

# MAPS Bird Banding Program

## 2023 Annual Report

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**Project Leader:** Gene Groshon [gene.groshon@calvertcountymd.gov](mailto:gene.groshon@calvertcountymd.gov) 410-535-5327

**JoAnne Lutmerding helped with banding days; Gene Groshon was in charge of the station.**

**Volunteers:** Joanna Lutmerding, Scott Clark, Joe Clark, Maggie Silverman, Eaton Ekarintaragun

**Total Volunteer Hours:** 104.5 hours

MAPS stands for Monitoring Avian Production and Survivorship, a bird banding research project that focuses on studying the population of birds in their breeding habitat. The data gathered during this project help to determine the productivity, recruitment and survival of different bird species. We follow a very specific protocol established by the Institute for Bird Populations. This is a continent wide project with more than 1,200 MAPS stations spread across nearly every state and Canadian province, having collected more than 2.5 million bird capture records since 1989.

This project involves capturing birds with mist nets in order to collect the data needed. Mist nets are made of a very fine material and are difficult for the birds to see. The nets are checked every 40 minutes and any birds captured are carefully extracted by trained staff. Once the bird is extracted it is given a small metal leg band that has a unique number stamped into it. This helps us to identify the bird if it gets recaptured. After determining the species and sex we take several measurements and then the bird is released. Photos are taken of some notable species or ones that are difficult to age. Often times there is not time for photos as we need to ensure the nets are getting checked on time.

We open the nets at sunrise and run 7 net checks every 40 minutes. The 12 nets are placed along a 1 mile loop through the park so we typically hike 8 miles a day often at a rigorous pace. The trail is narrow, sometimes wet and lined with sticker bushes and poison ivy so pants and sturdy hiking shoes/boots are recommended.

During our time operating the station we keep track of every bird species that is seen or heard within our banding area and take note of any breeding behavior. New volunteers help with these observations.

### SKILLS NEEDED

- Need their own reliable transportation
- Be able to hike 8 miles at a rigorous pace on varied terrain
- Able to identify local birds by sight and song (helpful)

### VOLUNTEER DUTIES

- Assist with spotting and identifying birds seen and heard
- Recording data during banding process

### REQUIREMENTS & EXPECTATIONS

- Arrive at start time (about 5:30 to 6:00am) to assist with opening the nets
- Hike 6-7 mile on uneven terrain (sometimes at a fast pace if it's a busy day)
- Work in hot and humid conditions for 6-7 hours with no time indoors

## TRAININGS

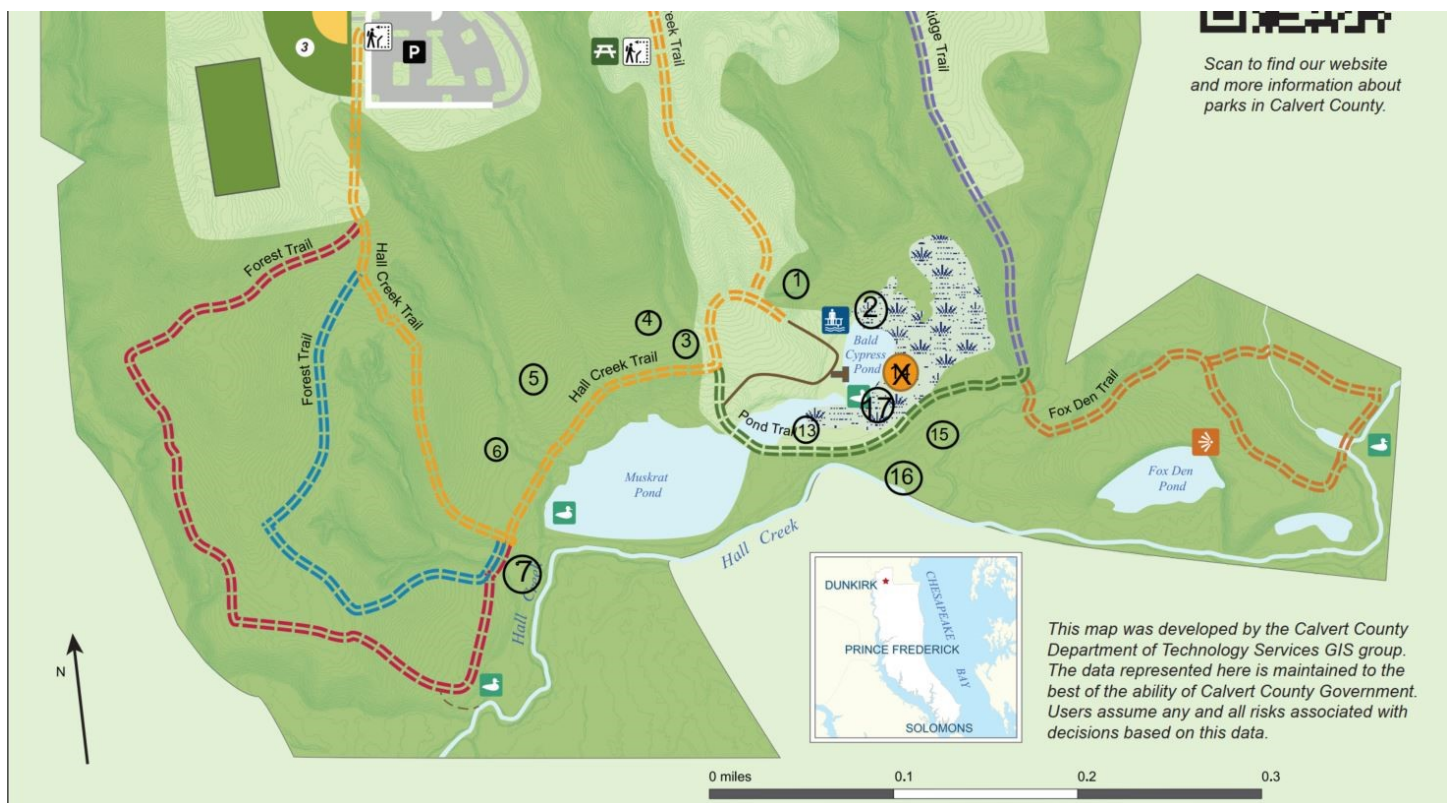
- New volunteers should email [gene.groshon@calvertcountymd.gov](mailto:gene.groshon@calvertcountymd.gov) to set up a day to come out and observe.
- Once trained, volunteers will be qualified for the MAPS opportunity on their profile on <https://calvertstewards.galaxydigital.com>. This will allow them to respond in related opportunities.

## PROJECT DATES

- Late April- Early May: Possible trail clearing days and net setup day
- Late May- Early August: There will be 8 banding days from sunrise till about 11:30am

## Summary of 2023 Activities

We had to move net 14 due to that area being too wet from the increase pond water level after the dam rebuild. This net was moved to a nearby location that was dry and numbered net 17. Unfortunately, as the season progressed this new area became too wet. In 2024, we will find a new net location for net 17 as the area is too wet and the location was not very productive. Net 13 also became very wet but we were able to run the net by just raising the bottom 2 decks. Over the off season we are going to find a way to operate that net higher away from the water since it is one of our most productive nets. This year we continued with having the banding dates during week days to work better with the staff's schedules.



We banded 87 birds and recaptured 31 birds that were previously banded by us either in the same year or prior years. Some notable species that we banded in 2023 include Orchard Oriole and Blue Grosbeak. Unfortunately, we did not capture any Prothonotary Warblers this season which is the second season in a row since MAPS has been operated at Ward in 2017. This is likely due to the excessive habitat clearing that was done for the dam project which filled in some wetland areas along one of the ponds. It will be interesting to look at species data in the next few years to see if other species show a noticeable decline since the 2022 season. We also conducted a habitat survey to identify the plants that

are found within our banding area. We will be looking at ways to promote better habitat in the dam area after final repairs have been made.

It was also interesting that we did not capture any Red-eyed Vireos or White-eyed Vireos during the 2023 season but did every previous year at Ward. We did observe them in the banding area singing through the season so they are still breeding in the area.

This year Gene hosted 5 programs for the public to be able to come out and learn about our work with the project and to learn more about bird banding in general. The programs started at 8:30 am when the park opened, and Gene emailed participants with a map so they would know where to meet us on the banding days. In the past Gene had the public programs start when we started (before sunrise) but no one signed up. Below is the breakdown of how many registered and how many attended. The 4 that attended on July 3 had a great time and enjoyed learning more about birds and banding. We also spent time identifying local insects as one of the participants was an entomologist from Minnesota. Unfortunately, Gene never received any contact from the people that canceled and park staff said they did not have anyone asking where to go for the program. The 4 that did attend said the email and map were great and they had no problem meeting us at the spot. Gene will continue this for next year as it is no added time to run the program and provides a great experience for those that attend.

Program Date	# signed up	#attended
6/26/2023	0	0
7/3/23	4	4
7/10/23	3	0
7/24/23	0	0
7/31/23	2	0

In 2023, Gene made one of the Birding Adventures summer camp days a full day at the MAPS station. All the campers were eager to arrive before sunrise and they had a great time. Gene was impressed that they were leading the way since we end up hiking about 8 miles throughout the day. Gene will definitely continue this for future birding camps as it provides them with an up close view of avian research and makes a big impact getting to see the birds up close and release them. One camper, Blake Kennedy was very interested in the MAPS project and their mother brought them out for an additional day of banding. They wanted to be added to the contact list for next year and Gene is hoping Blake will be another candidate to train on how to extract, band and process birds.

## Volunteer Appreciation and Recognition

Scottie Clark has been volunteering at MAPS with his uncle, Joe Clark, since the program started at Flag Ponds in 2013. He showed a great interest even at a young age and Gene taught him how to extract, band and process the birds we captured. He is now interested in continuing avian research after he gets out of the army. Unfortunately, this was his last year with us and we are very grateful for all the help he has provided. Gene had a replica bird band made of the first bird he banded and gave it to him with a photo of him banding his first bird on the last day of MAPS this year. He hopes to be able to help on some days with our projects when he is in the area.

On 10/15/2023 we hosted a MAPS volunteer appreciation picnic at Jo Anna Lutmerding's house. It was a pot luck event and went very well. Volunteers in attendance were Eaton, Andrew, Rachael (friend of Jo Anna's that came out to 1 banding day) as well as Gene and Kim. Joe Clark was planning to come but was sick at the last minute. Maggie Silverman was not able to make it. Scottie Clark was not able to make it which is why Gene gave him the replica bird band during

the season. We are planning on hosting this picnic annually as it was a lot of fun getting to hang out with everyone outside of the MAPS season.

We chose to award Joe Clark for volunteering with the project for so many years. He has been helping since the project started at Flag Ponds in 2013 and has helped every year since then. The award is a 5 gallon bucket that Gene spray painted gold since Joe always insists on carrying the banding bucket during our banding days at MAPS. We couldn't think of a good gift card to get Joe since there are not a lot of places in Ridge MD where he lives but since we always are talking about food at MAPS Kim, JoAnna and Gene decided we would each make him a baked good to add to the bucket. Gene also added in a set of Fly Trap tape that we used on our hats during the banding days in 2023. Joe thought these were clever and Gene knows they can be helpful when working around the yard in the summer.

Gene is leading a birding trip to Blackwater Wildlife Refuge on Jan 13, 2024 for all of our volunteers as a thank you for their hard work with our many different projects. The trip was already full by Thanksgiving so could not accommodate additional people.

## Future Plans

During our spring set up for the 2024 season we will have a small picnic after setting up the nets so we can award Joe Clark with his golden bucket award.

We will find a new net location for net 17 and a way to mount net 13 higher. We plan to continue the project for at least another 3-5 years to get a decent data set of before and after the park was developed.

## Male Orchard Oriole



## Interesting Data Across The Years

Top 5 Most common species captured calculated by percent of total captures, listed largest to smallest

2017: NOCA, CARW, INBU, REVI, WOTH

2018: WOTH, NOCA, ACFL, REVI, INBU

2019: ACFL, LOWA, NOCA, OVEN, CARW

2020: COYE, EABL, NOCA, CARW, ACFL

2021: CARW, COYE, WOTH, ACFL, NOCA

2022: NOCA, CARW, ACFL, WOTH, COYE

2023: NOCA, CARW, EAPH, COYE, EABL+ WOTH

Full overall data from the project is included in the following tables and photos from 2023 follow that data

## Notable Recaptures for 2023

We recaptured an Eastern Bluebird on 7/10/2023 that we had originally banded on 5/24/2020. This bird was banded in 2020 as a hatch year meaning it was hatched in 2020 at Ward Farm. Now it is three years old and still breeding in the same park where it was hatched!

Our most exciting recapture from this year was a Northern Cardinal that we recaptured on 7/10/2023 and originally banded it on 7/19/2017 which is the year we first started the station at Ward Farm. This bird was banded as an after-hatch year (adult) in 2017 so we know it is at least 7 years old now and still breeding in the same park!

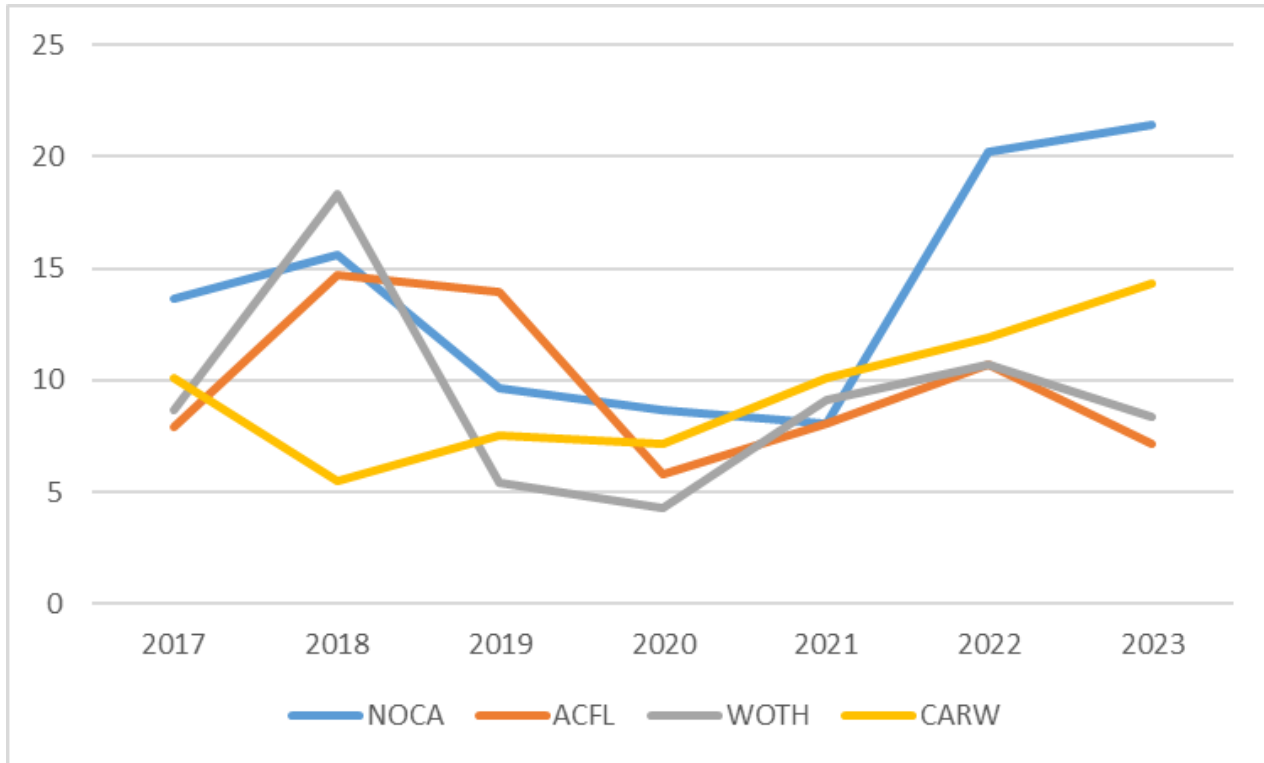
## Notable Species Captured



## Species vs Percent Total Captures

The x-axis is years, The y-axis is percent of total captures for that species

The following species had the highest average percentage from the top 5 species for each year



## The Percentage of Species Captured Per Year

\* In 2022, we had to move nets due to the work clearing the dam.

Species	2017	2018	2019	2020	2021	2022*	2023
ACFL	7.91	14.68	13.98	5.76	8.08	10.71	7.14
AMGO	0	0.92	0	2.88	0	0	0
AMRE	0	0	0	2.88	0	0	0
BGGN	0	0	0	0.72	0	0	0
BHCO	0.72	0	1.08	0.72	0	0	0
BLGR	0	1.83	0	1.44	1.01	1.19	2.38
BLJA	0	0.92	0	0	0	0	0
BRTH	0	0	0	0.72	1.01	1.19	0
CACH	2.16	0	0	0	3.03	1.19	1.19
CARW	10.07	5.5	7.53	7.19	10.1	11.9	14.29
COYE	4.32	0.92	3.23	16.55	9.09	7.14	8.33
DOWO	2.88	1.83	2.15	3.6	1.01	7.14	5.95
EABL	0	0	2.15	12.95	1.01	1.19	8.33
EAPH	2.88	1.83	1.08	1.44	3.03	0	10.71
EAWP	1.44	1.83	0	0	1.01	1.19	1.19
GCFL	0	0	0	0	1.01	0	
GRCA	1.44	2.75	1.08	0.72	0	0	1.19
HAWO	0	0	0	1.44	0	0	0
HOFI	0.72	0	0	0	0	0	0
HOWA	0.72	0	0	0	0	0	0
INBU	8.63	6.42	7.53	5.04	6.06	5.95	4.76
LOWA	5.04	2.75	9.68	2.16	6.06	5.95	3.57
NOCA	13.67	15.6	9.68	8.63	8.08	20.24	21.43
NOPA	0.72	0	0	0	0	0	0
NOWA	0	0	0	0	4.04	0	0
OROR	0	0	1.08	0.72	0	0	1.19
OVEN	5.76	4.59	8.6	2.16	4.04	2.38	3.57
PROW	1.44	0.92	3.23	2.16	3.03	0	0
RBWO	1.44	0	0	0.72	0	0	0
REVI	8.63	8.26	6.45	4.32	6.06	5.95	0
RTHU	1.44	0	2.15	0	0	0	0
RWBL	6.47	3.67	3.23	4.32	7.07	2.38	7.14
SCTA	0.72	0	0	0	1.01	0	1.19
SUTA	0	0	0	0	1.01	0	0
TUTI	0	0.92	4.3	2.88	1.01	1.19	2.38
WEVI	1.44	5.5	5.38	2.16	3.03	2.38	0
WOTH	8.63	18.35	5.38	4.32	9.09	10.71	8.33
YBCU	0.72	0	1.08	0.72	1.01	0	0
YEWA	0	0	0	0.72	0	0	0



## Percentage of each species captured for each year, in descending frequency

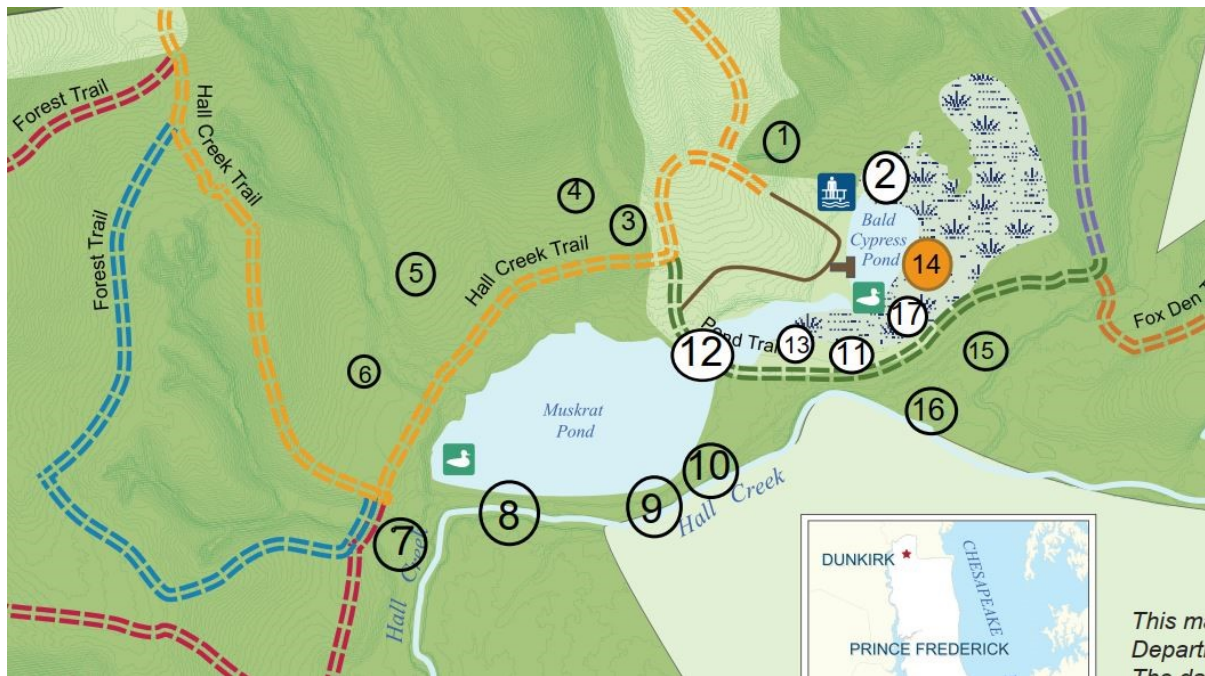
2017		2018		2019		2020		2021		2022		2023	
Species	% total	Species	% total	Species	% total	Species	% total	Species	% total	Species	% total	Species	% total
NOCA	13.67	WOTH	18.35	ACFL	13.98	NOCA	21.43	COYE	16.55	CARW	10.1	NOCA	20.24
CARW	10.07	NOCA	15.6	LOWA	9.68	CARW	14.29	EABL	12.95	COYE	9.09	CARW	11.9
INBU	8.63	ACFL	14.68	NOCA	9.68	EAPH	10.71	NOCA	8.63	WOTH	9.09	ACFL	10.71
REVI	8.63	REVI	8.26	OVEN	8.6	COYE	8.33	CARW	7.19	ACFL	8.08	WOTH	10.71
WOTH	8.63	INBU	6.42	CARW	7.53	EABL	8.33	ACFL	5.76	NOCA	8.08	COYE	7.14
ACFL	7.91	CARW	5.5	INBU	7.53	WOTH	8.33	INBU	5.04	RWBL	7.07	DOWO	7.14
RWBL	6.47	WEVI	5.5	REVI	6.45	ACFL	7.14	REVI	4.32	INBU	6.06	INBU	5.95
OVEN	5.76	OVEN	4.59	WEVI	5.38	RWBL	7.14	RWBL	4.32	LOWA	6.06	LOWA	5.95
LOWA	5.04	RWBL	3.67	WOTH	5.38	DOWO	5.95	WOTH	4.32	REVI	6.06	REVI	5.95
COYE	4.32	GRCA	2.75	TUTI	4.3	INBU	4.76	DOWO	3.6	NOWA	4.04	OVEN	2.38
DOWO	2.88	LOWA	2.75	COYE	3.23	LOWA	3.57	AMGO	2.88	OVEN	4.04	RWBL	2.38
EAPH	2.88	BLGR	1.83	PROW	3.23	OVEN	3.57	AMRE	2.88	CACH	3.03	WEVI	2.38
CACH	2.16	DOWO	1.83	RWBL	3.23	BLGR	2.38	TUTI	2.88	EAPH	3.03	BLGR	1.19
EAWP	1.44	EAPH	1.83	DOWO	2.15	TUTI	2.38	LOWA	2.16	PROW	3.03	BRTH	1.19
GRCA	1.44	EAWP	1.83	EABL	2.15	CACH	1.19	OVEN	2.16	WEVI	3.03	CACH	1.19
PROW	1.44	AMGO	0.92	RTHU	2.15	EAWP	1.19	PROW	2.16	BLGR	1.01	EABL	1.19
RBWO	1.44	BLJA	0.92	BHCO	1.08	GRCA	1.19	WEVI	2.16	BRTH	1.01	EAWP	1.19
RTHU	1.44	COYE	0.92	EAPH	1.08	OROR	1.19	BLGR	1.44	DOWO	1.01	TUTI	1.19
WEVI	1.44	PROW	0.92	GRCA	1.08	SCTA	1.19	EAPH	1.44	EABL	1.01	AMGO	0
BHCO	0.72	TUTI	0.92	OROR	1.08	AMGO	0	HAWO	1.44	EAWP	1.01	AMRE	0
HOWA	0.72	AMRE	0	YBCU	1.08	AMRE	0	BGGN	0.72	GCFL	1.01	BGGN	0
HOFI	0.72	BGGN	0	AMGO	0	BGGN	0	BHCO	0.72	SCTA	1.01	BHCO	0
NOPA	0.72	BHCO	0	AMRE	0	BHCO	0	BRTH	0.72	SUTA	1.01	BLJA	0
SCTA	0.72	BRTH	0	BGGN	0	BLJA	0	GRCA	0.72	TUTI	1.01	EAPH	0
YBCU	0.72	CACH	0	BLGR	0	BRTH	0	OROR	0.72	YBCU	1.01	GCFL	0
AMGO	0	EABL	0	BLJA	0	GCFL	0	RBWO	0.72	AMGO	0	GRCA	0
AMRE	0	GCFL	0	BRTH	0	HAWO	0	YBCU	0.72	AMRE	0	HAWO	0
BGGN	0	HAWO	0	CACH	0	HOFI	0	YEWA	0.72	BGGN	0	HOFI	0
BLGR	0	HOWA	0	EAWP	0	HOWA	0	BLJA	0	BHCO	0	HOWA	0
BLJA	0	HOFI	0	GCFL	0	NOPA	0	CACH	0	BLJA	0	NOPA	0

BRTH	0	NOWA	0	HAWO	0	NOWA	0	EAWP	0	GRCA	0	NOWA	0
EABL	0	NOPA	0	HOWA	0	PROW	0	GCFL	0	HAWO	0	OROR	0
GCFL	0	OROR	0	HOFI	0	RBWO	0	HOWA	0	HOWA	0	PROW	0
HAWO	0	RBWO	0	NOWA	0	REVI	0	HOFI	0	HOFI	0	RBWO	0
NOWA	0	RTHU	0	NOPA	0	RTHU	0	NOWA	0	NOPA	0	RTHU	0
OROR	0	SCTA	0	RBWO	0	SUTA	0	NOPA	0	OROR	0	SCTA	0
SUTA	0	SUTA	0	SCTA	0	WEVI	0	RTHU	0	RBWO	0	SUTA	0
TUTI	0	YBCU	0	SUTA	0	YBCU	0	SCTA	0	RTHU	0	YBCU	0
YEWA	0	YEWA	0	YEWA	0	YEWA	0	SUTA	0	YEWA	0	YEWA	0

## Net Locations

In 2022, we had to move nets due to the work clearing the dam.

- 2017-2021 nets 1-12
- 2022 nets 1-7, 13-16
- 2023 nets 1-7, 13, 15-17





*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*

# 2023 Annual Report

Date of Issue March 2024

CALVERT STEWARDS VOLUNTEER PROGRAM  
c/o Natural Resources Division  
2880 Grays Road  
Prince Frederick, MD 20678  
(410) 535-5327

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)

