DID THE MAGNIFICENT BUT THREATENED SWALLOW-TAILED KITE EVER CALL NORTHERN OHIO HOME?

An Exploration back to Prehistory but Emphasizing 1835 to the Present

By Laura Peskin

[Editor's note: This essay was submitted to The Ohio Cardinal before the arrival of this fall's visitor to Highland County.]

This essay is a glimpse into wild Northeast Ohio in the mid-19th century. It examines those who studied birds and wildlife at the time. We will see through one species, the Swallow-tailed Kite (Elanoides forficatus), the gradual increase over time in scientific rigor in the study of the natural world.

> "The kite's motions are astonishingly rapid, and the deep curves which they describe, their sudden doublings and crossings, and the extreme ease with which they seem to cleave the air, excite the admiration of those who views them while thus employed in searching for food. In calm and warm weather, they soar to an immense height, pursuing the large insects called Musquito Hawks, and performing the most singular evolutions that can be conceived, using their tail with an elegance of motion peculiar to themselves."[1]

When a bird as fairy-tale enchanting as the Swallow-tailed Kite is disappearing, one studies the past for lessons for the future. The kite, a small bird of prey, has been declining in range and numbers for the last 150 years.

A great menace to the kite today may be the Great Horned Owl, a predator which preys on other hunters.[2] Yet the largest problem facing kites is loss of nesting habitat, the tracts of bottomland hardwoods which are among the Buckeye State's most endangered biomes. This may explain why the kite doesn't nest in Ohio today, if indeed it ever did—an issue to be explored in this essay. In its current range the kite nests in cypress swamps and in natural or plantation pine habitat. Kites will nest in both mature slash pine (naturally occurring) or mature loblolly pine (planted) trees.

The few states along the outer coastal plain where E. forficatus still nests—South Carolina, Georgia, Florida, and the Gulf states west into Texas—continue to lose kite habitat to development. The kite is most common in the Everglades, but "common" is a relative term when it comes to this species: There are fewer than 10,000 breeding pairs in North America. Some naturalists in Florida have recommended that the bird be listed as endangered. In South Carolina, it is already listed as endangered at the state level.

There is a lack of evidence on whether the kite ever nested in Ohio. Swallow-tailed Kites in the prairie states have been known to nest—and even winter—in northern climes. Perhaps as the kites ride the wind, they are naturally drawn though wind corridors such as prairies. Those of Crawford County where E. forficatus have been past seen, are some of the few pre-Columbian prairies in Ohio.

Current studies of kites equipped with GPS transmitters show that northward-migrating birds occasionally overshoot their nesting range.[3] The kite has always been an erratic migrant and perhaps ranged far and wide as a non-breeding resident. Seventeen- year cicadas can attract kites. The last Cleveland area record was in 1999, a "17th year."

In the new millennium, there have been about 10 E. forficatus sightings in Illinois alone, one of the states where it is accidental.[4] Bird field guides in the last 30 years have walked the line on classifying the kite as accidental or casual to Great Lakes states. Then within Great Lakes localities, sightings vary wildly. While some authors (e.g. Bent) suggest that the kite was once a breeder in Northeast Ohio, little substantive evidence exists for this claim. In addition to possible unrepresentative numbers of kites in strong years for periodic prey, overemphasis of E. forficatus's presence is also possible because of the species' conspicuousness and uniqueness.[5]

Well-known naturalist Jared Kirtland in 1838 penned one of the Cleveland area's earliest accounts of the Swallow-tailed Kite. Kirtland indicated that the kite had been a regular late season migrant to Portage and Stark Counties a "few" years prior to 1938. His lack of specificity on the year prevents our knowing whether the kites came in cicada years. Kirtland did clarify that colder years drove the kites to the southern portions of their range. It was already well known in the 19th century that the kites preferred southern climes for nesting.[6]

Nature writer John Kirkpatrick was even less enlightening when writing on the kite twenty years after Kirtland. In his favor, Kirkpatrick was one of the few nature writers to mention the kite's iridescent color. Kirkpatrick also stated that "the prairies of Crawford County were formerly a favorite place of resort."[7] Like much older naturalistic writing, that of Kirkpatrick's lacks specifics. The quoted passage gives no clue as to the month the species was seen, or if it nested in the area. Later in his article Kirkpatrick informed the reader that Kirtland had a Swallow-tailed Kite taxidermy specimen in his collection. There's no mention of this stuffed bird's presumed tag and its valuable information such as when the specimen was taken.

Remains of Swallow-tailed Kites found at Midwestern archaeological sites provide clues but also raise questions. The famous Cahokia, Illinois site yielded complete femur and tibiotarsus (leg) bones. The bones date to a period of extensive trade. Is there any certainty whether the bones were from local specimens? Native Americans prized bird bones for crafting personal adornments.[8]

While excavating caves in Ohio's Highland County, an area of extensive prehistoric remains, Harry Shetrone in 1928 found bones of the Swallow-tailed Kite.[9] He believed that proto-historic Algonquin populations collected the bones. In his 1932 report of Shetrone's excavation, Alexander Wetmore of the National Museum did not mention what specific bones were found. These kite bones dated to the period of extensive trade with early European explorers and the fur-based economy.[10]

One obtains early accounts of the kite's nesting habits from Charles Bendire, who published correspondence with birders and naturalists from all over the country.[11] An informant of Bendire had observed Swallow-tailed Kites in the late 1800s nesting in Beeker County, Minnesota, mostly in basswoods and thick vegetation near lakes. Another informant described a nest near Lake Minnetonka. While in the south the kites line their nests with Spanish moss, in Minnesota they were observed using local lichens for the same purpose. With this type of adaptability, there has been considerable debate on why Swallow-tailed Kites have not recovered their former range after passage of the 1918 Migratory Bird Conservation Act and other more recent efforts. While researchers acknowledge that they are still mystified by the continuing absence of nesting E. forficatus from much of its former range, there is no shortage of hypotheses. These include the tendency of the species to return to former nests and nest in colonies.[12]

Newer research hopes to come up with more answers. Gina Kent, a Gainesville, Florida-based researcher, has placed transmitters on kite nestlings and conducted aerial telemetry. Her studies with GPS transmitters highlight pressures on kites from habitat loss beyond the nesting ground. She has found that two-thirds of North American kites gather in pre-migratory roosts in peninsular Florida and has concluded that these roosting grounds need to be preserved. In addition, the ecological health of Central America over which kites migrate needs to be watched. Thirdly the kites' wintering grounds on the pampas of South America also need to be preserved. Presently these grass and grazing lands are being lost to large-scale soy and sugar cane growing. Pesticides from agriculture are damaging to kites and other wildlife. One solution is the expansion of organic cattle ranching on the pampas. Organic cattle raising is not only better for the land than crop monoculture, but is more lucrative for ranchers, making them less likely to sell their properties to growers.[13]

Kent has also conducted aerial telemetry on kite nestlings fitted with VHF transmitters. The combination of VHF and GPS satellite telemetry

in Kent's research suggests a three-prong strategy for saving Swallow-tailed Kites; this includes the cooperation of private landholders, the timber industry, government and the non-profit sector :

1. Protect existing nesting sites:
   • Discourage land sales of parcels where kite nests have been found
   • Make agreements with timber companies not to log areas with high nesting density
2. Set aside the most suitable habitat
   • Erect nesting platforms
3. Restore habitat. [14]

Notes:

[1] Audubon on the swallow-tailed kite, 1840. Quoted in Bent, Arthur Cleveland. Life Histories of N. Am. Birds of Prey Order Falconiformes (Part 1). Bull. of US National Museum 167 (1937) online version. Accessed 19 Oct 2011 at www.archive.org.

[2] Elegant as E. forficatus appears, one should not forget that it dines on other birds from mimidae to North America's arguably most beautiful songbird – the Painted Bunting. While adult swallow-taileds' diet mainly is insects, they primarily feed vertebrates to their young.

[3] Kirkpatrick, John. Descriptions of the Rapacious Birds of Ohio in Thirteenth Annual Rpt. of Ohio Board of Agriculture; Kent, Gina of Avian Research and Conservation Institute. presentation of original research. Space Coast Birding and Wildlife Festival, Brevard Community College, Titusville, FL, 24 Jan 2013.

[4] posts, 01 to 03 Jan 2011. Illinois Birders' Forum, online resource. Accessed 19 Oct 2012 at www.ilbirds.com/index.php?topic=44524.0.

[5] Cely, JE and JA Sorrow. Status of Swallow-tailed Kite in Forsythe, Ezell, D.M. and W.B. Jr. Proceedings of the First S. Carolina Endangered Species Symposium. (Columbia, SC: SC Wildlife and Marine Resources, 1979) 105; Meyer, K.D. and M. Collopy. Status ... & Habitat requirements of the Swallow-tailed Kite in Florida. (Tallahassee, FL: Florida Game ... Commission, 1995) page not noted.

[6] Kirtland, Jared. Swallow Tailed Hawk. Second Annual. Rpt. of the Geological Survey of … Ohio. 1838. 177.

[7] Kirkpatrick, John. Ibid. 360-361.

[8] Parmalee, PW. Remains of Rare and Extinct Birds from Illinois Indian Sites. Auk 75: (1958) 169-176.

[9] The term proto-historic here refers to Native Americans whom archaeology has found to be in possession of European trade goods, while it remains unknown if the Native Americans in question actually contacted Europeans face-to-face.

[10] Wetmore, Alexander. Former Appearance of Mississippi Kite in Ohio. Wilson Bulletin 44:2 (1932) 118. [The article also discussed Swallow-tailed Kite.]

[11] Bendire, Chas. Life Histories of N. Am. Birds. Smithsonian Contr. Knowledge 25 (1892) 167ff.

[12] Kent, Gina. Avian Research and Conservation Inst. Email, 12 Feb 2013; One recent source that articulates no known reason for kites not returning to a former range is Rowe, Karen. Reproductive Status of Swallow-tailed Kites in East-Central Arkansas. Wilson Jnl. Ornithology 123:1 (2011) 97; Meyer and Collopy (see footnote 5) page not noted, concur; Cely and Sorrow (see footnote 5) 42, and Rowe, pages not noted, mentioned that challenges from conspecifics slowed the reproduction process; Cely and Sorrow, 81-82 provide a correlation between Australian pines and wind-damaged unsuccessful nests.

[13] Kent, Gina. presentation of original research. Space Coast Birding and Wildlife Festival. Brevard Community College. Titusville, FL. 24 Jan 2013.

[14] ibid.

Additional Resources:

Goslin, RM. Animal Remains from Ohio Rock Shelters. Ohio Jnl. of Science 55: (1955) 358-262.

Coulson, Jennifer A. Intra-guild Predation, Low Reproductive Potential, and Social Behaviors that may be Slowing the Recovery of a Northern Swallow-tailed Kite Population. Ph.D. dissertation. ecology and evolutionary biology. Tulane University. 2006.

The Peregrine Fund webpage for E. forficatus. Accessed 19 Oct 2011 at www.globalraptors.org.

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