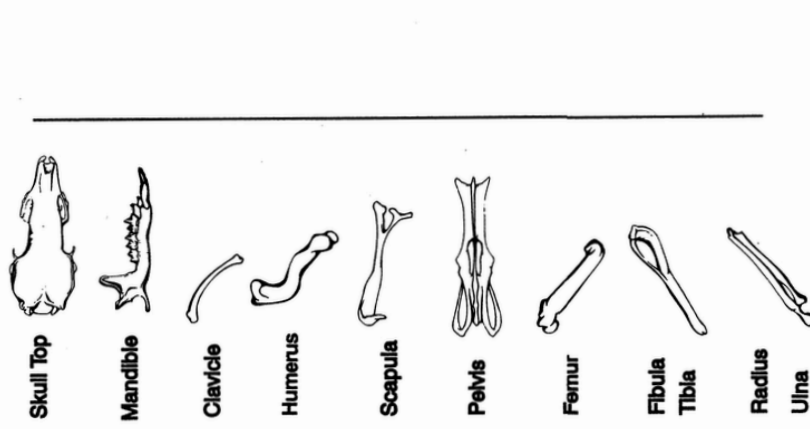
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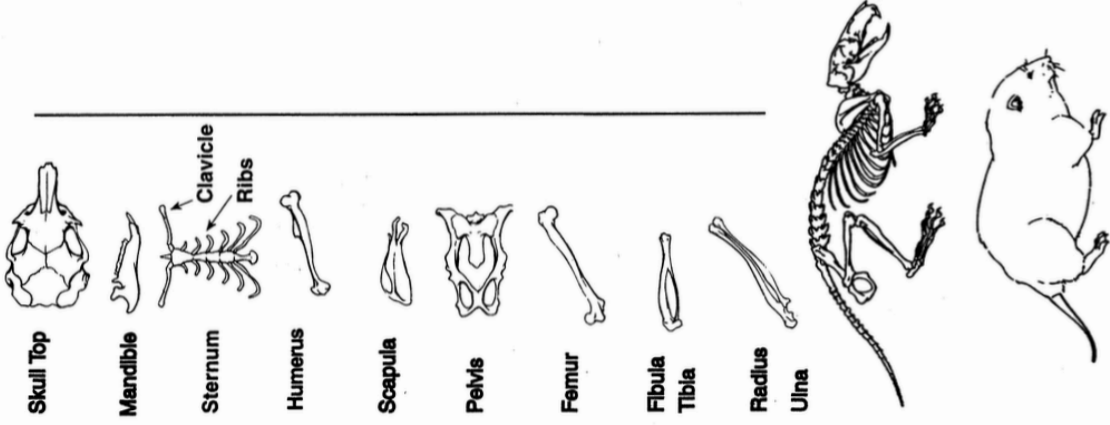
## MOLE *Scapanus orarius*



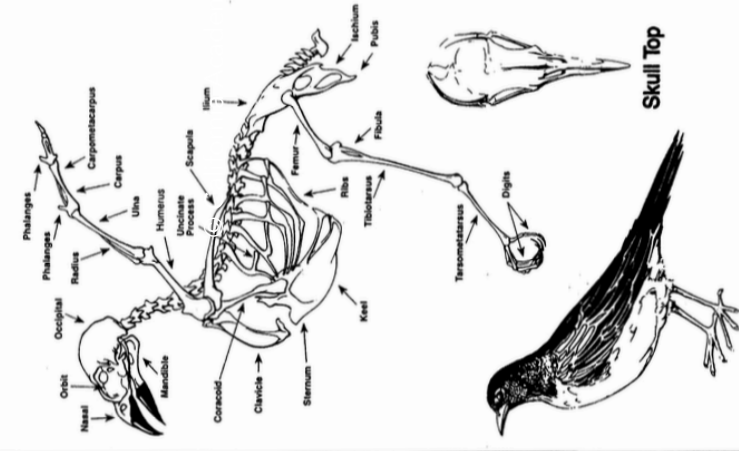
## SHREW *Sorex vagrans*



## RODENTS *Microtus*



## BIRD



### Other Prey

- **Insects:** Grasshoppers, Beetles, Moths
- **Crayfish**

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