

Species Profile...

Owls

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In the children's story, *Winnie-The-Pooh*, Owl lives in the top of a tree at Piglet's house and gives wise advice to Piglet, Pooh, and Eeyore. I've never posed any questions to an owl so I can't say whether owls are wise or not. I can say that owls are exquisite birds with amazing sensory abilities that make them raptors of the night.

The owls around my home in Houston range in size from the eastern screech-owl that's the size of a soda can to the great horned owl that's as big as a stepstool. Owls typically have large heads with big, circular eyes. Their beaks slightly protrude behind a curtain of feathers, as opposed to the prominently visible beaks of hawks. All owls have four toes, two pointing forward and one pointing backward with the fourth toe capable of rotating forward or backward to aid in snaring a mouse or securing a perch.

Owls are relatively sedate during the day and tend to tolerate the intrusion of humans. But unless you're looking for them, owls can be inconspicuous. Owls don't have the glossy feathers of songbirds, but instead have feathers that are brown or tan with speckles of white or rust. Songbirds resemble the bright colors of daylight---owls resemble the shadows of the night.

When you see an owl staring at you with its pensive looking eyes, you may get the feeling that it's pondering cosmic questions. In reality, it's merely locating your position.

An owl has an uncanny ability to locate other creatures by sound and sight. The ears of most owls are arranged asymmetrically---one ear positioned higher on the skull than the other. This allows owls to sense both the vertical and horizontal direction of a sound. Humans sense the horizontal direction.

For instance, humans as well as owls, can tell whether the chirping of a cricket is coming from the left or right (the horizontal direction) depending on whether the chirps reach the left or right ear first. But owls can tell whether the chirps are coming from above or below (the vertical direction) depending on whether the chirps reach their upper or lower ear first. Locating at once the horizontal and vertical direction of a sound gives owls the ability to locate the position of a cricket in a tree, something humans can't do.

Owls have large eardrums, large inner ear receptors, and massive auditory neurons in the midbrain. The parabolic facial disks on each side of an owl's face funnel sound waves to the ears. Feathers cupped in front of their ears enable owls to detect sounds behind them. With their spectacular auditory anatomy, owls can pinpoint prey by sound alone. A barn owl, for example, can locate and capture a mouse in total darkness.

No creature can see in total darkness, but the light gathering capability of an owl's eyes gives it acute vision in dim light. Owls have big, cone-like eyeballs with a large cornea and lens that transfer a maximum amount of light to the retina. The trade-off for the owl's



light gathering ability is its lack of color perception. But a creature of the night need not discern color.

The eyes of owls are positioned on the front of their face, which gives them binocular vision and depth perception. But owls are myopic--they can't focus on objects close to them. However, the internal construction of their eyes combined with highly responsive eye muscles enable owls to rapidly focus simultaneously on two different objects at varying distances.

Owls cannot move their eyes and they have a forward field of view limited to 70 degrees. Owls compensate for their immovable eyes and limited field of view by rotating their head 270 degrees in either direction. Few things in nature are more astonishing than watching an owl swivel its head to look at you standing behind.

Because of their amazing hearing and acute night vision, owls are stealthy predators. The muted hues of their feathers refract little color, making them almost invisible in the night sky. Owls fly swiftly and silently to swoop down on a hapless mouse. Their flight feathers have soft edges and a velvety surface that muffle the noise of air passing over the wings. The leading primary flight feather on each wing is serrated to silence the noise of flapping wings. Owls are original "stealth bombers."

Four kinds of owls are common in Houston. The eastern screech-owl, no bigger than a blue jay, is ubiquitous in residential areas that have plenty of trees. It feeds on insects, small rodents, lizards, and songbirds. Screech-owls make an eerie call consisting of tremulous, down-slurred whistles.

The barn owl is a large, tawny owl with a heart-shaped white facial disk. It feeds mostly on rodents and ground birds. Barn owls fly low over open areas like fields and parking lots. I occasionally see them along the highway swooping down on pigeons in the railroad right-of-way. Barn owls make a raspy shrieking call that's often used as a scary sound effect in movies.

The barred owl is a large, brownish owl common in wooded areas along bayous and creeks. It feeds on small mammals. I'm certain a barred owl ate a squirrel in my backyard. It makes a series of hollow barking notes with the last note being a drawn out "hoh-ah."

The great horned owl is the largest of our owls, about two feet tall, and hangs out in both open spaces and wooded areas. It feeds on rabbits, skunks, and opossums. It makes the stereotypical owl call that's a low-pitched, resonating "who-who-who." The character Owl in *Winnie-The-Pooh* looks like a great horned owl.

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