The Great Horned Owl is our largest, most aggressive owl with a wingspan of almost five feet. They stand between 20–23 inches in height. Despite their strength and ability to take large, skunk-sized prey, an adult great horned only weighs about 3½ pounds. Like all birds of prey, the female is larger than the male. The beautiful muted brown, white and gray plumage is perfect camouflage allowing these elegant predators to roost against a tree trunk. This allows them to safely escape detection while they quietly rest throughout the day. There is a large patch of white feathers beneath their chin and prominent ear tufts that resemble horns.

Those upright feathers have nothing to do with the owl’s ears. All owl ears are asymmetrical openings in the skull. As an adaptation the feathered “horns” probably help the owl appear even larger than it is or serve as an aid in breaking up their silhouette, helping them camouflage. In early December the deep hooting calls of these owls bellow from woodlands and forest edges, signaling the start of one of the earliest breeding seasons in our state. The hoohoo hoo hoo calls help the males attract a mate and stake out a territory.

A mated pair nests in abandoned (or confiscated) heron, hawk or crow nest or a hollow tree cavity. The female may line the nest with feathers before she lays two-three eggs over the course of several days. Incubating eggs as early as February, she may be covered with snow as she broods her eggs. The chicks hatch in about a month, remaining in the nest for about three months until they can fly. During that time, the parents hunt food for them from an ever-growing mammal and bird population expanding in early spring.

Great horned owls prey on rabbits and rodents, squirrels, foxes, weasels, muskrats, domestic cats wandering out at night, and most notably, skunks. Since owls, like almost all birds, have no sense of smell, the offensive skunk spray does not bother them at all, and they routinely take the large black and white mustelids as a meal.

Owls often look robotic or animated. That probably has to do with their eyes. In order to compensate for their enormous eyes, owls have lost the ability to move their eyes in their sockets. This means if owls want to look at something, they must turn their head in that direction. If they want to look down, they must turn their heads down; to look up they must turn their head up. Some owls can even turn their heads over 270 degrees, almost the whole way around!
About the size of a soup can, the tiny screech owl is the only other Pennsylvania owl with ear tufts. Those feather tufts can be held upright (bottom right) when the owl feels agitated. It probably helps them to appear larger to whatever is threatening them. When relaxed, the tufts are left down (middle right) giving the owl a round-headed appearance. At 10 inches long with a nearly two-foot wingspan, these diminutive predators weigh only 6–7 ounces.

Screech owls are dichromatic, meaning appear in two color phases. Being red (middle right) or gray (bottom right) has nothing to do with the bird’s sex. In our state the gray phase is much more common than the red phase, and both color phases may be found in the same clutch of nestlings. On occasion, a third brownish color phase may be seen.

Screech owls call with a mournful, quavering whistle (huhuhuhuhu), repeated over and over. They will remain quiet if a great horned owl is active in the same area, though, because the larger owl sometimes feeds on the smaller owl. They nest in hollow tree cavities, often taking over after woodpeckers have moved on. They will also use a man-made nesting box built to their specifications. Four-five eggs are incubated for about 25 days, and the hatchlings can fly about one month after.

Screech owls will take small rodents, especially in winter, but insects make up the largest portion of their diet, along with frogs, crayfish and small birds. They hunt over open fields but live in orchards, forest edges and even populated areas if there are sufficient wood lots.
The only Pennsylvania owl belonging to the Tytonidae family, the Barn Owl is known as the “monkey-faced” or “heart-faced” owl. Barn owls are cavity-nesters, known for their beautiful snowwhite face with coal-black eyes. The undersides of their body, underwings and legs are also white. But the topside of a barn owl is a soft pale reddish-brown and gray. Once a threatened species in Pennsylvania, the barn owl is still considered an At-Risk Species by the Pennsylvania Game Commission. Their well-being is closely tied to human activity, and help with their limited nesting requirements and food preferences.

They are about 20 inches tall and have a wingspan almost four feet across, but their pale coloring and long thin legs give them a lighter appearance than the other large owls. They weigh less than two pounds.

Barn owls do not have ear tufts and they do not hoot. Barns owls do have a call—a scream actually. They also whistle and hiss, but it is the blood-curdling scream that has put the hairs on end of many an unsuspecting observer of this “ghostly” owl.

Barn owls nest in cavities from March through May choosing among an available barn, silo, church tower, hollow tree or abandoned building. Up to 11 white eggs are laid on a bare or mostly bare surface within the cavity. The incubation takes about one month, with both parents feeding the chicks who take their first flights about 12 weeks after hatching.

Barn owls feed almost exclusively on small rodents they hunt at night while flying low over field and meadows. Because they feed so heavily on rodents, most farmers in the state welcome these birds nesting in their barns and silos. Some even install nesting boxes to encourage these “mousers” to take up permanent residence and help keep the rodent population under control. This saves farmers a great deal of money that might have been spent on rodent control and loss of rodent-spoiled harvest.
The birds we call "birds of prey" all share physical characteristics—superb eyesight, large wingspans, sharp, hooked beaks and strong, sharp talons—that make them excellent predators. Those birds of prey that are active during the day—eagles, hawks, ospreys, etc. are called diurnal birds of prey. Those that wait for darkness to begin their prowl are called nocturnal birds of prey—the owls.

There are two families of owls in Pennsylvania. The strigidae family includes all of our owls except one. The barn owl belongs to the tytonidae family.

Owls have some special features only they share. All owls have asymmetrical ears. That means that one ear is higher on one side than the other. Biologists believe this helps them pinpoint the location of their prey better in the dark.

Hunting in the dark probably explains why owls have feathering down their legs, too. It helps to protect their legs if their prey turns around and tries to grab them. Even though owls can see much better than you at night, it still may be difficult to see their prey clearly.

The feather structure on the front of owls’ wings keeps their flight as quiet as possible so they can silently approach their prey. The disk of feathers around their face helps direct sound back toward their ears.

Owls have huge eyes that have room for lots of rod cells. Those rod cells help them see in low-light conditions. We have lots of cone cells which help us see color, in our eyes. Because owl eyes are so big, their eyes are fixed in their sockets. This means if an owl wants to look up, they need to turn their head up. If they want to look down, they must turn their head down. They cannot move their eyes in their sockets like we can. But in exchange, owls have much flexibility in their necks and can turn their heads so easily sometimes it looks like they can look directly behind them.

Sometime after an owl eats its prey, like all birds of prey, it regurgitates a pellet of indigestible parts of their meal. The pieces of feathers, bone and fur are packed together in a dry pellet. Sometimes you can find a pile of pellets under a tree branch where an owl roosts. Biologists study these pellets to determine what the owls are eating.
In Pennsylvania we have eight different owl species. Some are here year-round and some only in the winter.

Our largest owl is the great horned owl, which is known for its booming “Whoo-whoo-Whoo! Whoo! Whoo!” call. They are our earliest nesting birds. The males begin hooting in early December and have been known to have chicks on the nest covered in snow. Our smallest are the screech owl and saw-whet owl.

Most owls have yellow eyes, but two of our owls, the barred owl and the barn owl, have brown eyes. Even though owls are nocturnal birds, the snowy owl normally lives in the Arctic where the sun never sets during the summer.

Every few years some snowy owls make their way as far south as Pennsylvania in the winter. When they do, they hunt during the day.

A group of owls can be called a “parliament” or “wisdom” of owls.