

Florida Field Nat. 25(4):143-145, 1997.

RECENT NESTING OF THE WHITE-TAILED KITE IN CENTRAL FLORIDA

MICHAEL A. McMILLIAN¹ AND BILL PRANTY²

¹MacArthur Agro-Ecology Research Center, 300 Buck Island Ranch Road
Lake Placid, Florida 33852

²8515 Village Mill Row, Bayonet Point, Florida 34667-2662

The White-tailed Kite (*Elanus leucurus*) is an elegant raptor of grasslands and open woodlands of the Americas (Dunk 1995). In Florida, the last nesting record until the mid-1980s occurred in 1930 (Stevenson and Anderson 1994), but birds continued to be reported sporadically through the 1950s (Sprunt 1954, 1963). By the late 1980s and early 1990s, the number of kite reports had increased considerably, and birds were again nesting in Florida (King 1987, Curnutt 1989, Curnutt and Hoffman 1992). The number of kites reported in central Florida increased substantially in 1991 to 1996, and many kites were reported during the nesting season (Pranty and McMillian 1997). This note documents a White-tailed Kite nest in Highlands County in 1996: the first central Florida nesting record in 66 years. We also discuss a previously unpublished 1994 report of probable breeding in Brevard County, Florida, and summarize characteristics of White-tailed Kite nesting records from 1872 to present.

On 21 March 1996, S. Christman (pers. comm.) discovered a pair of White-tailed Kites copulating and building a nest at MacArthur Agro-Ecology Research Center (i.e., Buck Island Ranch), which is located in the southeastern corner of Highlands County. White-tailed Kites had been observed frequently at the Center since 16 October 1995. The ranch contains a mix of wet prairie and bahiagrass (*Paspalum notatum*) pastures, hardwood hammocks composed predominantly of live oaks (*Quercus virginianus*) and cabbage palms (*Sabal palmetto*), and scattered small wetlands. The area is part of the Indian Prairie Basin, an extensive watershed between Lake Istokpoga and Lake Okechobee (Auman 1995). Since the area was converted to a cattle ranch, numerous small, shallow (<1 m deep) ditches grown to rushes (*Juncus* spp.), and larger, deeper ditches grown to water hyacinth (*Eichhornia crassipes*), water lettuce (*Pistia stratiotes*), pickerelweed (*Pontederia cordata*), yellow pondlily (*Nuphar luteum*), and arrowhead (*Sagittaria* spp.) have drained the prairie. Elevation of the area is approximately 8.5 m above mean sea level.

M. McMillian monitored the nest from a distance during its construction. The nest was built 9.9 m above the ground in an 11-m black gum (*Nyssa sylvatica*) with a diameter at breast height (DBH) of 48.1 cm. The nest tree was part of an open copse of black gums surrounded by mixed wet prairie/bahiagrass pastures and small, scattered cabbage palm hammocks. The nest tree, somewhat isolated from other trees, was separated from its nearest neighbor by 19 m. The nest was composed of small diameter (2 to 5 mm) black gum twigs that were 10 to 30 cm in length, and was lined with dried grass.

The pasture containing the nest tree was burned in a prescribed fire on 10 April 1996. Although the nest tree was scorched to within 2 m of the nest, the nest was not abandoned. Subtracting an incubation period of 30 to 32 days (Hawbecker 1942 in Dunk 1995) from the hatching date of 11 May, egg laying must have been in progress the day of the burn.

After incubation appeared to be initiated by the female, we checked the nest weekly using an extendable mirror pole to determine clutch and brood sizes. When checked on 13 April, 20 April, 28 April, and 5 May, the nest contained four eggs. On the three April dates, the female was on the nest incubating, but on 5 May the female was perched above

the nest. On 11 May the nest contained two recently hatched nestlings and one egg. A third hatchling was found dead on the ground underneath the nest (specimen to Archbold Biological Station, catalogue number GEW 5926, G. Woolfenden pers. comm.). The nest contained three nestlings on 19 May, and on 26 May the nest was empty and the adults were not present. We suspect the nest had been depredated 2 to 3 days earlier, possibly by American Crows (*Corvus brachyrhynchos*), raccoons (*Procyon lotor*), or Red-shouldered Hawks (*Buteo lineatus*). No White-tailed Kites were observed on the ranch again until 16 December 1996, when M. McMillian saw an adult near the nest site.

In June 1993, a White-tailed Kite was observed in southern Brevard County (B. Wetmore *in* Pranty 1995), on the north side of the Sottille Canal, 4.8 km west of State Road 507 (Babcock Street). The locale of the sighting is about 2.5 km south of Palm Bay, Florida, and 7.2 km north of the Indian River County line. Land use in the area is citrus groves and cattle pastures with scattered trees. Two kites were seen intermittently from 30 December 1993 to 16 January 1994 (B. and S. Hills *in* Pranty 1994). In "late spring" 1994, Bruce Wetmore (pers. comm. May 1997) observed two adult and one juvenile White-tailed Kites in this area, and kites were reported from the site through 12 February 1995 (B. and S. Hills *in* Pranty 1995). The observation of the two adults and juvenile was not published previously as a potential breeding report, but three factors lead us to conclude that this observation suggests breeding of the White-tailed Kite in Brevard County in 1994. First, the juvenile was observed with two adults during the nesting season. Second, the adults had been present for the previous 10 to 12 months. Third, juvenile kites are indistinguishable from adults on the basis of plumage by their first winter (Bammann 1975 *in* Dunk 1995), so the juvenile had to be a bird that fledged in 1994.

The fates of 17 of the 22 White-tailed Kite nests observed in Florida have been reported. Excluding one nest that failed because an oologist collected the eggs (Stevenson and Anderson 1994), eight nests (50%) were successful, and produced a total of 22 fledglings (2 to 4 fledglings per nest). The remaining eight nests failed to fledge any young. The fledgling rate for these 16 nests is 1.25 ± 1.34 fledglings for all nests, and 2.50 ± 0.53 fledglings per successful nest. Single nests in Broward County in 1986 (King 1987) and Dade County in 1991 (P. W. and S. A. Smith *in* Langridge 1991) successfully fledged young, but still contained one nestling each when checked last. We excluded these nestlings from our summary of fledgling production. Two studies in California recorded average numbers of fledglings for all nests with known fates of 1.63 ± 1.15 and 1.60 (no SD), and average numbers of fledglings per successful nests of 2.93 ± 1.51 and 3.20 ± 0.80 (Dunk 1995).

Nest shrub or tree species were reported for nine of the 22 kite nests found in Florida. One nest was built in a pine (*Pinus* spp.) (Stevenson and Anderson 1994), one in a bald cypress (*Taxodium distichum*) (Cumutt 1989), one in a citrus (*Citrus* spp.) (J. Baker *in* Pranty 1993a), one in a black gum (this note), two in oaks (*Quercus* spp.) (Stevenson and Anderson 1994), and three in wax myrtle (*Myrica cerifera*) (King 1987). Heights of eight of these nests ranged from 3.0 to 9.9 m and averaged 5.5 m (5.53 ± 2.69 m). To date, the Highlands County nest is the highest nest reported in Florida.

All nests in Florida were built in open or semi-open habitats. The four initial White-tailed Kite nests in Florida were built in native prairie habitats in central Florida, and 17 nests were built in the eastern Everglades, where hydrology and fire frequency have been altered significantly by human activities. The tendency for kites to nest in native or semi-native habitats with low levels of human activity has been reported elsewhere (Erichsen et al. 1996).

Despite the great increase in White-tailed Kite reports in Florida since 1991 (Pranty and McMillian 1997), most of the recent nesting attempts occurred prior to this period. Four nests were found in central Florida from 1872 to 1930 (Stevenson and Anderson 1994) and 13 nests in Broward and Dade counties from 1986 to 1990 (Curnutt and Hoffman 1992). Since then, only five additional nesting attempts have been reported: single

nests in Broward and Dade counties in 1991 (Langridge 1991) and again in 1993 (Pranty 1993a, b), and the Highlands County nest in 1996. We believe that repeated observations of adult kites in spring and summer elsewhere in Brevard and Highlands counties, as well as in Osceola and Polk counties (Pranty and McMillian 1997) suggest that White-tailed Kites may be more widespread as a nesting species in central Florida than is known currently. Unlike kite habitat in south Florida, which is mostly publicly owned, much kite habitat in the prairie region of central Florida is located on large, private cattle ranches. Inaccessibility of these ranches prevents accurate assessment of kite numbers, distribution, and breeding status.

We thank MacArthur Agro-Ecology Research Center for the loan of equipment, and Archbold Biological Station for its library facilities. We especially thank Bruce Wetmore for informing us of the Brevard County potential breeding report. We thank Katie Dugger, Todd Engstrom, Dave Leonard, Steve McGehee, Ken Meyer, and Brian Millsap for their numerous helpful comments that improved the note considerably. This is contribution No. 30 of the MacArthur Agro-Ecology Research Center of Archbold Biological Station.

LITERATURE CITED

- AUMEN, N. G. 1995. The history of human impacts, lake management, and limnological research on Lake Okeechobee, Florida (USA). *Arch. Hydrobiol. Spec. Issues Advanc. Limnol.* 45:1-16.
- CURNUTT, J. L. 1989. Nesting of Black-shouldered Kite (*Elanus caeruleus*) in Everglades National Park, Florida. *Florida Field Nat.* 17:77-79.
- CURNUTT, J. L., AND W. R. HOFFMAN. 1992. The recent distribution of Black-shouldered Kites in Florida. *Florida Field Nat.* 20:1-7.
- DUNK, J. R. 1995. White-tailed Kite (*Elanus leucurus*). In *The Birds of North America*, No. 178 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- ERICHSEN, A. L., S. K. SMALLWOOD, A. M. COMMANDATORE, B. W. WILSON, AND M. D. FRY. 1996. White-tailed Kite movement and nesting patterns in an agricultural landscape. Pages 165-176 in *Raptors in Human Landscapes* (D. Bird, D. Varland, and J. Negro, eds.). Academic Press. London, UK.
- KING, R. L. 1987. Successful nesting of Black-shouldered Kites in the Everglades of Broward County, Florida. *Florida Field Nat.* 15: 106-107.
- LANGRIDGE, H. P. (comp.) 1991. Florida Region [Spring 1991 report]. *Am. Birds* 45:436-438.
- PRANTY, B. (comp.) 1993a. Florida Ornithological Society Field Observations Committee Winter Report: December 1992-February 1993. *Florida Field Nat.* 21:92-100.
- PRANTY, B. (comp.) 1993b. Florida Ornithological Society Field Observations Committee Spring Report: March-May 1993. *Florida Field Nat.* 21:121-128.
- PRANTY, B. (comp.) 1994. Florida Ornithological Society Field Observations Committee Winter Report: December 1993-February 1994. *Florida Field Nat.* 22:87-96.
- PRANTY, B. (comp.) 1995. Florida Ornithological Society Field Observations Committee Winter Report: December 1994-February 1995. *Florida Field Nat.* 23:77-86.
- PRANTY, B., AND M. A. McMILLIAN. 1997. Status of the White-tailed Kite in Northern and Central Florida. *Florida Field Nat.* 25:117-127.
- SPRUNT, A., JR. 1954. *Florida Bird Life*. Coward-McCann. New York.
- SPRUNT, A., JR. 1963. Addendum to *Florida Bird Life*. Published privately.
- STEVENSON, H. M., AND B. H. ANDERSON. 1994. *The Birdlife of Florida*. Univ. Press of Florida. Gainesville.