

FIRST RECORD OF TROPICAL KINGBIRDS NESTING IN MESQUITE IN ARIZONA

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The Tropical Kingbird (*Tyrannus melancholicus*), a widely distributed tyrant flycatcher in the Americas, breeds in the United States in southern Arizona and southern and western Texas (Stouffer and Chesser 1998, Brush 2005). Its breeding range in Arizona has been increasing over the past several decades (Corman 2005, Jenness 2015). The most favored breeding site for Tropical Kingbirds in Arizona is the tops of larger Fremont cottonwoods (*Populus fremontii*), often near bodies of water (Phillips et al. 1964, Monson and Phillips 1981, Corman 2005). It also has been reported nesting in pecan trees (*Carya illinoensis*), particularly rows of trees along roadsides in agricultural areas (Corman 2005, Jenness 2015), and at least once each in athel tamarisk (*Tamarix aphylla*) (Corman 2005) and Chinese elm (*Ulmus parvifolia*) in 2014 at Willcox (eBird 2012). Throughout its extensive range this species favors locations with open edges by ponds, rivers, fields, golf courses, etc. Within this context, it utilizes a wide range of nesting sites. In Texas, for example, in addition to cottonwood, Washingtonian palm (*Washingtonia robusta*), Texas ebony (*Pithecellobium ebano*), and other tall trees, it is known to construct its nest in artificial structures such as power poles, electric substations, and football stadiums (Stouffer and Chesser 1998, Brush 2005). In Sonora, the Mexican state south of Arizona, it frequently nests in mangroves (*Rhizophora* sp.) in coastal areas and in cottonwoods along riparian belts farther north (Russell and Monson 1998).

In 2014-15, I discovered the first known Tropical Kingbird nests in Arizona in velvet mesquite (*Prosopis velutina*)—a tree that typically reaches a height of 10-15 m, far shorter than the 30 m height of favored cottonwood and pecan trees (Elias 1980). On 24 July 2014, I observed at least two family groups in the Rio Rico area, Santa Cruz Co. One pair with begging fledglings was frequenting a large mesquite along the south side of a road about 200 m east of the Santa Cruz River. A scraggly nest in the crotch of the tree, constructed of rootlets, tendrils, fine woody twigs, and weed stems, closely resembled other Tropical Kingbird nests that I have observed. About 60 m away, across the road in a mesquite, there was another pair with a noisy fledgling. A similar nest was also in that tree. These observations suggested that the kingbirds were nesting in these trees, but without seeing them in the nests it was inconclusive. Although the nests of other kingbird species found in Arizona are virtually indistinguishable from those of Tropical Kingbird (Baich and Harrison 2005) and more than one kingbird species may nest in the same trees (Phillips et al. 1964, Brush 2005, Jenness 2015), I detected no other kingbird species on my visits to the area.

In the summer of 2015, I followed up with three visits to the area. On 6 June I again detected two pairs of Tropical Kingbirds on opposite sides of the same road. In the mesquite on the south side (Fig. 1), there was a new nest about 0.3 m higher than the older nest and constructed in a similar manner. The active nest on the south side was 7.5 m from the ground; the inactive nest on the north side was 6.0 m above the ground. During most of the two hours I was there, one member of the pair was sitting on the new nest, presumably incubating eggs. On the north side of the road the noisy pair primarily remained at a mesquite farther



Figure 1. Velvet mesquite where Tropical Kingbird fledged young in 2015. Photo by Doug Jenness.

west than the one with the nest found the previous summer. This nest was unoccupied, and I was unable to locate any other nests on the north side of the road.

On my 23 June visit, I watched an adult come to the active nest twice with food in its beak presumably for nestlings, too small to be seen from the ground. For some of the two hours I was there, it also sat on the nest. The pair on the north side of the road was still present, but I was again unable to locate an occupied nest. A single begging fledgling was seen at the south side nest on 10 July along with an adult pair. Another adult pair was on the north side of the road, but no fledglings were detected. Both mesquites where nests were found were about 12 m tall, the tallest mesquites in the area and a bit taller than typical for the species.

The nests' heights were lower than three nests measured in cottonwoods during the Arizona Breeding Bird Atlas (Atlas) surveys. These nests were located at a mean height of 14.6 m (range: 11.6-18.3 m; Corman 2005). Three nests measured in pecan trees in 2013-14 were in the same height range as those reported during the Atlas period, 1993-2000 (Jenness 2015). The mesquites with the nests were between the roadway and open irrigated hayfields. To the south of the active nest there is also a farm pond that has varying amounts of water depending on rainfall and irrigation runoff. Interestingly, 150 m to the west near the river, there was a much taller cottonwood, which would typically be considered a more likely location for a nest.

There are no previous reports of Tropical Kingbirds nesting in mesquite in Arizona, either in the early years of its presence (Phillips et al. 1964, Monson and Phillips 1981) or during the Atlas period (per. comm. T. Corman). The willingness to choose a variety of nesting trees may assist in facilitating this species' expansion in the state.

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