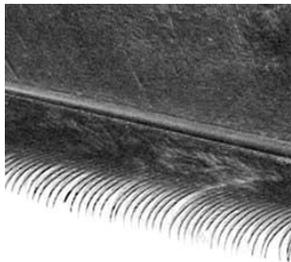


Owls

Silent Hunters

1) Owls are raptors, birds of prey, which hunt other animals for food. Different owls prefer different prey animals. Many owls eat small mammals and great horned owls particularly like skunks. It is fortunate that most birds don't smell well. Owls will eat other birds and reptiles also. Some small owls will eat insects to supplement their diets.

2) Owls are nocturnal. They are most active at dawn and dusk. During these times, you might hear an owl calling. Owls have adaptations to their feathers that allow them to fly silently so that the animals they are hunting can't hear them. The leading feather on each wing has a fine fringe that muffles the sounds of their wings flapping. Their legs are also covered with feathers.



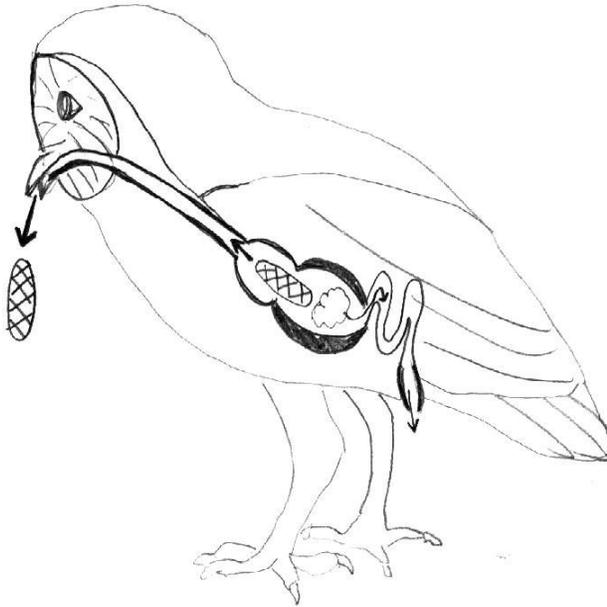
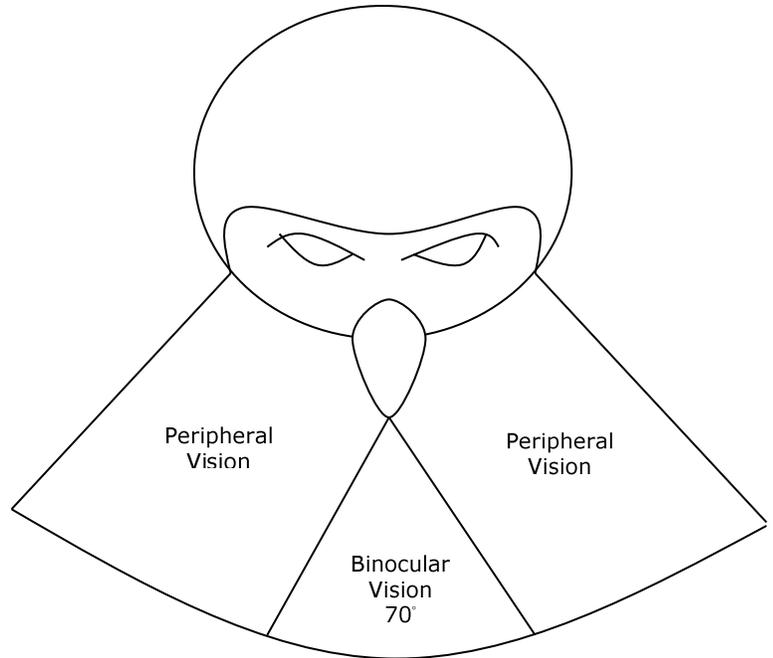
3) Owls have excellent eyesight but they rely on their hearing to localize their prey. Most owls have feather disks on their faces which help funnel sound to their ears. One ear is positioned slightly higher than the other which results in the sound reaching the ears at a different time. This way the owl can triangulate where the sound came from and then use its eyes to find the prey. Owls can hear a small rodent on the ground from over 325 feet away. This is almost the distance of a football field.

4) Owls depend on stealth to hunt and often sit silently waiting for their prey to make a sound. If the owl moves, it might frighten away dinner. One adaptation that owls have that allows them to sit still while being aware of what is behind them is the ability to turn their heads 270°, or $\frac{3}{4}$ of the way around. To do this, owls have twice as many neck bones (14) as people (7) and have only one articulating surface between their head and neck. This increased flexibility is important for sight because owls have eyes that are fixed in their sockets so they can't look side-to-side.



5) Owls have the best night vision of any animal and their eyes are positioned forward on their face to give them excellent depth perception. Once they have localized their prey, owls are very efficient hunters and can even catch their prey in flight.

6) All birds of prey have talons. Talons are different from claws because they are often used for carrying prey. The talons are incredibly sharp and are connected to four muscular toes (digits) which allow the owl to prevent escape of their prey.



7) Owls have a specialized digestive tract that allows them to eat the entire body of their prey, including fur and bones. Birds have adapted to eating food with hard parts by having two stomachs. The first is the proventriculus where normal digestion occurs just like in the stomach of humans. The second stomach is the ventriculus, or gizzard, and this is where mechanical digestion occurs. Bones, grain, seeds, and other hard items move to the ventriculus and get ground down until they can't be digested any more.

8) In owls, most of the fur and bones can't be digested and the owl must get rid of these. Each day, the owl regurgitates (like vomiting) a pellet comprised of the food that couldn't be digested. This process is called casting and the pellet is called a cast. Casts can often be found on the ground under a tree where the owl has perched and can give clues about the owl's last meal.

