



OWLS OF OHIO field guide
DIVISION OF WILDLIFE



INTRODUCTION

Owls have long evoked curiosity in people, due to their secretive and often nocturnal habits, fierce predatory behavior, and interesting appearance. Ohio is a great state for owls. To date, 12 species have been recorded; more than any adjacent state other than Michigan, which also has tallied 12 species. Many people might be surprised by how common owls are; it just takes a bit of knowledge and searching to find them. Owls are among our most fascinating birds, both to watch and to hear. Owls are also among our most charismatic birds and reading about them makes many a birder want to take to the field to visit places near and far to find them.

There are only 19 regularly occurring species of owls in North America. On a global scale, there are 27 genera of owls in two families, comprising a total of 215 species. The largest species in the world is the great gray owl of North America. It is nearly three feet long with a wingspan of almost 4 ½ feet, although the smaller great horned owl outweighs it by 15% on average. The smallest is the elf owl of Central America and the southwestern United States. Less than six inches long and with a wingspan of about one foot, elf owls are smaller than the familiar Northern cardinal. It would take 35 elf owls to equal the weight of one great horned owl.

COVER Photo by Patrick Rolands

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HOW TO USE THIS BOOKLET

Common Name
Scientific Name

DESCRIPTION AND VOCALIZATIONS
The snowy owl is unmistakable and shouldn't be confused with any other species. Adult males are very white, with few black markings. However, most snowy owls found in Ohio are first-year females that are far more likely to wander south in the winter. These youngsters are heavily marked with black bars and can appear quite dark, regardless of age, the face is pure white. They are normally silent in winter, and unlikely to be heard in Ohio. Territorial males on breeding grounds emit spectacular booming hoots. Both sexes make a barking sound, and females will also make plaintive whistles.

DISTRIBUTION AND HABITAT
Few birds generate as much excitement as these massive, Arctic-nesting owls. Some winters, only one or two are found, while peak years might bring a dozen or more reports. Most snowy owls are found in the vicinity of Lake Erie. These enormous birds are toughy diurnal and easily observed. They prefer sites that provide plenty of prey, which include waterfowl and gulls. Snowy owls prefer large, open spaces, similar to their tundra breeding habitat, and often frequent open agricultural landscapes. The flat, wide-open spaces around airports also provide good habitat.

Species Average Length, Wingspan, & Weight in inches

Page Number

Status in Ohio

Range Map of North America

OHIO STATUS: RARE VISITOR
The number of snowy owls in Ohio varies from a few to perhaps a dozen sightings. In good years, snowy owls may appear by late October, although most turn up in November and December. They are most likely to be seen along the shoreline of Lake Erie. Occasionally a snowy owl will appear as far south as the Ohio River. Snowy owl movements are directly associated with the cycles of small rodents called lemmings (*Lemmus* sp.), and the big southward movements of snowy owls correlate with collapses in lemming populations. Southward migrations into Ohio have diminished considerably since the early to mid-1900s. For instance, during the winter of 1926-27 at least 136 snowy owls were documented in the state. In recent decades, a dozen or so would constitute a big figure.

INTERESTING FACTS

- This is the heaviest North American owl; females can weigh as much as 6 ½ pounds.
- Recognizable reproductions of snowy owls can be found in prehistoric cave art dating back several thousand years, indicating a fascination with this impressive bird going back to ancient civilizations.

Range Map

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SPECIES ACCOUNTS

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OWL MORPHOLOGY

EXCEPTIONAL HEARING

Most birds have great hearing, but this sense is truly exceptional in owls. The “ear tufts” that many owl species display are not ears at all; rather they are probably for display purposes. The actual ear opening, known as an aperture, is hidden under the feathers on each side of the head. In some species, each aperture is offset, or asymmetrical, which better helps the owl triangulate on the location of a sound. Owls can instantly tell if a sound has come from the right or left. Studies have shown that the brains of some species of owls can process a right/left difference in the arrival of a sound in only 30 millionths of a second. These highly developed audio abilities allow owls to even catch prey that is hidden under snow!

MODIFIED FEATHERS

Owls are truly silent killers; they have specialized feathers that greatly reduce sound caused by air passing over the feathers. The leading edge of the primary flight feathers are *fimbriate*; that is, they have comb-like extensions along the feather's edge that greatly muffle sound, allowing the bird to better ambush prey.



SPECIALIZED VISION

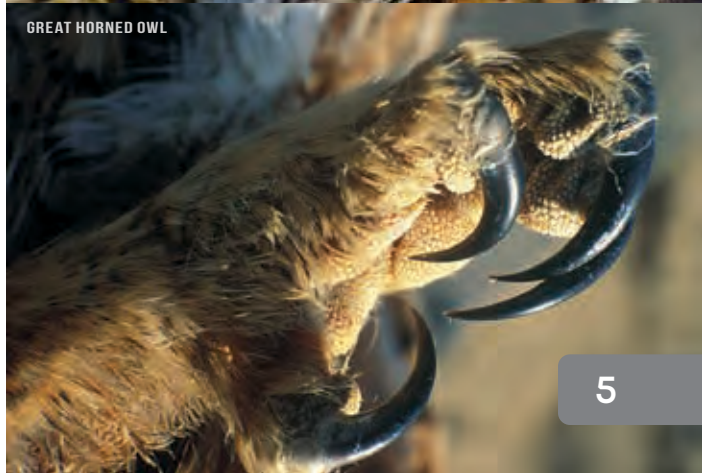
Owls have highly specialized vision, not only to allow them to navigate at night - most are nocturnal - but also to accommodate their highly predatory habits. Owl eyes are enormous, and in some species may encompass up to five percent of the bird's overall mass. Their larger eyes collect and process light more effectively in dim conditions, allowing them to visually locate prey in near or total darkness. The eyes face directly forward which creates binocular vision, meaning they see an object with both eyes simultaneously. Another adaptation is the ability to swivel their heads up to 270 degrees and look directly behind them without moving their bodies. Fourteen neck vertebrae allow this exceptional flexibility; for comparison, humans have only seven vertebrae in the neck.

POWERFUL TALONS AND BILL

Owls are near the top of the food chain and have very powerful talons that allow them to forcefully seize prey. In many species the legs and feet are fully feathered. This adaptation both protects against cold weather, and may also help them to “feel” their prey and make rapid adjustments if need be. Each foot has four talons: three face forward and one backward, creating an exceptionally effective grasp. While humans must keep their muscles contracted when holding an object, owls have what is essentially a mechanical locking device that allows them to hold an object with full force without constant muscle contractions. Their bill is also powerful and hooked, and the owl can exert great force with it. Smaller prey is often quickly dispatched with crushing pressure.



GREAT HORNED OWL



DIGESTION

Owls, like all birds, cannot chew their food. Thus, smaller prey is swallowed whole, and larger prey is ripped into manageable pieces which can then be swallowed. The problem with this system is that indigestible parts of the animal are also consumed. To effectively rid their digestive tracts of materials such as bones and fur, owls regurgitate what are commonly known as owl pellets. Within several hours of consuming a meal, indigestible parts are compacted into small oblong pellets, and eventually expelled through the mouth. Researchers studying the diets of owls can pick through these pellets and determine what type and how many animals are being consumed. The presence of owl pellets often leads birders to roosting owls, too.

SOUNDS

Owl sounds are easily recognized, and in many cases even the uninitiated will be able to recognize the call as that of an owl. Some species deliver what could best be described as “hoots,” such as the great horned owl, and no one should have any difficulty determining that the singer is an owl. Other calls, however, are not as obviously owl-originated, such as the odd quavering whistles of Eastern screech-owls or the monotone piping of Northern saw-whet owls. In many species, the calls of the male are lower in pitch than the female, and the sexes can be easily differentiated when a pair is calling back and forth. Most if not all owl species also deliver non-vocal sounds such as bill snapping, or in the case of short-eared owls, wing clapping, during courtship display flights.



SNOWY OWL



GREAT HORNED OWL

OWL MYTHOLOGY

Given their mysterious nocturnal habitats and often eerie vocalizations, owls are ripe fodder for superstitions. Owls have been considered omens of good luck, bad fortune, impending doom, wisdom, foolishness, evil and witchcraft, and even predictors of weather. Bizarre examples of owl mythology abound around the globe.

As far back as ancient Greece, owls were making their mark on the cultural psyche. Athene, the mythical Goddess of Wisdom, was deeply impressed by the charisma of owls, and thus caused them to be held in high regard. In fact, a genus of owls is named after her – *Athene*, which includes the burrowing owl, *Athene cunicularia*, of North America.

In ancient Rome, owls had fallen from favor and among other things were accused of being shapeshifting witches who took on an owl form.

At least some Englishers of long ago viewed owls somewhat more favorably – they thought that seeing an owl brought good luck.

It was believed the best way to stave off lightning strikes was to nail a barn owl to the barn door, a practice that continued into the 19th century in some quarters.



Owls in Ireland would be wise to not enter dwellings. Legend has it any owl entering a house must be killed immediately, lest it depart and take the home's good luck with it. In nearby Scotland, it is considered unlucky to see an owl during the day.

Meanwhile, Greenlanders hold a much more hospitable view of owls and regard them as a source of helpful direction.

More recently, owls have been thrust into the limelight in a major way via the immensely popular Harry Potter series of books and movies. Owls are prominent characters in these books; they serve as winged messengers transporting mail and are generally cast in a favorable light. Harry's owl, Hedwig, is

based on a snowy owl, *Bubo scandiacus*, a rare winter visitor to Ohio.



BARN OWL

TYTO ALBA (TIE-TOE [A NIGHT OWL] AL-BAH [WHITE])

Length = 16 in.
Weight = 1 lbs.
Wingspan = 42 in.

DESCRIPTION AND VOCALIZATIONS

Barn owls have a white heart-shaped face with a head that appears quite large in relation to the body. They lack ear tufts and are one of Ohio's two owl species with dark eyes. They are very white below, and a tawny brown above. In flight, barn owls seen from below appear pale ghostly white. When perched, their long legs are evident.

Barn owls produce a drawn-out shriek, with the female's call supposedly a bit less harsh and quieter than the males. They also utter defensive hisses, and on occasion a variety of other twittering or snoring sounds. When surprised at the nest site, they hiss, lower their head towards the ground and sway from side to side, and often spread their wings to appear larger.

DISTRIBUTION AND HABITAT

This species has the broadest distribution of any owl, ranging nearly worldwide. In addition to being found across North America as far north as southern Canada, they occur in Africa and Eurasia - even Australia.

Barn owls require extensive tracts of grasslands, marshes, and meadows to forage. Habitat must support viable populations of voles and mice, the major prey of barn owls. There must also be suitable nest sites nearby.



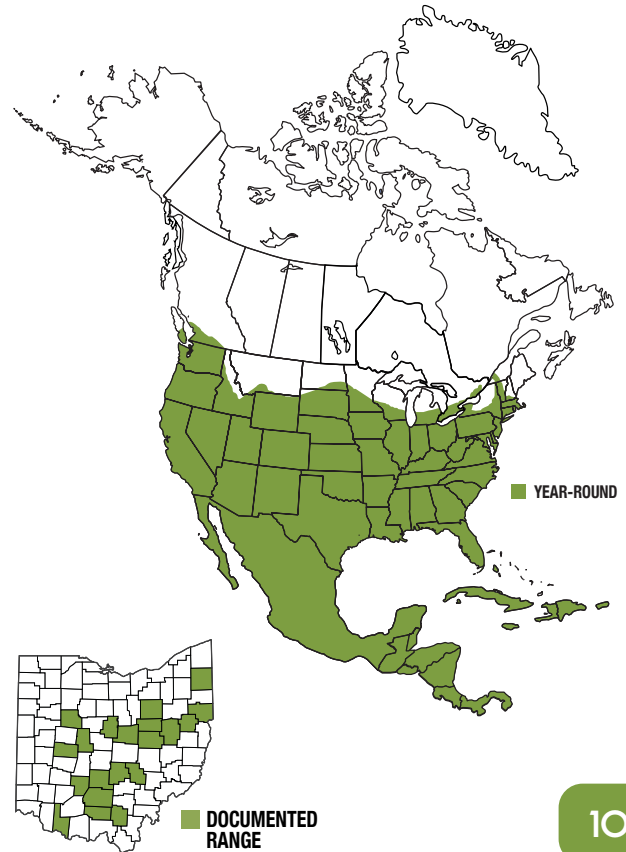
OHIO STATUS: THREATENED

As settlement of eastern North America and Ohio progressed, forests were felled and the landscape was opened for agriculture. This greatly benefitted barn owls, and they expanded northward. They were first recorded here in the mid-1800s, and populations peaked in the 1930s when they were documented in 84 of Ohio's 88 counties. Early Ohio ornithologist Lawrence Hicks described them as being Ohio's second most common owl at this time, after the Eastern screech-owl – a status nearly incomprehensible today, given their great rarity.

By the mid-1900s, they were in steep decline, and the population bottomed out around 1990, with a statewide population of perhaps one or two dozen nesting pairs. Today, barn owls are listed as threatened by the Ohio Division of Wildlife, but programs by the Division and other interested parties have increased populations substantially. By placing nest boxes in suitable structures near good foraging habitat, Ohio's barn owl population has increased to 60 pairs or so. The areas of greatest densities are Holmes and Wayne counties, near Killbuck Marsh Wildlife Area, and Pike and Ross counties in south-central Ohio. Since they are a threatened species, great care must be exercised to avoid disturbing them.

INTERESTING FACTS

- Barn owls can be long-lived. The record for a wild bird is 34 years of age. However, the average life span is just under two years.
- Barn Owls are undoubtedly responsible for many reports of "haunted houses." Their tendency to nest in old structures, including the attics of abandoned houses, coupled with their ghostly white plumage and hissing screams, have no doubt spooked many an uninitiated person.



HABITS AND NESTING

Strictly nocturnal, barn owls will nest in barns or other structures during daylight hours and begin foraging after dusk. Barn owls hunt over open fields, and patrol for prey with a rather sluggish, buoyant flight. The meadow vole, *Microtus pennsylvanicus*, is a staple of barn owl diets. In certain ranges, meadow voles can comprise nearly 100% of their diet. Other small mammals such as bats, flying squirrels, chipmunks, rabbits, and even small birds will make up the rest of their diet. On average, two pellets are expelled daily.

Nesting takes place from March through July, with an average clutch size of five eggs, although if food is plentiful barn owls may attempt to nest at any time of the year. Nests are in barns, usually high in a loft or some niche well off the floor. A variety of other man-made structures might be used, such as under bridges, in abandoned wells, old houses, and church steeples. Very rarely do they use cavities in trees.





BARRED OWL

STRIX VARIA (STRIX [A SCREECH OWL; NOT VERY APROPOS] VAR-EE-AH [VARIEGATED; BECAUSE OF PLUMAGE PATTERN])

Length = 21 in.
Weight = 1.6 lbs.
Wingspan = 42 in.

DESCRIPTION AND VOCALIZATIONS

Barred owls are large, and in measurements nearly equal that of the great horned owl. However, they only weigh about half as much and are not nearly as powerful and bulky. This is one of only two Ohio owls with dark eyes. All other species have yellow eyes. Barred owls lack ear tufts but have very prominent facial discs. They are mostly brown above, with some white mottling, and prominently marked with vertical brown streaking below. Females are slightly larger than males, but the difference is so slight it can be hard to separate the sexes when a pair is seen together.

Barred owls are very vocal, and sometimes call for extended periods of time. The typical call is described by the mnemonic *Who Cooks For You, Who Cooks For You All*. This song is used to announce territories. A pair will often engage duets with this song, occasionally veering off into caterwauling hoots and screams. Both sexes give a two-note *Hoo-aww* call that serves as a contact call between the pair. Once they get going, a pair might keep up their repertoire of hoots, screams, chuckles, and other odd sounds for half an hour or more. Fledglings give a high-pitched ascending squeal, often trailing off at the end, which is used as a begging call when seeking food from the adults.



DISTRIBUTION AND HABITAT

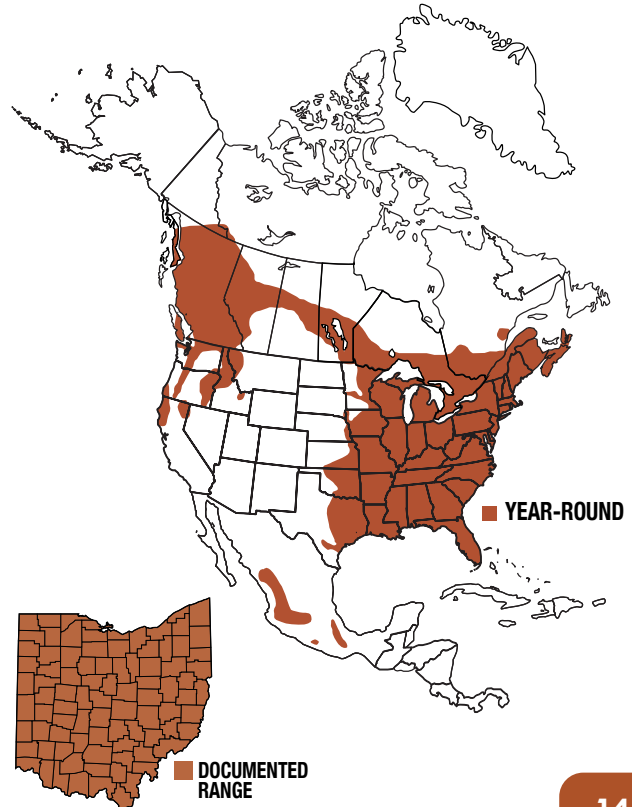
Barred owls prefer mature forests, particularly swampy woods and forested ravines with mature American beech, *Fagus grandifolia*, which provide hollowed-out cavities for nesting. Barred owls tolerate some habitat fragmentation, but do best in larger, unbroken blocks of woodland.

OHIO STATUS: COMMON

Barred owls are fairly common statewide, but their presence is dependent on the availability of suitable habitat. The removal of mature forests in the early 1900s made barred owls scarce, but they have continually increased in numbers as Ohio's forests have been reestablished. *The Second Atlas of Breeding Birds in Ohio* reported nesting evidence in nearly every county of the state.

INTERESTING FACTS

- The oldest documented wild barred owl was over 18 years old.
- Their calls are easily mimicked and barred owls are very responsive to imitations; even barking dogs have been known to set them off.



HABITS AND NESTING

Barred owls have a light, graceful flight, and maneuver with ease through dense forest canopies. Typically, they will hunt from a perch, waiting for prey to appear. Like other owls, their vision and hearing are outstanding and allow them to locate prey even in pitch-black conditions. Peak activity tends to be shortly after nightfall.

Barred owls primarily consume small mammals like mice and voles, but will capture a diversity of small prey. It is likely that many barred owls in Ohio shift to a diet heavy in amphibians during warm months, but this is hard to document as pellets composed mostly of amphibians rapidly disintegrate after being expelled. Also on the menu are small birds, reptiles, and even aquatic prey such as small fish.

Most barred owls use tree cavities as nest sites, often where broken limbs have created a recess within the tree. Occasionally, they will nest in abandoned stick nests built by American crows, red-tailed hawks, or other raptors. Barred owls typically lay their clutches of two or three eggs in early to mid-March. The incubation period is about 30 days, and young hatch in April. The young birds leave the nest after four or five weeks but remain in the immediate vicinity. They are not capable of strong flight until about three months after hatching, and it takes them six months to fully molt into adult plumage.





EASTERN SCREECH-OWL

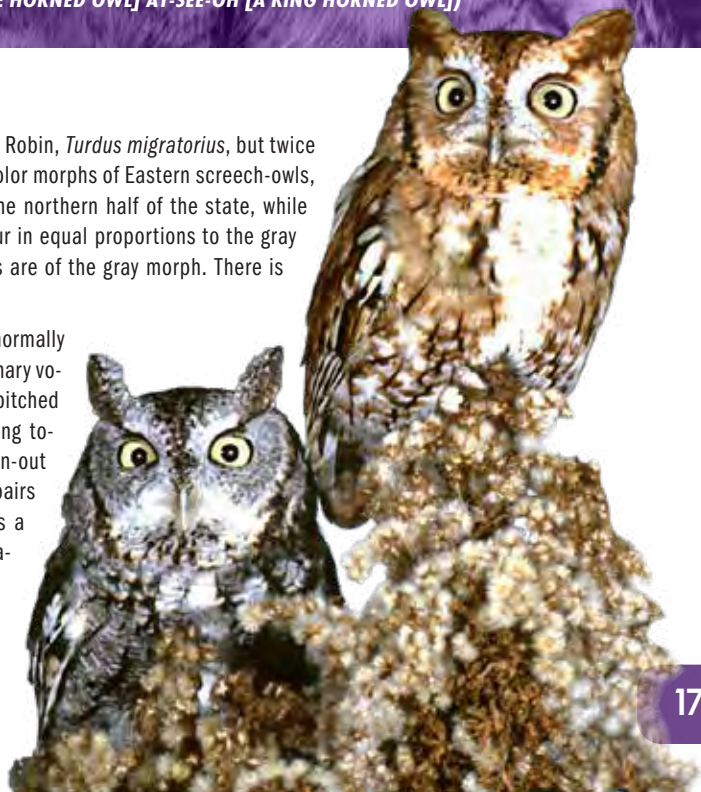
MEGASCOPS ASIO (MEG-AH-SCOPS [GREAT LITTLE HORNED OWL] AY-SEE-OH [A KING HORNED OWL])

Length = 8.5 in.
Weight = 6 oz.
Wingspan = 20 in.

DESCRIPTION AND VOCALIZATIONS

Eastern screech-owls are small, about the size of an American Robin, *Turdus migratorius*, but twice as heavy, and have prominent ear tufts. There are two primary color morphs of Eastern screech-owls, red and gray. Gray morphs are most common, particularly in the northern half of the state, while red morphs can be locally abundant in southern Ohio, and occur in equal proportions to the gray morph. In northwestern Ohio, 75 to 90 percent of screech-owls are of the gray morph. There is also a much rarer intermediate brown morph.

Easily imitated by a good whistler, screech-owls don't normally "screech"; rather they emit quavering whistles. There are two primary vocalizations often heard and easily mimicked. Males have a lower-pitched voice, and this difference can be heard if both sexes are calling together. One principal vocalization is a monotone trill; a drawn-out quavering tremolo. This is a "contact song"; it is used between pairs or family units for communication. The other common sound is a descending trill, which is reminiscent of a horse's whinny. Occasionally heard are quiet hoots, barks, or screech-like sounds. Sometimes males will sing inside nest cavities announcing nest sites to females. Eastern screech-owls often seem ventriloquous and it can be hard to gauge how far away the bird is. A calling bird is often closer than it may seem.



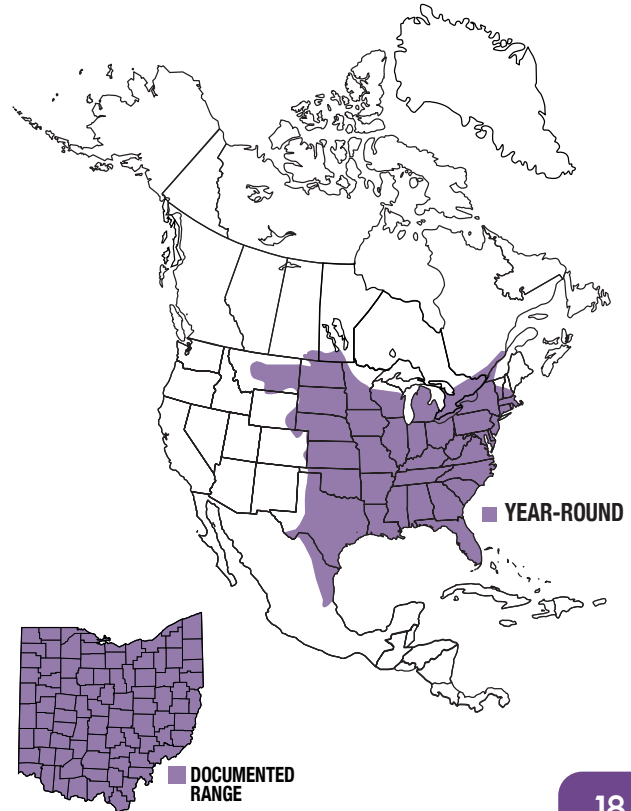
DISTRIBUTION AND HABITAT

The Eastern screech-owl routinely occurs in a wide array of habitats. They appear in all manner of woodlands but are least likely to occupy dense older-growth forest, particularly those with a dense understory. Urban and suburban sites that contain at least scattered large shade trees are likely to have screech-owls, and they are often found in densely populated areas. Other optimum habitats are areas with scattered large trees and open woodlots interspersed with fields and pastures, preferably if a stream is nearby. In such places, two or three owls might be heard calling simultaneously.

OHIO STATUS: COMMON

The Eastern screech-owl is easily the most common owl in the state and occurs in every county. They are often plentiful, and searchers making concerted efforts to locate them can often find 15-20 birds in a few hours.

One reason for screech-owls' abundance is their ability to occupy relatively small territories. One pair may only require a dozen or so acres if the habitat is optimal. They also occupy a broad range of habitat types that are commonly found throughout the state. This species is near the northern limits of its range in Ohio, and populations in counties near Lake Erie can be vulnerable during very cold or snowy winters. At such times there can be significant localized mortality.



INTERESTING FACTS

- The most common of all the owls in Ohio.
- The only eastern North American owl with two distinct color morphs - red and gray.
- Eastern screech-owls have the most varied diet of any North American owl, eating everything from earthworms to songbirds.

HABITS AND NESTING

Screech-owls are obligate cavity-nesters and normally select natural cavities, such as those formed by broken-off limbs. Perhaps one-third of them will use abandoned woodpecker nests, and the Northern flicker seems to be the most frequent excavator of such nest sites. Appropriately constructed nest boxes placed in suitable spots often will attract screech-owls, too. Nest heights vary greatly, from nearly ground level to over 60' high; elevation does not appear to be a major factor in nest placement. Placement of a nest box is an excellent way to entice Eastern screech-owls to nest.

On average, egg-laying commences in mid-March, and clutch size is normally four white or off-white eggs, although as few as two or as many as six might be laid. These are incubated for about a month, and the young depart the nest about four weeks after hatching.



PHOTO BY HARRY COLLINS PHOTOGRAPHY





REAT HORNED OWL

BUBO VIRGINIANUS (BEW-BO [EAGLE OWL] VER-JIN-EE-AIN-US [OF VIRGINIA; LOCATION OF FIRST SPECIMEN])

Length = 22 in.
Weight = 3.1 lbs.
Wingspan = 44 in.

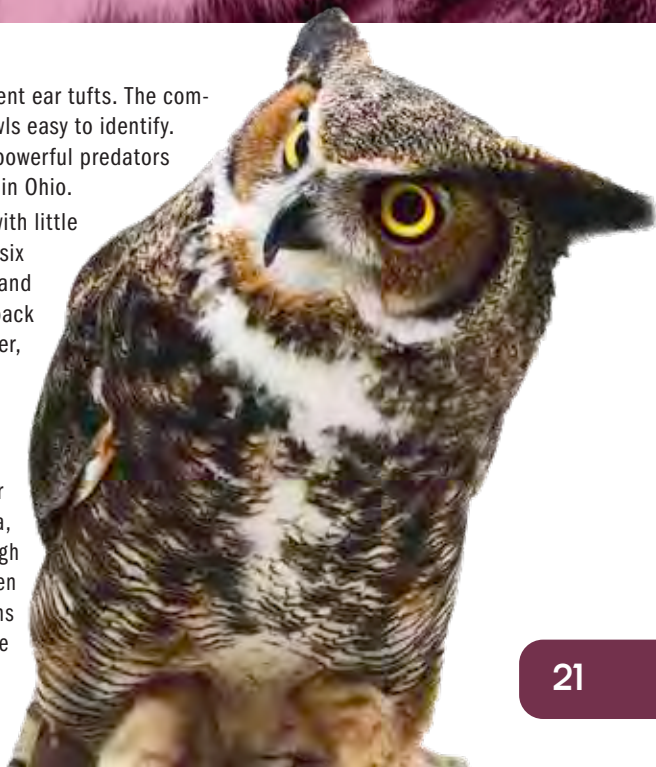
DESCRIPTION AND VOCALIZATIONS

Great horned owls appear very powerful and thick-bodied with prominent ear tufts. The combination of large ear tufts and massive size should make great horned owls easy to identify. Females are larger, averaging about a pound heavier than males. These powerful predators are near the top of the avian food chain and are the largest resident owl in Ohio.

These owls produce a classic *Whooo-hoo-hoo-hoo-hoo* that even those with little familiarity with owls can easily recognize. The notes are repeated five to six times, with the last few more drawn out. This call carries long distances and can be heard up to a half mile or more on a still night. Pairs often duet back and forth, and the sexes can be easily differentiated. Males have a deeper, mellower quality. As with all owls, great horned can produce surprisingly loud clacking sounds by snapping the mandibles of their bills together.

DISTRIBUTION AND HABITAT

The great horned owl is the second most common owl in the state, after the Eastern screech-owl. They occur across the length of North America, to the northern limit of trees where the tundra begins, and south through Central America and into South America. At least 16 subspecies have been described, and plumage varies among them, with the darkest populations occurring in the most humid areas. Great horned owl and snowy owl are the only members of the genus *Bubo* in the Western Hemisphere.



Great horned owls prefer areas where the landscape is a mosaic of scattered woodlots, open fields and meadows, marshes, and other open to semi-open habitats. They generally shun large, older-growth forests. Peak populations are found in places with large marshes interspersed with small patches of woods and open fields, such as along western Lake Erie. They are easily found in agricultural areas, and often occur in suburban sites. On occasion, they even occupy very urban sites within cities. Large cemeteries are excellent places to look for great horned owls. They can sometimes be found roosting near the tops of large ornamental conifers.

OHIO STATUS: COMMON

This magnificent species became quite rare in Ohio by the early 1900s. Reviled as a predator thought to regularly kill more desirable animals, great horned owls were frequently shot, and no laws were in place to protect them. Their populations plummeted and they became rare if not extirpated in many areas. By the early 1940s, species such as this were given legal protection and their numbers rebounded.

Today, great horned owls are common statewide and occur in every county. Because they can live in a variety of different habitats, they are found in areas where other owls are seldom present. They are rarely found in the large, mature forested regions of southeastern Ohio, as unbroken woodlands are one of the few habitats where great horned owls are rarely found. They often roost in large streamside cottonwoods and sycamores and will frequently flush in front of a passing canoe. Killdeer Plains Wildlife Area and Magee Marsh Wildlife Area are great places to find this species.



HABITS AND NESTING

Almost strictly nocturnal, great horned owls become active after dark and are rarely seen or heard during the day, unless discovered at a roost site. These fierce predators typically hunt from a perch, scanning the area for prey. When a potential meal is spotted, they drop from their lookout and rapidly pounce on the victim. As one of the largest and most powerful owls, they can capture substantial prey, such as rabbits, muskrats, and woodchucks. They regularly eat mice, voles, birds, reptiles, and even large insects. They will also eat skunks, and can get heavily dosed with the skunk's pungent discharges. Their nests can become saturated with the aroma, too.

About half of Ohio's great horned owls commandeer large stick nests built by other birds, such as red-tailed hawks, American crows, great blue herons, and bald eagles. Most of the other nests are located within broken-off tree snags or large relatively open cavities within trees. Males will begin hooting in mid-to late fall, and females will lay eggs by the end of January. The insulating down feathers are extremely efficient and able to keep the eggs at about 98 degrees, even when temperatures plummet below zero degrees Fahrenheit. Females incubate the eggs for about a month, and the young typically hatch in late February or March. Within six weeks, the young owls are active and able to climb about, at which point they may scramble onto limbs away from the nest. Forty-five to fifty days after hatching, they are capable of flight.





PHOTO BY KERRY HARDROVE

LONG-EARED OWL

ASIO OTUS (AY-SEE-OH [A TYPE OF HORNED OWL] OH-TUS [AN EARED OWL])

Length = 15 in.
Weight = 9 oz.
Wingspan = 36 in.

DESCRIPTION AND VOCALIZATIONS

Long-eared owls have large ear tufts and prominent orange facial discs. While similar in appearance to great horned owls, they are noticeably smaller and their ear tufts are more erect and set closer together. In flight, long-eared owls can be mistaken for short-eared owls. However, the upper wings of long-eared owls are grayer, the buff patch near the end of the wings is less prominent, and the underside is heavily streaked.

These owls very seldom make calls while away from active nest sites. The most common vocalization is a series of deep uniform hoots made by the male to advertise mating. Females make a nest call during the early part of the breeding season; this is a rather nasal-sounding hoot and may be given in response to the male's hoots. Displaying males often clap their wings during courtship, making a surprisingly loud noise that sounds like hands being clapped together. Long-eared owls can create loud clicks by snapping their bills when disturbed.



PHOTO BY MARTELLOSTUDIO

DISTRIBUTION AND HABITAT

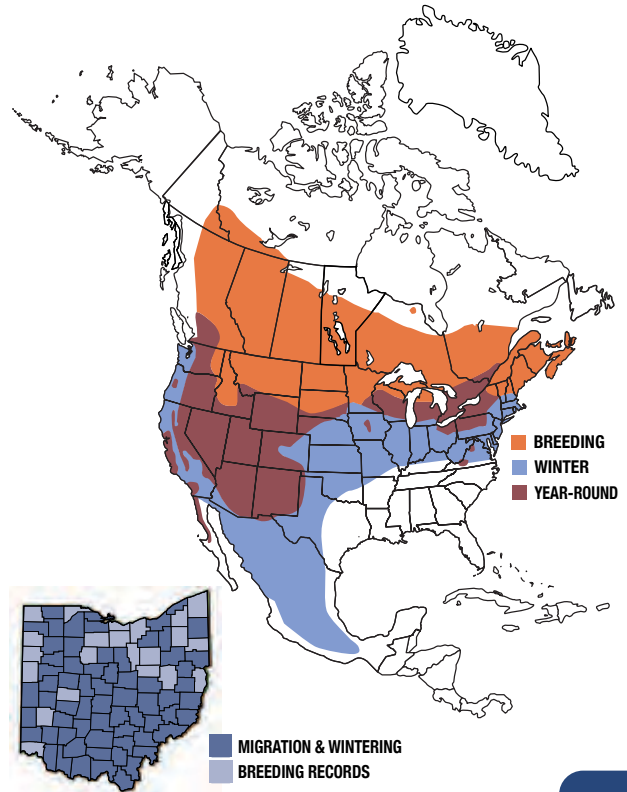
Long-eared owls prefer open areas for hunting with adequate roosting sites nearby, such as conifers, pines, and native red cedars. They will also use grapevine tangles and the dense branching of pin oaks for concealment and protection during the cold months of the year.

Long-eared owls are social and don't appear to maintain territories other than around active nest sites. They are often found in shared winter roosts, which sometimes number over 20 birds. In such roosts, the owls will often perch within a few feet of each other. When potential threats appear, long-eared owls can compress their bodies to amazingly slender proportions and look very much like a broken-off branch.

OHIO STATUS : SPECIAL INTEREST

Long-eared owls spend most of the year in the boreal forests of Canada and the northern U.S. and are only expected in Ohio during migration and winter. They can turn up anywhere in the state, but are less likely to be found in the heavily forested areas of southeast Ohio. Migrating owls pass through the state during March, April, and November, but travel individually and can be very hard to locate.

Ohio is on the southern edge of the long-eared owls' breeding range, and nesting records are scarce. Historically, nesting has been documented in 22 Ohio counties, primarily in the northern third of the state. Almost all these breeding records are many decades old; recent nesting records are few.



HABITS AND NESTING

Long-eared owls are strictly nocturnal and will not be seen hunting during the day. They hunt over open fields and meadows. The meadow vole, *Microtus pennsylvanicus*, is likely the common prey in most areas, but many other species of mice, voles, and other mammals are taken. Studies have demonstrated that long-eared owls are capable of capturing mice in complete darkness, suggesting that their ability to triangulate on specific objects via a strongly developed sense of hearing is quite advanced. They are also known to capture small birds when opportunities permit. Dietary studies of long-eared owls in North America have documented that over 90% of the prey items were voles (*Microtus*) and mice (*Peromyscus*). When hunting, long-eared will fly with very deep wingbeats interspersed with long glides with wings held flat.

Long-eared owls use the abandoned stick nests of other birds. Host species include the red-tailed hawk, Cooper's hawk, and American crow. Pairs form after winter roosts disband, and eggs are laid in March or April. Most clutches contain five or six eggs which are incubated exclusively by the female. Hatching occurs at about 28 days, and the young remain in the nest for about three weeks. Once the owlets leave the nest, they remain in nearby trees for several weeks. Sometimes referred to as "branchers," the young owls will climb through the branches using their bill and talons until their flight feathers develop. They begin to fly about five weeks after hatching.



PHOTO BY ALEXXANDER



PHOTO BY PAUL REEVES PHOTOGRAPHY

NORTHERN SAW-WHET OWL

AEGOLIUS ACADICUS [EE-JOLE-IH-US [A KIND OF OWL] AH-KADE-IH-CUS [OF ACADIA;
FIRST SPECIMEN WAS FROM NOVA SCOTIA]]

Length = 8 in.
Weight = 3 oz.
Wingspan = 17 in.

DESCRIPTION AND VOCALIZATIONS

A full-grown Northern saw-whet owl is about the size of an American robin and the smallest owl found in Ohio. Because of their tiny size, strictly nocturnal habits, and penchant for roosting in heavy cover, this is one of the toughest Ohio owls to locate. Adult Northern saw-whet owls are striped with thick brown streaks below, have light brown facial discs, and lack ear tufts. Juveniles, which are unlikely in Ohio, are even more distinctive, being dark chocolate-brown above, with rufous-orange underparts and a white chevron on the forehead.

The male's advertising song is a long series of monotonous piping whistles, given at a rate of about two whistles per second. This song can be given for lengthy periods without pause. Females sometimes deliver a similar version during the breeding season. Saw-whets have been documented uttering at least eight other types of calls, most not nearly so easily recognized as the advertising song. These include bill snapping, soft whines, chitters, and ascending low screams. Some of these calls vaguely resemble calls made by sora rails.

DISTRIBUTION AND HABITAT

The Northern saw-whet is a forest owl, although tolerant of a wide variety of woodlands. Peak breeding populations occur in coniferous forests but saw-whets will nest in a range of forest types, and age classes. Migrant and wintering birds turn up in shrubby thickets, young successional woods, grapevine tangles, planted conifer groves, and scattered ornamental conifers in cemeteries.

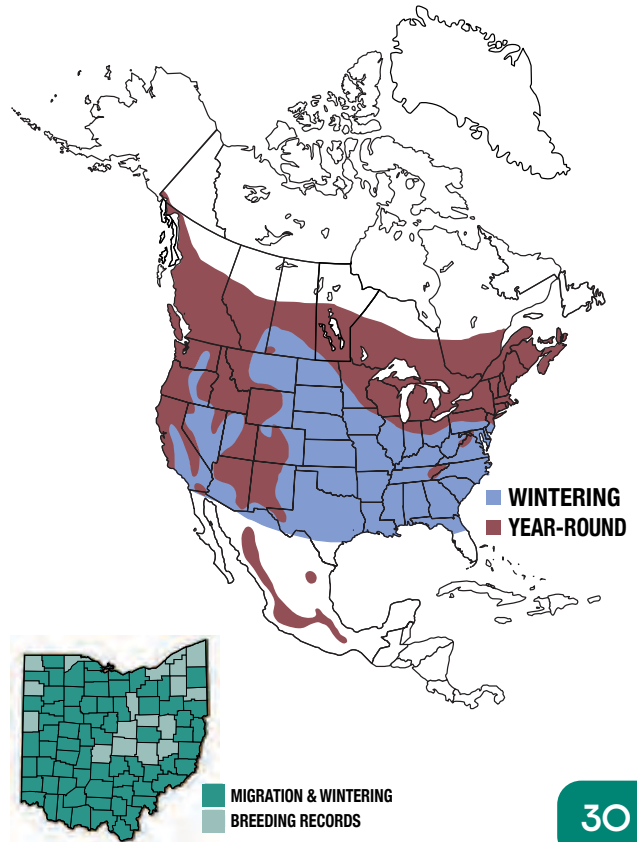
Northern saw-whet owls are prone to roosting in the same spot night after night. They often streak the foliage and ground near their roosting site with "whitewash", so an obvious accumulation of droppings is always worth investigating. They tend to perch low to the ground - anywhere from five to fifteen feet - which makes spotting one a bit more likely.



OHIO STATUS: SPECIAL INTEREST

Most saw-whet owls pass through Ohio on their way to wintering grounds in states to our south. A research effort known as Project OwlNet, which is a consortium of bird banders in North America and Canada that focuses on Northern saw-whet owls, has shed considerable light on populations of this owl and their seasonal movements. Owls banded in Ohio have been recaptured in Indiana, Minnesota, and West Virginia. Owls previously banded in Maryland, Ontario, Canada, and Michigan have been caught in Ohio. The frequency of captures in Ohio offers a glimpse into the potential numbers of owls that may migrate through Ohio.

Ohio documented nesting records are very scarce. There were summer records from about 16 counties prior to 1940; all were in the northern half of the state. A good way to find one is to check ornamental conifer plantings within large cemeteries, such as Woodlawn in Toledo, Green Lawn in Columbus, and Spring Grove in Cincinnati.



HABITS AND NESTING

Northern saw-whets become active and begin hunting about 30 minutes after nightfall and return to roost sites well before dawn. They hunt mostly in open woods or along woodland borders or openings. When temperatures are very cold, owls will sometimes catch more prey than can be eaten and stash the surplus in trees. When hungry, they will remove the cached item and hold it with their feet, incubating the vole or mouse like an egg and thawing it out so it can be consumed. Their diet consists almost entirely of small mammals and small birds that frequent wooded habitats.

Nesting activities commence in April on average, preceded by an increase in vocalizations. Northern saw-whet owls are cavity-nesters, and most often use holes constructed by woodpeckers, particularly those of the Northern flicker and pileated woodpecker. They will use artificial nest boxes; one of the last Ohio nesting records was of a pair using a box. Clutches normally contain five or six eggs, laid about two days apart. These hatch after four weeks, and the young leave the nest three or four weeks later. Recently fledged young are most likely to be seen from late May into early July.



PHOTO BY KAREN BLAUGRUND



SHORT-EARED OWL

ASIO FLAMMEUS (AY-SEE-OH [A TYPE OF HORNED OWL] FLAM-EE-US [FLAME-COLORED])

Length = 15 in.
Weight = 12.5 oz.
Wingspan = 38 in.

DESCRIPTION AND VOCALIZATION

These large owls are unmistakable and can be recognized by their deep wingbeats, giving the impression of a giant moth. The very short ear tufts are hard to see, and an observer will likely only notice them on a clearly seen perched owl. Long-eared owls look very similar in flight and when flushed are sometimes misidentified as this species. Short-eared owls are tawny overall, have a whitish face, and distinctive dark eye patches.

While not an exceptionally vocal owl, short-eared owls can routinely be heard uttering barking calls when engaged in agonistic encounters with other owls or raptors. These barks, generally given in flight, can take on a hoarse yelping quality or a harsh ascending scream. Around an active nesting territory, the male's primary song might be heard. This song is normally delivered on the wing, and is often accompanied by loud wing-clapping created when the owl smacks the tips of its wings together under the body.

DISTRIBUTION AND HABITAT

Short-eared owls prefer open habitats such as large fields, grasslands, marshes, and sometimes the grassy areas of airports. There have been several breeding records in these sites, and in general, the numbers of wintering owls seem to be increasing.



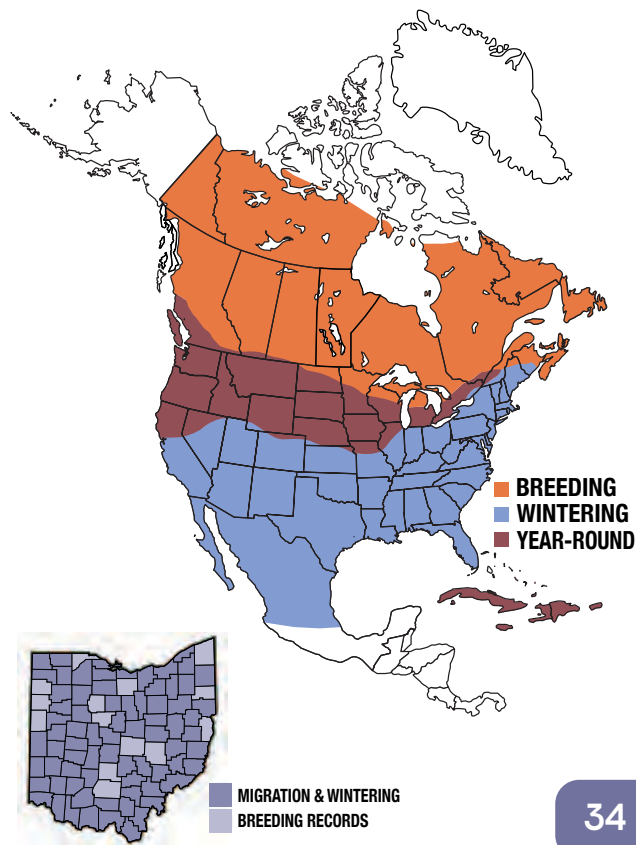
Short-eared owls have a peculiar aerial courtship display that can be seen in late winter and spring. Sometimes referred to as “sky dancing,” the males use this display to impress prospective mates. These spectacular shows involve the male owl ascending skyward by flying in tight circles, sometimes to a height of several hundred feet. At the apex, the male will hang in one spot by fluttering his wings, while delivering a series of deep piping hoots. The bird then drops into a steep dive, rapidly “clapping” its wings together creating a rapid fluttering sound. After several rounds of this, the male slip slides earthward with rocking side-to-side movements. Sometimes the female will then chase him, and occasionally they engage by locking talons. This is one of the most fantastic courtship displays of any North American bird.



OHIO STATUS: SPECIAL INTEREST

Short-eared owls are primarily a migrant and winter visitor to Ohio. They actively migrate during the day, and birds can appear nearly anywhere, even in urban sites. Winter numbers vary greatly from year to year and site to site, depending on food availability. They can concentrate in large groups where small mammal populations are flourishing.

Breeding pairs of short-ear owls have never been common in Ohio as it is at the extreme southern periphery of their range. The best strategy for observing these fascinating owls is to visit one of their traditional wintering areas, such as Killdeer Plains Wildlife Area in Wyandot County or The Wilds in Muskingum County.



HABITS AND NESTING

Short-eared owls are partly diurnal, or active in the daytime, which sets them apart behaviorally from most owls. They are crepuscular, meaning most active during twilight hours. When actively hunting, short-eared fly at low to moderate heights, watching for prey on the ground. Sometimes they will also hunt from low perches, such as fence posts or the branches of small trees. When prey is spotted the owl dives towards it, sometimes after hovering briefly.

In Ohio, the meadow vole, *Microtus pennsylvanicus*, is the primary prey in most areas. Dietary studies elsewhere in North America have shown that meadow voles comprised up to 79% of the diet. A variety of other small animals, such as mice, rabbits, and rats, and occasionally small birds, have been documented in short-eared diets. On average, one pellet per meal is produced, and these are ejected from eight to ten hours after the meal is consumed, depending on the size of the prey.

This is the only ground-nesting owl in Ohio. Short-eared owls are opportunistic breeders, and sites that support high numbers of wintering owls may also have a pair remain to nest. Nests are placed within stands of relatively dense grasses, far from any wooded habitats. The nest is built by the female and is a shallow depression that is lined with soft down feathers and various grasses. Nesting typically begins in April, with five or six eggs being laid. After an incubation period of about 30 days, the young hatch, then disperse from the nest two to three weeks later. The female feeds the young exclusively, although the male provides the female with food.





SNOWY OWL

BUBO SCANDIACUS (BEW-BO [EAGLE OWL] SCAN-DEE-AY-KUS [OF SWEDEN])

Length = 23 in.
Weight = 4 lbs.
Wingspan = 52 in.

DESCRIPTION AND VOCALIZATIONS

The snowy owl is unmistakable and shouldn't be confused with any other species. Adult males are very white, with few black markings. However, most snowy owls found in Ohio are first-year females that are far more likely to wander south in the winter. These youngsters are heavily marked with black bars and can appear quite dark. Regardless of age, the face is pure white.

They are normally silent in winter, and unlikely to be heard in Ohio. Territorial males on breeding rounds emit spectacular booming hoots. Both sexes make a barking sound, and females will also make plaintive whistles.

DISTRIBUTION AND HABITAT

Few birds generate as much excitement as these massive, Arctic-nesting owls. Some winters, only one or two are found, while peak years might bring a dozen or more reports. Most snowy owls are found in the vicinity of Lake Erie. These enormous birds are largely diurnal and easily observed. They prefer sites that provide plenty of prey, which include waterfowl and gulls. Snowy owls prefer large, open spaces, similar to their tundra breeding habitat, and often frequent open agricultural landscapes. The flat, wide-open spaces around airports also provide good habitat.

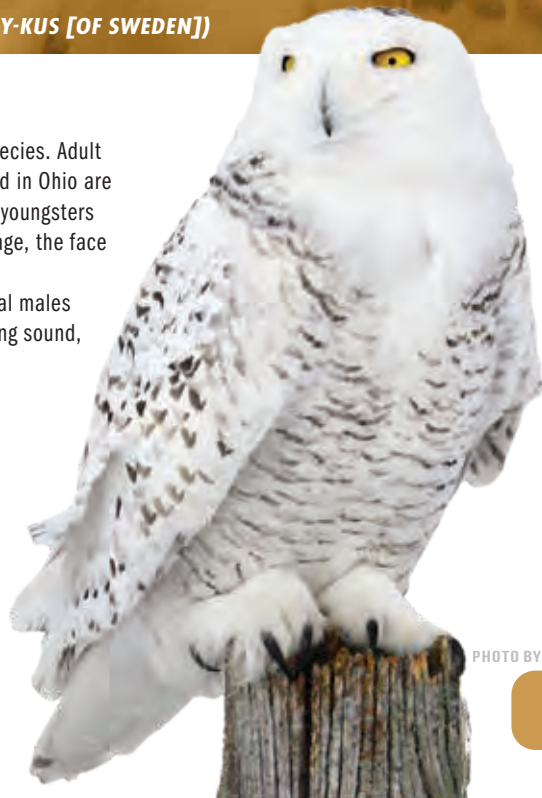


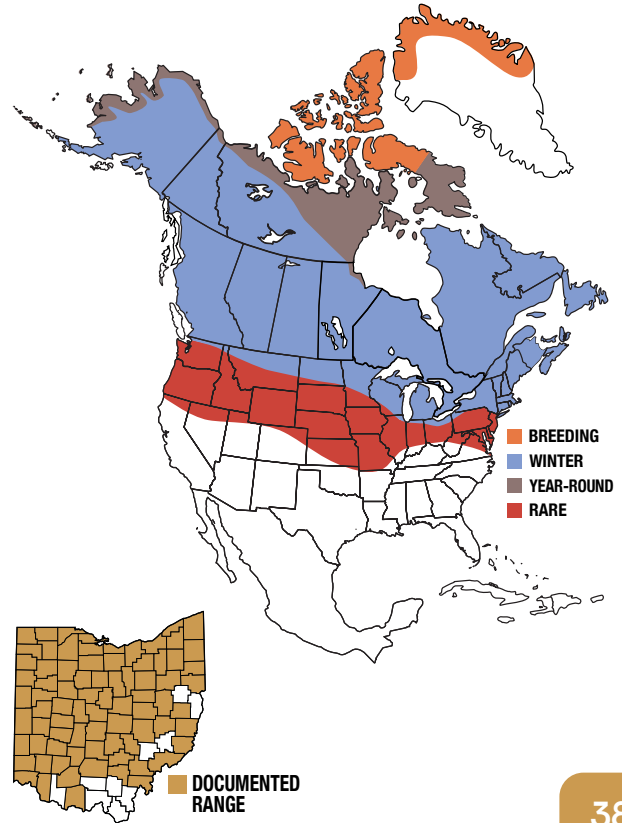
PHOTO BY ARTBABYCH

OHIO STATUS: RARE VISITOR

The number of snowy owls in Ohio varies from year to year, but there are normally anywhere from a few to perhaps a dozen sightings. In good years, snowy owls may appear by late October, although most turn up in November and December. They are most likely to be seen along the shoreline of Lake Erie. Occasionally a snowy owl will appear as far south as the Ohio River. Snowy owl movements are directly associated with the cycles of small rodents called lemmings (*Lemmini sp.*), and the big southward movements of snowy owls correlate with collapses in lemming populations. Southward irruptions into Ohio have diminished considerably since the early to mid-1900s. For instance, during the winter of 1926-27 at least 138 snowy owls were documented in the state. In recent decades, a dozen or so would constitute a big flight.

INTERESTING FACTS

- This is the heaviest North American owl; females can weigh as much as 6 ½ pounds.
- Recognizable reproductions of snowy owls can be found in prehistoric cave art dating back several thousand years, indicating a fascination with this impressive bird going back to ancient civilizations.



HABITS AND NESTING

Snowy owls hunt by sitting on a perch such as the rocks of a breakwall that gives them a good view of the surrounding terrain, then fly out and pounce on prey. Snowys also hunt from the ground. Because they often use conspicuous perches and may wait long periods for hunting opportunities, snowy owls are usually easy to locate and can be observed for extended periods.

On their Arctic tundra breeding grounds, snowy owls rely on a diet of lemmings. An adult owl that remains on the tundra year-round might consume as many as 1,600 lemmings in a year. Snowy owls that move south into Ohio in winter must switch to other prey, as lemmings are not found this far south. In Ohio they consume ducks of various species, as well as other birds like gulls. Depending on availability, they will also take small mammals.



GLOSSARY

CLUTCH - the total number of eggs a bird lays for one nesting attempt

CREPUSCULAR - most active at dawn and dusk

DIURNAL - active primarily during daylight hours

ENDANGERED - species is in imminent danger of extinction throughout all or a significant portion of its range

EXTINCT - no members of a particular species surviving anywhere in the world

EXTIRPATED - no members of a particular species surviving in certain portions of its original range, but surviving elsewhere

FACIAL DISC - the concave area of short feathers that surround the eyes of a bird and direct sound toward the owl's ears

HABITAT - an environment where a plant or animal normally can be found, it includes adequate access to food, water, shelter, and space

IRRUPTION - when a large number of individuals of a certain species move outside their normal range, typically in response to food availability

MIGRATION - regular movement of animals from one area to another, normally between breeding habitat and winter habitat

MONOTONE - a sound that does not change in pitch or key

MORPH - different plumage colors found in the same species

MNEMONIC - an association of terms or phrases that assist in remembering the syllables and notes of different bird songs

NOCTURNAL - most active at night

OWL PELLET - Undigestible parts of prey, such as bones, feathers, and hair, that are regurgitated

PLUMAGE - a bird's feathers

REGURGITATE - to cast up partially digested food

ROOST - a place where birds rest or sleep, can be an individual or a shared space

SPECIES OF SPECIAL INTEREST - a species that occurs periodically and is capable of breeding in Ohio

TALONS - the claws of a bird of prey

TERRAIN - a geographic area of land, distinguished by different natural features

THREATENED - species that are likely to become endangered in the foreseeable future

BIRDING ETHICS

1. THE WELL-BEING OF THE BIRDS (AND OTHER WILDLIFE) SHOULD ALWAYS COME FIRST.

- a. Be aware of sensitive species that might be vulnerable to disturbance.
- b. View from a distance where you are not agitating birds or modifying their behavior, especially near nests.
- c. Limit the use of audio calls. Audio calls should never be used during the breeding season or in heavily birded areas.
- d. Keep dogs on leashes in areas with ground-nesting birds.
- e. Watch for other wildlife such as turtles, frogs, and snakes crossing roadways and parking lots.

2. KEEP WILDLIFE HABITATS HEALTHY.

- a. Support the protection of important wildlife habitats.
- b. Stay on all designated trails and do not trample vegetation.
- c. If birding in a group, make sure it is not so large that it is damaging the habitat.
- d. Don't litter! Anything you bring should be taken with you and properly disposed of.

3. BE CONSIDERATE OF OTHERS.

- a. Never enter private property without permission.
- b. Follow all traffic rules, drive the speed limit, don't park on the road, and keep your eyes on the road.
- c. Be polite to fellow birders and non-birders alike and share your knowledge when appropriate.



SPECIES REPORTING

Help Ohio biologists better understand wildlife species and their populations by reporting your wildlife sightings. Including photos or videos with your report and latitude and longitude coordinates helps biologists quickly verify the sighting. Remember to always view wildlife from a respectful distance for your safety as well as the safety of the animal.

The Division of Wildlife is especially interested in reports of:

- Wild Turkey
- Badger
- Bald Eagle Nest
- Barn Owl
- Black Bear
- Black-crowned Night Heron
- Bobcat
- Feral Swine
- Fisher
- Gray Fox
- Peregrine Falcon
- Porcupine
- River Otter
- Ruffed Grouse
- Sandhill Crane
- Snowshoe Hare
- Trumpeter Swan
- Weasel



SCAN THE QR CODE
TO REPORT YOUR
WILDLIFE SIGHTINGS!

OR VISIT: <https://ohiodnr.gov/discover-and-learn/safety-conservation/about-ODNR/wildlife/Report+Wildlife+Sightings>

BIRDING GROUPS AND ORGANIZATIONS IN OHIO

One of the best ways to get involved with birding is to join a group of like-minded people. Fortunately, Ohio has several active groups throughout the state that have many birders as members, and most of these organizations host field trips regularly. Listed below are the names and contact information for many of the state's birding groups.

AUDUBON SOCIETY OF GREATER CLEVELAND

(Cleveland Area)
P.O. Box 391037 · Cleveland, OH 44114
216-556-5441
clevelandaudubon.org

AUDUBON SOCIETY OF OHIO

(Cincinnati Area)
3398 W. Galbraith Rd. · Cincinnati, OH 45239
513-741-7926 · info@cincinnati-audubon.org
cincinnati-audubon.org

AUDUBON SOCIETY/MAHONING VALLEY

(Youngstown Area)
357 Chatham Dr. · Aurora, OH 44202
counciloac.org/audubon-society-of-mahoning-valley/

AUDUBON MIAMI VALLEY

(Butler County Area)
P.O. Box 556 · Oxford, OH 45056
audubonmv@gmail.com
audubonmv.org

BLACKBROOK AUDUBON SOCIETY

(Lake County Area)
P.O. Box 1306 · Mentor, OH 44060
blackbrookaudubon.org

BLACK RIVER AUDUBON SOCIETY

(Elyria/Lorain Area)
P.O. Box 33 · Elyria, OH 44036
blackriveraudubon.org

BLACK SWAMP BIRD OBSERVATORY

(Northwest Ohio)
P.O. Box 228 · Oak Harbor, OH 43449
419-898-4070
bsbo.org

CANTON AUDUBON SOCIETY

(Canton Area)
P.O. Box 9586 · Canton, OH 44711-9586
330-832-2491

CINCINNATI BIRD CLUB

(Cincinnati Area)
cincinnati-birds.com/birdclub

CLARK COUNTY AUDUBON SOCIETY

P.O. Box 9586, Canton, OH 44711-9586
cdoveracker@woh.rr.com
counciloac.org/clark-county-audubon/

COLUMBUS AUDUBON

(Columbus Area)
505 W. Whitter St. · Columbus, OH 43215
740-545-5475 ext. 5471
columbusaudubon.org

DAYTON AUDUBON SOCIETY

(Dayton Area)
1375 E. Siebenthaler Ave. · Dayton, OH 45414
937-293-4876
daytonaudubon.org

EAST CENTRAL AUDUBON SOCIETY

(Newark Area)
P.O. Box 55 · Granville, OH 43023

FIRELANDS AUDUBON SOCIETY

(Sandusky Area)
P.O. Box 967 · Sandusky, OH 44870 -0967
firelandsaudubon.com

GREATER AKRON AUDUBON SOCIETY

(Akron Area)
P.O. Box 19190 · Akron, OH 44319
330-645-0953 · info@akronaudubon.org
akronaudubon.org

GREATER MOHICAN AUDUBON SOCIETY

(Mansfield Area)
P.O. Box 907 · Ashland, OH 44805

KELLEYS ISLAND AUDUBON CLUB

(Lake Erie Islands)
419-746-2258 · innki20@yahoo.com
kelleysislandnature.org

KIRTLAND BIRD CLUB

(Cleveland Area)
info@kirtlandbirdclub.org
kirtlandbirdclub.org

OHIO BLUEBIRD SOCIETY

(Statewide)
The Holden Arboretum
9500 Sperry Rd. · Kirtland, OH 44094
440-462-9084 · ohiobluebirdsociety@gmail.com
ohiobluebirdsociety.org

OHIO ORNITHOLOGICAL SOCIETY

(Statewide)
P.O. Box 2432 · Westerville, OH 43086
info@ohiobirds.org
ohiobirds.org

TOLEDO NATURALISTS' ASSOCIATION

(Toledo Area)
website@toledonaturalist.org
toledonaturalist.org

TRI-MORAINÉ AUDUBON SOCIETY

(Lima Area)
P.O. Box 5648 · Lima, OH 45802-5648

WESTERN CUYAHOGA AUDUBON SOCIETY

4310 Bush Avenue · Cleveland, OH 44109
info@wcaudubon.org
wcaudubon.org

FAST FACTS ABOUT OHIO'S OWLS

- Three owl species breed commonly in Ohio – the barred owl, great horned owl, and Eastern screech-owl. The barn owl, long-eared owl, short-eared owl, and Northern saw-whet owl are all rare breeders in Ohio.
- Of the eight owl species that occur annually, only three are entirely dependent upon forested landscapes; the others require open habitats.
- Two species that occur in Ohio, the short-eared and snowy owls, often hunt during daylight hours.
- The biggest Ohio owl – and largest in North America – is the snowy owl, a rare winter visitor. They can weigh up to 6.5 lbs. and catch prey as large as geese.
- Possibly the toughest Ohio breeding bird is the great horned owl. These fierce predators can take prey up to the size of red-tailed hawks and are one of very few animals that regularly kill and eat skunks.
- Some owls, like the barn owl and long-eared owl, have such acute hearing that they can capture prey in complete darkness.
- The long-eared owl is the only owl to form communal roosts.
- When threatened, long-eared owls can compress their bodies to incredibly slim proportions, and by also raising their ear tufts, assume a striking resemblance to a broken tree limb.
- The Northern saw-whet owl is the smallest owl found in Ohio; adults weigh about the same as an American robin.

BARRED OWL





PUBLICATION FUNDING

For more information about Ohio's native wildlife, please contact the ODNR Division of Wildlife:

1-800-WILDLIFE

1-800-945-3543

(1-800-750-0750 Ohio Relay TTY only)

WILDOHIO.GOV

To mail a donation, send to:

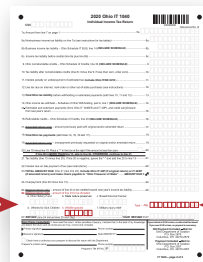
WILDLIFE DIVERSITY FUND

2045 Morse Road, Bldg G
Columbus, OH 43229-6693

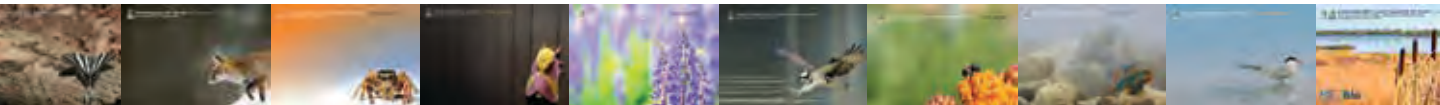
To purchase a Legacy Stamp, call the ODNR Division of Wildlife at 1-800-WILDLIFE (1-800-945-3543) or visit wildohio.gov.



To make a tax return donation, go to the 1040 income tax form for the Wildlife species tax checkoff program.



To purchase a license plate, visit your local registrar's office or call the BMV at 1-844-644-6268.



OTHER ODNR DIVISION OF WILDLIFE BOOKLETS

- Pub 5127 - Stream Fishes of Ohio
- Pub 5140 - Common Spiders of Ohio
- Pub 5204 - Butterflies & Skippers of Ohio
- Pub 5320 - Dragonflies & Damselflies of Ohio
- Pub 5334 - Sportfish of Ohio
- Pub 5344 - Mammals of Ohio

- Pub 5348 - Amphibians of Ohio
- Pub 5349 - Warblers of Ohio
- Pub 5354 - Reptiles of Ohio
- Pub 5386 - Raptors of Ohio
- Pub 5414 - Common Birds of Ohio
- Pub 5418 - Waterbirds of Ohio

- Pub 5423 - Owls of Ohio
- Pub 5467 - Moths of Ohio
- Pub 5473 - Common Lichens of Ohio
- Pub 5488 - Common Bees & Wasps of Ohio
- Pub 5494 - Spring Wildflowers of Ohio
- Pub 5509 - Trees of Ohio

- Pub 5512 - Freshwater Snails of Ohio
- Pub 5517 - Freshwater Mussels of Ohio
- Pub 5519 - Common Wetland Plants of Ohio
- Pub 5526 - Millipedes of Ohio



DIVISION OF WILDLIFE

OHIO DEPARTMENT OF NATURAL RESOURCES

The mission of the Ohio Division of Wildlife is to conserve and improve fish and wildlife resources and their habitats for sustainable use and appreciation by all. The agency was established in 1873 as the Ohio Fish Commission.

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