

DICHOTOMOUS KEY

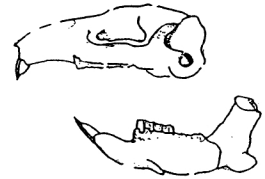
Skulls of Barn Owl Prey Pacific Northwest and Northern California

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**.



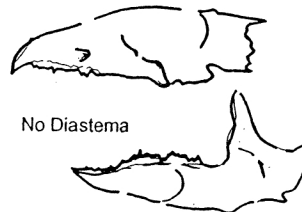
If it has teeth, go to step 2.

Step 2

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

Diastema- gap between the incisors and molars

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.

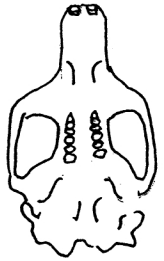


If the teeth form many pointed triangles, it is a **VOLE**.

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

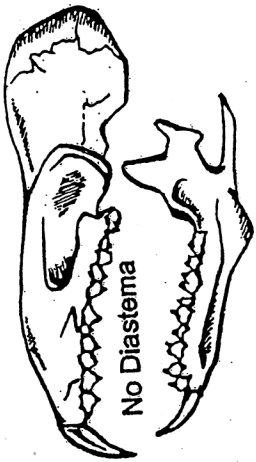
If the teeth are reddish-brown on the tips, it is a **SHREW**.

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

Skulls of Barn Owl Prey
Pacific Northwest and Northern California

START

Skull

Beak with no teeth

BIRD

No Diastema

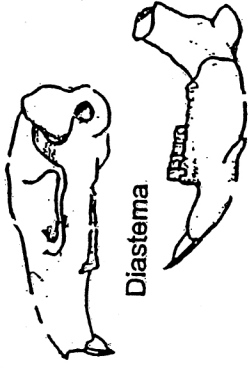
Distinct canines

BAT

No distinct canines w/two front incisors

Teeth

Diastema - gap between the incisors and molars



Reddish-brown tips on teeth

SHREW

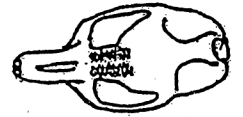
White teeth

MOLE

Molars with no roots

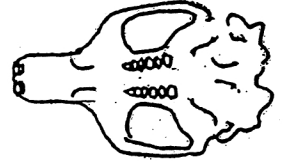
Molars with many pointed triangles

VOLE



Molars are 4-5 separate teeth

POCKET GOPHER



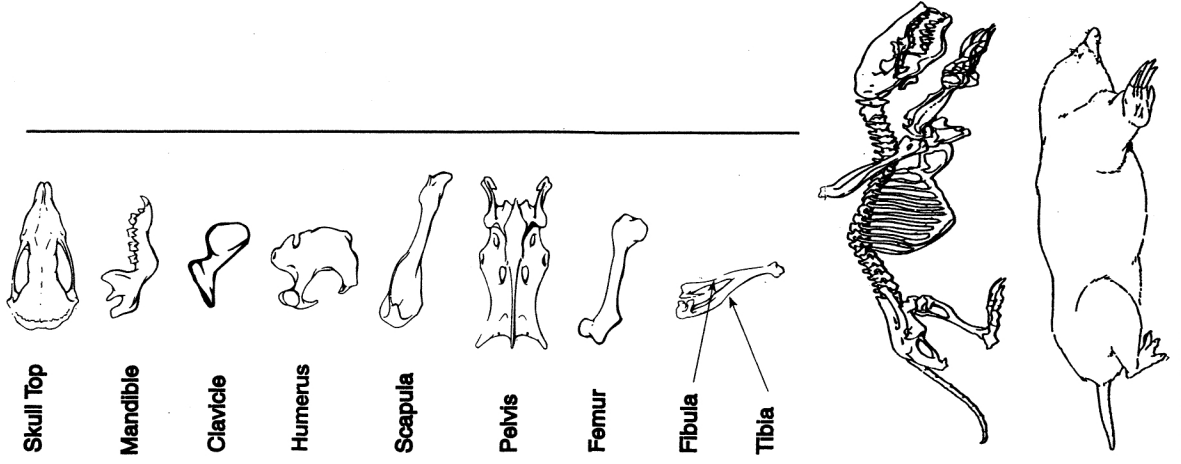
Molars with definite roots

MOUSE or RAT

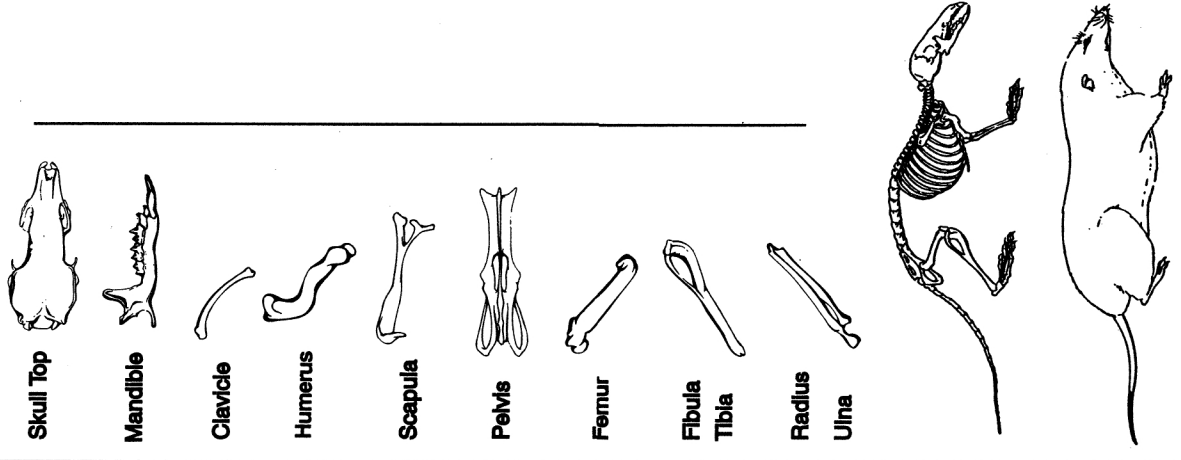
While closely observing your skull, follow the branches of the key downwards until you reach the species of prey found in your owl pellet. Make a decision at each "fork in the road," heading down the path that best describes the characteristics of your skull. Listen to hints from the teacher!

BONE-SORTING GUIDE

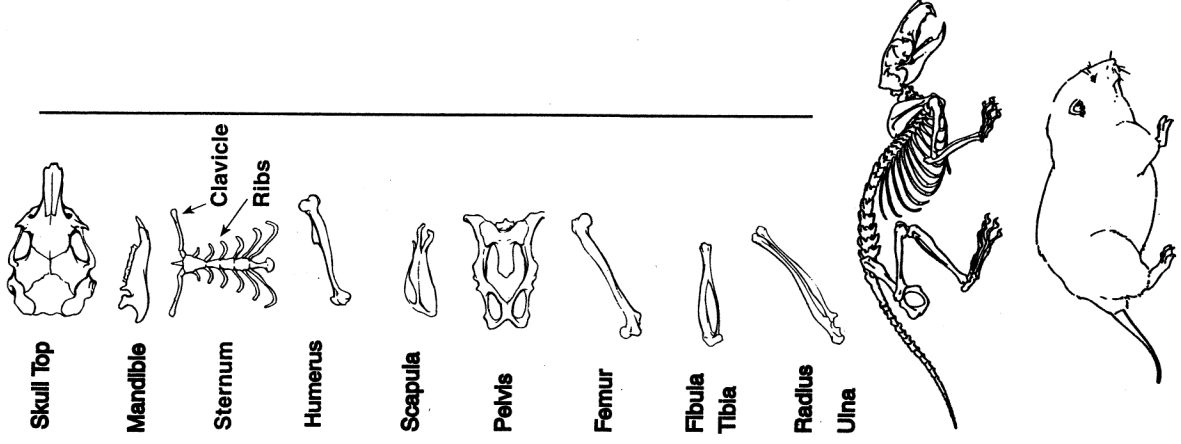
MOLE *Scapanus orarius*



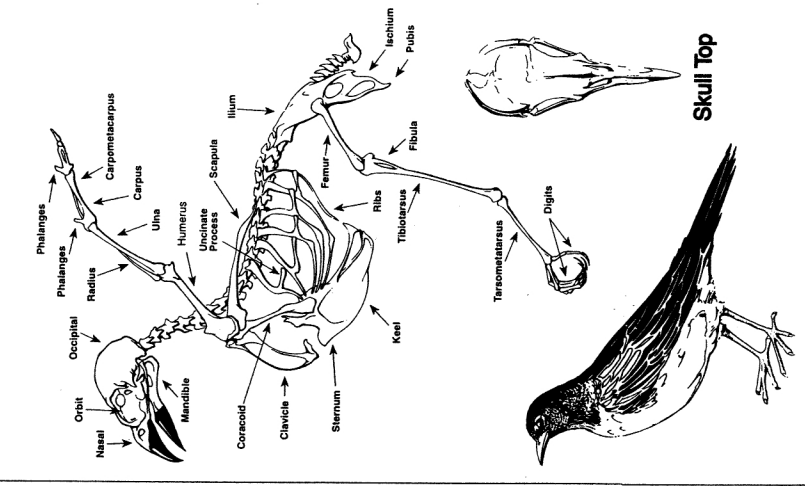
SHREW *Sorex vagrans*



RODENTS *Microtus*



BIRD



Other Prey

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