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## NESTING ECOLOGY OF SANDHILL CRANES AT GRAYS LAKE, IDAHO

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## NESTING ECOLOGY OF SANDHILL CRANES AT GRAYS LAKE, IDAHO

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**Abstract:** We examined the nesting ecology of greater sandhill cranes (*Grus canadensis tabida*) at Grays Lake, Idaho during 1997–99 to determine the effects of nest-site characteristics and land use on crane nest success. These are preliminary results from 3 years of a 4-year study. Crane nests were located in portions of the Grays Lake basin from early May through late June each year ( $n = 131$  in 1997;  $n = 131$  in 1998;  $n = 143$  in 1999). Apparent nest success varied among years (54% in 1997, 71% in 1998, and 53% in 1999; overall average of 59%). We estimate that 10% of nests found in 1999 were renests. Most crane nests were located in baltic rush/spikerush (*Juncus balticus/Eleocharis* sp.; 46% of nests), semi-wet meadow (19%), and bulrush/cattail (*Scirpus* sp./*Typha* sp.; 19%) plant communities; 62% of nests during early May were in  $\leq 12$  cm of water. As indicated by plant community, water depths at nests, and nest isolation rankings, nest success tended to be higher where nests were in relatively deep water (ca.  $>40$  cm) and were relatively isolated from access by mammalian predators. Nest success rates during 1997–99 were lower than those recorded in 1950–51 (90%,  $n = 107$ ; Steel 1952) and 1970–71 (78%,  $n = 308$ ; Drewien 1973). A variety of factors likely contribute to lower nest success, including changing predator communities over the past 30–40 years. Differences among years in our study may be affected by changing availability of alternate prey. Small mammal populations and crane nest success were the highest in 1998. Water-level management, relating to cranes and other waterbird populations, plant communities, and ecosystem function, is an emerging issue for land managers in the Grays Lake basin.

### LITERATURE CITED

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**Key words:** Grays Lake, *Grus canadensis*, Idaho, sandhill crane.

