

RECENT OCCURRENCES OF UNUSUALLY PLUMAGED KINGBIRDS (*Tyrannus*) IN FLORIDA: HYBRIDS OR LITTLE-NOTICED NATURAL VARIANTS?

STU WILSON
Sarasota, Florida

Email: stuwilson@comcast.net

INTRODUCTION

In the spring of 2016, two observers at two widely separated locations studied and photographed what appeared to be Gray Kingbirds (*T. dominicensis*) that had a highly unusual extensive yellow wash on the underparts.

On 5 April 2016, experienced Florida birder Carl Goodrich (pers. comm.) noted an odd-looking kingbird on a wire in the company of two Gray Kingbirds at Fort Zachary Taylor Historic State Park (“Fort Zach”) at Key West, Monroe County, Florida. In his first view, without a binocular, the bird struck him as a Western Kingbird (*T. verticalis*) because of the yellow on the underparts. Later the same day, when he was able to photograph the bird and study it in more detail with a binocular, he realized it was not a Western Kingbird. Goodrich has seen “thousands of Gray Kingbirds in the Keys over the last 40 years and none were as yellow as this one” (Fig. 1A). He believes he saw the same bird a week earlier in a gumbo limbo (*Bursera simaruba*) at the same location in the company of a dozen Gray Kingbirds, but was not able to photograph it on that occasion.

On 15 May 2016, Michelle Wilson (pers. comm.) was birding on Lust Road at Lake Apopka North Shore Restoration Area (LANSRA), Orange County, Florida, part of the Lake Apopka Wildlife Drive. There she photographed a kingbird (Fig. 1B) across a small canal, perched atop a dead branch with a few Red-winged Blackbirds (*Agelaius phoeniceus*). The kingbird intrigued her because “... there was a yellow/buttery coloring to the underside....”

Two plausible explanations emerge for explaining these atypical kingbirds: 1) The subject birds are products of Tropical Kingbird (*T. melancholicus*) x Gray Kingbird hybrid nestings such as those documented in Sarasota 2013-2016 (Wilson et al. 2015); or 2) The subject birds represent examples of natural color variation in the underparts of Gray Kingbird. Here I evaluate these two possibilities.



Figure 1. A) Photograph of first subject kingbird taken by Carl Goodrich at Fort Zachary Taylor Historic State Park at Key West, Monroe County, Florida on 5 April 2016; B) Photograph of second subject kingbird taken by Michelle Wilson on Lust Road at Lake Apopka North Shore Restoration Area, Orange County, Florida on 15 May 2016.

DISCUSSION

Tropical Kingbird x Gray Kingbird hybridization.—In 2015 Wilson et al. (2015) documented the nesting of a female Tropical Kingbird at St Armands Circle, Sarasota, Sarasota County, Florida, during the spring and summer of 2013. The authors provided strong evidence that the female Tropical Kingbird (“Dot”) mated with a male Gray Kingbird producing four hybrid young which fledged and subsequently dispersed. These events represented not only the first confirmed nesting of Tropical Kingbird east of the Mississippi River, but the first presumed Tropical Kingbird x Gray Kingbird hybridization anywhere (Wilson et al. 2015).

Dot repeated her performance in the springs and summers of 2014, 2015, and 2016, producing three, two, and two fledglings, respectively (S. Wilson, pers. obs.). In those years, it was not known whether she chose the same male Gray Kingbird as her partner, and all eleven offspring looked substantially identical to each other. In 2013, all four nestlings were banded but none of the offspring were banded in subsequent years. Other than presumably providing semen, a Gray Kingbird male parent played no observable role in the nesting process (S. Wilson pers. obs., John Ginaven pers. comm.), quite unlike the male Gray Kingbird studied by Doyle (2013).

The offspring were closely monitored in 2013, but less so in subsequent years. Fledglings were noted to be dependent on their mother for food (almost exclusively flying insects) for one to two weeks after fledging, thereafter feeding on their own. Those fledglings which could be tracked were noted to disappear three to four weeks after fledging. Monitoring the independent fledglings was complicated because they looked so similar to Gray Kingbirds. Several Gray Kingbird nests were noted in the vicinity, and the natal area became a gathering spot for Gray Kingbirds during the fledging period (S. Wilson pers. obs., J. Greenlaw pers. comm.).

The description of the young hybrids that fledged from the Sarasota nest in 2013 is as follows: “Pale underparts with just a faint hint of yellow wash on the belly and slightly deeper yellow on the undertail coverts, gray backs, dark remiges edged in yellow, brown wing coverts edged in light brown, brown rectrices edged in light brown, gray crown, loreal and postocular gray smudge, and long dark bills” (Wilson et al. 2015). The appearance of the young birds that fledged from Dot’s nests in 2014, 2015, and 2016 was consistent with this description (Figs. 2 and 3, S. Wilson pers. obs., J. Greenlaw pers. comm.).



Figure 2. Photograph of two fledgling kingbirds begging from their mother, taken by Claire Herzog at St Armands Circle, Sarasota, Sarasota County, Florida on 4 July 2014.



Figure 3. Photograph of two fledgling kingbirds taken by Claire Herzog at St Armands Circle, Sarasota, Sarasota County, Florida on 15 July 2015.

When photographs of the 2016 Monroe and Orange county birds were circulated, two prominent Florida birder/ornithologists, Bruce H. Anderson at Winter Park and Andrew W. Kratter of the Florida Museum of Natural History at Gainesville, commented that the subject birds appeared to be Tropical Kingbird x Gray Kingbird hybrids or perhaps backcrosses of a hybrid with a Gray Kingbird (BHA & AWK pers. comm., 16-17 May 2016).

The Monroe and Orange county photographs each show what appears superficially to be a Gray Kingbird, but with a noticeable amount of yellow wash on the underparts tending to concentrate in the vent/undertail covert area. The description of these individuals closely matches that observed on the fledgling birds at the St Armands Circle natal site. Since no bands were noted on the Monroe (CG pers. comm.) or Orange (see Fig. 1B) county birds, members of Dot's 2013 brood would tend to be eliminated from consideration, as all those fledglings were banded. Since the Monroe and Orange county birds were discovered in April and May of 2016, respectively, they could not have been members of Dot's 2016 brood either.

That the Monroe and Orange county birds came from the Sarasota County nests of 2014 or 2015 cannot be proven. The Monroe County bird was found about 320 km south-southeast, and the Orange County bird about 180 km northeast, of the natal area (Fig. 4).

There is little information available to help predict dispersal movements of the hybrid fledglings from the natal area on St Armands Circle in Sarasota County. There have been no published positive recaptures or resightings of any of the nine fledglings from the nests of 2013 through 2015. Although Dot was reliably present in the St Armands Circle area April through September for at least the last four years, her whereabouts throughout the remainder of the year are unknown. Tropical Kingbird is rare in Florida with barely two dozen confirmed records through 2015. The species has been found in all seasons, as a migrant in summer, fall, and spring, rarely overwintering (Pranty et al. 2016).

Melvin A. Traylor (*vide* B. Anderson), after examining Florida's only Tropical Kingbird specimen (UCF 2082, Palm Beach County), commented that in his opinion the bird was from one of the Mexican populations. Since 2002, there have been reports of Tropical Kingbirds at LANSRA at least four times, occurring in all seasons except summer (Pranty 2002, 2004a, 2004b, 2004c, 2007; Dailey 2016); there are no known published reports of Tropical Kingbird from the Florida Keys (Pranty et al. 2016).

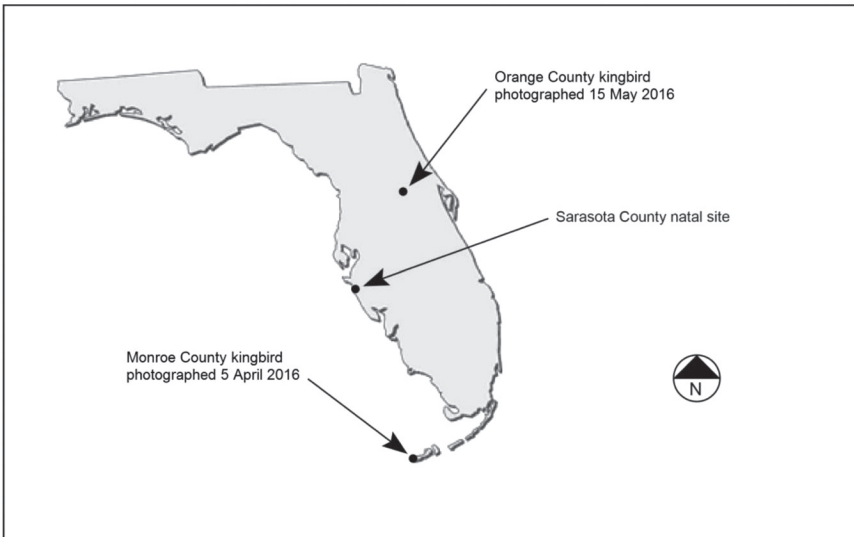


Figure 4. Map showing locations of Tropical Kingbird x Gray Kingbird natal site in Sarasota County and locations where Orange and Monroe county atypical kingbirds were photographed.

Florida breeding status and seasonal movements of the possible hybrids' other parental species, Gray Kingbird, are much better documented. Gray Kingbird is a rare to uncommon nesting species throughout the length of Florida, but confined almost exclusively to the coasts (BBAE 2016). There are occasional winter records (Greenlaw et al. 2014), but the majority of Florida breeding birds likely winter in the West Indies (Chesser 1995). Gray Kingbird is a rare visitor to Orange County during spring and fall migration and individuals have occasionally remained at LANSRA into the early summer and early winter (e.g., Pranty 2004b, 2014). Gray Kingbirds are regular breeders in Monroe County (Greenlaw et al. 2014), including at Fort Zach (C. Goodrich pers. comm.).

Therefore, to judge from the described plumages of the known Florida Tropical Kingbird x Gray Kingbird hybrids and the similar plumages observed in the photographed kingbirds at Ft. Zach and LANSRA, as well as what is known of each species' seasonal movements, the origin of the photographed birds could conceivably be the documented hybrid nestings in Sarasota.

At least as plausibly, the Orange and Monroe county birds could have originated from an undocumented pairing of Tropical Kingbird and Gray Kingbird elsewhere in Florida or nearby. The majority of the recent influx of Tropical Kingbird records in Florida are of individual birds (Pranty et al. 2016) and it is reasonable to assume these individuals might resort to a Gray Kingbird mate out of necessity, just as in the Sarasota case.

Natural color variation in Gray Kingbirds.—The possibility that the abnormal underpart plumage noted in the Orange and Monroe county birds simply represents natural color variation in Gray Kingbird must also be considered. Documentation of such variation is scarce and inconsistent. Neither Pyle (2002), Sibley (2014), nor Smith and Jackson (2002) make mention of yellow on the ventral plumage of Gray Kingbird of any age or sex (although Sibley's depiction of the juvenile bird seems to show a very faint yellow wash on the lower flanks). Smith and Jackson state without reservation that Gray Kingbird may be distinguished from other kingbirds by "underparts without yellow." J. Jackson (pers. comm.), of Smith and Jackson (2002), indicates that he does not recall observing any Gray Kingbird specimens with a yellow wash.

On the other hand, Ridgway (1907) describes Gray Kingbird with "under tail-coverts usually tinged with pale yellow." Waite (2002) indicates that Gray Kingbird shows "... mostly white underparts with pale yellow wash on belly and undertail coverts." My own observations and those of others involved in the 2013 Sarasota nest-site monitoring (Wilson et al. 2015) revealed that, indeed, the undertail coverts of Gray

Kingbird frequently show a faint yellow wash, perhaps most commonly noted on young birds. However, we did not see an extension of the yellow wash beyond the undertail coverts.

A study of tyrannid phylogeny (Ohlson et al. 2013) reveals a number of close relatives of Gray Kingbird, namely Tropical Kingbird, Couch's Kingbird (*T. couchii*), Cassin's Kingbird (*T. vociferans*), Thick-billed Kingbird (*T. crassirostris*), and Western Kingbird, that show yellow (bright or paler) across portions of the underparts. However, other relatives, namely Eastern Kingbird (*T. tyrannus*), Loggerhead Kingbird (*T. caudifasciatus*), and Fork-tailed Flycatcher (*T. savanna*) show no yellow, just plain white and pale gray. Gray Kingbirds may have a latent ability to express the yellow trait in plumage color of the underparts. Field evidence of such a trait, however, is scant.

CONCLUSION

Although uncertainty abounds, in my view the extent of pale yellow on the underparts of the photographed Orange and Monroe county birds (i.e. not limited to undertail coverts but extending through vent and belly to lower abdomen) is more likely explained by the documented precedent of Tropical Kingbird x Gray Kingbird hybridization than by naturally-occurring Gray Kingbird variation, where convincing documentation is lacking. I call upon Florida birders to be on the alert for Tropical Kingbird hybrid nestings, and to scrutinize Gray Kingbird plumages for instances of unusual coloration.

ACKNOWLEDGMENTS

I thank John Ginaven for his diligence in steadily monitoring Dot's natal site since 2013; Claire Herzog, Carl Goodrich, and Michelle Wilson for contributing photographs, and the latter two for providing details of their observations; Naomi Deutsch for assisting with graphics; Bill Pranty for allowing me access to the manuscript of his and his colleagues' then-unpublished paper; and Bruce Anderson and Jon Greenlaw for helpfully reviewing early drafts of this manuscript.

LITERATURE CITED

- BBAE [Breeding Bird Atlas Explorer] (online resource). 2016. U.S. Geological Survey Patuxent Wildlife Research Center. 1 August 2016. <<http://www.pwrc.usgs.gov/bba>>.
- CHESSER, R. T. 1995. Biogeographic, Ecological, and Evolutionary Aspects of South American Austral Migration, With Special Reference to the Family Tyrannidae. Ph.D. Dissertation, Louisiana State University, Baton Rouge.
- DAILEY, K. 2016. Field observations fall report: August-November 2015. Florida Field Naturalist 44:65-76.
- DOYLE, D. 2013. Observations of Gray Kingbird (*Tyrannus dominicensis*) habits and breeding behavior in St. Johns County, Florida. Florida Field Naturalist 41:117-122.

- GREENLAW, J. S., B. PRANTY, AND R. BOWMAN. 2014. The Robertson and Woolfenden Florida Bird Species: An Annotated List. Special Publication No. 8., Florida Ornithological Society, Gainesville.
- OHLSON, J. I., M. IRESTEDT, P. ERICKSON, AND J. FJELDSA. 2013. Phylogeny and classification of the New World suboscines (Aves, Passeriformes). *Zootaxa* 3613:1-35.
- PRANTY, B. 2002. Field observations winter report: December 2001-January 2002. *Florida Field Naturalist* 30:100-112.
- PRANTY, B. 2004a. Field observations fall report: August-November 2003. *Florida Field Naturalist* 32:63-74.
- PRANTY, B. 2004b. Field observations winter report: December 2003-January 2004. *Florida Field Naturalist* 32:117-127.
- PRANTY, B. 2004c. Field observations spring report: March-May 2004. *Florida Field Naturalist* 32:153-162.
- PRANTY, B. 2007. Field observations winter report: December 2006-January 2007. *Florida Field Naturalist* 35:89-102.
- PRANTY, B. 2014. Field observations summer report: June-July 2013. *Florida Field Naturalist* 42:36-47.
- PRANTY B., A. W. KRATTER, AND V. PONZO. 2016. Status and distribution in Florida of Tropical Kingbird (*Tyrannus melancholicus*) and Couch's Kingbird (*Tyrannus couchii*). *Florida Field Naturalist* 44:83-105.
- PYLE, P. 1997. Identification Guide to North American Birds, Part 1: Columbidae to Ploceidae. Slate Creek Press, Bolinas, California.
- RIDGWAY, R. 1907. The Birds of North and Middle America. Bulletin of the United States National Museum, No. 50, Part IV. Washington, D.C.
- SIBLEY, D. A. 2014. The Sibley Guide to Birds. 2nd ed. Alfred A. Knopf, New York.
- SMITH, G. A., AND J. A. JACKSON. 2002. Gray Kingbird (*Tyrannus dominicensis*). The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <<http://bna.birds.cornell.edu/bna/species/668>>
- WAITE, M. 2012. iBird: An Ultimate Interactive Bird Guide <https://identity.whatbird.com/obj/837/overview/Gray_Kingbird.aspx>
- WILSON, S., R. E. PEIPERT, J. GINAVEN, AND B. ROSSHEIM. 2015. Nesting and hybridization of a Tropical Kingbird (*Tyrannus melancholicus*) and Gray Kingbird (*T. dominicensis*) in Sarasota, Florida. *Florida Field Naturalist* 43:1-11.