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HABITAT SELECTION OF EASTERN MIGRATORY WHOOPING CRANES ON THEIR WINTERING GROUNDS

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Abstract: As a monitoring technician for the Whooping Crane Eastern Partnership, I (LEAF) noted that birds in years following release selected wintering habitats that differed greatly from those into which they were initially released. An analysis of the habitat preferences of these birds was needed in order to determine any possible implications to the reintroduction efforts. During the winters of 2004-2005 and 2005-2006, I recorded the locations, habitat use, social associations, and behaviors of all migratory whooping cranes (*Grus americana*) at known locations in Florida. I used compositional analysis to determine whether habitat use was random at the following levels: search area versus 95% home range; 95% home range versus core home range, and core home range versus individual locations. If habitat use was non-random, I then ranked the habitat types in order of selection preference by whooping cranes and determined whether the selection for or against a particular habitat was significant. At all levels, open pasture and other rural open lands and freshwater marshes were the highest-ranked habitat types. Whooping cranes' behaviors within the different habitat types suggest that some habitat types complement each other for various activities while they supplement each other for other behaviors. Because of year-to-year variation in habitat availability in Florida, it will be important to continue to monitor habitat selection by this population of birds to determine whether the patterns found in this study are repeated over longer time periods and how management activities may be altering subsequent selection patterns and survival in the wild.

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Key words: compositional analysis, Florida, *Grus americana*, habitat selection, reintroduction, whooping cranes, winter range.
