Acton WildAware Beacon Article

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By Paula Goodwin

Barred Owls

Owl species belong to one of two families; *Strigidae*, known as typical owls and *Tytonidae*, known as barn owls. The most recognizable difference between the two families is that barn owls have heart shaped faces and smaller eyes than typical owls. Barred Owls are typical owls.

Because owls' eyes face forward, not to the side, their binocular vision allows for ease in judging distance and space when hunting. Owls have excellent night vision and can see equally well during the day. Their unique tubular shaped eyes make it possible for them to see far away objects very well. Owls' ears, which are simply openings in the sides of their heads are located asymmetrically, hidden by feathers. The flat feather discs around their eyes serve to channel sound into their ears, and the difference in each ears location allow them to pick up the smallest sound. Contributing to owls' ability to hear is their softly fringed feathers which allow silent flight that also allows them to avoid being heard while hunting. The colored patterns of owls' striped and spotted feathers let them blend in with tree bark and other vegetation in the forest.

Barred Owls nest in tree cavities and will also use abandoned bird and squirrel nests. The two to four eggs are laid a couple of days apart. They are white, almost perfectly round, with a slightly rough texture. The male brings food to the female while she is on the nest during the month long incubation. The young are not able to fly when they leave the nest, but crawl out of the nest using their beak and talons to sit on branches. They fledge at 35 to 40 days, cared for by parents for at least 4 months, much longer than most other owls. The fledglings tend to disperse very short distances, usually less than 6 miles.

Acton's forest and forest wetland areas are good breeding and wintering habitat for the Barred Owl whose call, "Who Cooks for You-Who Cooks for You All?" has apparently been heard. The conservation status of the Barred Owl is "No Action" due to the strong increase in its numbers over the past thirty years. More commonly heard than seen, it is birds such as crows, blue jays, and other songbirds that can make an owl's presence known by sounding loud alarm calls in a harassing way known as "mobbing." When a small bird first notices the roosting owl it will alert nearby birds with a special call. Other birds of the same, and often different species, will flock to the tree, calling and flying around the owl. This is the smaller birds' way of telling the owl that they have seen it and is an attempt to drive it out of the area, which it often does. Barred Owls also avoid Great Horned Owls which prey upon them.

Owls are carnivorous and the Barred Owl diet is mostly made up of rodents such as mice, and birds. They eat small prey whole and reduce larger prey to smaller pieces using their needle sharp talons and strong hooked beak. Owl's stomachs have two parts; the glandular digesting

stomach and the gizzard where indigestible fur, bones and feathers are stored and slowly compressed into a pellet. During this time, the owl cannot eat, as the pellet blocks the entrance to the digestive system. After the gizzard compacts the pellet, it is stored for several hours before the owl regurgitates it, dropping it down to the ground. Because even the most fragile bones are usually preserved unbroken, owl pellets allow scientists and students to learn about the owl's diet.

For ecological study, pellets are relatively easy to find and contents easily recognized. They reveal what owls eat in particular places through the changing seasons. They can also indicate changes in a habitat. For example, if a meadow is converted to a pasture, there may be a change in the small mammal species that live there and pellets of owls will show this change. These observations contribute greatly to conservation efforts because studying pellets also tells scientists how other species are thriving in the environment. There have even been recorded cases of the tags on smaller birds being found in owl pellets, providing information regarding their migration patterns. The pellets provide a way to study owls that is noninvasive to their normal living habits.For this reason, they are commonly purchased by schools anywhere from elementary to college level to teach basic biology and ecology. WARNING: Use caution if you happen to find owl pellets and decide to study them. Research how to sterilize them and protect yourself from disease.

Resources:

Ecosystems: Study of Owl Pellets (PPT) www.vrml.k12.la.us/Upload/ecosystems.ppt Vermilion Parish, Louisiana
Reference*.com
https://www.reference.com/pets-animals/owls-digest-food-2ca19b17b68e0d4?qo=contentSimilarQuestions
Discussing the World-A journey toward a sustainable society
https://pensci.wordpress.com/2011/11/07/the-role-of-owl-pellets-going-back-to-5th-grade/
Brighthub http://www.brighthub.com/environment/science-environmental/articles/61779.aspx
Mass Audubon http://www.massaudubon.org/learn/nature-wildlife/birds/owls/about
Owls by Tom Warhol
All About Birds https://www.allaboutbirds.org/guide/Barred_Owl/lifehistory
The Owl Pages http://www.owlpages.com/owls/species.php?s=1740

Paula Goodwin is a member of the Acton Conservation Commission who introduced WildAware with Acton Natural Resource Assistant Bettina Abe. WildAware is a program sponsored by the Town of Acton Natural Resources Department that began in September and will continue through the summer of 2016. The purpose of WildAware is to educate the community about the existence and habits of wild creatures, and the goal is increased community awareness of shared habitats. For information, call 978-929-6634 or send email to nr@acton-ma.gov.