

## GREAT HORNED OWL DIURNAL RESPONSE TO A PASSERINE DISTRESS VOCALIZATION

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The Great Horned Owl (*Bubo virginianus*) is considered a crepuscular and nocturnal predator that preys primarily on small mammals (Cromrich et al. 2002). It is an opportunistic feeder, however, and has a diet broader than that of any other North American owl (Marti and Kochert 1996). There is extensive indirect evidence (pellets, prey remains, etc.) that the Great Horned also hunts diurnally (Earhart and Johnson 1970, Jaksic et al. 1981, Bosakowski et al. 1989, Bogiatto et al. 2003, Ganey and Bloch 2005). However, direct observations of this behavior are rare, and how often Great Horned Owls actually hunt during the day is unknown. Owls' use of sound to detect prey in the dark is also well documented (Payne 1971, Konishi 1973, Marti 1974), but the use of audio detection by Great Horned Owls during the day has not been reported. In this paper, we describe our observation of a Great Horned Owl attempting to take a distressed American Robin (*Turdus migratorius*) during daylight hours.

As part of a study involving banding migratory passerines, we set up mist nets at Soldier Hollow, Wasatch Mountain State Park, Utah (40° 28' N, 111° 29' W, 1800 m elevation). A family of two adult Great Horned Owls and one fledgling was observed roosting in the area. The nets were placed near the edge of a small stand of mature cottonwood trees, which provided shade for the vicinity. On 27 July 2006, a juvenile male American Robin was captured in a net at approximately 09:00 hours MDT. The weather was sunny and clear. As we approached the net, the robin began giving loud distress calls, which continued unabated while we extracted the bird from the net. The robin continued its vocalizations for approximately 5 minutes while being transported to and measured at the banding station.

As the robin was being processed, an adult owl flew in and perched approximately 3 m above the ground on a snag 10 m from the banding station. The owl was apparently attracted by the distress calls emitted by the young robin and continued to watch the bird as it was handled (approximately 3 min). The owl was close enough that we could determine that its gaze was focused solely on the robin, not the banders. Once the robin had been banded and released, it flew 5 m to a branch, where it began to preen. As soon it had perched, the owl dove at the robin. The robin emitted an alarm vocalization and avoided the owl, flying away from the perch unharmed. We did not observe the owl attempt to capture the robin again.

Previous studies have found the remains of diurnal prey in Great Horned Owl pellets, so researchers have inferred that these owls hunt during the day. However, the percentage of remains of diurnal prey in a pellet may not be an accurate representation of the species' diurnal hunting activity. Remains of diurnal prey may be the result of crepuscular or even nocturnal hunting by owls if normally diurnal prey shift activity to these periods. Additionally, Great Horned Owls may hunt during the day if large numbers of diurnal prey are available (Michener 2001). They have been observed providing food for their young during the day (Powell and Powell 1994), which may have been the case near our banding station as well, given that we observed a fledgling owl at the site. We found only a handful of accounts in the literature describing direct observation of this species capturing prey during the day (Sherman 1912, Dixon 1914, Fitch 1947, Packard 1954, Vaughan 1954, Powell and Powell 1994, Michener 2001). Studies aimed at quantifying actual levels of diurnal activity in this species would be valuable.

## NOTES

Another potential reason for hunting at unusual hours may be the detection of injured or otherwise helpless prey. Many predators, including raptors, will respond (move or turn toward the sound, attack, etc.) to alarm vocalizations given by potential prey (Conover 1994, Jurisevic and Sanderson 1998, Wise et al. 1999). Our observation indicates that the Great Horned Owl may also use its hearing to locate prey in the daytime. However, to what extent Great Horned Owls use auditory cues to locate diurnal prey, and how often they respond to alarm vocalizations, are unknown and bear further investigation.

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## NOTES

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