

Raptor Trapping 2023 Report (Winter Raptor Response Team)

2022 through 2023 final data, 2023-2024 final data

Project Leader: Gene Groshon gene.groshon@calvertcountymd.gov 410-535-5327

Volunteers that assisted: Joanne and Craig Simmons, Karen Anderson, Mike Carpenter, Jack Felscher, Scott Gray, Ruth Carmona-Murray

Total Volunteer Hours: 65.5 hours

Staff that assisted with Teen programs: Kim Curren, Paige Stevens, Eva Blockstein

The Calvert County Natural Resources Division started the Winter Raptor Trapping Program to gain a better understanding of the local wintering population of American Kestrels, Red-Shouldered Hawks and Red-Tailed Hawks. We also band the birds we capture during this program to track which birds could be returning to the same wintering ground year after year. Banding also provides the chance to learn where these birds travel to outside of their wintering range. In 2020, this program acted more of a volunteer appreciation program rather than a volunteer opportunity.

SKILLS NEEDED

- Legible note taking and understanding of data being collected
- Taking photos with smart phone of raptors for documentation

Optional, but Preferred, Skills

- Ability to identify American Kestrels, Red-Shouldered Hawks and Red Tailed Hawks

VOLUNTEER DUTIES

- If needed recording the data from each capture and photographs taken of the raptors

REQUIREMENTS & EXPECTATIONS

- Must complete 3 Raptor Road Surveys in order to attend a road trapping/banding day
- Work in cold conditions but most time is spent riding around in the van

TRAININGS

- No training needed but will have completed least 3 Raptor Road Surveys in order to come out for a day of trapping

PROJECT DATES at

- **Winter:** Jan-Mar full on trapping
- **Spring:** nothing
- **Summer:** some attempts during summer
- **Fall:** can begin trapping after Thanksgiving

SUMMARY OF 2022-2023 ACTIVITIES

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

December 14,2022 through March 8, 2023 (7 trapping days total)

New Bandings: We captured 6 American Kestrels, 6 Red Shouldered Hawks, 0 Red Tailed Hawks.

Recaptures: We had zero recaptures this year.

Encounters: Laura Carroll of Nicole Drive in St Leonard MD. Discovered RTHA 2207-01640 dead in their woods on 2/23/2023. She stated the bird was not bloody and in good condition. The bird was found just around 1000' from where Gene had originally banded in on 3/17/2021 on Williams Wharf Road near the small vineyard. This shows this bird was likely using the same territory year after year. Unfortunately, Gene was not able to go out and get the bird since we were not notified by the Bird Banding Lab until 4/23/2023. We do not know what killed the bird. Since it was found in the woods and far from the roads a vehicle strike is unlikely. One possibility, although impossible to prove without the bird, is that it died from rodenticide accumulation from eating prey that had consumed rodent poison but did not die.

Data among species for Dec 2022-Mar 2023

American Kestrel: We captured 40% of the American Kestrels that we attempted to catch.

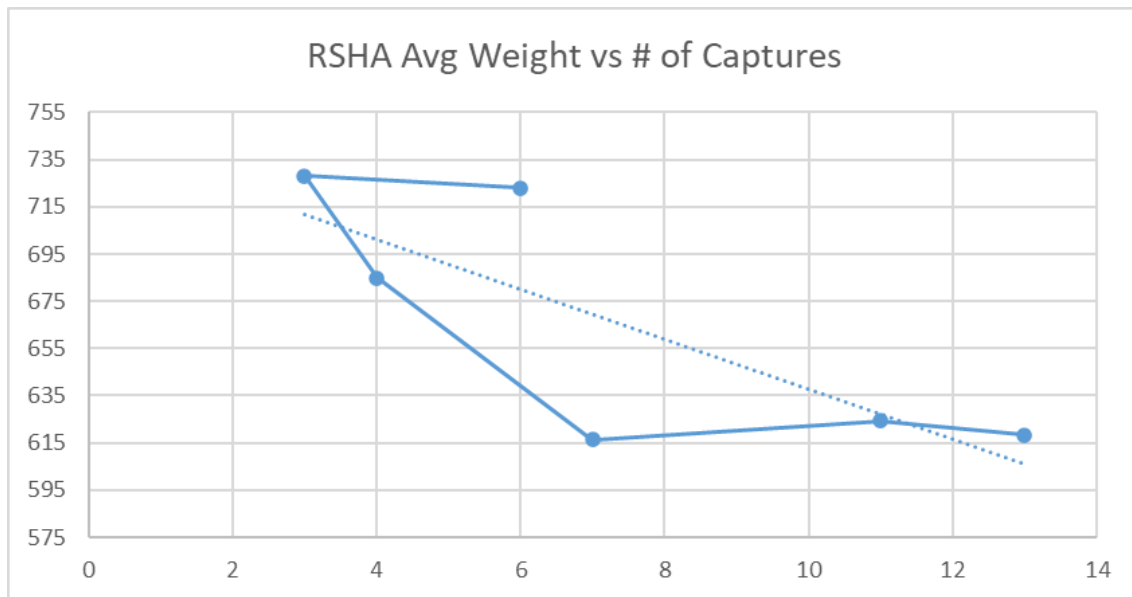
Red-tailed Hawk: We did not catch any Red-Tailed Hawks this season.

Red-shouldered Hawk: We captured 35.29% of the Red-shouldered Hawks that we attempted to catch.

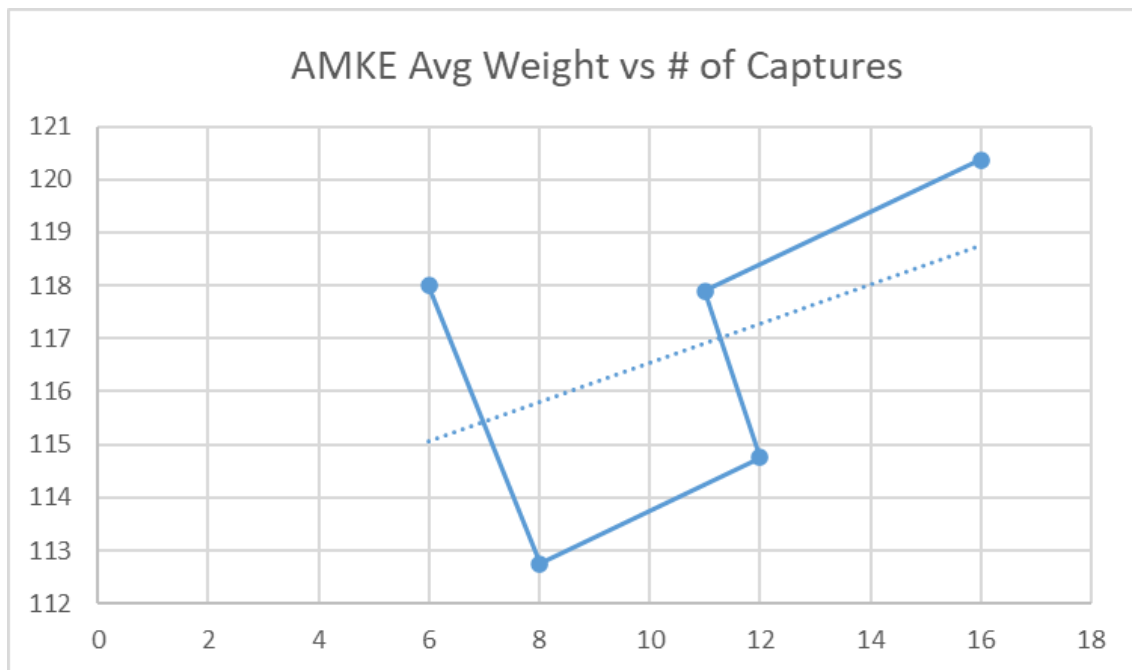
DATA ANALYSIS

Number of Captures versus Average Weight of Captured Birds.

The average weight of Red-shouldered Hawks (RSHA) decreased as we captured more birds. This suggests the birds were more food motivated to come to the trap possibly due to colder temperatures. Comparisons of temperature and number of captures presented in following sections support this hypothesis.



However we saw the opposite trend with American Kestrels, as the weight increased we captured more birds. We will be looking into possible reasons for this trend.

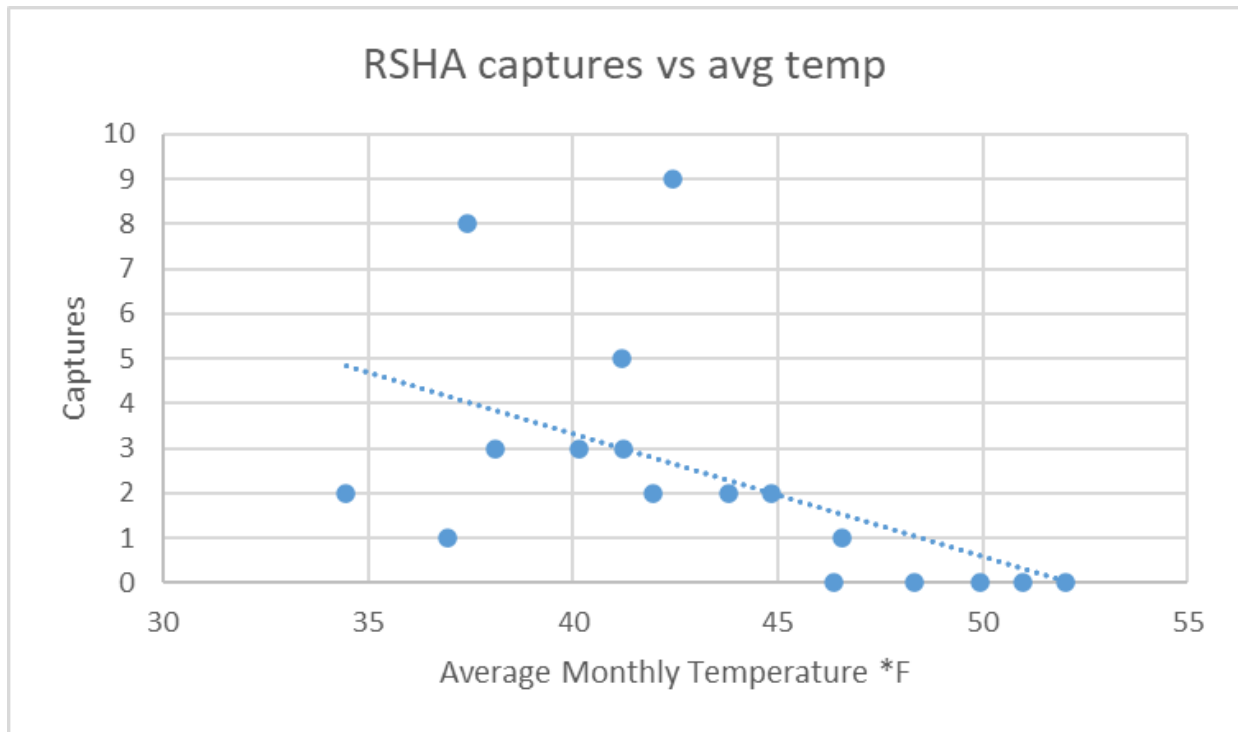


With Red-tailed Hawks no trend could be observed.

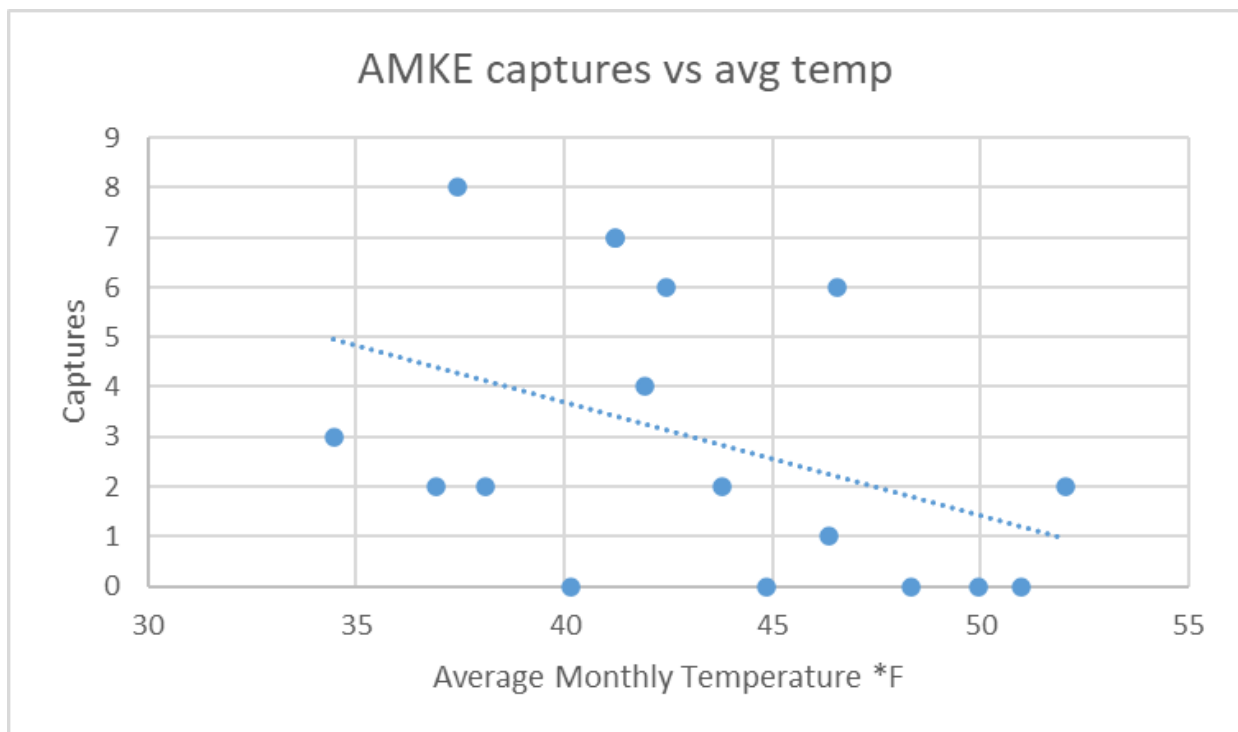
	Jan-Mar 2019	Nov 2020-Mar 2021	Jan 2022- Mar 2022
captures	3	3	3
avg weight	1189	1454.5	1095.3

Number of Captures vs Average Daytime Temp

When looking at RSHA captures the trend showed as the average daytime temperature increased, we captured fewer birds. This supports our hypothesis that on colder days the birds are more food motivated. Also on warmer days there could be more wild prey active and available.



The same trend was seen with American Kestrels. This is very likely due to the availability of more insect prey during warmer days. We regularly saw American Kestrels capturing insects while we had a trap with a lure mouse deployed.



With RTHA we saw the opposite trend that as it got warmer we caught more birds. This trend was very slight and based on a very small number of captures.

Current 2023-2024 season

The 2023 season went from Dec 19, 2023 – Mar 1, 2024 with a total of 14 trapping days. Five of those days were Teen Birding: Raptor Survey public programs. They were all well attended and some teens attended multiple days. Gene will continue to do these public programs on days off from school as they have been a big hit and are a great way to connect the participants with avian research and our local raptors. The other 9 trapping days were attended by various volunteers.

To gain more data on habitat use of American Kestrels, Gene applied with the Bird Banding Lab to use field readable color bands on the American Kestrels. This would allow us to confirm the identity of the birds using cameras, binoculars and spotting scopes versus having to recapture them. This would allow volunteers to report the location of these specific birds while doing road surveys. Gene order 30 bands from Pro Touch Engraving. Unfortunately, Gene soon found out they were very difficult to put on without breaking the bands. After speaking with Patrick from Pro Touch and American Kestrel banders from Utah and Canada, Gene learned this was a very common problem and no one had a clear solution. Gene did a video call with the banders from Canada and saw their handling technique of the bands which helped somewhat but we are still having issues with the bands breaking. Gene made a tool that helped to install the bands without breaking them. Out of 30 color bands we were able to successfully put on 6. The new tool and method should be a big improvement and allow us to install them without breaking. Gene emailed Patrick with Pro Touch on Feb 26 about the bands that broke since he said they would replace them at no cost.

New Bandings: We captured 8 American Kestrels (6 banded with color bands), 8 Red Shouldered Hawks, and 1 Red Tailed Hawk.

Recaptures: On 1/11/24 and 3/1/24 we recaptured female American Kestrel 1803-16820 on M. I. Bowen Rd. Gene originally banded her in the same location on 12/2/20 and she was captured about 400 feet from where Gene originally banded her. This is great information showing that some American Kestrels in our area are using the same wintering grounds year after year. It was interesting to note the second time we recaptured her she was actively replacing L2 and L3 tail feathers. Since this was asymmetrical and early it was possibly due to an interaction with a predator or another kestrel which caused her to lose those 2 feathers.

Capture success rates of species for Dec 2023-Feb 2024

American Kestrel: We captured 36% of the American Kestrels that we attempted to catch.

Red-tailed Hawk: We captured 9% of the Red-tailed Hawks we attempted to catch.

Red-shouldered Hawk: We captured 41% of the Red-shouldered Hawks that we attempted to catch.

Overall Data

Here is a brief comparison of all trapping data. After this summer and getting to work with Joanne Simmons on data entry, we will have greater comparisons and statistics.

Season	AMKE	RSHA	RTHA
Jan 2019-Mar 2019	16	13	3
Jan 2020-Mar 2020	10	11	0
Nov 2020-Mar 2021	12	7	3
Jan 2022-Mar 2022	7	4	3
Dec 2022-Mar 2023	6	6	0
Dec 2023-Mar 2024	9*	8	1

*AMKE only attempted from Jan 2024-Mar 2024 due to waiting for color bands

Future Plans

We are hoping the color bands will be easy for volunteers to spot next year to see if any of these birds have returned to the same wintering grounds. We will use the data collected from the Volunteer Raptor Road Surveys 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. Now that we have several years of data, Gene will be working with Calvert Steward Joanne Simmons to have her analyze all of the trapping and survey data to see if we are noticing any trends.

Plans to deploy Motus transmitters on American Kestrels are still delayed as Gene is still looking for banders to work with to learn attachment methods for transmitters.

Dec 2023-Mar 2024 photos



Gene releasing a Red-tailed Hawk after being banded.



Craig Simmons about to release a male American Kestrel.



A female American Kestrel that has been banded with a USGS aluminum band and a coded color band



A teen observes as Gene Groshon applies the band to a female American Kestrel

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

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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

