

OWLS IN MASSACHUSETTS

by Wayne R. Petersen, Whitman

Of all the groups of birds occurring in Massachusetts, few are as generally unfamiliar as the owls. Although owls are among the best known birds in folklore and literature and equally popular in art and sculpture, they remain something of a mystery to all but the most ardent ornithologists. Many birders encounter certain species of owls only once or twice every several years, and then often only at well-publicized roosting spots or by fortuitous happenstance. The principal reasons for this situation are these:

1. Most owls are mainly, if not completely, nocturnal.
2. Many owls roost by day either in tree cavities or in dense tree cover, which tends to render them inconspicuous.
3. Owls, being predators, have extremely keen hearing and vision. This fact, coupled with a generally shy nature, makes many species difficult to approach closely.
4. Many owls prefer extensive woodland habitat, terrain that is seldom visited by the casual birder.
5. Many owls are silent much of the year; others produce a variety of vocalizations, some of which are not readily distinguishable.

In one way or another, some combination of these factors can apply to the problems involved in trying to study any species of owl in the field. To better appreciate these problems, a few guidelines can be outlined before specifically treating in detail the seven breeding species of Massachusetts owls.

Activity Periods of Owls.

Most owls tend to do their hunting, feeding, calling, lovemaking, etc., under a cloak of darkness. Some species are often vocal just after sundown and then again just before sunrise. However, during courtship and the early breeding season, they often can be heard throughout the night.

Much of owls' hunting no doubt begins shortly after dark and continues through much of the night. Long-eared Owls (*Asio otus*) and Short-eared Owls (*Asio flammeus*) are well-known for their habit of coursing low over meadows in search of rodents at sundown. Occasionally at dusk, Great Horned Owls (*Bubo virginianus*) and Barred Owls (*Strix varia*) can be seen sitting silhouetted against the sky in dead trees along the roadside, similar to *Buteo* hawks during the daytime.

During the day, most owls are likely to sleep or doze in the security of a thick evergreen tree or within a tree cavity or large birdhouse. Northern Saw-whet Owls (*Aegolius acadicus*) and Long-eared Owls are classic conifer roosters whereas the Eastern Screech-Owl (*Otus asio*) can often be observed peering sleepily out of a hollow oak stub.

Locating and Approaching Owls.

As with many birds, individual temperament of an owl often determines how good a look one can get at a particular bird. In general, the big owls tend to be wary and shy, and the smaller Saw-whet and the screech-owls can sometimes actually be touched when they are roosting.

Moving quietly while in potential owl habitat is often the only way one can get even a fleeting glimpse of a Great Horned Owl or a Barred Owl during the daytime. At night, owls seem to be more curious, and they will often approach to investigate any peculiar sound, such as a mouselike squeak. Barred, Saw-whet, and screech-owls will regularly respond to a tape recording or human imitation of their own call by flying into a nearby tree and sitting quietly without calling in return. For this reason, a good spotlight can often be useful when looking for owls at night. As with many nocturnal animals, if the observer is quiet, owls will be undisturbed by a light trained in their direction.

Whenever one is in dense pine groves, especially Red Pine (*Pinus resinosa*) plantations, it can be worthwhile to search for both owl pellets on the ground and "whitewash" on tree branches and on the ground beneath the trees. These are often excellent clues that owls are using the grove as a roosting area. Once such evidence is obtained, then begins the neck-twisting task of systematically checking each tree under which the signs were found in an effort to locate the roosting owl. With patience, excellent studies can often be obtained of such conifer roosters as Long-eared and Saw-whet owls. Long-ears roosting in such situations generally sit high and near the trunk of the tree, whereas Saw-whets usually roost lower and farther away from the trunk.

Scolding songbirds or raucous Blue Jays (*Cyanocitta cristata*), or Common Crows (*Corvus brachyrhynchos*) will sometimes lead one to a roosting owl. If a quiet approach is made, good views of the mobbed owl may be obtained.

To observe such diurnal or crepuscular forms as the Short-eared Owl, an automobile can afford an excellent blind, as long as sound and movement within are minimal.

Generalized Habitat Requirements for Owls.

As with most hawks, breeding owls generally require rather extensive woodlands relatively free of human disturbance. The specific plant composition of such woodlands varies considerably for each species of owl. Water is apparently an important requirement for many breeding owls since nests are often located near ponds, brooks, or in swampy woods. A few species, like the Short-eared Owl, actually require open fields and moorland habitat for nesting. Proximity to such habitat may be essential for the Common Barn-Owl (*Tyto alba*) and the Long-eared Owl as well.



Northern Saw-whet Owl

Illustration by William E. Davis, Jr.

The Calling of Owls.

The calling of the various resident owls affords one of the best ways of detecting the presence of owls in an area and of determining general breeding territories. The conditions which seem to stimulate owls to call are apparently the result of a combination of factors, with no set formula always seeming to produce the same effect. Most important seems to be the time of year, the density of an owl population, the amount of illumination, the temperature, cloud cover, and overall weather conditions. Still nights are far better than windy nights, and warm evenings seem to produce better results than cold nights.

In areas where there are known to be several pairs of owls of the same species, calling seems to be more frequent. In Massachusetts this phenomenon can be appreciated among Great Horned Owl populations in the pine barrens of the southeastern coastal plain or among Barred Owl populations in the interior hill country. In addition, owls are like rails in that the calling of one will often stimulate others to vocalize.

A number of species seem to be vocal just before sunrise, so that a late winter or early spring owling survey can often record fairly good results by beginning at 4:00 A.M. and going until shortly after sunrise. Other owls are easily heard at dusk or an hour or two after sunset. The Great Horned and saw-whet owls belong in this category. A few species will even call at midday, especially in response to their own calls. Screech-Owls and Barred Owls notably exhibit this behavior.

The Breeding Owls of Massachusetts.

Common Barn-Owl. The Common Barn-Owl is a permanent resident on Nantucket and Martha's Vineyard and is a regular breeder throughout the rest of the northern and eastern portions of the state in very small and irregular numbers. Its nocturnal habits and local distribution make it a fancy find for Massachusetts birders. Most often it is found roosting in a conifer grove along the coast during the colder months of the year.

Its breeding season extends from early spring into late summer, and nests can occur anywhere that old buildings, deserted barns, church steeples, or large tree cavities exist. Many nest sites are in proximity to open country and are almost never found in heavily wooded areas. Recently, a modest barn-owl population has taken up residence on certain of the Boston Harbor islands.

At roosts, Common Barn-Owls tend to be messy, always leaving conspicuous golfball-sized, blackish pellets beneath their favorite roosting trees. In Massachusetts, their blood-chilling, rasping calls are seldom heard except near their nests. This species is sensitive to severe cold and occasionally freezes to death during extreme cold waves.

Eastern Screech-Owl. The screech-owl is a fairly common permanent resident throughout most of Massachusetts, except in the high hill-country areas of western Massachusetts. It seems to be partially migratory, or at least prone to wandering, since it frequently appears in late fall and winter in areas where it is unlikely to breed. The Eastern Screech-Owl and the Great Horned are the commonest owls in the state.

Screech-owls can often be lured to an imitation of their call at any time of the year, but they are most vocal from April to September. They are mainly woodland hunters and are especially partial to areas with small brooks and running water. Prime breeding habitat seems to be secondary woodlots and their edges, orchards, and well-planted city parks. They will regularly accept a large birdhouse in place of their normal tree cavity nest site.

Great Horned Owl. The Great Horned Owl is our largest and our second most common owl. Its deep, mellow, hooting calls are typical sounds of winter nights in much of rural Massachusetts. Although it is found practically throughout the state, it is particularly numerous in southern Plymouth County and in the pine barrens of Cape Cod, where as many as fifteen to twenty have been recorded in a single evening's survey. It is generally a rather sedentary permanent resident.

The Great Horned Owl nests very early, usually by late February, and shows a strong affinity for white pines (*Pinus strobus*) and standing water within its territory. Its nest is generally a modified crow or Red-tailed Hawk nest.

This species is a powerful predator, filling the nocturnal niche of the Red-tailed Hawk (*Buteo jamaicensis*) in the same habitats.

Great Horned Owls are not usually found in close proximity to man, except where a plentiful supply of food exists or where there is heavy timber nearby. They are perhaps best discovered in the daytime when a roosting individual is being mobbed by crows.

Barred Owl. The Barred Owl is an uncommon permanent resident in moist, interior hill country and is a local breeding bird in much of eastern Massachusetts, except along the southeastern coastal plain and on Cape Cod, where it is absent.

Its resonant "who cooks for you" call is most frequently heard from April until late summer, but so responsive is it to a good imitation that it will often call at other times of the year and in the daytime as well.

Its nesting territory usually includes hemlock (*Tsuga canadensis*) trees, and its nest site is generally in a large tree cavity or in an old crow or hawk nest. Barred Owls show a strong attachment for a breeding location and will often use the same nest for several years in succession. This owl, with its preference for moist woods and swamps, is the nocturnal counterpart of the uncommon and local Red-shouldered Hawk (*Buteo lineatus*).

Long-eared Owl. The Long-ear is perhaps the least known owl species regularly breeding or occurring in the state. It is almost completely nocturnal and also is much less vocal than many other owl species. Most observers know it best by its occasional gatherings at communal winter roosts in Red Pine groves or in Eastern Red Cedar (*Juniperus virginiana*) thickets.

From June through September, the Long-eared Owl is especially difficult to locate in spite of the fact that it probably breeds, or has bred, in nearly every county in Massachusetts. Documented nestings suggest that this species likes open country with scattered thickets, groves, or woodlots for breeding. Nests are generally in pines and are usually modified crow nests.

The vocalizations of this species are varied; however, almost all seem to be used chiefly at or near the nest. Two of the more common sounds include a slurred, high-pitched "Eeeh-h-h," given with rising inflection, and a soft "Wuk-wuk-wuk" or Whoof-whoof-whoof." It is likely that certain of the less common calls of other owl species are often erroneously attributed to this species.

Short-eared Owl. The Short-ear is best known as a migrant and winter species. It is partial to broad, coastal salt marshes or fields near the seashore. It is partly diurnal or crepuscular and can often be seen coursing low over open country like a Northern Harrier (*Circus cyaneus*). As a breeder, it is found on most of the large outer islands such as Nantucket, Martha's Vineyard, and Monomoy, but it is rare as a nesting bird on the mainland. It nests on the ground in open or semiopen moorland habitat. It is usually silent.

Northern Saw-whet Owl. Although the little saw-whet is best known as a late fall migrant or as a winter visitor, it is also an occasional breeder throughout much of Massachusetts. Its hole-nesting habits and a preference for cedar swamps, bogs, and wet woodlands make it highly inconspicuous. Often the best indication of its presence in an area is its mellow "Too-too-too-too" call at dusk on warm early spring evenings. It is probably a permanent resident on Cape Cod, but it has been found nesting in a variety of locations throughout Massachusetts. Preferred nest sites are often in dead trees with lots of old woodpecker holes, and even bird boxes are occasionally used.

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Burrowing Owl

Photo by Ralph E. Cowan
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