

## T-9-1 – “Identifying Swallow-tailed Kite Activity Centers”

*Abstract:* The northern sub-species of Swallow-tailed Kite is a species of conservation concern. Despite some increases in habitat availability, Swallow-tailed Kites have not repatriated portions of their former breeding range. The Louisiana Department of Wildlife and Fisheries (LDWF) wanted to identify swallow-tailed kite activity centers to better plan land management.

Activity centers were determined by a combination of 1) sightings from LDWF staff and the public; 2) aircraft surveys; and 3) ground surveys. Habitat and spatial distribution of nest and roost sites were characterized. Surveys were conducted on 10 WMAs and some private land throughout Louisiana.

Four-hundred sixty-six (466) sightings were determined to be credible and sufficiently detailed. Sightings were located in 36 parishes and 1 Mississippi county. Sightings occurred on 14 WMAs, and 8 WMAs had at least one sighting during the breeding season.

Aerial surveys were very effective in identifying Swallow-tailed Kite nests. It is estimated that 54% of the nests could have been missed without aerial surveys.

A total of 42 nests and 28 roosts were observed on Pearl River WMA, Sherburne WMA, and the greater Joyce-Manchac WMAs area. No nests were observed on other WMAs, but Swallow-tailed Kite activity was observed at least once on each of the 11 WMAs surveyed.

Thirty-seven (37) nests were monitored. Nest success was lower in 2004 (55% nest success) than in 2003 (87%), mostly due to weather. Predation was similar in both years. Productivity was similarly lower in 2004 (1.05 fledged per nest start) than in 2003 (1.5 fledged per nest start). The measured productivity was similar to those reported in other studies. No effects on nesting success or productivity was attributable to past or present forest management.

Habitat associated with 30 nests was studied. On Sherburne WMA, Swallow-tailed Kites nested most frequently in Eastern cottonwood or cottonwood-sycamore stands. Baldcypress trees were used less than expected based on availability of baldcypress. Nests in the Joyce-Manchac area were most often in baldcypress, whereas nests in the Pearl River WMA were most often in Sweetgum associations. Nest trees were typically the tallest tree in the immediate vicinity, were often near habitat edges, and always within 2 miles of drinkable water.

Swallow-tailed Kites appear to select trees for nesting based on tree species and crown shape. Overstory characteristics appear to be more important than midstory or understory characteristics in nest site selection. Forest management appeared to have no measurable effect on Swallow-tailed Kite nesting. Forest management recommendations include spatial and temporal buffers during the breeding season and maintenance of super-emergent trees in the stand.

This grant was closed 30 September 2004. **For more information** about State Wildlife Grant T-9, or to obtain copies of interim or final reports, please contact the State Wildlife Grant Coordinator, LDWF Coastal & Nongame Resources Division.