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°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°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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Book Reviews

IOWA'S VASCULAR PLANTS

The Vascular Plants of Iowa: An Annotated Checklist and Natural History. Lawrence J. Eilers and Dean M. Roosa. 1994. University of Iowa Press, Iowa City. 304 pages. $29.95 (cloth), $14.95 (paper).

Floristic checklists traditionally have often been produced primarily as precursors to a comprehensive flora. Increasingly, these checklists are used for broader purposes: to succinctly describe the botanical heritage of a region, to document the distribution of rare species, and to improve the accuracy of taxonomic reporting. The historic value of these checklists has the potential to be significant. Towards these broader objectives, Iowa's newly published floristic checklist, *The Vascular Plants of Iowa: An Annotated Checklist and Natural History*, goes beyond a basic checklist and provides information on habitat, distribution, abundance, and origin for the nearly 2000 species that occur in the state. This checklist is the only complete and authoritative account of Iowa's flora.

The book consists of three parts: a natural history description of Iowa, an annotated checklist, and comprehensive indices of synonyms and common names. The section on natural history includes a synopsis of the glacial history of Iowa as well as a brief account of its vegetation history. Botanical descriptions of six physiographic regions are presented in detail. Although the accounts are provided for some distinctive features of the regions (e.g., algific talus slopes, fens), taken together, these vegetation descriptions are not comprehensive for Iowa. For example, sand prairies and dry, bluff prairies are described because they are distinctive of the Paleozoic Plateau, but descriptions of wet and mesic prairie are excluded, presumably because these are widespread communities. Floristic lists are included for each community described. However, the content of these lists is not consistent. Some lists focus on rare plants, others on dominants, and still others include non-native species. What these lists represent is not made clear by the authors. The last section on floristic origins is also confusing. The authors attempt to discuss northern, southern, eastern, and western influences on the Iowa flora. However, some plants, such as *Acer saccharinum*, appear on more than one list. The northern list is biogeographical but the others appear to be vegetation descriptions.

The annotated checklist presents a taxonomy consistent with Fernald (*Gray's Manual of Botany*, American Book Company, New York, NY, 1950) and Gleason and Cronquist (*Manual of vascular plants of northeastern United States and Adjacent Canada*, Van Nostrand, Reinhold,