

# Motus Wildlife Tracking Program

## 2023 Annual Report

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The Motus Wildlife Tracking System (Motus) is an international collaborative research network that uses coordinated automated radio telemetry to facilitate research and education on the ecology and conservation of migratory animals. Motus is a program of Birds Canada in partnership with collaborating researchers and organizations. We are in the process of installing two towers at Calvert County Parks that will contribute data to the collaborative network. These data will also be used by CHESPAX to create a lesson for students to learn about migration while analyzing the data collected by these towers. In the future we hope to be deploying our own tags on Barn Owls and American Kestrels to better understand their movements and improve our conservation efforts of these species.

### SKILLS NEEDED

- Need their own reliable transportation

### VOLUNTEER DUTIES

At time this program there have not been a need for volunteers since the tower is automatically collecting and submitting the data. We are hoping to create some opportunities for volunteers in the future. These may include:

- Assist with collecting/downloading data from tower sites
- Analyzing and organizing the data that is collected

### REQUIREMENTS & EXPECTATIONS

These will be adjusted as opportunities are created

- Travel in the field to tower sites
- Keeping nest sites or known locations of sensitive species confidential

### TRAININGS

- Learn and demonstrate ability to properly download data from a tower field site
- Once trained, you will receive a certificate that you can upload as a Qualification on your profile. You can then respond to be a volunteer in different opportunities.

### PROJECT DATES

- KLP tower up and running on 4-13-2022
- Gatewood tower still needs installed trying to determine install location

## Summary of 2023 Activities

In 2023 we had no volunteers help with this project as they have not been needed. The tower has been working well reporting all the data over wifi and not requiring staff or volunteers to manually download the data from the tower site.

The Motus tower at Kings Landing Park is still up and running. We can access the data for this tower via this link <https://motus.org/data/receiverDeploymentDetections?id=8533> .

In 2023, we detected 9 birds as of 12/11/2023.

Four were American Kestrels banded in Massachusetts (Northampton, Hardwick, North Carver, and Oakham.) One of these tagged kestrels was detected at the KLP tower during both spring (3/16/23) and fall (10/4/23) migration. The American Kestrel was originally tagged by Andrew Vitz. Gene reached out to him before about learning attachment methods and asked if there is anything we would like to do if we capture any of his tagged birds during our raptor research project. He requested photos of the transmitter, attachment harness, and of the bird. A fifth American Kestrel banded by Jeff Kolodzinski of the Port Authority of NY & NJ was also detected by our tower during fall migration.

Gene noticed that 4 out of the 5 American Kestrels were also detected at near the same time by the Poplar Island tower. Looking at the map of estimated antenna ranges this means the kestrels are likely flying along the eastern shore of Calvert or down the bay during their migration which is why they were detected by both towers.

After discussing with another birder about the possibility of American Kestrels migrating at night Gene looked further into the detections on our tower and did not see any night time detections. Gene did notice an odd pattern on their timing. Two kestrels were detected during their spring migration and those times detected were from 7:20am-7:15pm and 7:30am-6:00pm. Three kestrels were detected during their fall migration and those times detected were 11:15am-2:20pm, 10:45am-4:40pm, and 10:15am-1:00pm. It appears they spend a lot more time migrating during the spring likely being driven by the urge to breed. During the fall migration start times were a lot later and ended sooner possibly having a more relaxed migration pace. This is a small data set but still cool data we get to learn about American Kestrel migration from motus tag detections.

Also documented were

- One Rusty Blackbird originally banded near Lincoln Plantation Maine.
- One Eastern Whip-poor-will that was banded north of Toronto was detected by our tower.

At this point there has been no forward progress with the Gatewood antenna since there is still no internet there. Internet is needed to allow for accurate data submission. The tower supplies, donated by Liz Sanders, were transferred to Greg Kearns to be installed at another location, possibly Point Lookout State Park. Gene is still trying to figure out what will be the best product to use to attach the mast to the house and where to attach on the house. This will still require the same lightning protection system used at KLP which was about \$3000 from Larry's Electric.

## Volunteer Recognition and Appreciation

No volunteers have been needed at this time

## Future Plans

- Determine how to safely mount the Gatewood tower. It will not be able to operate until we have wireless or hard wired internet at that site though.
- Work with other researchers who are currently deploying tags on American Kestrels to gain experience with the attachment method so Gene can be approved on our BBL permit to deploy transmitters.

*Supporting Calvert County's nature parks and natural spaces*



# CALVERT STEWARDS

## VOLUNTEER PROGRAM

*A partnership between Calvert Nature Society and Calvert County Natural Resources Division*

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Volunteer Portal: <https://calvertstewards.galaxydigital.com/>

Calvert Nature Society: [www.calvertparks.org](http://www.calvertparks.org)

Calvert County Natural Resources Division:  
[www.calvertcountymd.gov/NaturalResources](http://www.calvertcountymd.gov/NaturalResources)

