

**ABSTRACTS FOR CONDOR 104(1) FEBRUARY 2002 C.E.**

**COMMENTARY**

**WATER LEVELS AFFECT NEST SUCCESS OF THE SNAIL KITE IN FLORIDA: AIC AND THE OMISSION OF RELEVANT CANDIDATE MODELS**

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Manuscript received 25 June 2001; accepted 2 November 2001.

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*Abstract.* Dreitz et al. (2001) analyzed the factors affecting nest success of the Snail Kite (*Rostrhamus sociabilis*) in Florida. They concluded that success was unrelated to water levels because Akaike's Information Criterion rated models with water-level terms as poor compared to other models. Their suite of candidate models, however, did not include models with area-specific differences in the way that water levels affect nest success. We believe that such differences should have been included among the *a priori* models examined, and that their best model is neither ecologically informative nor useful for management. Using the same statistical methods, we reanalyze Dreitz et al.'s data on nesting success from the five areas with sufficient years and nests for analysis (comprising 89% of their 1542 nests) and show that, when spatial effects of water levels are included, water levels have an important influence on nest success over the entire range of water levels, not just during low water conditions. Furthermore, Dreitz et al.'s definition of nesting attempts excluded nests found during the 10–21 day pre-laying period, when many nests fail. Thus, they overestimated nest success and underestimated the amount of nesting activity under low water conditions. Low water conditions occur relatively frequently throughout much of the kite's range, and under these conditions few kites nest and even fewer fledge young. The effects of low water extend well beyond nest success, causing many kites to forgo nesting altogether, shortening the breeding season, and decreasing the opportunity for multiple brooding.

*Key words:* Snail Kite, *Rostrhamus sociabilis*, Florida Everglades, nest success, Akaike's Information Criterion, AIC, model selection.

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