Project Owlnet: Northern Saw-whet Owl

2021 Report
Flag Ponds Nature Park Banding Station
Calvert County, Maryland

Project Leaders: Gene Groshon gene.groshon@calvertcountymd.gov
Andrew Brown 3.andrew.brown@gmail.com
Banding assistant: Jason Avery (1 night)

Calvert Stewards assist with the establishment and operation of a Northern Saw-whet Owl banding station at Flag Ponds Nature Park

Objective: To capture Northern Saw-whet Owls (NSWO) during the fall migration with the purpose of banding, recording critical data, and successfully releasing. Capture, lure, and data collection techniques are outlined by Project Owlnet. Project Owlnet is a continent-wide program designed to gain an understanding of the population dynamics and migration habits of the Northern Saw-whet Owl.
http://www.projectowlnet.org/

PROJECT OWLNET

SKILLS NEEDED

Ability to walk trails in the dark with a headlamp and commit to a minimum of 6 hours per night.

DUTIES AND EXPECTATIONS

- Assist with the opening and closing of nets
- Assist with the hourly inspection of nets
- Assist with the accurate recording of data
- Maintain confidential and sensitive information of banding details

TRAINING AND QUALIFICATIONS

- An orientation is required for qualification

SUMMARY OF 2021 BANDING ACTIVITIES

Dates: Opened on 10/18/2021 Closed on 11/19/2021
Total number of days of operation: 16 days
Total number of days closed: 17
Total number of NSWO captures: 12
Total number of non NSWO captures: none

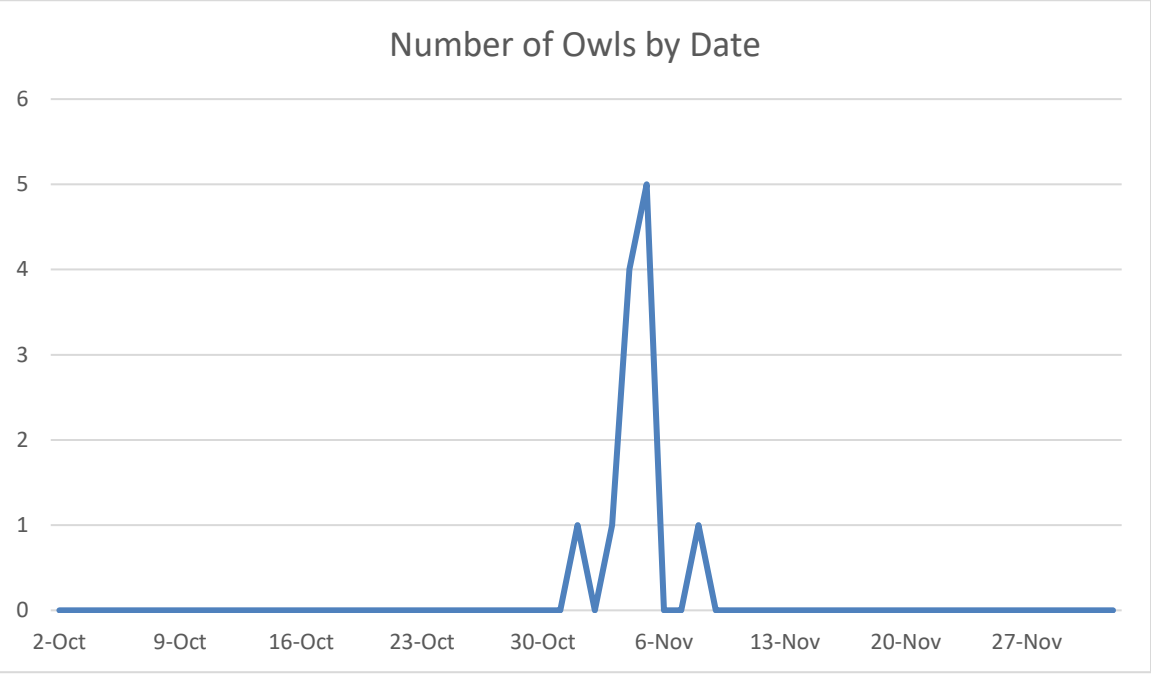
Total Volunteer Hours: 120.5

This report contains a general analysis of the data collected based on the following criteria:

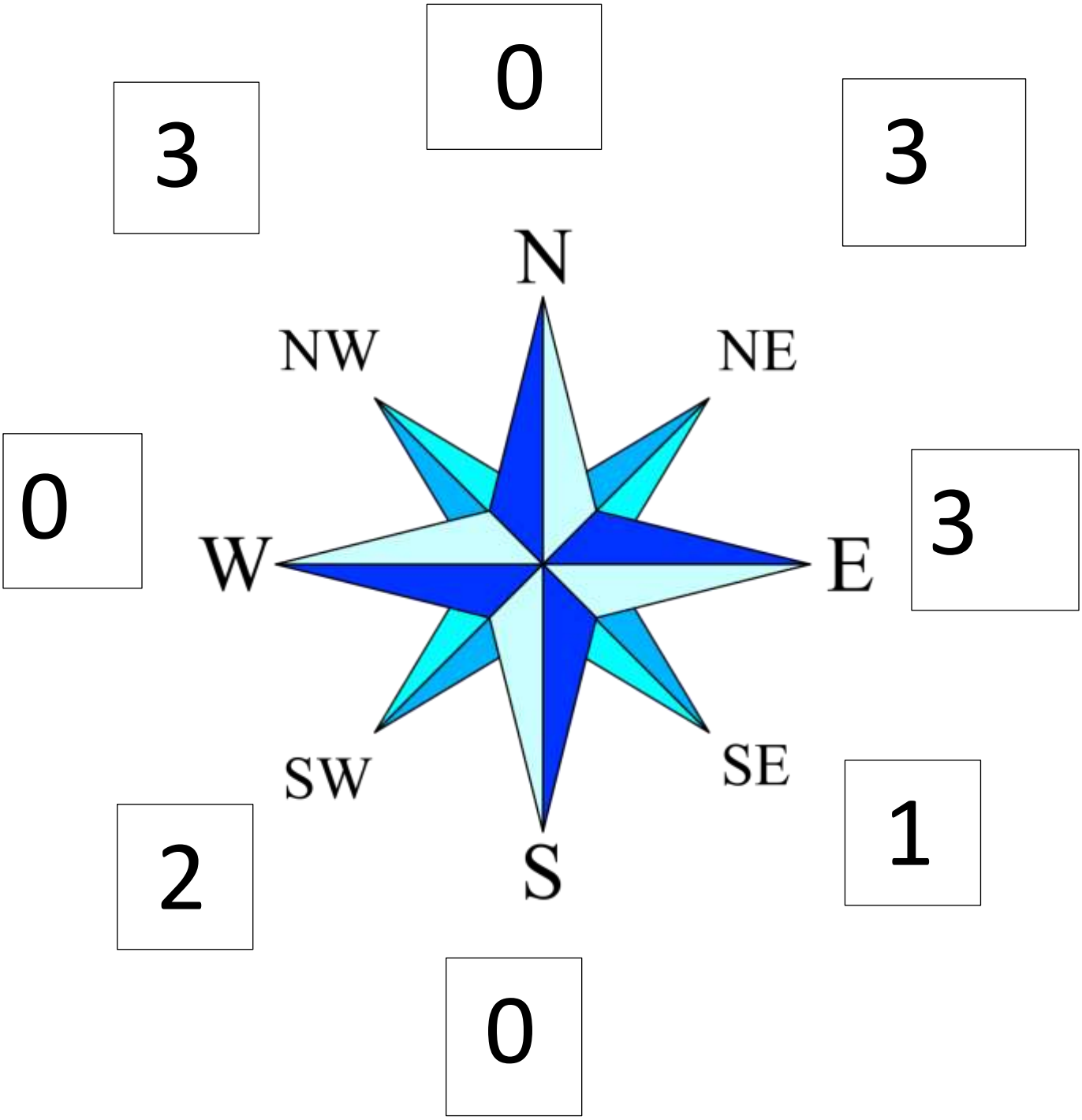
- When was the peak of the banding season?
- Which direction did the owls enter the net?
- What was the average wind speed at the time of capture?
- What was the average cloud cover at the time of capture?
- What is the moon/brightness value?
- Which nets captured the most owls?
- An overview of recaptured owls.
- Which net decks captured the most owls?
- An overview of additional data such as eye color, sex, average weight and beak tip color.

When was the peak of the banding season?

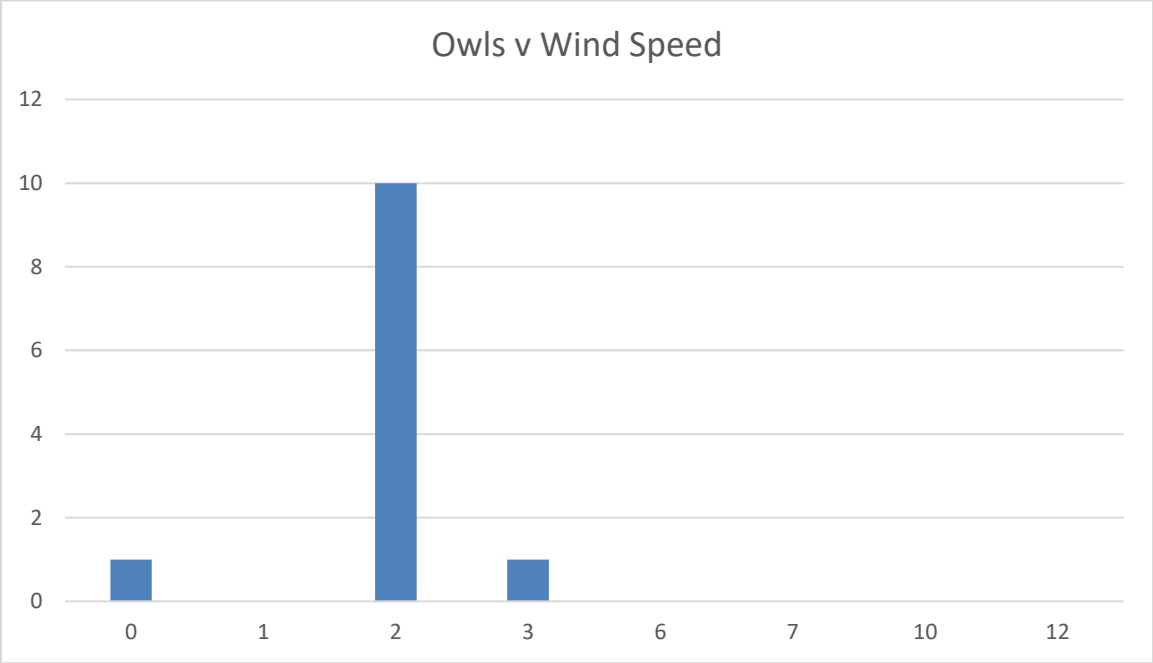
The peak of the banding season was November 4-5, 2021 with a total of 9 NSWO captured (75% of 2021 captures).



Which direction did they enter the net?



What was the average wind speed at the time of capture?



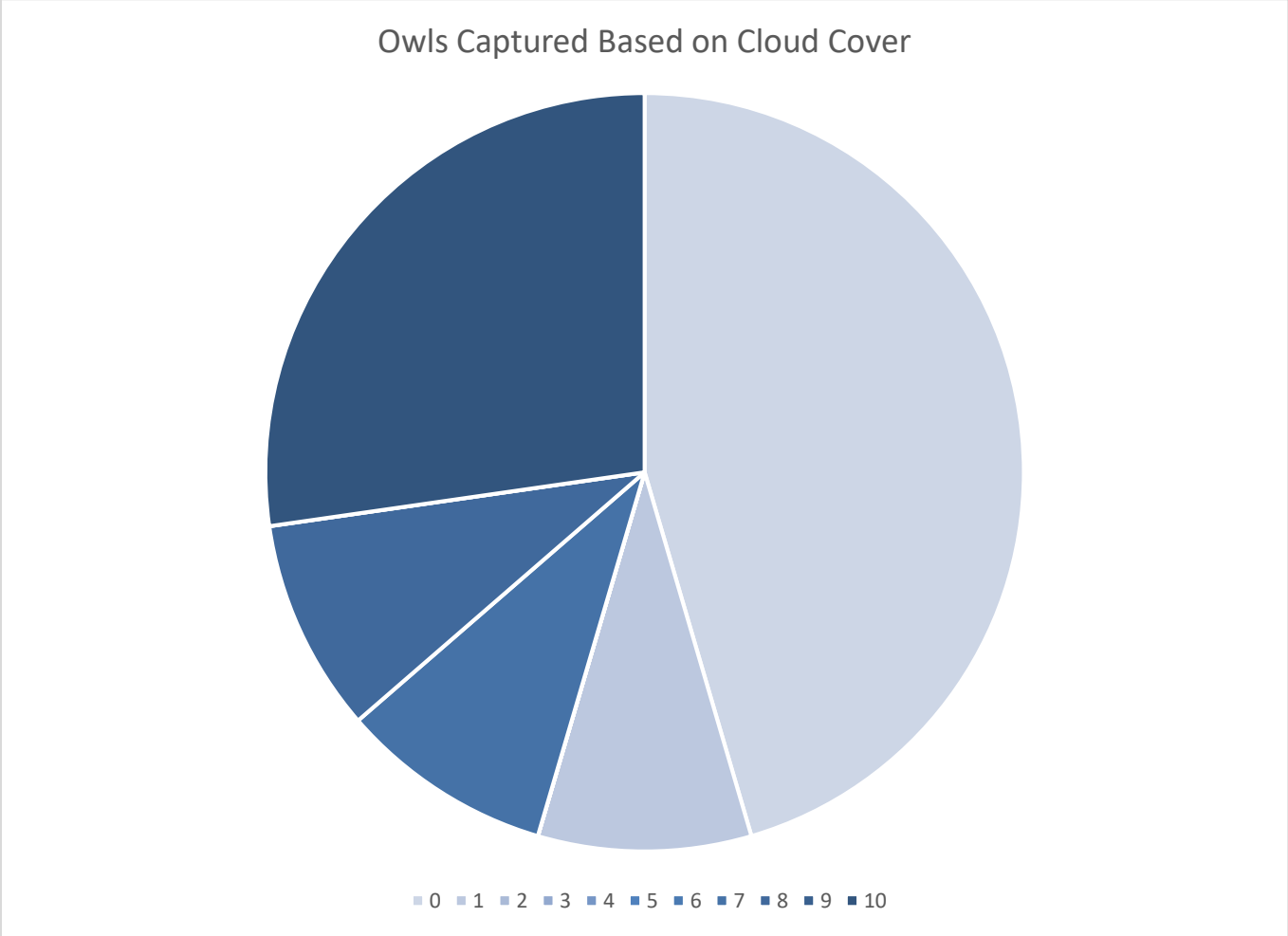
The overall highest recorded wind speed in 2021 was 18 mph.

The average wind speed for the peak night of November 4/5, 2021 was 2.5 mph.

What was the average “cloud cover” when owls were captured?

0 = Clear

10 = 100% coverage

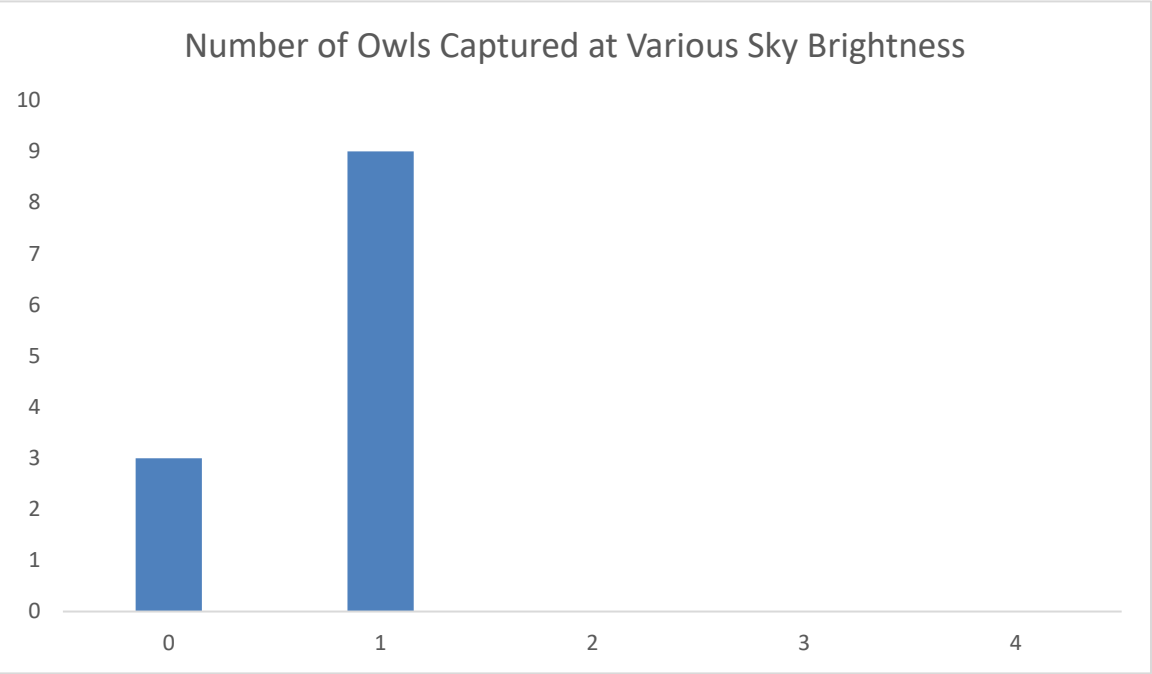


Brightness: How Bright were the skies?

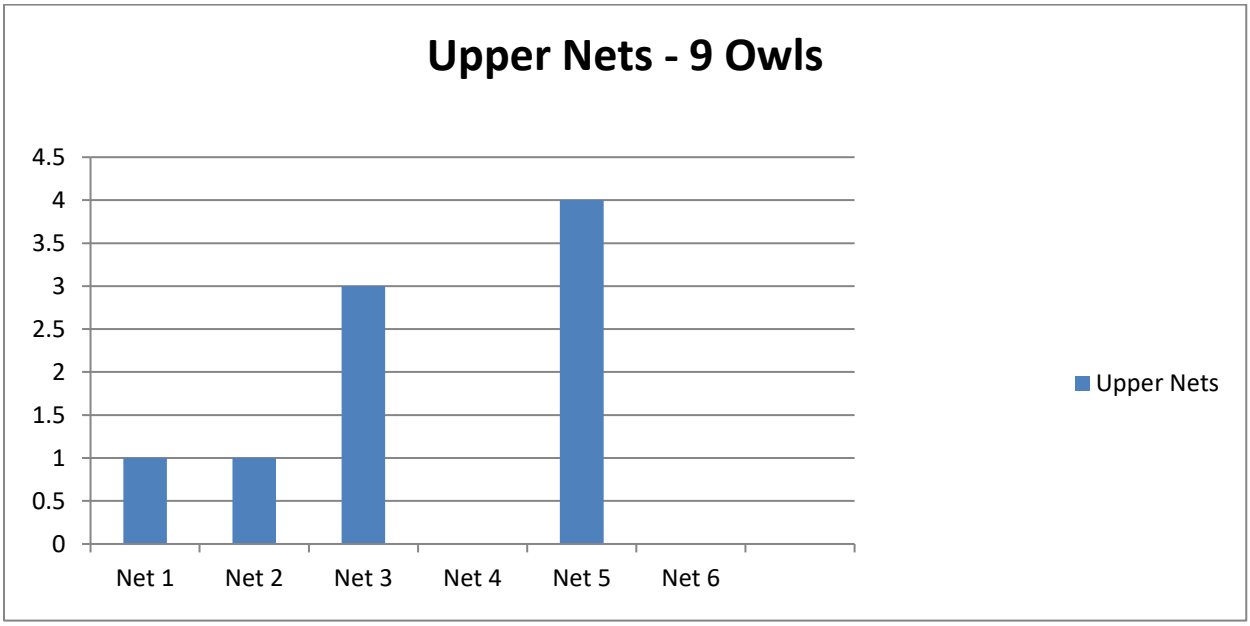
Brightness values are calculated by the % moon face and the % of time the moon is in the sky during the trapping night.

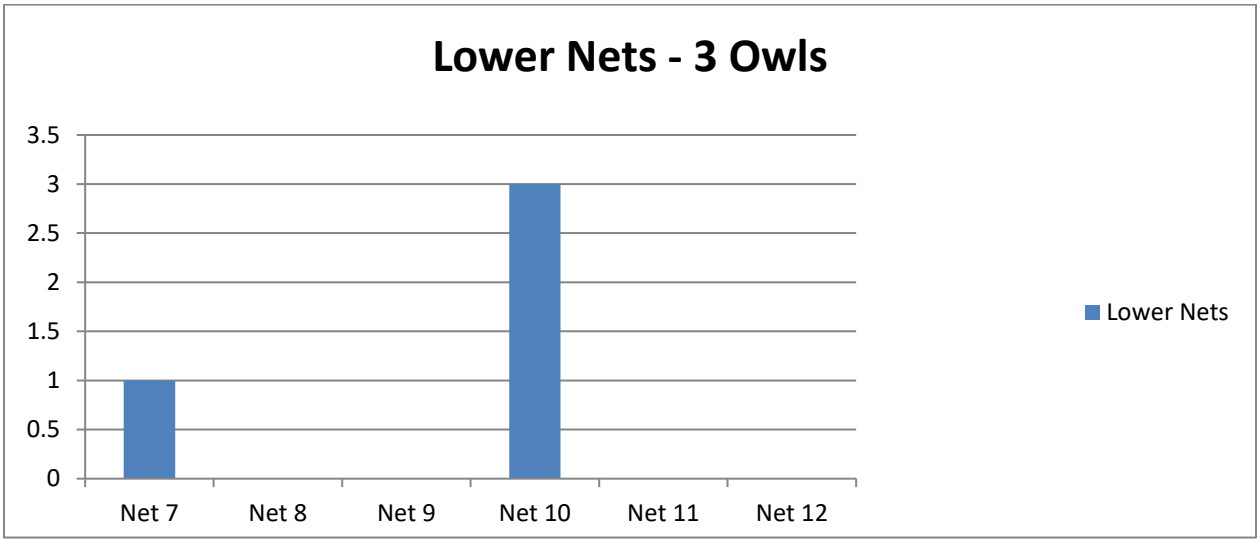
Moon Phase/ Sky Brightness

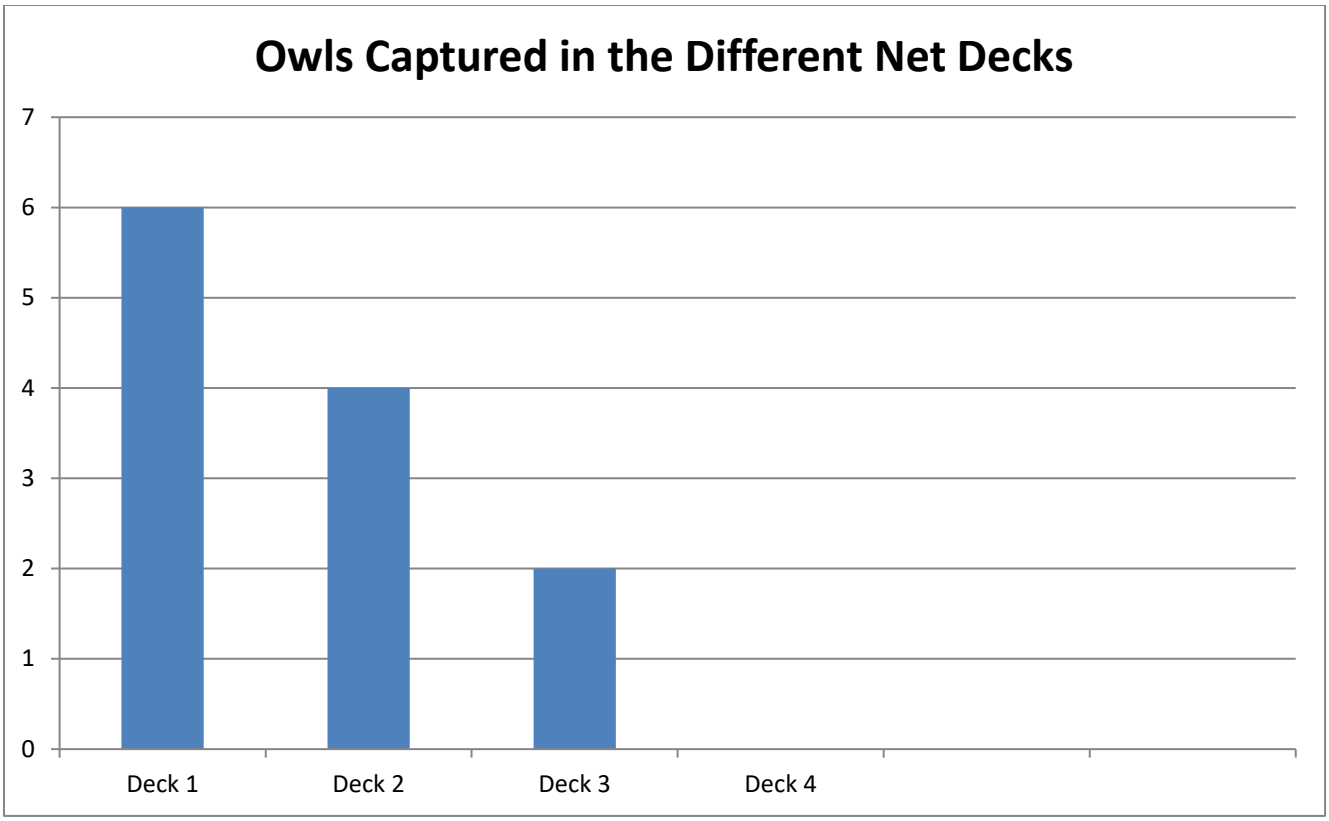
Brightness values/ percentage of moon	Number of birds captured
0 = 0 -.9%	3
1 = 1-25%	9
2 = 26-50%	0
3 = 51-75%	0
4 = 76-1005	0



Which nets captured the most owls?







Recaptures

- No foreign recaptures
- No local recaptures from previous years
- We had some same night recaptures of our birds

Eye Color

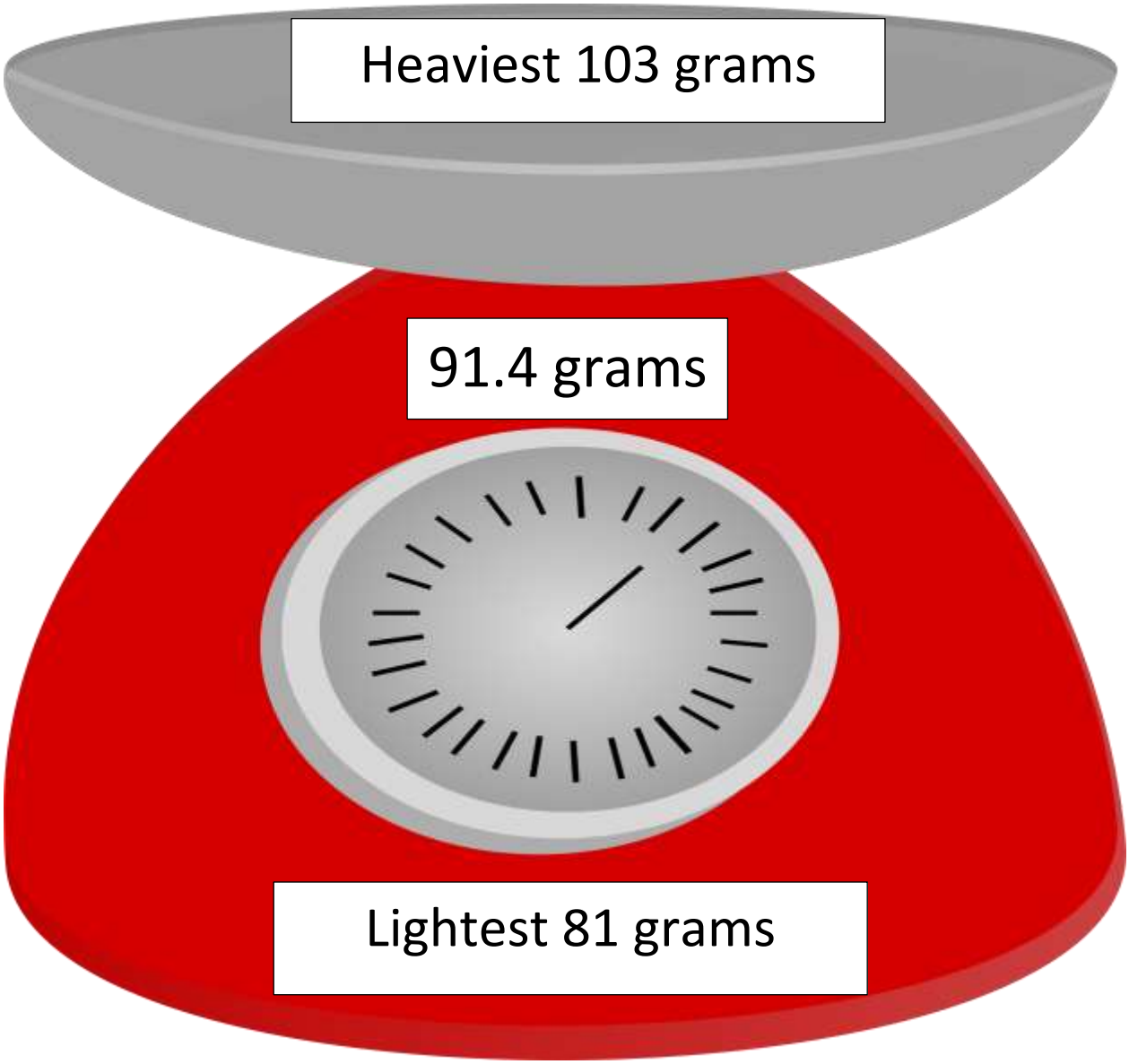
315	0
322	3
329	4
336	5

Age vs. Eye Color

	315	322	329	336
HY				2
AHY				
SY		1	1	2
ASY		2	3	1
TY				

Average Weight

The owls captured in 2020 2 grams heavier than last year.

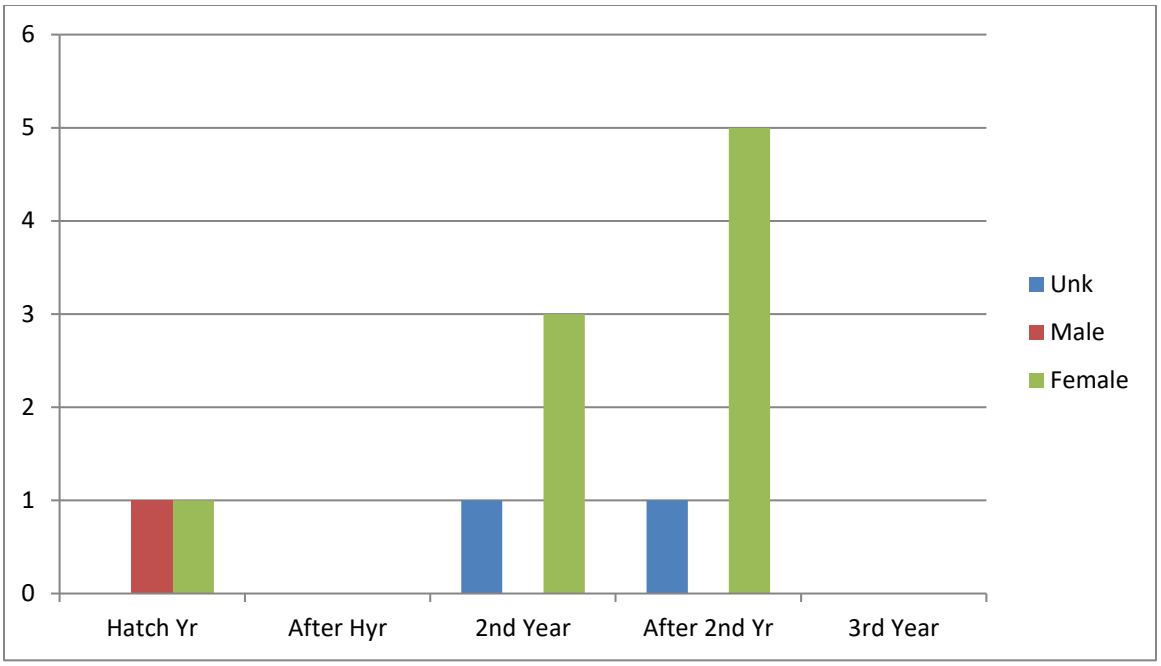


Age and Sex

Using a black light (left) and feather color to age the birds.

Weidensaul, C., Colvin, B., Brinker, D., & Huy, J. (2011). Use of Ultraviolet Light as an Aid in Age Classification of Owls. The Wilson Journal of Ornithology, 123(2), 373-377. Retrieved February 19, 2021, from http://www.jstor.org/stable/23033405 **ABSTRACT**: Use of ultraviolet (UV) light, which causes porphyrin pigments in feathers of some birds to fluoresce, provides a simple, effective means of distinguishing multiple generations of flight feathers in owls. This permits easier and more accurate classification of age of adult owls. This lighting technique has been used extensively with Barn Owls (*Tyto alba*) and Northern Saw-whet Owls (*Aegolius acadicus*) and works well on a variety of owl species at night in the field, and should have wide applicability among owl researchers. The relative ages of the feathers can be easily distinguished by the intensity of fluorescence they exhibit when the ventral surfaces of primaries and secondaries are exposed to UV (black) light. This allows rapid and accurate assessment of molt and, in turn, the assignment of an age classification for the owl.

	Unknown	Male	Female	Total			
				2021 Captured	2021	2020	2019
Hatch Year (HY)	0	1	1	2	16%	68%	14%
After Hatch Year (AHY)	0	0	0	0		7%	
Second Year (SY)	1	0	3	4	33%	2%	71%
After Second Year (ASY)	1	0	5	6	50%	14%	14%
Third Year (TY)	0	0	0	0		7%	



Age vs. Beak Tip

	Black			Horned		
	U	M	F	U	M	F
HY		1	1			
AHY						
SY	1		2			1
ASY			4	1		1
TY						

Measuring the bill length and wing arc.

Gene Groshon and Jason Avery

GOALS FOR 2022

- Train Scottie Clark more so he can become an assistant bander
- Actively participate in the data management plans in the Northern
- Promote more adoptions
- Conduct a public program

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

2021 Annual Report

Date of Issue March 2022

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

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CALVERT COUNTY PARKS & RECREATION
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