Probable Nest Construction by Great Horned Owls

by
J. Robert Nisbet

Great Horned Owls (*Bubo virginianus*) are not known to construct their own nests (Everett 1977, Clark *et al.* 1978). Under natural conditions, they usually nest in unoccupied hawk, eagle, crow or squirrel nests or in hollow trees, buildings, on rock crevices, on the ground or even in artificial nesting structures (Bent 1938, Byleveld 1974, Bohm 1977, Randall 1982). When using old nests they often modify them to meet their specific needs, but the complete construction of a nest by this bird is undocumented in the wild. In this note, I present field observations which document a probable nest construction by Great Horned Owls. The nesting site was located within Lot 1, Concession 2 of the Town of Ajax in the Regional Municipality of Durham, Ontario.

In late January 1980, in the early evening hours, Great Horned Owls were observed carrying what appeared to be "typical" nesting materials to a stand of Red Pine (*Pinus resinosa*) within a wooded garden on an active farm property. At dusk on 2 February a female owl was discovered sitting on a nest approximately 10 m up in a Red Pine tree. A male was observed and heard calling from an adjacent stand of Blue Spruce (*Picea* sp.).

In the three month period prior to the discovery, the area had been thoroughly searched on numerous occasions, as recently as mid-January. No nest existed at this location then or at anytime during the previous 5 years! However, a pair of Great Horned Owls had been vocalizing at this site on a regular basis through the early part of January.

The nest proper was situated in a 50 year old Red Pine tree approximately 2 m out along a limb in a horizontal crotch. The dimensions of the structure were estimated to be about 70-75 cm in width and approximately 15 cm in external height. It was constructed entirely of large twigs and small branches. No live vegetation appeared to be used. The nest was poorly concealed from vantage points below and from the south (at the nest height), but appeared moderately difficult to locate from above and was well protected to the north, east and west.

J. Robert Nisbet, Group P.O. Box 140, R.R. #1 Whitby, Ontario L1N 5R4

The nesting site was located at the southern end of a large (75 m × 35 m) wooded garden which included some mature hardwoods but was predominantly pine, spruce and cedar. The garden was adjacent to several active farm buildings and a large windbreak of Blue Spruce; it was further surrounded by a grassed orchard, pasture, several small stands of spruce and pine and extensive tracts of fallow field.

Two other woodlots of similar size and structure were located upon the farm property approximately 1 km north and south of the nesting site. One contained a nest which had been used by crows in the previous breeding season. An additional seven such woodlots existed within a 5-7 km radius of the farmsite. Three of these contained nests which were judged suitable for use by horned owls. One of these nests was occupied during the study period by a second pair of horned owls.

The nest in the wooded garden was regularly observed from 2 February through a three and one-half month period during which time notes were kept regarding the daily routine of the birds at the nest and at roost locations of the male. Pellets were collected from all such locations on a regular basis.

The first evidence of young occurred on 23 March when one juvenile bird (approximately three weeks old) was observed on the nest. A total of three young were counted on 2 April. Examination of the site on the morning of 1 May showed the nest had disappeared! A search of the ground around the nest tree yielded a trace of materials that may have been used in the nest. Farm staff could provide no information regarding the disappearance of the nest. Both adult owls and two of the young were observed near the nest site on this morning. One of the young was on the ground in an adjacent grassed paddock and the other was in a tree with the adult female. The third juvenile was located in the same paddock several days later. All three young were observed together high in a tree near the old nest site as late as 17 May. Both adults were in attendance.

No evidence relating to the destruction of the nest was confirmed. However, it is likely that the structure simply fell to the ground due to a combination of physical strain from the five owls and poor (inexperienced) nest construction. The lack of debris on the ground could be accounted for if one of the farm personel had inadvertently cleaned it up without knowing what it was — therein answering negatively when queried by myself. Not an unlikely possibility in this case given that grounds keepers were in the process of "tidying up" the area at that time.

Horned owls have occupied the above territory every year since 1980, however, no similar nesting attempt has been observed by me or reported by farm staff.

I wish to thank Chip & Linda Weseloh for their helpful suggestions in the preparation of this manuscript.

Literature Cited

Bent, A.C. 1938. Life histories of North American Birds of Prey. Part 2. Bulletin 170, Smithsonian Institute, Washington, D.C. 482 pp.

Bohm, R.T. 1977. Artificial nest platforms for raptors. Raptor Research 11(4): 97-99.

Byleveld, M. 1974. Birds of Prey in Europe. MacMillan Press, London. 263 pp.

Clark, R.J., D.G. Smith and L.H. Kelso. 1978. Working bibliography of owls of the world. Scientific and Technical Series 1, National Wildlife Federation. Washington, D.C. 319 pp.

Everett, M. 1977. A Natural History of Owls. Hamlyn Publishing Group. Toronto. 156 pp.

Randall, D. 1982. Behemoths at Black Butte. Defenders 57(4): 18-27.

Notes

Observations of Boreal Owls Feeding on Flying Squirrels

The Boreal Owl (*Aegolius funereus*), a small owl (25 cm) of the northern coniferous forest, feeds mainly on small rodents and occasionally small birds, according to sources quoted in Bent (1938). The small rodents consist of mice and voles; nowhere is there any mention of squirrel species being taken. In this note I report three instances of a Boreal Owl feeding on a flying squirrel (*Glaucomys* sp.).

On 15 January 1973, at Clarke Lake, Airy Township (Algonquin Park), Ontario, Ron Tozer observed a Boreal Owl at 08:00 hrs being harassed by Gray Jays (*Perisoreus canadensis*) Blue Jays (*Cyanocitta cristata*), Black-capped Chickadees (*Parus atricapillus*), Boreal Chickadees (*P. hudsonicus*) and a Hairy Woodpecker (*Picoides villosus*) as it roosted unconcernedly in a large White Spruce (*Picea glauca*). Howard Coneybeare observed the same owl at 10:30 hrs and noted that it was feeding on the carcass of a flying squirrel. The Boreal Owl was on exactly the same perch as when discovered earlier (when the squirrel carcass was not visible). The owl had apparently been "settled down" on the squirrel carcass in its talons, making the carcass not visible to Mr. Tozer in the early morning light. The owl may have been exhibiting the "prey thawing" behaviour described by Bondrup-Nielsen (1977) for the species in captivity. At 1700 hrs, the Boreal Owl was captured by hand by Dan Brunton (and subsequently photographed). A pellet and the flying squirrel carcass were collected. That material was confirmed as Northern Flying Squirrel (*Glaucomys sabrinus*) by Dr. Donald A. Smith, Carleton University, Ottawa.

A second instance of a Boreal Owl feeding on a flying squirrel also occurred in Algonquin Park. On 25 January 1974, near the Park Museum (Peck Township), Howard Coneybeare discovered a roosting Boreal Owl being mobbed by Black-capped