

Raptor Road Survey 2022 Annual Report

** Data will be analyzed by season (Oct-April) and not by calendar year. This report also contains final data for the previous season**

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Total Surveys conducted: 31 **Total Volunteer Hours:** 49.75 hours

Maggie Silverman: 13

Karen Anderson and Mike Carpenter: 13

Peter Weeks: 4

To assist with the Winter Raptor Research project you will be conducting surveys of raptors along specific driving routes. These surveys will not only help to aid in catching raptors for banding and further research but they will also be useful in estimating population sizes similar to Christmas Bird Counts. By comparing the data from different years of surveys we will be able to look for trends in the populations.

You will be given a guide that includes raptor identification, the specific routes you can cover as well as how to enter your data into eBird.

SKILLS NEEDED

- Legible note taking and understanding of data being collected
- Taking photos with smart phone of raptors for documentation
- Ability to identify American Kestrels, Red-Shouldered Hawks and Red Tailed Hawks

VOLUNTEER DUTIES

- Follow the survey guidelines in the manual
- set up their own eBird account
- submit all records to eBird in accordance with the manual
- provide their own transportation and optics
- track their hours using the Calvert Stewards website

REQUIREMENTS & EXPECTATIONS

Once qualified and after reading the manual volunteers may begin conducting surveys along the indicated routes. Surveys can begin on October 1 and happen through April 31. Surveys can start any time after sunrise and must be completed before sunset. Surveys should not be conducted on rainy or snowy days. While raptors may be out at these times they are unsafe conditions to be along roadsides. You may perform more than one route in a day. Routes may be repeated after 3 days have passed since the last survey you conducted on that route.

TRAININGS

- Must pass raptor identification test before being qualified for this program

PROJECT DATES

- October 1 through April 30

FUTURE PLANS

We will use the data collected from this program to aid in finding raptors to trap. We will also use this data to compare with sightings during trapping to estimate populations of these species in our area during the winter. Next season volunteers will be trained to use the Global Raptor Impact Network app to enter data so it can be used in broader studies by other researchers across the country.

SUMMARY OF RESULTS

Final numbers from Oct 2021-April 2022

Species	Total number of birds sighted	Birds sighted vs Number of Surveys*
American Kestrel	25	.806452
Red Shouldered Hawk	19	.621903
Red Tailed Hawk	13	.419355
Merlin	0	0
Coopers Hawk	2	.064516
Sharp Shinned Hawk	0	0
Northern Harrier	1	.032258

Preliminary 2022-2023 Results

As of October 1, 2022 through January 30, 2023

Total Surveys conducted: 19 Total Volunteer Hours: TBD at end of season

Maggie Silverman: 12

Joanne and Craig Simmons: 5

Karen Anderson and Mike Carpenter: 2

Species	Total number of birds sighted	Birds sighted vs Number of Surveys*
American Kestrel	13	0.684211
Red Shouldered Hawk	29	1.526316
Red Tailed Hawk	16	0.842105
Merlin	3	0.157895
Coopers Hawk	1	0.052632
Sharp Shinned Hawk	0	0
Northern Harrier	1	0.052632
Accipiter	1	0.052632

* Normalizing the data by number of surveys provides better comparisons between different years. The number of birds sighted could show a false increase in population due to more surveys being conducted.

Data Analysis For Entire Project

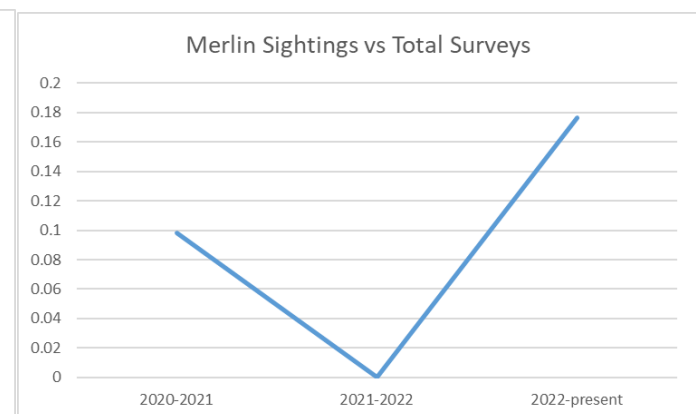
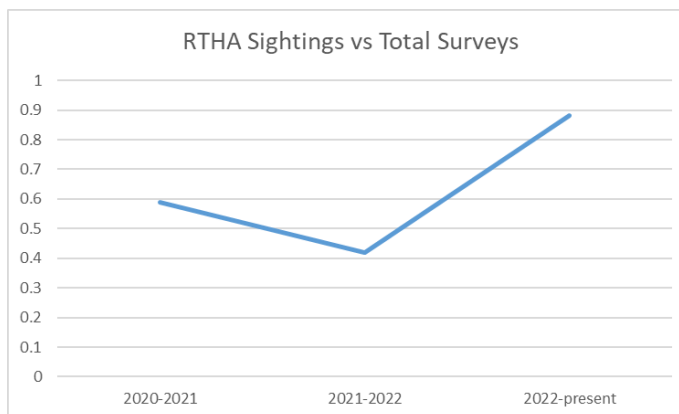
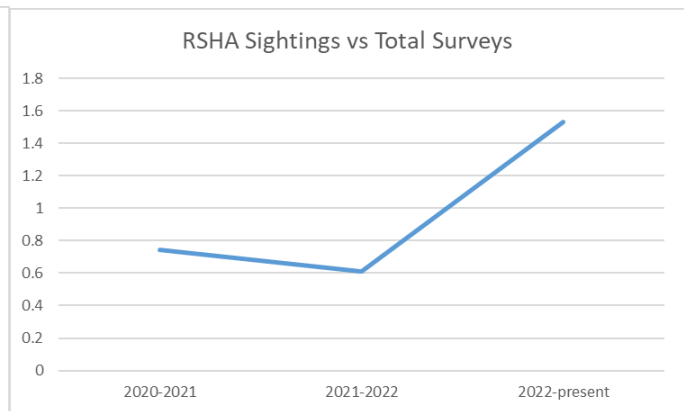
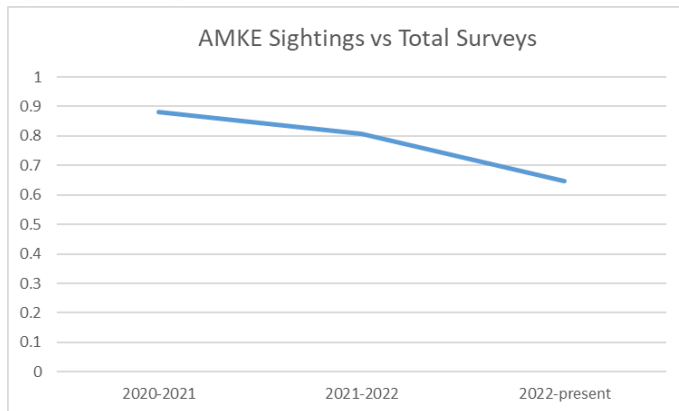
The table below shows the number of surveys completed and the number of sightings for each species divided by the number of total surveys. This allows us to more accurately compare data between years even with different total numbers of surveys conducted. Our data set is still very small with only 2 complete years. Once we reach 5-7 complete years, we will be able to see if there are any noticeable trends.

AMKE= American Kestrel, RSHA= Red-shouldered Hawk, RTHA=Red-tailed Hawk, MERL= Merlin, COHA= Coopers Hawk, SSHA= Sharp-shinned Hawk, NOHA= Northern Harrier

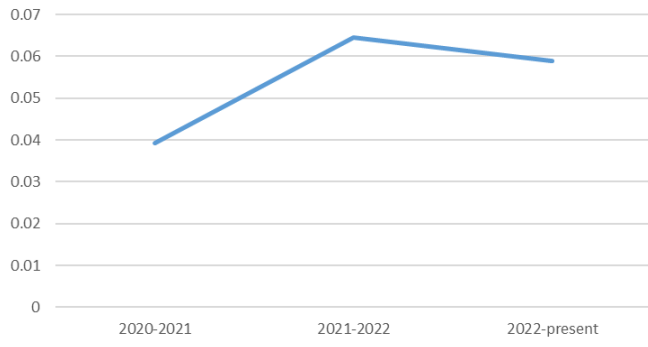
Accipiter= used when it was not known if it was a COHA or SSHA, this was started in the 2022-2023 season

Survey Season	# Survey	AMKE	RSHA	RTHA	MERL	COHA	SSHA	NOHA	Accipiter sp.
2020-2021	51	0.882353	0.745098	0.588235	0.098039	0.039216	0.019608	0.019608	na
2021-2022	31	0.806452	0.612903	0.419355	0	0.064516	0	0.032258	na
2022-present	19	0.684211	1.526316	0.842105	0.157895	0.052632	0	0.052632	0.052632

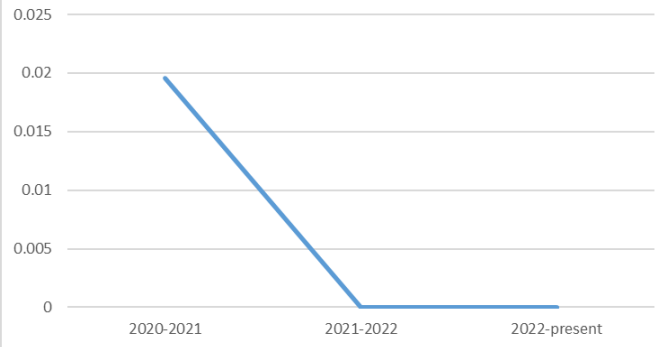
Species Reports through Jan 25,2023



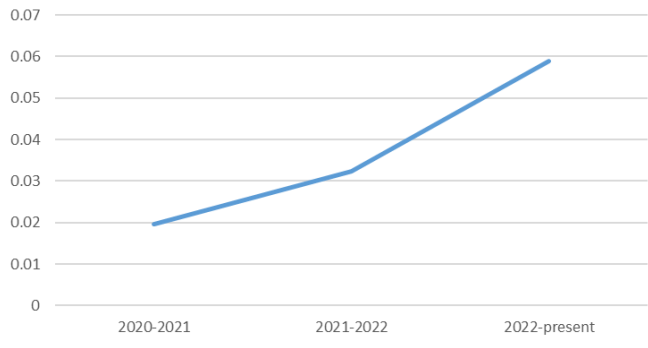
COHA Sightings vs Total Surveys



SSHA Sightings vs Total Surveys



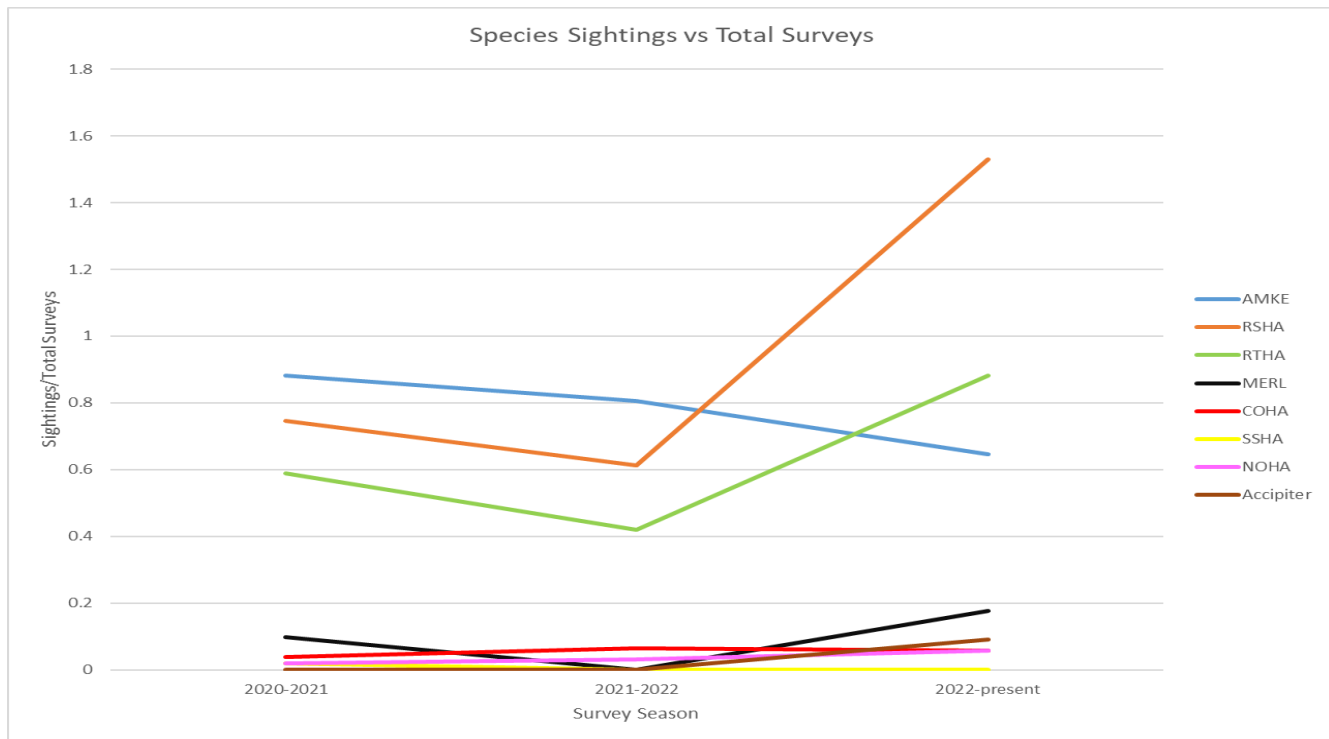
NOHA Sightings vs Total Surveys



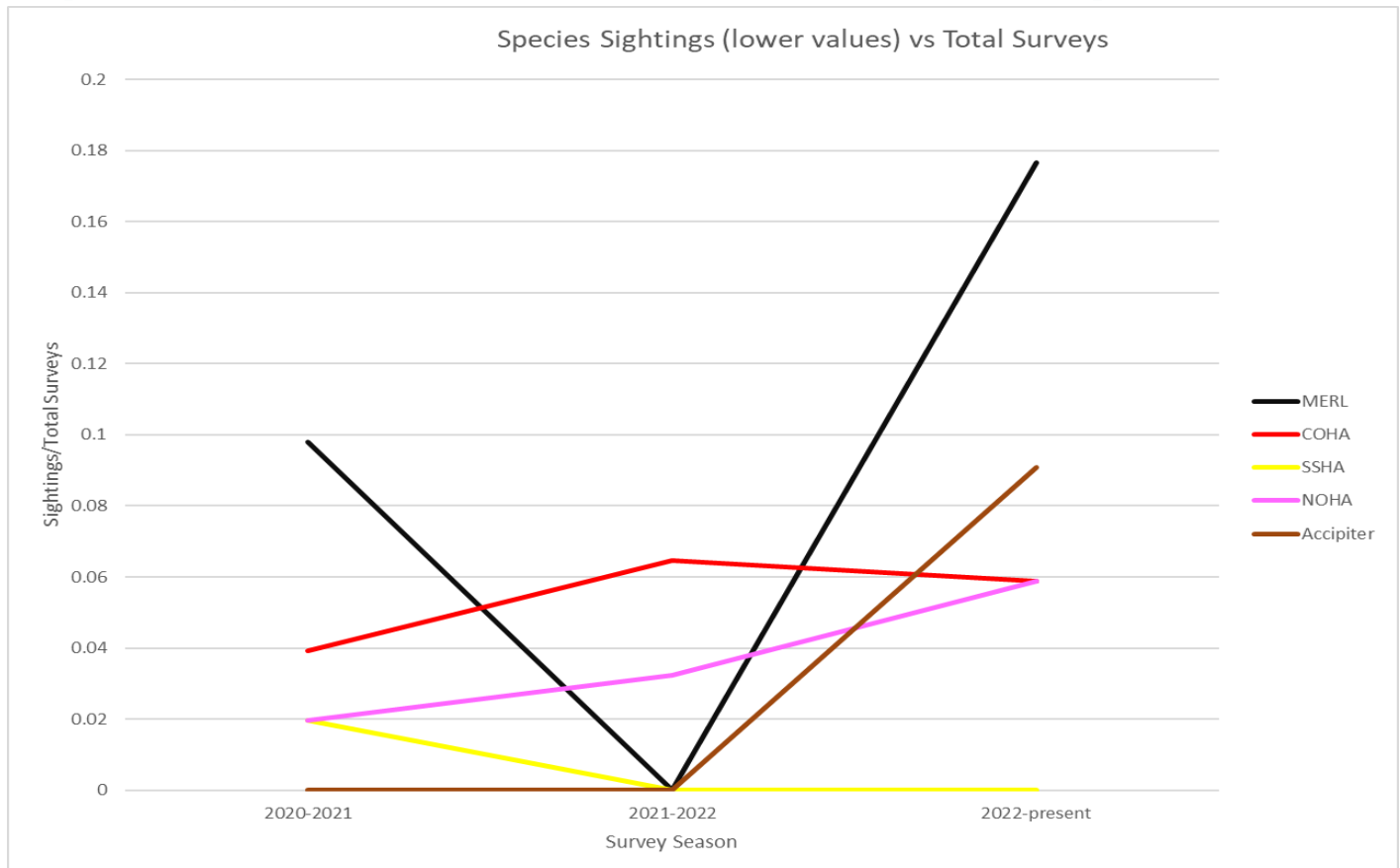
Data for all the species

AMKE= American Kestrel, RSHA= Red-shouldered Hawk, RTHA=Red-tailed Hawk, MERL= Merlin, COHA= Coopers Hawk, SSHA= Sharp-shinned Hawk, NOHA= Northern Harrier. Accipiter= used when it was not known if it was a COHA or SSHA, this was started in the 2022-2023 season

See following graph for less frequently spotted species (MERL, COHA, SSHA, NOHA and Accipiter)



Graph showing the all the data for MERL, COHA, SSHA, NOHA and Accipiter.



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

2022 Annual Report

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CALVERT STEWARDS VOLUNTEER PROGRAM
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Volunteer Portal: <https://calvertstewards.galaxydigital.com/>

Calvert Nature Society: www.calvertparks.org

Calvert County Natural Resources Division:
www.calvertcountymd.gov/NaturalResources

