

Owls: Really Fascinating Creatures.

I recently watched a PBS Nature show on Owls. It was filled with really interesting facts about the lives of owls and how they differ from other birds. Here are some of the things that were shown.

First, owls can rotate their head 270 degrees, so they really can look around directly behind themselves. It was pointed out that if we were to do that, or other birds as well, we would pinch the arteries going to the brain and we would pass out. The owls have large holes in their vertebra where the arteries lead up to the brain which gives them the room to rotate their head without pinching the arteries.

Owls frequently hunt at night, which means they need much better vision than us and most other birds. This is accomplished by having very much larger eyes, relative to the size of their body. If you look at the skull of an owl, it appears to have very exaggerated holes where the eyes were. Larger eyes make for more sensors in the retina and thus a several-fold improvement in their night vision, compared to us. And of course, like mammalian predators, they have their two eyes in front to better judge the range of the prey.

Owls also have very sensitive hearing, but not just sensitive, but they can pinpoint the source of the sound much better than other birds or than we can. This is accomplished by having ears that are not both at the same level. We can detect sound as coming from our right or left because we have two ears and there is a very slight time difference between when a sound from the side reaches each ear. If we only had one ear, we would not be able to determine the direction of the sound.

Well, owls can also detect how far up or down a sound is coming from because one ear is lower in the head than the other. So they can detect small animal movements even under the snow as they fly around.

But having really sensitive hearing wouldn't be that much of a help in hunting if their wings made so much noise that they couldn't hear a mouse moving because their wings were making so much noise.

The Nature program showed experiments in a laboratory where they measured the sound made by a pigeon, a hawk and an owl as they flew past a bank of microphones. The pigeon and the hawk's wings made a significant amount of sound with each wingbeat, but the owl's flight was virtually silent. The reason for the silent flight is that the structure of the owl's flight feathers showed soft edges which didn't make noise when moved through the air, but the other bird's wings had hard edges that did make noise.

Also, an owl has much more efficient wing shapes and large wings for its size, so that they can glide much further without beating than the other birds and they can also gain altitude with less effort than other birds.

The bottom line is that owls can see better, hear better, fly more quietly and with less effort than most other birds, all of which makes them very efficient predators of small animals.

A few years ago my wife and I were camping in the Davis Mountains State Park and on our first night we noticed in the early evening just after sunset there were a number of people standing in the road outside looking up at something above our motorhome. Most had binoculars or cameras, so we assumed they were birders.

When we went out to ask what they were looking at, they said that they had heard that an elf owl had a nest in a hole in the top of a telephone pole just behind our campsite. As I looked up at the pole, I didn't see any hole at first, but after walking around I finally saw a small hole on one side. My first reaction was that they must have heard wrong because the only hole I could see was much too small (about 1 inch in diameter, I thought) for any owl.

But we all stood there staring up at the hole as it became darker, and eventually a tiny head appeared in the hole for a brief moment before flying off. It was indeed tiny. I now know that the elf owl is the smallest owl in North America, about the size of our smaller wrens. And we were fortunate to see it as its range only extends north and east of the Rio Grande into the Big Bend area.

Until next time...

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