

ABSTRACTS FOR *CONDOR* 103(3) AUGUST 2001

FEATURE ARTICLES

SPATIAL AND TEMPORAL VARIABILITY IN NEST SUCCESS OF SNAIL KITES IN FLORIDA: A META-ANALYSIS

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Abstract. Nesting success of Snail Kites (*Rostrhamus sociabilis*) in Florida is highly variable among years and locations, and hydrology is the most frequently reported explanatory factor. We conducted a meta-analysis to evaluate the extent of spatial and temporal variability in nesting success, and explicitly tested for the effects of annual minimum water levels. Data were obtained from six independent studies spanning 22 years and 11 wetlands. Our results indicated there was substantial spatial and temporal variability in nest success and that annual minimum water level, either as a categorical or continuous response, was not a significant source of this variation. Our results do not imply that low water levels do not influence nest success. Rather, they indicate that the number of nests affected by low water conditions was quite low (<1%). A wetland area experiences low water once every 5 to 10 years, and seldom does such an event encompass the entire range of Snail Kites in Florida. During a low water event, kites are capable of moving to alternative locations. Thus, relatively few birds may exhibit low nest success as a result of low water events, and management aimed at preclusion of such events may be unnecessary and detrimental to maintenance of the habitat over long time scales.

Key words: endangered species, Everglades, Florida, meta-analysis, nest success, *Rostrhamus sociabilis*, Snail Kite.

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