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DISTRIBUTION AND DISPERSION PATTERNS OF SANDHILL CRANE FLOCKS IN THE PLATTE RIVER VALLEY

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Abstract: We evaluated sandhill crane (*Grus canadensis*) flock distribution and dispersion patterns along the Platte River Valley, Nebraska, in 2002-2003. The objectives were to: (a) determine the overall distribution and relationship between roosting and foraging flock numbers by bridge segments, (b) evaluate flocking characteristics in relation to abundance of cranes in different bridge segments and total abundance, and (c) correlate dispersion patterns and habitat use to period of migration, roost locations, and habitat types. Preliminary predictions included: foraging flock dispersions would be correlated with roost locations; greater numbers and larger flock sizes will be present in bridge segments with larger roosting flocks; flock sizes varied over time ($P < 0.01$) and varied by bridge segments ($P < 0.01$). Week of migration period negatively ($P < 0.001$) influenced flock size, while total number of cranes present in the area ($P < 0.001$) and bridge segment ($P < 0.01$) had significant positive relationships to flock size. Mean flock size by bridge segment was positively associated with total cranes in the area. Foraging flock size differed by habitat with low grassland supporting the largest (mean = 666.4), followed by corn (mean = 316), high grassland (301.8), wet meadow (214.4), and alfalfa (204.9).

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Key words: dispersion, distribution, *Grus canadensis*, Platte River Valley, sandhill crane.
