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American Woodcock Use of a Nest Box

David L. Bergman
North Dakota State University

Joel M. Bergman

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Notes

AMERICAN WOODCOCK USE OF A NEST BOX--Lombardo et al. (1989, *Condor* 91:744-747) reviewed two hypotheses for the use of nest boxes by house sparrows *Passer domesticus*, European starlings *Sturnus vulgaris*, eastern bluebirds *Sialia sialis*, and great tits *Passer major* during the nonbreeding season: (1) roosting in nest cavities may be associated with nest-cavity selection during intense competition for a limited number of usable cavities, and (2) birds use cavities during the nonbreeding season to decrease the rate of heat loss. We were unable to locate any prior documentation of nest box use by American woodcock (*Scolopax major*), therefore we report on a new behavior for the American woodcock.

On 8 December 1994 at 16:45 CST, JMB observed an American woodcock emerging from a commercially produced wood duck (*Aix sponsa*) nest box 5 km east of Otoe, Otoe County, Nebraska. The day was clear and the temperature was $< -6^{\circ}\text{C}$. The box was constructed of 1.9 cm thick pine lumber and had the dimensions 30.48 cm length x 29.21 cm width with a back height of 63.50 cm and a front height of 53.34 cm. The oval entrance hole had a 7.62 cm length x 10.16 cm width and the bottom of the hole was 38.10 cm above the base of the box. The box contained native grasses (Graminae) as nesting substrate which were placed in the box by JMB. The box was attached to a wooden telephone pole and was located 1.88 m above the ground. The pole was on the edge of a dammed fresh water spring. The pond was frozen and 7.62 cm of snow covered the ground.

American woodcock are nocturnal migrants during the fall (Godfrey 1974, Ph.D. Thesis, University of Minnesota, St. Paul; Coon et al. 1976, *J. Wildl. Manage.* 40:91-95) and initiate migration with temperature change, moon phase (Coon et al. 1976, op. cit.), strong coldfronts, and wintering latitudes (Straw et al. 1994, *Migratory shore and upland game bird management in North America*, International Association of Fish and Wildlife Agencies, Washington, D.C.). Coon et al. (1976, op. cit.) found that American woodcock migration began when the temperatures dropped between -7 to $+1^{\circ}\text{C}$. The migration temperature range and the temperature during the day of the sighting are below the lower critical temperature of 22°C of captive raised American woodcock (Vander Haegen et al. 1994, *Wilson Bull.* 106:338-343).

Throughout the year, including migration, American woodcock roost on the ground (Sheldon 1967, *The book of the American*

woodcock, University of Massachusetts Press, Amherst). The lack of dense roosting cover due to snow depth and snow drift could force late-migrating woodcock to seek shelter in cavities, which would provide protection from the wind and decrease the rate of heat loss (Kendeigh 1961, *Wilson Bull.* 73:140-147). Therefore, we believe that the bird used the box to reduce its heat loss (i.e., hypothesis 2; Lombardo et al. 1989, *op. cit.*) and thereby help compensate for poor foraging conditions and associated limited energy intake due to the cold weather. Further research is required to determine the relationship between microclimate of roosts and the roosting behavior of American woodcock.

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