



# Owls

## The Majestic Hunters

*Written and Photographed by*

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# Contents

Intriguing owls	8
The owl family	11
Species diversity	12
Owls from coast to coast	15
Origins of the species	16
Life span	19
Unique adaptations	20
Body in camouflage	23
Toes and talons	23
Heavyweight eyes and 24-hour sight	24
Acute eye power and built-in protection	27
Low-light vision	28
Binocular viewing	31
Red-eye reduction	35
Head rotation	36
Head bobbing	39
Bills in bristles	40
The bite	40
Horns and ears	43
Split-second hearing	44
Where is that sound?	44
Ear flaps and facial disks	47
Disk feathers and facial expressions	48
Owl size	51
Differences of the sexes	52
Slimming to trim	56
Silent flight	59
Equipped to conceal	63
Striking a pose	64
Color collections	67
Fancy footwork	68
Talons in force	71
Sole scales	71
Feather boots to bare feet	75
Palate appeal	76
Hunting instincts	79
A friend of the farmer	80
Table manners	80
Diminished sense of smell	83
Digestible matter	84



Pellets	87
Nesting fancies	88
Cavity nests and stick nests	91
Ground nests	92
Nest edifices	92
Reusing the nest	95
Owl vocalization	96
Night calls	99
Pair calls and duets	99
Bill clacking	100
Establishing a territory	100
Courtship and mating	103
Egg laying	104
The clutch	104
Nonstop incubation	107
Hatching order	108
Incubation across the species	111
Life in the nest	112
Growing up quickly	115
Sharing in the bounty	119
Demand for food	119
Owlet development	120
Flight practice	123
Branching	124
Gliding and grounding	124
Learning to hunt	127
Leaving the natal territory	128
To migrate or not	131
The irruption years	132
Winter advantage	135
Owls—exceptional birds	136
Featured owls	138
Activity at home: owl pellet dissection	140
Where to spot owls in the wild	141
Helpful resources	142
Organizations that study and protect owls	143
About the author	144





Long-eared Owl

# Heavyweight eyes and 24-hour sight

Eyesight is so important to owls that, in some species, the eyes are disproportionately large. In Eastern Screech-Owls, the eyeballs weigh about  $\frac{1}{4}$  ounce, which is nearly 5% of its entire body weight. In contrast, human eyeballs weigh slightly more—roughly 1 ounce—but this is only a minuscule fraction of a person's total body weight. Great Horned Owls have some of the largest eyes of all owls in the United States. Their eyeballs are about the size and weight as our own, but if our eyes were in the same proportion to our bodies as the Great Horned Owl's, they would be the size of tennis balls or larger.

Many people believe that owls are blind during the day and have the ability to see in complete darkness. Both of these assumptions are incorrect. Although owls have excellent eyesight in dim light, they also can see well during the day, even in bright sunlight.



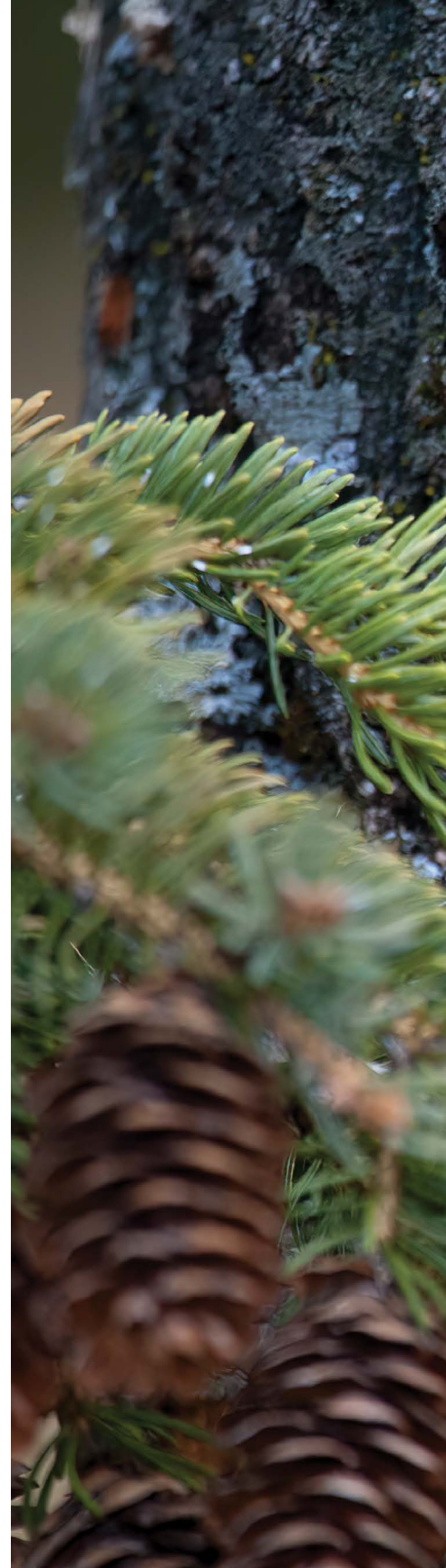






# Low-light vision

Eyes function the same way in owls and humans during daylight but differ when light is dim. The light-sensitive iris constricts or expands to control the amount of light going through the pupil—the dark part of the eye. While constriction is comparable in owls and people during the day, dilation is greater in owls when light is low. As a result, up to  $2\frac{1}{2}$  times more light can enter their eyes, enabling them to see  $2\frac{1}{2}$  times better than we can in the dark. Compared with nonpredatory birds, owls have over 100 times more low-light sensitivity, giving them their highly superior vision.



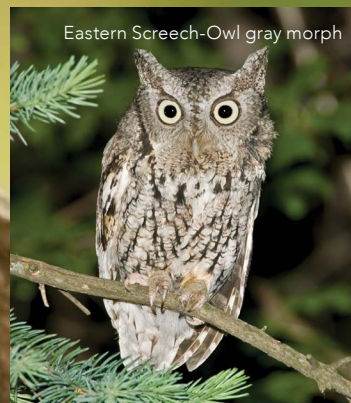








Eastern Screech-Owl rust morph



Eastern Screech-Owl gray morph

# Color collections

A number of bird species occur in different colors, or morphs. Some hawk species, such as the Rough-legged Hawk, have a dark morph and a light morph. The condition of a species appearing in one of two color morphs is called dichromatism. Only three owl species in the United States and Canada are dichromatic—the Eastern Screech-Owl, the Northern Pygmy-Owl, and the Flammulated Owl.

Gray is considered to be the normal color morph of Eastern Screech-Owls. In fact, it is estimated that about 60-70% of this species is gray. Rusty colored Eastern Screech-Owls, called the red or rust morph, make up the remainder.

In 1833, German zoologist Wilhelm Gloger studied the relationship between color and habitat in birds and animals. He proposed Gloger's Rule, which states that more heavily pigmented birds and animals live in moist, shady habitats, while others with less pigment occur in drier, thinly vegetated environments. Although the range for both Eastern Screech-Owl morphs extends from the East coast to the Dakotas and down to Texas, the red morph is not evenly distributed. The farther West, the more this morph decreases. For example, in Florida, 70% of the species are red. In Tennessee, occurrence is at 55%. In Texas, at the western edge of the range, only 7% are red. The highest concentrations are in the Southern states that are east of the Appalachian Mountains, where 50-75% of the red population occurs. In Michigan and other Northern states, red morph populations comprise only 30%. Thus, Gloger's Rule applies well in this species.

Interestingly, the rusty red color may be more advantageous for camouflage in low-light conditions that occur in dense, deciduous woods or in cloudy, damp weather. This could be why the red morph is more concentrated in heavily forested, rainy areas and less so in sparsely timbered, sunny locations.







# Hunting instincts

The hunting instincts of owls, like those of cats, are triggered by movement. Most owls will just sit and watch a mouse that is not moving. However, the second the mouse flinches, the owl locks on and swoops in for the kill. Owls usually ignore carrion and roadkill because of the lack of movement. There are reports of owls feeding on roadkill, but this is the exception and not the rule.









# Sharing in the bounty


The oldest or most aggressive of the owlets in a nest is the one who begs and gets fed the most. Only when this owlet is satisfied will the smaller and weaker siblings get a chance to eat. If food is limited, usually the youngest suffers and weakens. It is fairly common in all owl species for the older, stronger owlets to pick on the weaker one until it dies. As a means of survival, this often results in cannibalization of the youngest. This is also fairly common in eagles, herons, and other birds and is dependent on the available food source.

## Demand for food

When owlets first hatch, the mother does all the feeding. The male does all the hunting and brings food to the mother. The demand for food jumps so dramatically when the young hatch that the male spends all his time searching for prey and providing food for his family.

When the male returns to the nest with food, many vocalizations take place. The female often begs for food as though she were a baby owl. After the male passes the prey to her, she tears it up and feeds each chick tiny morsels, being careful to avoid giving them bones and other indigestible parts. Occasionally she takes the food for herself or finishes up whatever the young owls haven't eaten. After feeding, the young often become drowsy and fall asleep. At that time the female settles down on the chicks again to keep them warm.





## Powerful, Watchful, Wise . . . the Owl

They are silent and beautiful. They symbolize knowledge and mystery. Owls are among the most popular and beloved animals in the world. Yet most are nocturnal, so an owl sighting is a remarkable event, one worthy of remembering and sharing with others. Feel that excitement with every turn of the page in *Owls*. Award-winning author, naturalist, and wildlife photographer Stan Tekiela presents stunning photographs and insightful descriptions of the raptors' lives. The result is a book deserving of a place on any coffee table or shelf.

Give it a try. Open this book to any page, and prepare to be struck with wonder.

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