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## THE OCCURRENCE OF SNAIL KITE NESTS WITH FOUR FLEDGLINGS IN FLORIDA

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Nesting of the endangered Snail Kite (*Rostrhamus sociabilis*) has been widely studied throughout its range in the United States since the late 1960s. During this time, reported clutch size has ranged from one to five eggs (Sykes et al. 1995), but the proportion of clutches with four or more eggs is <2.2% (Chandler and Anderson 1974, Beissinger 1986, 1988, Sykes 1987, Bennetts et al. 1988, Snyder et al. 1989, Sykes et al. 1995). Although Snail Kites lay large clutches on occasion, there have been no published reports of four young fledging from a nest.

During 1997 we monitored Snail Kite nests throughout their range in central and southern Florida as part of a larger, ongoing study of demography of Snail Kites in Florida. We monitored 345 nests of which 7 (2.0%) contained 4 eggs. Of these large clutch nests, two nests successfully fledged four young. These nests were located 0.34 km apart in Water Conservation Area-3A (WCA-3A), which is a 23,700 ha impoundment located in Dade and Broward counties 25 km west of Miami to the north of Highway 41 and to the south of Interstate-75.

It is not clear whether or not the occurrence of nests fledging four young can be interpreted as an indication of environmental quality. Compared to other reproductive parameters (e.g., nest success, proportion of birds attempting to breed), the number of young produced per successful nest tends to fluctuate the least in response to environmental conditions for many raptors (Brown 1974, Steenhof 1987), including Snail Kites (Beissinger 1986). Our estimate of nest success, which tends to be a more sensitive parameter to environmental fluctuation, was higher in WCA-3A (49%) than the overall Florida average (38%) for 1997, but within the range of 32% to 50% reported in previous studies (Sykes et al. 1995). James A. Rodgers Jr. (pers. comm.) also observed a nest that fledged four young on Lake Kissimmee during 1988. Average clutch size on Lake Kissimmee for 1988 was higher when compared to other years he observed (J.A. Rodgers Jr., pers. comm.). However, this was also the year following extremely low-water conditions at Lake Kissimmee, which Snyder et al. (1989) suggest indicates relatively poor conditions for reproduction.

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