



**Natural Heritage
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Program**

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Massachusetts Division of Fisheries & Wildlife

**Long-eared Owl
*Asio otus***

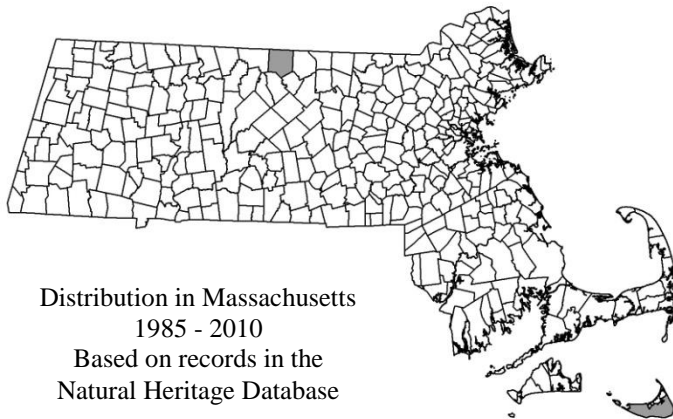
State Status: **Special Concern**
Federal Status: **None**

DESCRIPTION: The Long-eared Owl is a medium-sized bird, approximately 15 in. (38 cm) in length with a 36 in. (91 cm) wingspread. In overall coloration it is a soft, mottled grayish-brown with a predominantly plain grayish back and conspicuous dark streaks and bars on its buff-colored underparts. Prominent tawny-orange facial disks, each vertically bisected by a black stripe close to the bill surround the yellow eyes. Conspicuous, closely-set feathered ear tufts on the top of the head may be variously depressed or extended depending upon an owl's physical state. In flight the upper sides of the relatively long rounded wings display buffy patches near the end of each wing; conspicuous black crescents are visible near the bends of each wing on the undersides. Females tend to be slightly larger, darker, and buffier on the underparts than males.

SIMILAR SPECIES: The Long-eared Owl closely resembles the Short-eared Owl in size; however, Short-eared Owls are buffier in overall coloration with more conspicuously streaked underparts, much less prominent



*Long-eared Owl showing the feathered ear tufts and orange facial disks.
Photo by Chris Buelow, NHESP*



ear tufts, and facial disks that are less tawny-colored and exhibit dark patches surrounding their yellow eyes. Short-eared Owls are typically found in extensive open areas such as expansive coastal sandplain grasslands and heathlands, as well as open grassy fields and coastal salt marshes in winter. Short-eared Owls typically roost on the ground and almost never in the dense coniferous thickets or trees so characteristic of Long-eared Owls. Also Short-eared Owls are routinely seen hunting on cloudy days or at dusk, while Long-ears are almost exclusively nocturnal.

A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan

Massachusetts Division of Fisheries & Wildlife

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RANGE: Long-eared Owls are widespread throughout Eurasia and North America, where they breed in Canada from central British Columbia east to Quebec and Nova Scotia, south locally to northern Mexico, central Ohio, and sparingly to Pennsylvania, New York, and New England. In Massachusetts a handful of scattered confirmed breeding records exist for Worcester, Essex, Plymouth, Barnstable, Dukes, and Nantucket counties.

HABITAT IN MASSACHUSETTS: Long-eared Owls are sufficiently rare and secretive that their precise habitat requirements in Massachusetts are not fully understood. For nesting they generally prefer dense coniferous or mixed forests or groves close to fields or other open areas suitable for foraging. Since they regularly utilize scattered conifer groves and dense thickets in suburban and coastal locations during migration and for winter roosting, it is possible that similar habitats may also occasionally be used for nesting in Massachusetts, especially if there is open habitat nearby for hunting.

BEHAVIOR/LIFE HISTORY: The reclusive and nocturnal behaviors of the Long-eared Owl make it exceedingly challenging to detect and study. It is likely that at least a few Long-eared Owls are permanent residents in Massachusetts, however they are most often encountered during migration and in winter, when they occasionally roost communally with rarely as many as 20 occupying a single roost in years when Meadow Voles are super-abundant. Local information suggests that spring migrants are moving in March and April, although there are also egg dates for Massachusetts as early as March 15. During late winter and early spring courtship, male Long-eared Owls advertise by giving a soft, mournful hoot all on one pitch, usually uttered singly or in a short series. At other seasons they produce a variety of other barks, squeals, and mewing calls. Males also engage in flight displays near their nest during which they periodically give mechanical wing-claps, which produce whip-like snapping sounds. Copulation usually follows these displays, either on a branch or on the ground, and is generally preceded or followed by a bout of mutual head preening.

Long-eared Owls do not build a nest, but ordinarily appropriate nests previously built by a squirrel, crow, or hawk. Nests range from 10-30 feet (3-10 m) high and in Massachusetts are generally located in Pitch or White pine trees. Egg dates in Massachusetts range from mid-

March to mid-May with 4-5 eggs being the usual clutch size. The 26-28 day incubation period is by the female alone, during which time she is exclusively fed by the male. Since egg-laying is asynchronous the young hatch over several days and ordinarily remain in the nest for 21-26 days. The male continues to provide food after hatching, although the female actually does most of the feeding of the young. After fledging the young are fed for approximately 11 weeks, and though they may not remain together during the day, they continue to roost together at night. There tends to be a general dispersal at the end of season, and the young are apparently capable of breeding the following spring.

Migration in Long-eared Owls appears to correspond to that of diurnal raptors, with weather and availability of food affecting their behavior from year to year. Although the precise movements of the rare and inconspicuous Massachusetts breeding population are unknown, it is apparent that in some years there is a considerable winter influx that is obviously comprised of birds from beyond the borders of Massachusetts.

The diet of Long-eared Owls is comprised primarily of Meadow Voles, along with a small percentage of shrews, White-footed Mice, and small songbirds. Nocturnal hunting is accomplished by coursing low over open fields, marshes, and brushy terrain when the species' keen hearing is critical to successfully locating prey.

POPULATION STATUS: The Long-eared Owl is listed as a Species of Special Concern in Massachusetts, a status shared with every state in New England except Maine. Determining the breeding population of this reclusive species is extremely difficult. Fewer than 10 breeding confirmations have been established in Massachusetts in the past 35 years, and while it is possible that the species maybe more widespread than these records would indicate, it is unequivocal that the Long-eared Owl is a rare breeding species in the Commonwealth.

LIMITING FACTORS AND MANAGEMENT RECOMMENDATIONS: Massachusetts is the edge of range for long-eared owls and it is believed that the species was never a consistently regular breeder in the state.

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