See the video: https://youtu.be/PouVEjwpI6k

Figure 1. Two Eastern Kingbirds resting near the boardwalk at Rattray Marsh. The white bird, on the lower left, has a condition known as leucism. *Photo: Mike Millen*

Leucistic Eastern Kingbird at Rattray Marsh

Christina Carter

On Saturday, 9 June 2018, at around 13:00, while birding with my husband, Mike Millen, at the Rattray Marsh Conservation Area in Mississauga, I observed a white bird (Figure 1). We had been walking along the boardwalk in Rattray Marsh all morning. On our way back at a fork in the boardwalk, where we had spent quite a bit of time earlier in the day, I saw this white bird fly by. At first I was not sure what kind of bird it was, as it was not immediately recognizable in size and colouration. We quickly pulled out the binoculars (me) and camera (Mike) ready to spend some time focusing on identifying and photographing it. I noticed that it was flying near an Eastern Kingbird (*Tyrannus tyrannus*) that was calling and displaying aggressive territorial behaviours towards male Red-winged Blackbirds (*Agelaius phoeniceus*) entering the area. I continued to watch the white bird and noticed that it was also showing flycatcher-like behaviours in flight patterns, although it was not calling, which would have helped to confirm the identification. At that moment, the white bird flew so that its tail feathers could be nicely seen.

Figure 2. Leucistic Eastern Kingbird. *Photo: Mike Millen*

Its tail feathers had the recognizable white colour band at the tips (Figure 2). I then noticed more of the bird's colouration. Although mostly white at first glance, the bird also had some black colouration on the tail and wing feathers and a small black patch on top of its head (Figure 3).

The bird hung around the area for a couple of hours, where I was able to observe its behaviours and study its plumage further, and as well Mike was able to get some pictures. The bird flew to and from a potential nesting site deep in the marsh brush, which could not be seen from where we were standing on the boardwalk. It seemed to be catching insects in mid-air with flycatcher-like behaviour, another hint for the type of bird. The nearby normally-plumaged Eastern Kingbird flew from perch to perch on standing tree tops in the marsh, aggressively fighting off male Red-winged Blackbirds if they approached the area. The white bird seemed to mimic these perching patterns, wherever the normally-plumaged Eastern Kingbird flew and perched, the white bird would follow. This led me to believe this to be a pair of Eastern Kingbirds with a nearby nest.

The question then was why this bird looked so white and different in colouration from a typical Eastern Kingbird. I studied this concept a bit more by flipping through various images of Eastern Kingbirds online. I discovered that the bird likely had a condition called leucism, which is an abnormal plumage condition that is caused by a genetic mutation that prevents pigments from being properly deposited in the bird's feathers. This particular bird had significant absence of pigmentation in its contour feathers as it

Figure 3. A leucistic Eastern Kingbird takes flight. *Photo: Mike Millen*

was mostly white, with varying amounts of black on its wings, tail and head.

Leucism occurs naturally in a number of wild birds; however, it is more often seen in captive or exotic birds deliberately bred to encourage this type of genetic mutation. Albinism differs from leucism in that all pigments in the feathers, skin, eyes, legs, feet and bill lack pigmentation, whereas leucism only affects the feathers, typically those with the melanin pigment (usually dark feathers).

Although this was a beautiful and exciting bird to find in the wild, leucism provides some challenges for birds. The lighter colouration may provide less protective camouflage, making the bird more vulnerable to predation. As plumage colours play an important role in courtship behaviours, leucistic birds may be challenged to find a strong, healthy mate. Melanin is an important structural component of feathers and leucistic birds may have weaker feathers, wearing out quicker during flight and reducing insulation for the bird against harsh weather.

This particular leucistic Eastern Kingbird had clearly found itself a mate and appeared to be nesting in the area. This appears to be a success story for this unusual and beautiful leucistic Eastern Kingbird.

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