

# Notes

## Caching Behavior by Wintering Northern Saw-Whet Owls, *Aegolius acadicus*

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Devine, Arnold, and Dwight G. Smith 2005. Caching behavior in Northern Saw-whet Owls, *Aegolius acadicus*. Canadian Field-Naturalist 119(4): 578-579.

We observed 16 instances of caching behavior by Northern Saw-whet Owls in southern Connecticut between 30 October and 29 March over a 23-year period 1982 to 2004. Caches consisted of a single prey item in 13 instances and two prey items in three instances. Prey was cached either directly beneath the owl or from 5-28 cm distant, always on the same branch on which the owl was roosting. Observations of cached prey marked in the morning suggested that it was consumed after 14:30 in the afternoon of the same day. Such a delay indicated a true cache rather than delayed feeding.

Key Words: Northern Saw-whet Owl, *Aegolius acadicus*, caching behavior, Connecticut.

A cache is defined as a hiding place or storage site, particularly of food. In birds, caching is the act of placing excess food in storage for future consumption. Caching has been described for a number of species and is especially prevalent in certain raptors. We have observed caching behavior in Boreal Owls (*Aegolius funereus*), Eastern Screech-Owls (*Megascops asio*), Great Horned Owls (*Bubo virginianus*), and Northern Saw-whet Owls (personal observations). In this paper we detail aspects of Northern Saw-whet Owl caching behavior that we observed at migratory and winter roosts in Connecticut in 1982-2004.

Northern Saw-whet Owl caching was noted by Cannings (1993), Catling (1972), and Bent (1938). Bondrup-Nielsen (1977) described thawing of frozen prey by captive Saw-whet Owls and discussed this behavior in relation to caching. Bent (1938) related Saw-whet Owl caching behavior noted by Bendire (1877), who stated that he fed several whole bird carcasses to a captive Saw-whet Owl which immediately ate their heads, afterwards covering the bodies with loose feathers in the corner of its cage.

We have previously described ecology and food habits of wintering Northern Saw-whet Owls in Connecticut (Devine and Smith 1994; Smith and Devine 1982); food consisted primarily of small mammals, mainly woodland mice (*Peromyscus* sp.), House Mouse (*Mus musculus*), jumping mice (*Zapus* sp.), shrews (*Blarina brevicauda* and *Sorex* sp.), chipmunks (*Tamias striatus*), and a variety of small birds, mostly species of sparrows and juncos.

We observed 16 instances of this caching behavior (Table 1) from 30 October to 29 March between 1982 and 2004. Each cache consisted of a single prey item

in 13 instances and two prey items in three instances. Cached prey were all small animals, mostly rodents which is consistent with the Saw-whet Owl's reputation as a mouse predator. The majority (11 of 19 prey items or 57.9%) of cached prey were White-footed Mice (*Peromyscus leucopus*), but we also observed two House Mice, one Short-tailed Shrew, one Song Sparrow (*Melospiza melodijs*), and one Pickerel Frog (*Rana palustris*), the last in October.

Cached prey were laid across twigs and branchlets beneath the owl's talons or within 5-28 cm. Most cached prey was within 5 cm of the roosting owl. The caching behavior that we observed is unlike that in other owls, which usually have a definite cache site. Instead, it sometimes resembles caching behavior exhibited by shrikes (*Lanius* species). To determine if these represented food caches or were simply prey to be consumed shortly, one of us marked prey (n = 6) on branches with food coloring dyes when first seen, generally at 07:00-09:00 hours and then checked the prey items in the afternoon of the same day, at 12:00-14:30 hours. In six instances, none of the food items had been consumed in these intervals. Follow-up visits the next day or two days later revealed that cache items were gone, presumably having been consumed either in the late afternoon or during that night.

At least 14 of the 19 prey were decapitated when first observed. Neither the unidentified sparrow nor frog had been decapitated and we were unable to determine the status of the three cached mammals because their anterior parts were partly covered by the owl's feathers.

Catling (1972) commented on caching by migrant Saw-whet Owls in Ontario. He suggested that owls

TABLE 1. Cached prey of Northern Saw-whet Owls in Connecticut, 1982-2004.

Species	October	January	February	March	Totals
White-footed Mouse ( <i>Peromyscus leucopus</i> )		5	5	1	11
House Mouse ( <i>Mus musculus</i> )	1		1		2
Short-tailed Shrew ( <i>Blarina brevicauda</i> )		1			1
Masked Shrew ( <i>Sorex cinereus</i> )			1		1
Golden-crowned Kinglet ( <i>Regulus satrapa</i> )			1		1
Song Sparrow ( <i>Melospiza melodia</i> )				1	1
Unidentified Sparrow			1		1
Pickerel Frog ( <i>Rana palustris</i> )	1				1
Totals	2	6	9	2	19

consumed the heads of their prey during the previous night's hunting episode, and the body sometime during the following day. Our observations substantiate this possibility but suggest that the remaining prey is consumed much later the following day (after 14:30) and thus represents a true cache. We also note a distinct relationship between weather and Saw-whet Owl caching; caching was most commonly observed (13 of 16 instances) during the coldest months of the year, usually associated with periods of prolonged snow cover extending for 1-5 weeks.

Catling (1972) reported 31 instances of caching; 25 caches (80.6%) were during the migration period (defined as 1 October to 15 November and 15 March to 30 April) and six (19.4%) from the winter (15 November to 15 March). All 31 caches were decapitated and mice typically had forelimbs removed while birds had wings eaten. Our results differ markedly from Catling's. Using his criteria for winter and migration periods, we found 14 caches (87.5 %) during the winter and two caches (12.5 %) from the migration period. Furthermore we recorded two prey items at three different cache sites whereas this event went unreported by Catling. Thus caching appears to be an important survival mechanism of wintering Northern Saw-whet Owl in southern Connecticut.

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Received 28 July 2004

Accepted 15 September 2005