



## Warner Parks Bird Program

### **MIGRATORY THRUSHES: HURRICANE HELENE, THE BIRDCAST DASHBOARD, MOTUS, AND FALL MIGRATION**

Did you know weather systems and hurricanes directly impact bird migration timing and patterns?

To complement our long-term banding efforts, the Warner Parks [BIRD Program](#) joined the [Motus Wildlife Tracking System](#) network in 2020 by installing a dual 434/166 MHz radio receiver station at the nature center and launched a research project using thrushes to better understand the role Warner Parks plays as a migration stopover, also called a refueling site.

Our targeted transient migratory thrush species for this study include Swainson's Thrush (*Catharus ustulatus*), Gray-cheeked Thrush (*Catharus minimus*), and Veery (*Catharus fuscescens*). Check out the species' status and trends map on [eBird](#).

*All banding is conducted under a state permit and a federally authorized Bird Banding Permit issued by the U.S. Geological Survey's BBL.*



## Hurricane Helene & thrushes

### **Radio-tagging thrushes**

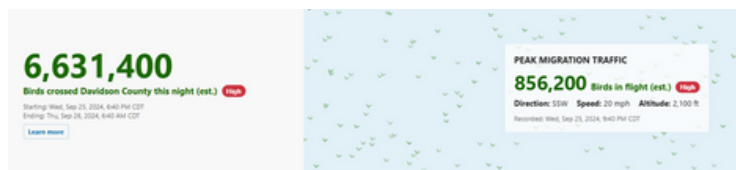
Using Cellular Tracking Technologies HybridTags, we have radio-tagged 64 fall migratory thrushes (38 Swainson's, 20 Gray-cheeked, 6 Veery) since 2020. We have learned these birds spend significant stopover time in Warner Parks (average 7-days for Swainson's, 10-days for Gray-cheeked, and 5-days for Veery) as they build fat reserves from our plentiful native berries and insects.

### **BirdCast**

To better understand real-time predictions of bird migrations, BirdCast was launched by Cornell University and partners in 2018. Using weather radar, eBird, and large data analysis, BirdCast can predict when birds will migrate, where they migrate, and how far they will fly.

According to the BirdCast Dashboard, fall migration here in Middle Tennessee was very consistent with many nights averaging 1-2 million birds crossing Davidson County. The night of 01 October had the largest movement of Fall 2024 with 8,966,900 birds. The second busiest night in Davidson County this fall was the night of 25 September. This is when things get interesting for us.

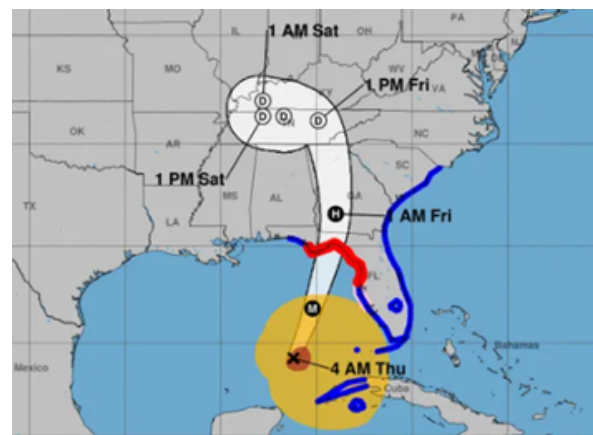
As you may recall, Hurricane Helene made landfall the evening of Thursday, 26 September. We had captured 5 Swainson's Thrushes on 10 and 11 September. The 2 adult thrushes departed our area earlier but the 3 young thrushes departed the night of 25 September along with 6,631,400 other birds, just before Hurricane Helene made landfall.



From Birdcast.info

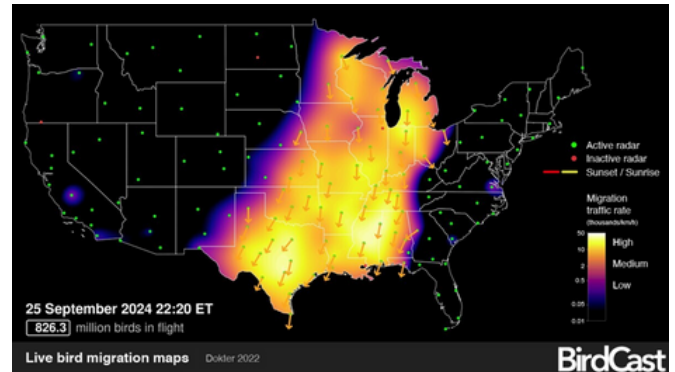
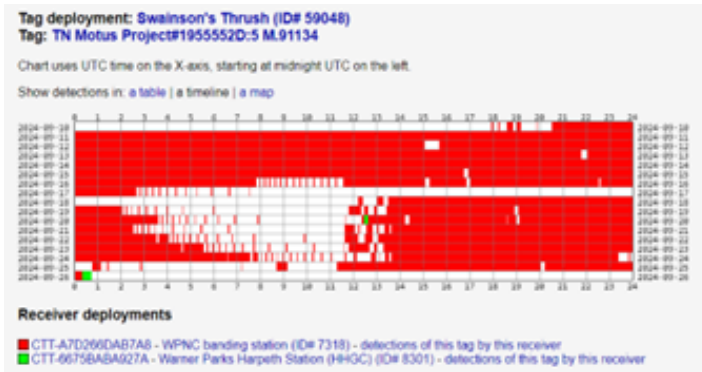


Photo by Graham Gerdeman



From USA Today

# Hurricane Helene & thrushes



## The night before Hurricane Helene

Our Warner Park Nature Center Motus station illustrates how one of our radio-tagged Swainson's Thrushes departed around 6:30pm the night of 25 September along with millions of other birds prior to Hurricane Helene.



Photos by Graham Geredeman. Map from Motus.org



## Avoiding the Hurricane

One of our Swainson's Thrushes who departed the night of 25 September appears to have flown west of the hurricane (the white line shows the direct connection between detections while the yellow shows the probable path to avoid the hurricane). This bird was detected in Belize 4 days after departing Warner Parks and another 9 days later flying through Costa Rica on its way to South America for the winter.

*A special thank you to our partners BirdCast, Motus, Cellular Tracking Technologies and to Friends of Warner Parks and the Barbara J. Mapp Foundation for funding this research.*