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.

If there is no diastema, go to step 5.

**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.

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.*)
**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**. 

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**.

**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!
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!