



Who is **Hooting**?

All about Owls!

The birds that you are used to seeing every day are usually **diurnal**, mean that they are out and about in the daylight. But there is another group of birds that are **nocturnal**, so they come out and fly around at night. Owls, are nocturnal birds in the Strigiformes order. There are over 200 species in the world, and most are solitary (meaning they like to live alone and it's easy for them to follow social distancing rules). Owls are birds of prey, meaning they are **carnivores**, that hunt and eat meat. Even if they're often the top **predator in a food web**, smaller owls are still often hunted by larger owls!

In Douglas County birders and scientists have recorder 13 different owl species, of those, 7 are regularly observed. If you are out on a night walk in the woods or near a barn, you may be lucky enough to hear an owl –but remember, not all owls “hoot.” Some screech, others hiss, and one makes a call that sounds like you're saying “Who cooks for you!” Since owls are usually only active at night it can be difficult to study them and learn their habits. Luckily, scientists have set up cameras at their nesting site to learn more them. You can click on the video below to see how Barred Owls raise their chicks.



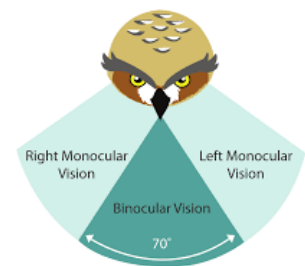
Figure 1: This Great-horned owl fledgling (baby) was giving me the stink-eye in Wyoming. This bird is almost ready to leave its nest tree and start flying!

Watch this video to see how owls raise their chicks!



EXPERIMENT 1: Birds eye view!

Owls have incredible eye sight in the dark. Owls have binocular vision, meaning that they can use both eyes to focus on 1 thing at once. An owl's eyes can count for 3% of their body weight. A human's eyes are only about 0.0003% of our body weight. In an owl's world, if you weigh 100 lbs, that would mean that you eyes would weigh 3 lbs (the same as 3 cans of beans!). Trying holding those up on your head! To protect these amazing eyes, owls have 3 eye lids. Owls can't actually move their eyes, so they move their head to see things (think about how you are moving your eyes rather than your head to read this page).



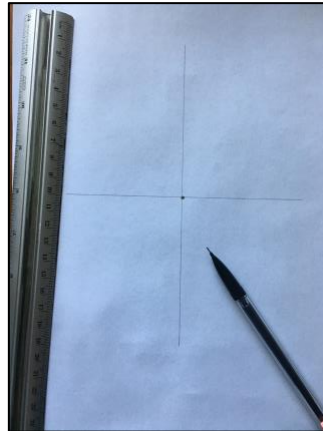
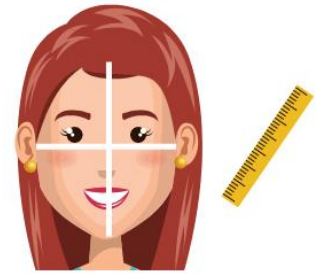
We are going to see how our face would look if we had owl eyes!

You will need:

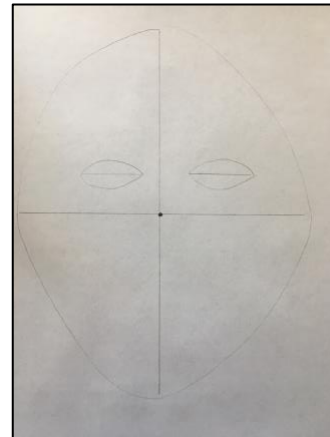
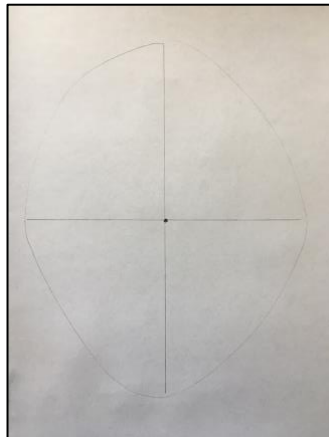
- A ruler or measuring tape
- Piece of paper
- Pencil
- Calculator or phone calculator

Instructions:

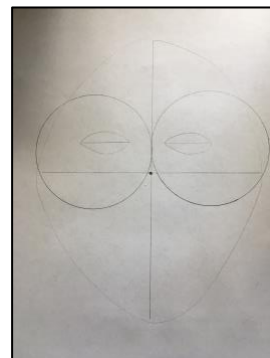
1. With the help of an adult, measure the height of your face (from the top of your forehead to your chin) and the width of your face (from where your ears start on either side). Write down these lengths as you go. You can use inches, but scientists use the metric system (so see if you can measure in centimeters instead!).
2. On your piece of paper place a dot in the middle to represent the middle of your face. Use your measurements to draw your face dimensions (height and width) onto the paper, using the dot as the middle for each line.



3. Now connect the 4 outside point of the lines to draw the general shape of your face - it doesn't have to be perfect! You can also draw in your eyes, which are around 3cm wide.



4. Now back to those cans of beans - grab a can from the cupboard and outline the can on top of where your eyes would be. This represents how big our eyes would be if we had the same dimensions as an owl.



Just for fun... If you want to be silly, you can cut out these eyes, color them and stick them to your face! Take a picture to see what you like with owl eyes!



EXPERIMENT 2: Owl Pellets!



One of the most common owls in this area is the barn owl, and we will learn more about what they eat. Owl pellets are regurgitated (from out of their mouth) after the owl hunts. In the pellet, you will find bones, fur and feathers from their last hunt - likely from a small rodent or bird they ate. A barn owl can eat up to 1000 mice each year! Barn owls get their name by roosting (sleeping during the day time) in barns like the one pictured above. At the base of these roosts you can find big piles of owl pellets like this one. These pellets may not look very pleasant, but they are sooooo cool!



Today's activity we will learn how to dissect an owl pellet.

You will need:

- A plastic plate or old tray
- 1 owl pellet - to request a free owl pellet click [HERE!](#)
- Tweezers or toothpicks
- A Ziploc bag



Instructions:

1. Take your owl pellet out of the bag and place it on your tray
2. Use your tweezers to carefully break apart the pellet and separate the bones into their own pile.



3. Use the bone charts below to try and sort out the bones and identify different parts of the body. It might get confusing because some owl pellets will have more than one prey in them but do the best you can.

4. Try and use the bones to identify what species of prey you have. Start large – is it a mammal or a bird, and then work your way down to a more detailed description. You can take notes in your nature journal.
5. See if you can use the charts to identify what kind of bones they are and where they belong on the body.
6. When you're done finding all of the bones, place them back in the Ziploc bag and label the date that you dissected the pellet on the bag.
7. This bag can now be returned to Umpqua Watershed where we will give it to scientists who can you them to tell more about the owls and their food sources in the Umpqua watershed.
8. Thanks for your help!
9. Don't forget to wash your hands when you're done.



While you're at home...



This Live Camera (click on the picture) shows a Great-horned owl nest in Montana. During the day you can see the adult roosting with the 3 fluffy chicks! At night, the chicks are left along while the adult hunts for food.

Meet an Owl Expert!

Janice Reid also volunteers at Umpqua Watersheds and for years she studied owls in Oregon as a wildlife biologist. Wildlife biologists are specially trained to handle and collect data on species of concern. Keep up the good observation work and one day you could be a wildlife biologist like Janice!

Thanks for conducting science with me for this Home Explorer activity from Umpqua Watersheds Education Program.

Join me for new activities posted every week!

- Ms. Robyn



Ms. Reid is a trained professional. The animal pictured was not injured and was released back into the wild. Never handle or approach wild animals.

A wildlife biologist studies animal populations and the habitats with which animals associate.

Janice Reid
Wildlife Biologist
 B.S., University of California, Berkeley
 USDA Forest Service scientist

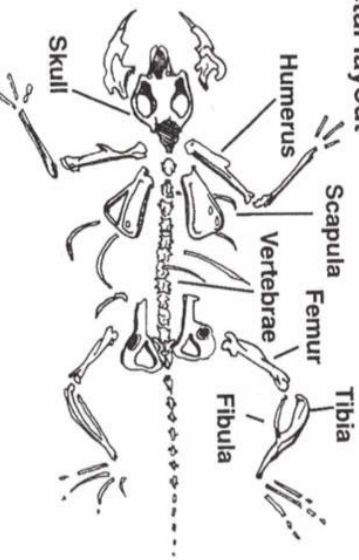
<http://www.naturalinquirer.org>

SKELETAL ANATOMY

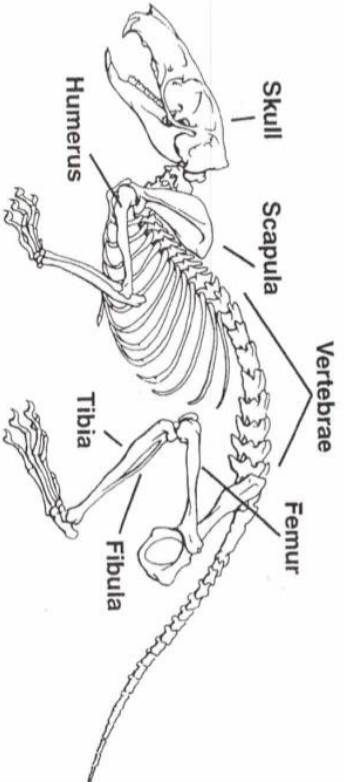
Since each pellet contains the remains of a meal, it should contain the complete skeleton of a small mammal such as a vole. Using the illustrations provided, sort the bones from the dissected pellets by type. Bones in the back and tail are called vertebrae while those in the head are collectively called the skull. Bones in the legs, shoulder, and hips are referred to as long bones. Long bones associated with the front leg are called the scapula and humerus while those associated with the back leg are called the ilium, femur, and tibia.

After they have been sorted, use the bones to reassemble a complete vole skeleton. Lay the bones out on a piece of paper in their appropriate positions. Once all the bones have been identified, glue them together to make a free-standing, articulated skeleton of a vole.

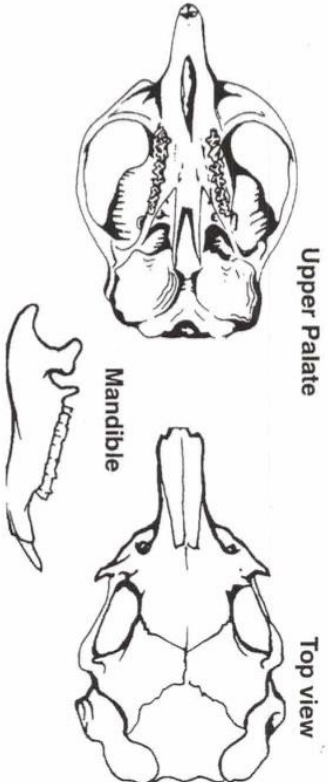
Skeletal layout



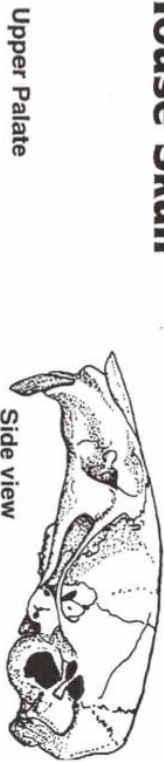
Assembled vole skeleton



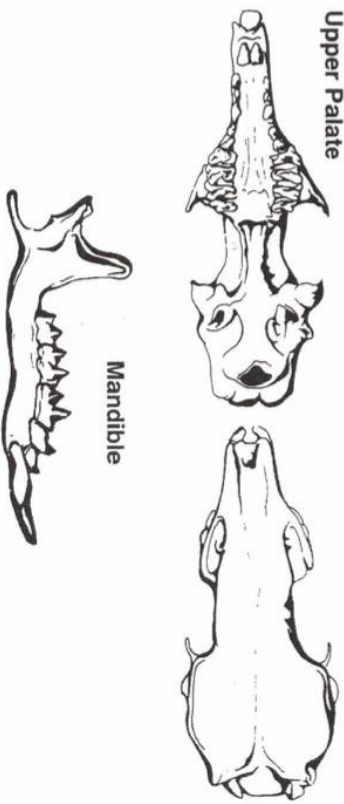
Vole Skull



Mouse Skull

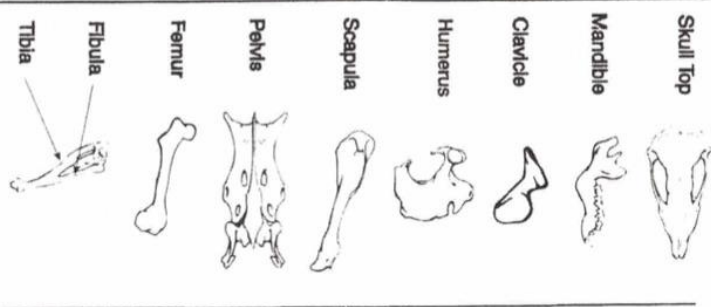


Shrew Skull

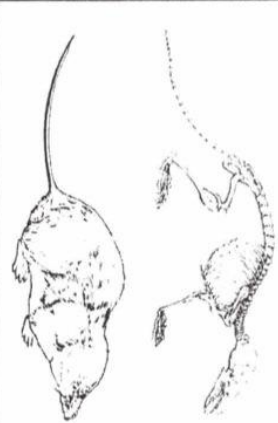
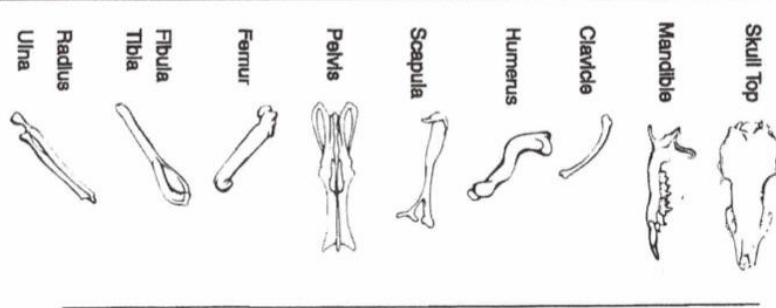


BONE-SORTING GUIDE

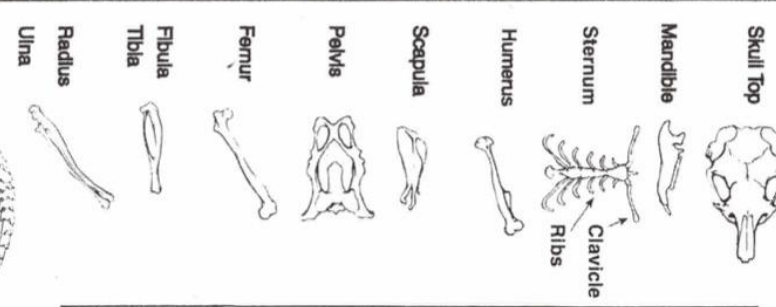
MOLE *Scapanus orarius*



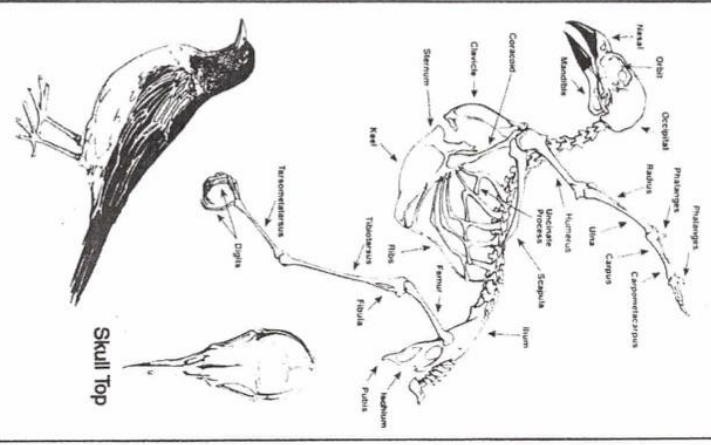
SHREW *Sorex vagrans*



VOLE *Microtus*



BIRD



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