



Arizona's Raptor Experience, LLC

October 2018

~Newsletter~

Greetings from Chino Valley!

We hope you are well and enjoying the beautiful fall weather.

Remember at this time of year to keep your eyes to the sky as the fall hawk migration is still occurring – I was thrilled to see two Bald Eagles flying high above our house just yesterday.

The end of October is already upon us, with Halloween in just a few days. Images of owls have always been part of Halloween décor, but it seems today that owls have become popular everywhere!

In this issue we will focus on owl faces and their neat features. Hope you enjoy it!

Come see us and the birds at

Jay's Bird Barn!

*Friday, October 25th
in Flagstaff*

and

*Saturday, October
26th in Prescott.*

www.jaysbirdbarn.com

Owl Faces...

People see many things in the faces of owls; beauty, intelligence, character and personality to name just a few. In nature the wide, flat faces of owls together with their forward-facing eyes are features of an effective hunter. In fact, all the facial features of owls play some role in their hunting success.



Snowy Owl, P. Schnell photo

The facial disk or ruff is made up of stiffened feathers around the face that assist the bird in hearing. The shape of the facial disc varies by family, the Strigidae (typical owls) having a more rounded appearance and the Tytonidae (Barn and Bay Owls) being heart-shaped. Variation among individual species occurs as well. In some, the facial disk is more pronounced because of habit (nocturnal owls usually have larger disks) or habitat (ex: deep snow).



Barn Owl, heart-shaped facial disk.



Great Gray Owl, P. Schnell photo.

Huge facial disk aids in hearing mice deep below the snow.

Cool Fact:

The shape of an owl's facial disk can be changed *at will* by special muscles. This aids in the owl's ability to detect sounds that are either close or far away.

In addition to differences in the facial disk, some owls are “tufted” while others are not. Often referred to as “horns”, feather tufts are simply feathers and do not direct sound to the ears. The role of feather tufts is not completely understood, but scientists theorize that they most likely aid in what is called disruptive camouflage, giving the bird a more angular shape rather than a rounded one. As a result, they are more likely to be overlooked when perching among tree branches when they are roosting, which results in less mobbing by songbirds and fewer threats from predators. This makes sense as the more prominently tufted owls are woodland species while those with smaller tufts are open country owls.

The position of the feather tufts on the head can be changed with mood. For example, when alarmed or anxious, the birds tend to adopt a concealment posture where they stand tall and slim, with feather tufts raised. When relaxed, the tufts are often laid flat on the head. The position of the tufts may also play a role in communication within species.

Unlike mammals, birds do not have much in the way of external ear features. Their ears are simply holes on the side of the head behind the eyes. Some owls do have a fleshy external ear flap called an operculum which can be moved to allow the owl to channel sound into the ear. In some species, the ears are asymmetrical, either in position, size or both. Therefore, when sound comes from above or below, it reaches one ear before the other, allowing the bird to better determine the source of the sound.

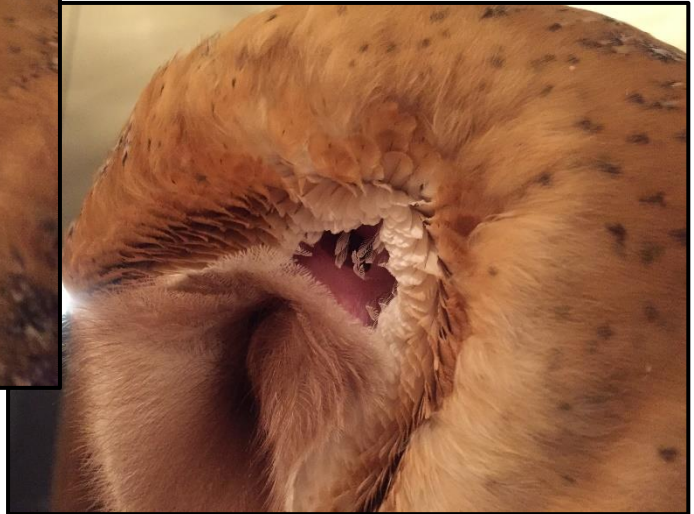
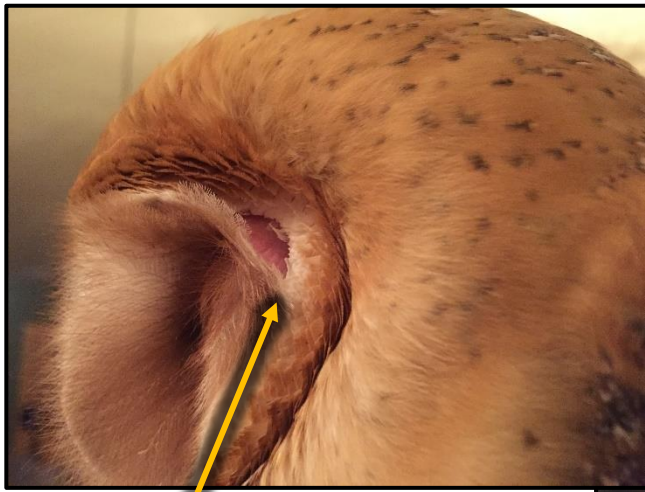


*Eurasian Eagle Owl
with feather tufts.*

Eric Gofreed photo.

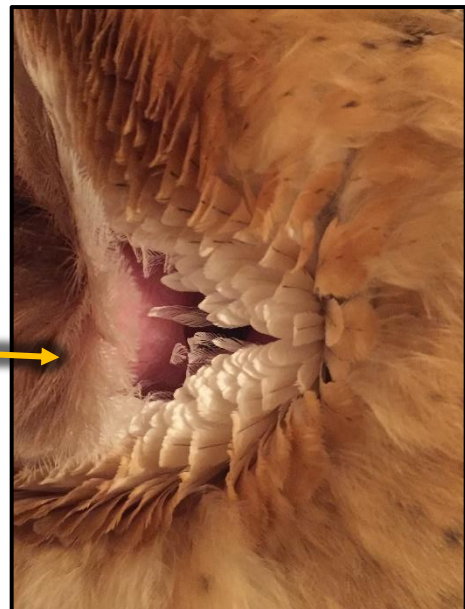
Cool Fact:

In several of the Strigidae, the right ear opening may be 50% larger than the left! It is also positioned higher than the left.



The left ear opening in a Barn Owl (Tytonidae) is located just above the midpoint of the left eye. The right ear opening is below the midpoint of the right eye.

Close-up view of the left ear opening.



Right ear
50%
larger,
higher
position.

Left ear lower
position,
smaller
opening.

*Northern Saw-whet Owl,
Strigidae
Mark Elder photo*



*Eurasian Eagle Owl
and
Northern Saw-whet Owl*

Greg McKelvey photos

The beak of an owl is not designed for killing, but rather for tearing up prey. Compared to other birds of prey, the beak is set lower on the face and curves down more sharply as to not interfere with the bird's field of vision.

Specialized feathers that surround the beak are called filoplumes. These are sensory structures that are used when objects close to the face cannot be seen clearly. They are useful when preening, turning eggs or dealing with prey.



The most striking feature of the owl's face is its eyes. The eyes are large relative to the size of the skull and have become tubular in shape. They are supported in sclerotic rings which are bony structures that protect the eyes as they protrude some distance out of the skull. This renders the eyes immobile, which has led to the flexible neck of owls allowing them to turn their heads 270 degrees. Although the differences in eye color among owls has been studied, no definitive explanation for the variation has been found.

