

# HUDSONIA HARLEM VALLEY BIODIVERSITY MANUAL SUPPLEMENT

## Long-eared owl (*Asio otus*) NHP G5 S3, NYS P

### Habitats in the Study Area

Long-eared owl requires two types of habitats in proximity. Dense woods, especially with conifers (including conifer plantations), are used for nesting and roosting in winter. Open habitats (fields, marshes, river banks) are used for hunting, which occurs primarily at night. This species is sometimes found in sparse forests or woodlands with patches of dense vegetation interspersed with open patches, or near water (Karalus and Eckert 1974).

### Study Area Distribution

Although Bull (1964) stated that this owl breeds primarily north of Dutchess County. DeOrsey and Butler (2006) report several breeding records in western Dutchess County, though not in the Harlem Valley. Confirmed breeding in Albany County (Andrle & Carroll 1988) and a possible nesting record in Washington County suggest that long-eared owl may breed on the Rensselaer plateau in suitable habitat. Winter sightings are more frequent in the area than summer sightings and breeding reports (Pink & Waterman 1980). These scattered records and the presence of suitable habitat suggest that long-eared owl probably occurs in the study area.

### Other Relevant Aspects of Ecological Niche and Behavior

A nocturnal hunter, capturing mice, moles and other small mammals in open habitats, this owl also (rarely) takes birds from low vegetation. Snakes, bats and squirrels are occasionally eaten. Breeding occurs March-April, the pair typically using an old stick nest of another large, tree-nesting bird. Average clutch size 4-5, the male feeding the female through incubation, and both female and young through brooding (Terres 1980). Long-eared owls roost in dense conifers (hemlock, spruce, red cedar, “hard” pines) during the winter, sometimes in groups of up to 18 individuals (DeOrsey and Butler 2006).

### Description and Identification

Height 35-40 cm., wingspan 90-100 cm.; female 260-435 g, male 220-305 g. Slender, with long dark ear tufts, rounded wings and long tail. Coloration brownish gray, with vertically streaked feathers (great horned owl has feathers streaked horizontally). Pale face with white patch below black bill; legs and toes feathered. Hatchlings are downy and white, fading to buff; juvenile plumage resembles that of adult.

### Threats and Conservation

Fragmentation, destruction, or alteration of habitat, especially loss of open lands for foraging, is probably the greatest threat. Vehicular accidents and pesticide poisoning (through prey) may have a significant impact in some areas. Where long-eared owls breed it may be important to limit construction of new roads or housing, or to take measures to limit increases in traffic. Long-eared owls are eaten by larger owls, eagles, hawks and raccoons.

### Survey Technique Constraints

Long-eared owl is well-camouflaged and not easily flushed, even when closely approached. Communal roosting in winter may facilitate detection. A recent decline in “active winter roosts” in New Jersey (Liguori 2008) suggests that known or potential roosting sites may be important to protect. Nesting long-eared owls usually return to the nest after being disturbed, and rarely abandon a nest. Though very vocal in the breeding season, at other times this owl is mostly silent. Calls are highly variable and can be confusing. The repertoire includes soft musical hoots, single quavers, and shrieks or whistles (probably alarm calls). The most common calls are a long, quavering “whoooo” or a series of “kwoo” notes usually

repeated in fours with the first syllable accented (DeOrsey and Butler 2006). “Injury” and threat displays (head bobbing, puffing out feathers) may indicate proximity to a nest (Marks, et al. 1994).

## References to Identification Literature

Cornell Laboratory of Ornithology. 2002. A field guide to bird songs: eastern and central North America. Houghton Mifflin Co. Boston, MA. Audio CD with 64-p. booklet.

Karalus, K.E and A.W. Eckert. 1974. The owls of North America. Doubleday and Company, Inc. Garden City, New York, 278 p.

Peterson, R. T. 2002. A field guide to the birds of eastern and central North America. Houghton Mifflin Co. Boston, MA. 450 p.

Sibley, D. A. 2003. The Sibley field guide to birds of eastern North America. Alfred A. Knopf. New York. 432 p.

## References cited

Andrle, R. F. and J. R. Carroll. 1988. The atlas of breeding birds in New York State. Cornell University Press. Ithaca, NY. 551 p.

Bull, J. 1964. Birds of the New York Area. Harper and Row, New York. 540 p.

DeOrsey, S and B. A. Butler. 2006. The birds of Dutchess County, New York; Today and yesterday: A survey of current status with historical changes since 1870. Ralph T. Waterman Bird Club and Grinnell and Lawton Publishing. Millbrook, New York. 274 p. + species list.

Ligouri, S. 2008. Long-eared Owl, *Asio otus*. New Jersey Department of Environmental Protection, Endangered and Nongame Species Program. 2 p.

Marks, J. S., D.L. Evans, and D. W. Holt. 1994. Long-eared owl (*Asio otus*). In The birds of North America, No. 133 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.

Pink, E, & O. Waterman. Birds of Dutchess County, 1965-1979. Ralph t. Waterman Bird Club. 93 p.

Terres, J. 1980. The Audubon Society Encyclopedia of North American Birds. Alfred A. Knopf. New York. 1110 p.

