

USE OF RED MANGROVE FOR NESTING BY SNAIL KITES IN FLORIDA

VICTORIA J. DREITZ¹ AND JAMIE A. DUBERSTEIN²

¹*Department of Biology, University of Miami, Coral Gables, Florida 33124*

²*Florida Cooperative Fish and Wildlife Research Unit, University of Florida
Gainesville, Florida, 32611*

Various aspects on reproduction of the endangered Snail Kite (*Rostrhamus sociabilis*) have been studied throughout its range in the United States since the late 1960s. While several substrates have been documented, including both woody and herbaceous plants, the relative use of a nesting substrate varies between areas and among years (Snyder et al. 1989, Sykes et al. 1995). Commonly used woody plants include: coastal-plain willow (*Salix caroliniana*), pond apple (*Annona glabra*), baldcypress (*Taxodium distichum*), pondcypress (*T. ascendens*), punktree (*Melaleuca quinquenervia*), sweetbay (*Magnolia virginiana*), red bay (*Persea borbonia*), wax myrtle (*Myrica cerifera*), button-bush (*Cephalanthus occidentalis*), and coco plum (*Chrysobalanus icaco*). Herbaceous species include: sawgrass (*Cladium jamaicense*), cattail (*Typha* spp.), giant bulrush (*Scirpus validus*), and reed (*Phragmites australis*) (Nicholson 1926; Howell 1932; Stieglitz and Thompson 1967; Sykes 1987a,b; Beissinger 1988; Bennetts et al. 1988; Snyder et al. 1989; Sykes et al. 1995; Bennetts and Kitchens 1997). Although Snail Kites use a variety of nesting substrates, there has been no published mention of use of red mangrove (*Rhizophora mangle*) as a nesting substrate.

During 1999 we monitored Snail Kite nesting activity throughout central and south Florida as part of an ongoing study from 1995 to 1999 evaluating the influences of environmental variation on the demography of the Florida population of Snail Kites. We discovered three nests in red mangrove built approximately 2 m above water. These nests were located in the stairstep unit of Big Cypress National Preserve and Everglades National Park, south of Hwy 441 in Lostman's Slough.

Red mangrove is a woody species that in the southern peninsula of Florida occurs from saltwater inland to near-coastal freshwater within the mangrove fringes (Mitsch and Gosselink 1993). The occurrence of red mangrove as a nesting substrate for Snail Kites is ambiguous for interpretations of shifts in habitat quality. The Snail Kite is a highly nomadic species that moves frequently throughout its range in central and south Florida (Bennetts and Kitchens 1997) and has been seen in mangrove fringes (B. Robertson, pers. comm.). Since 1995, Snail Kites have been reported to nest in the stairstep unit (Bennetts and Kitchens 1997), however, they have never been documented to nest in red mangroves prior 1999.

ACKNOWLEDGMENTS.—We thank Deborah Jansen and Big Cypress National Preserve for providing assistance in the field and use of their helicopter to check the status of nests in the stairstep unit. We are grateful to Drs. Wiley M. Kitchens and D. L. DeAngelis for their support. The U.S. Army Corps of Engineers, St. Johns River Water Management District, and the U.S. Geological Survey provided financial support for this project.

LITERATURE CITED

- BEISSINGER, S. R. 1988. The Snail Kite. *In* Handbook of North American Birds. Vol. 4. R. S. Palmer ed. Yale University Press, New Haven, CT.
- BENNETTS, R. E., M. W. COLLOPY, AND S. R. BEISSINGER. 1988. Nesting ecology of Snail Kites in Water Conservation Area 3A. Florida Cooperative Fish and Wildlife Research Unit, University of Florida. Unpublished Report No. 31, Gainesville.

- BENNETTS, R. E., AND W. M. KITCHENS. 1997. The demography and movements of Snail Kites in Florida. USGS Biological Resources Division, Florida Cooperative Fish and Wildlife Research Unit (Technical Report No. 56), Gainesville.
- HOWELL, A. H. 1932. Florida bird life. Florida Department of Game and Fresh Water Fish, Tallahassee.
- MITSCHE, W. J., AND J. G. GOSSELINK. 1993. Wetlands. 2nd ed. Van Nostrand Reinhold, New York.
- NICHOLSON, D. J. 1926. Nesting habitat of the Everglades Kite in Florida. Auk 43: 62-67.
- SNYDER, N. F., S. R. BEISSINGER, AND R. E. CHANDLER. 1989. Reproduction and demography of the Florida Everglade (snail) Kite. Condor 91:300-316.
- STIEGLITZ, W. O., AND R. L. THOMPSON. 1967. Status and life history of the Everglade Kite in the United States. Special Science Report B, Wildlife No. 109. U.S. Dep. Interior, Bureau of Sport Fisheries and Wildlife, Washington, D.C.
- SYKES, P. W., JR., J. A. RODGERS, JR., AND R. E. BENNETTS. 1995. Snail Kite (*Rostrhamus sociabilis*). In The Birds of North America no. 171 (A. Poole and F. Gill, eds.). Academy of Natural Sciences, Philadelphia, and the American Ornithologists' Union, Washington, D.C.
- SYKES, P. W., JR. 1987a. Snail Kite nesting ecology in Florida. Florida Field Naturalist 15:57-84.
- SYKES, P. W., JR. 1987b. Some aspects of the breeding biology of the Snail Kite in Florida. Journal of Field Ornithology 58:171-189.