Project Owlnet: Northern Saw-whet Owl

2020 Report

Flag Ponds Nature Park Banding Station

Calvert County, Maryland

Project Leaders: Andy Brown Andrew.brown@calvertcountymd.gov
Gene Groshon gene.groshon@calvertcountymd.gov
Banding assistant: Jason Avery

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

Calvert Stewards

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

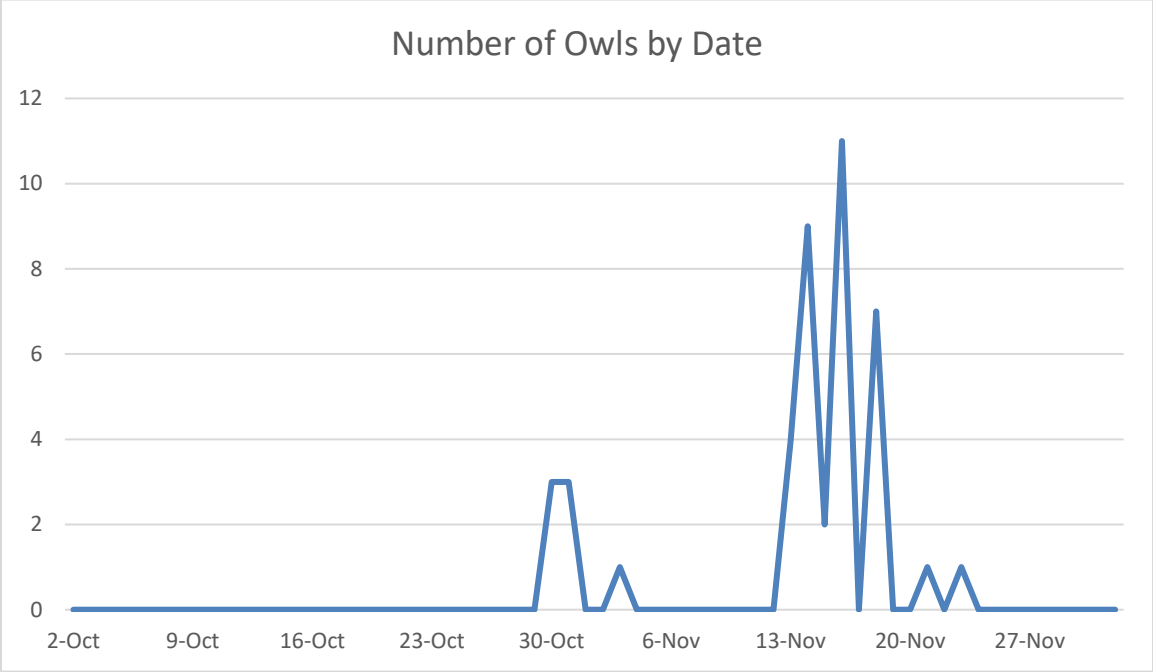
Summary of 2020 banding activities

Dates: Opened on October 2, 2020 Closed on December 2, 2020
Total number of days of operation: 38 days
Total number of days closed: 23
Total number of NSWO captures: 39
Total number of non NSWO captures: 2 Eastern Screech Owls
32 volunteers gave 835 hours
This report contains a general analysis of the data collected based on the following criteria:

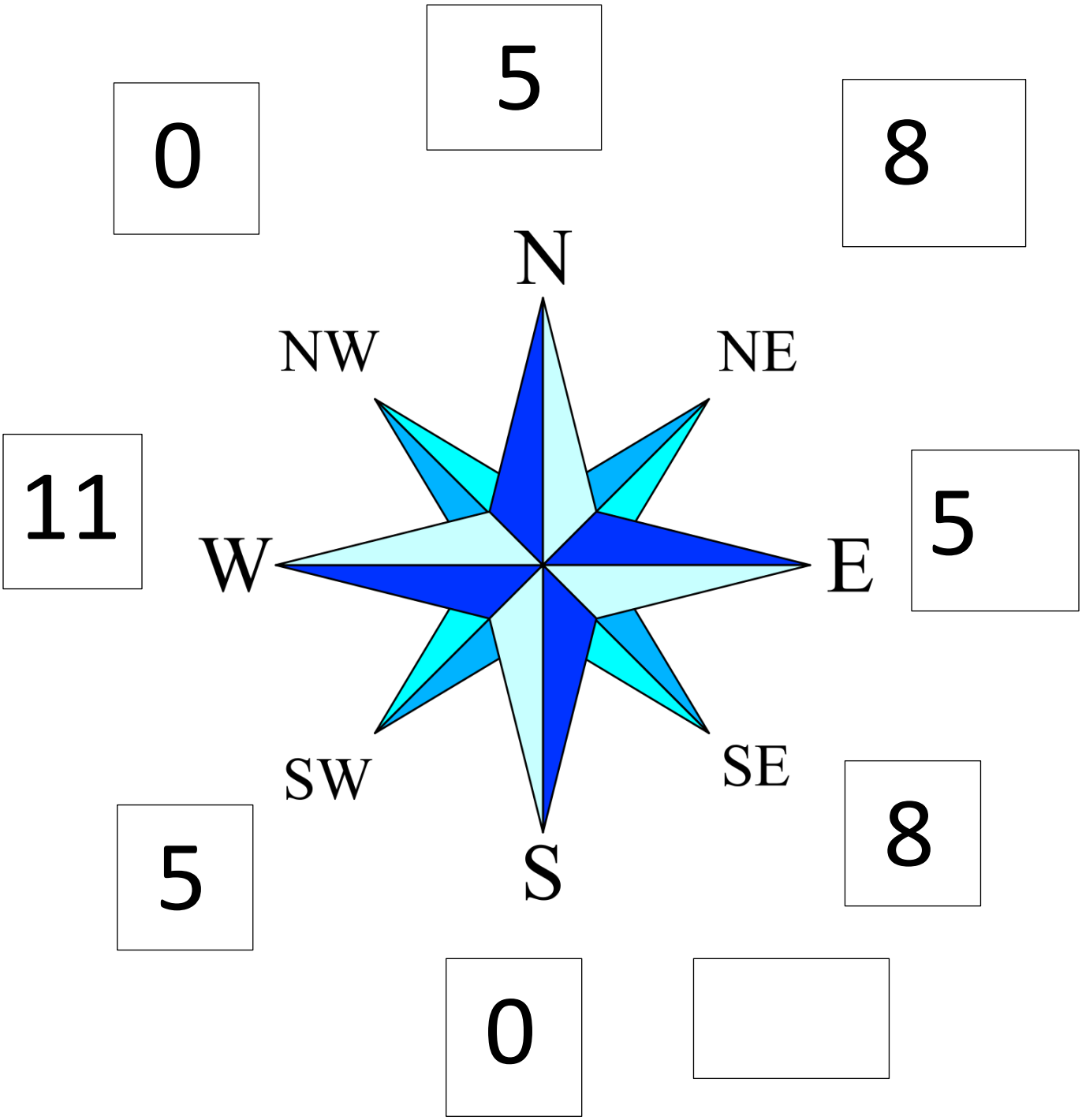
- When was the peak of the banding season?
- Which direction did the owls enter the net?
- What was the average wind speed at the time of capture?
- What was the average cloud cover at the time of capture?
- What is the moon/brightness value?
- Which nets captured the most owls?
- An overview of recaptured 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?

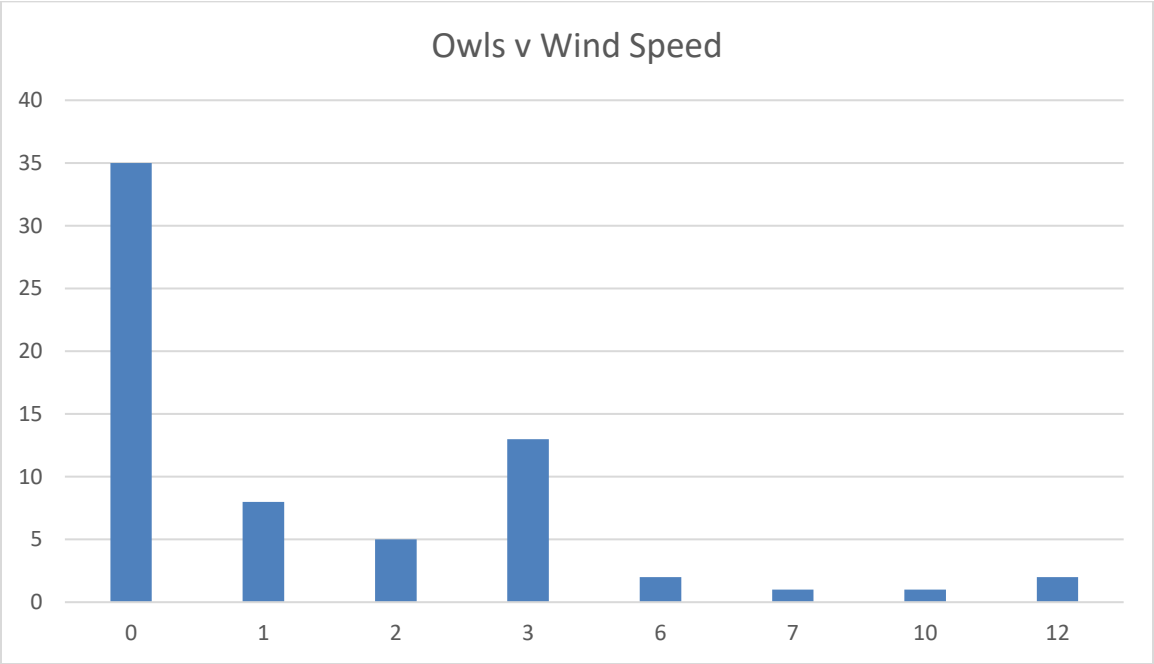
The peak of the banding season was November 14-18, 2020 with a total of 29 NSWO captured (74% of 2020 captures).



Which direction did they enter the net?



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



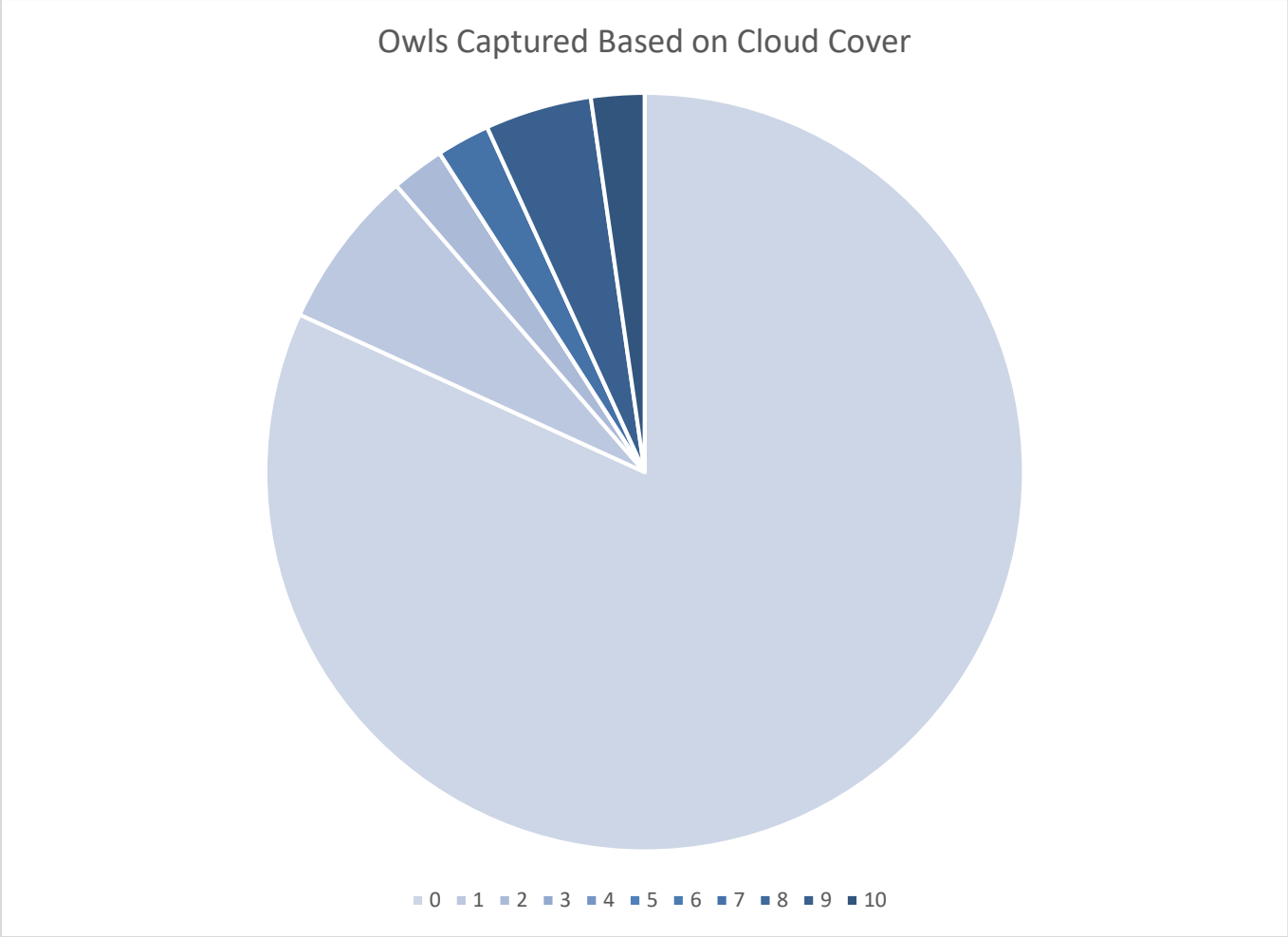
The overall highest recorded wind speed in 2020 was 12 mph.

The average wind speed for the peak night of November 16, 2020 was 3 mph.

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

0 = Clear

10 = 100% coverage



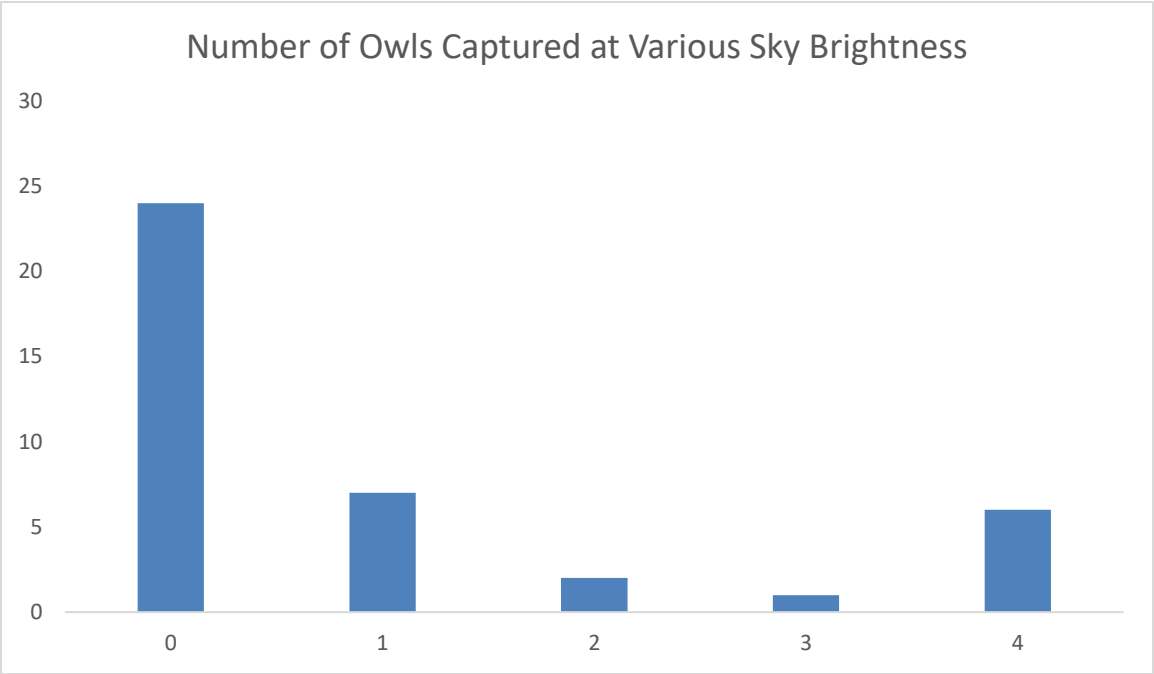
Brightness: How Bright were the skies?

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

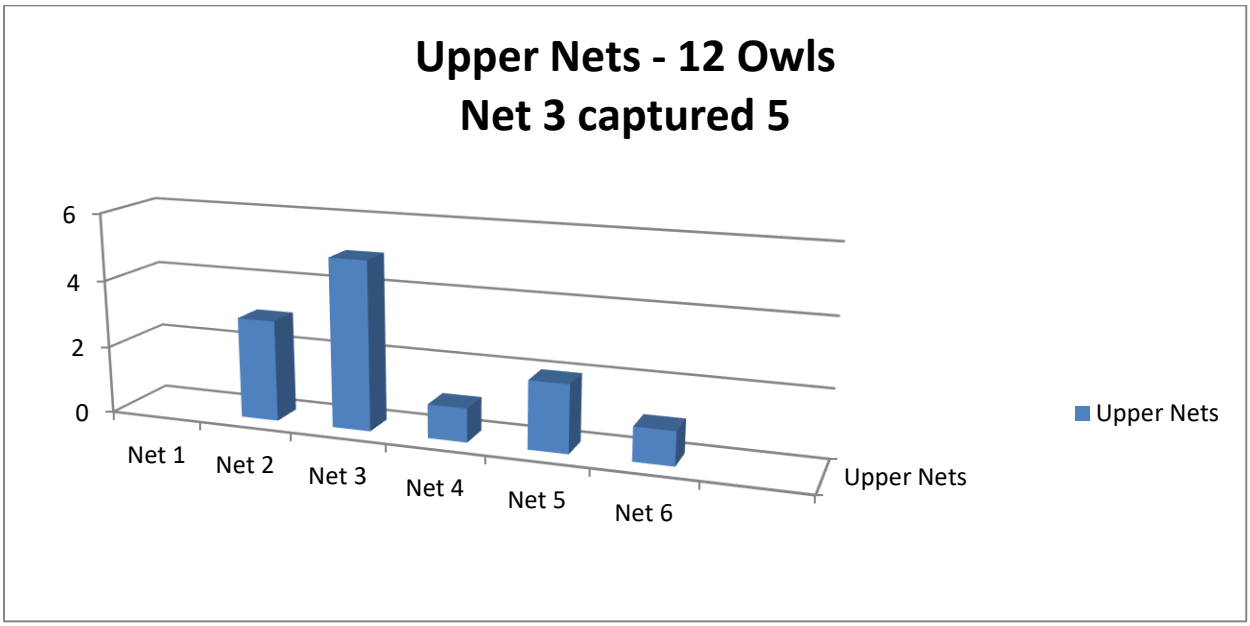
Moon Phase/Sky Brightness

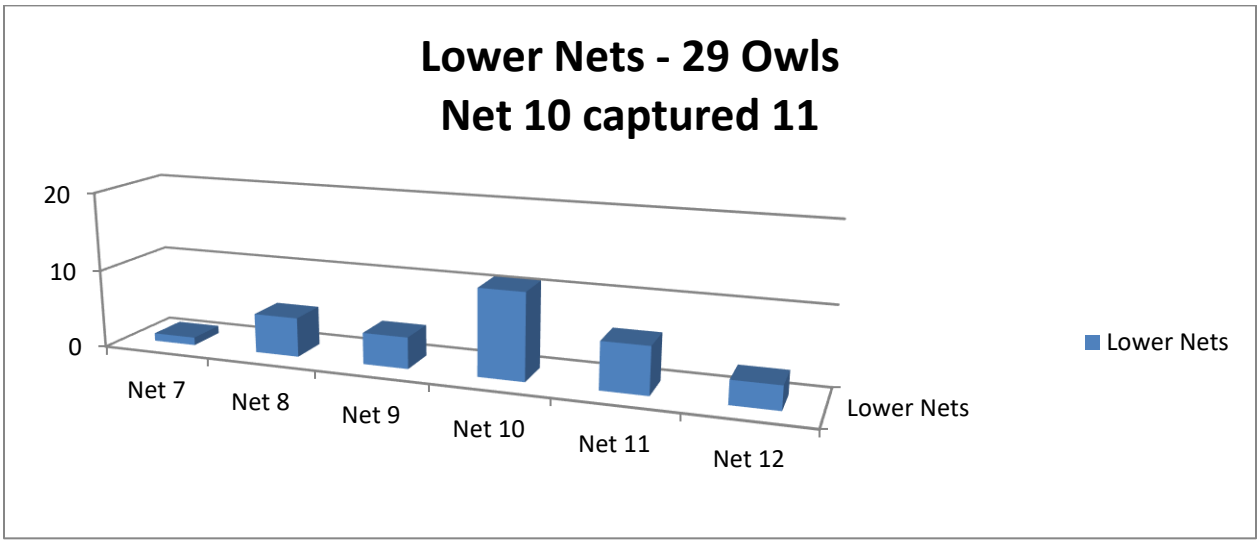
Brightness values/ Percentage of moon

Number of birds	nights catching	
0 = 0%	24	3
1 = 1 - 25%	7	1
2 = 26 – 50%	2	2
3 = 51 -75%	1	1
4 = 76 – 100%	6	2

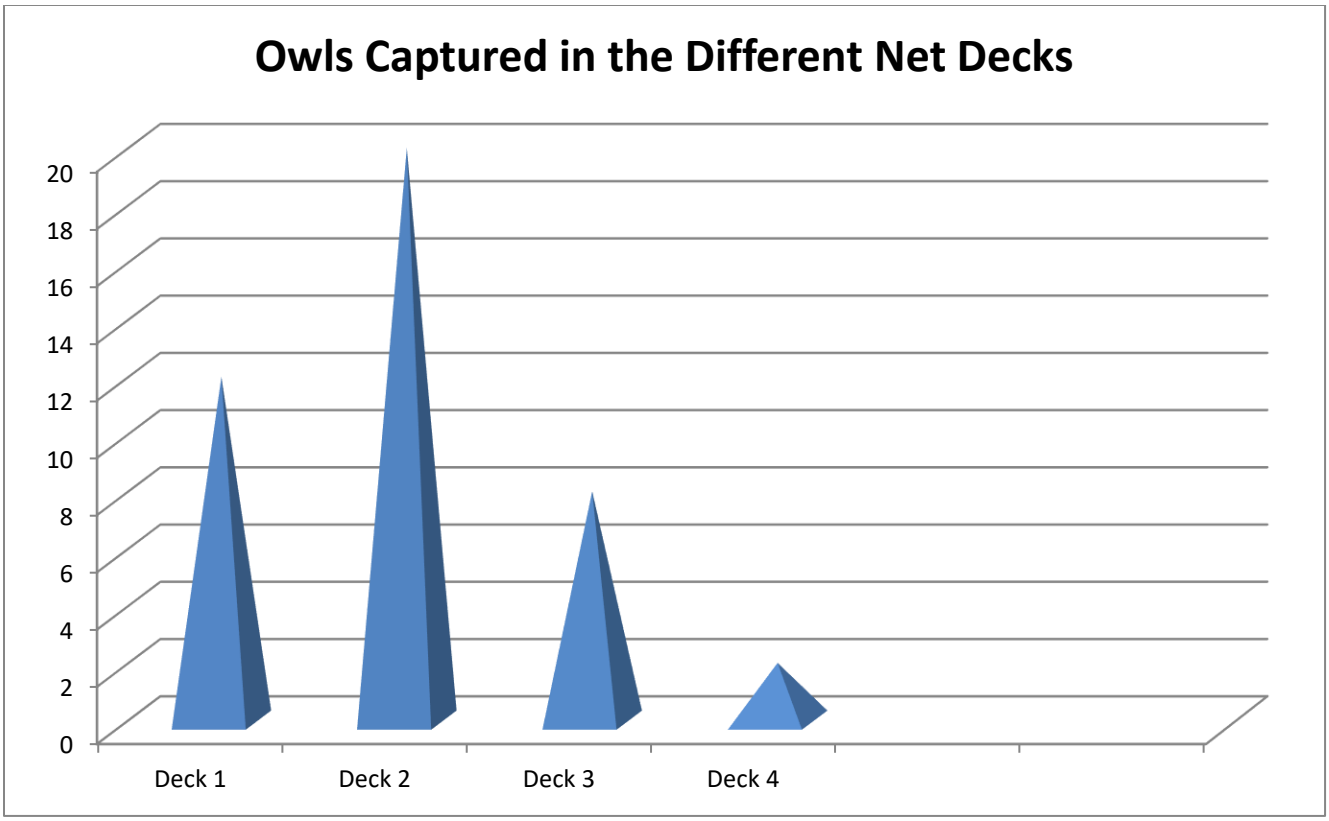


Which nets captured the most owls?





Upper Nets- 3		Lower Nets - 12	
1	0	7	1
2	3	8	5
3	5	9	4
4	1	10	11
5	2	11	6
6	1	12	3



Deck 1	12
Deck 2	20
Deck 3	8
Deck 4	2

Recaptures

There were 3 foreign recoveries and 1 local recapture beyond banding night

11/14 – Hilliardton Marsh Ontario banded in 2019 as a HY – 680 miles

11/16 – Long Point Ontario banded in 2018 as a HY - 350 miles

11/16 – Mohonk Preserve, New Paltz, New York banded in 2018 as a HY – 270 miles

11/16 – Dickinson Center, New York banded on 10/12/20. Travelled 450 miles in 35 days; 12.8 miles per day

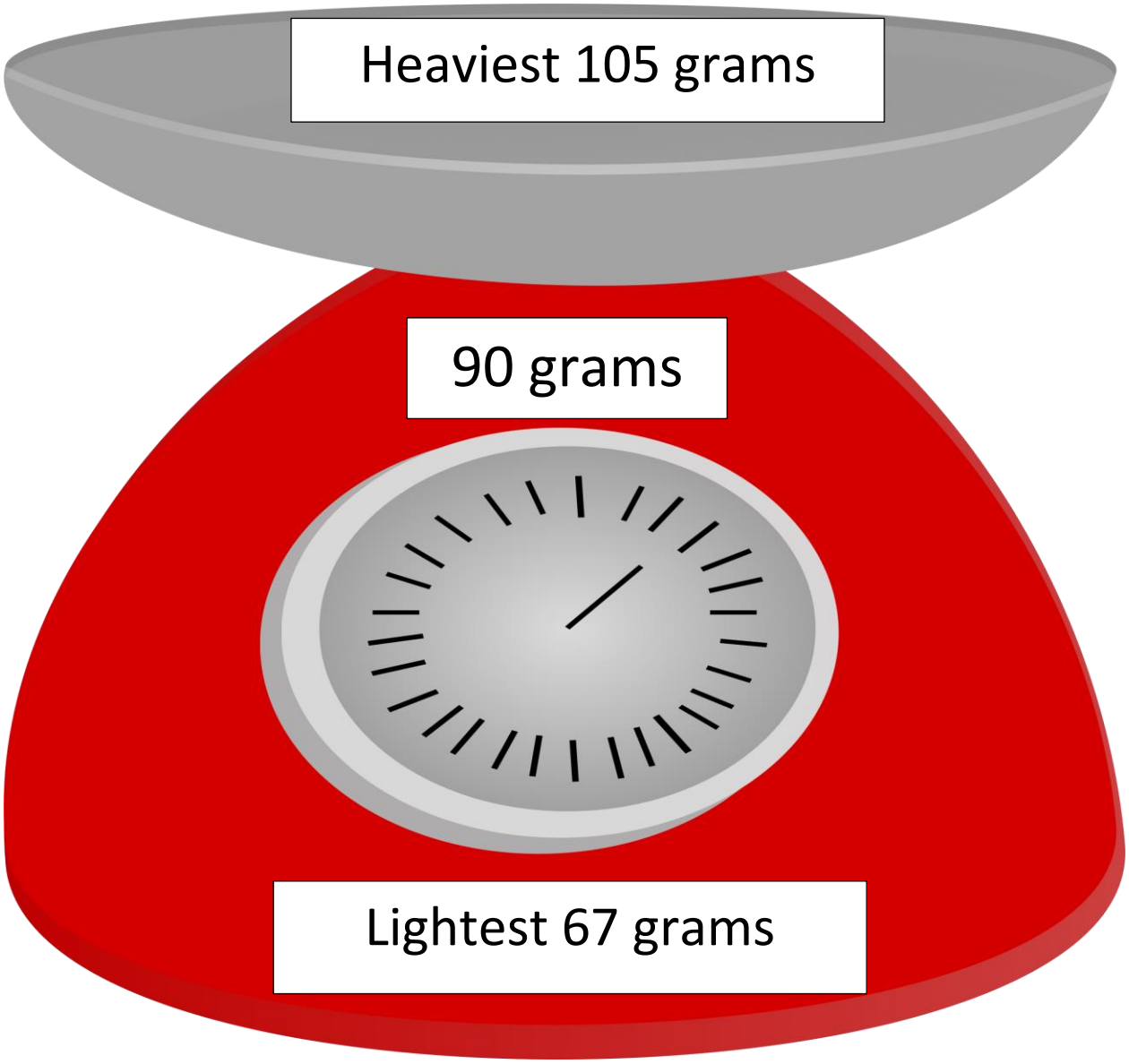
11/18 – Local recapture 2 days after banding had gained 12 grams

Eye Color

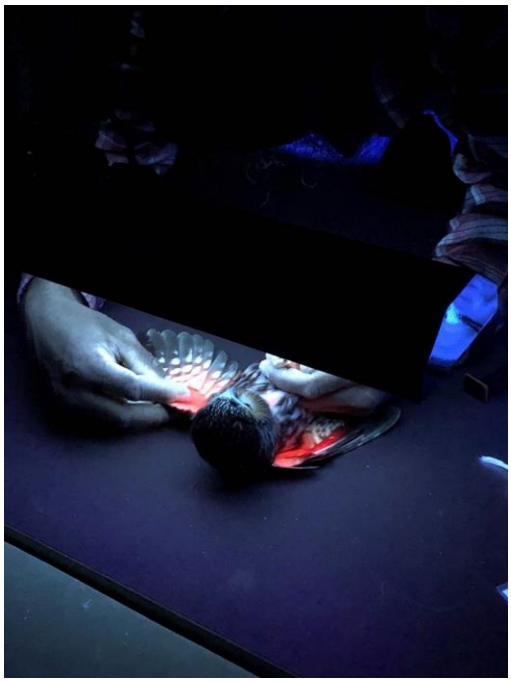
315	1
322	8
329	15
336	15

Average Weight

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



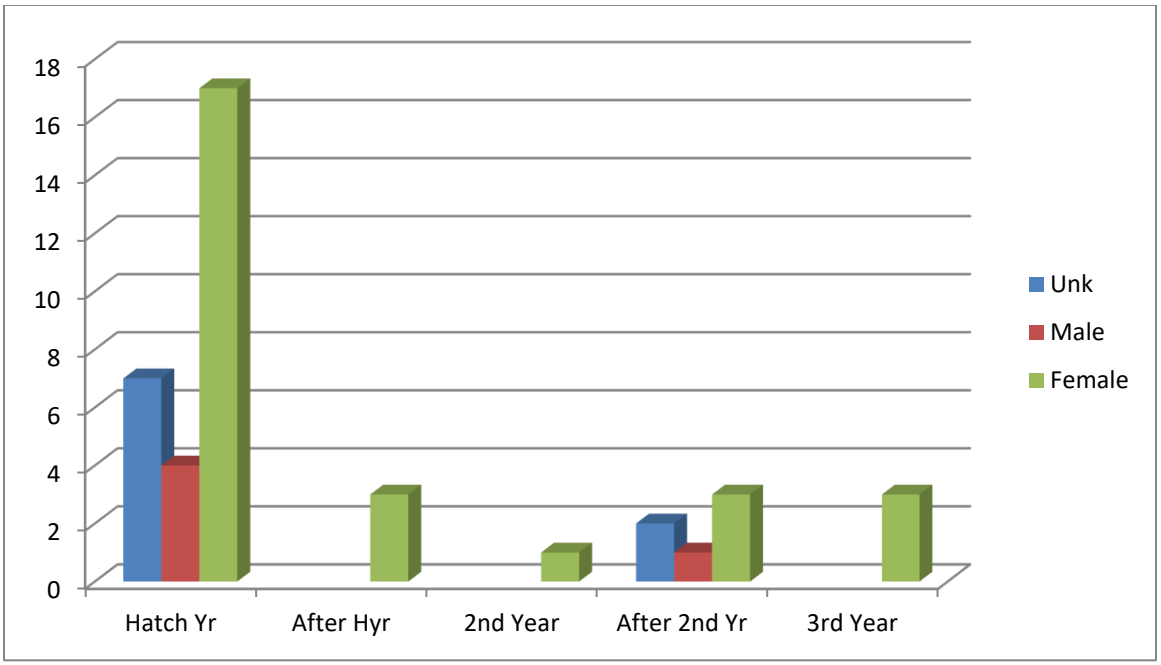
Age and Sex



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.

				Total		
	Unknown	**Male**	**Female**	**2020 Captured**	**2020 Percent**	**2019 Percent**
Hatch Year (HY)	7	4	17	28	68	14
After Hatch Year (AHY)	0	0	3	3	7	
Second Year (SY)	0	0	1	1	2	71
After Second Year (ASY)	2	1	3	6	14	14
Third Year (TY)	0	0	3	3	7	



Many occurrences of aberrant molt patterns resulted in SY birds being aged as AHY with only 2 feather age generations.

Age vs. Eye Color

	315	**322**	**329**	**336**
HY	1	4	8	13
AHY		1	3	
SY				1
ASY		2	2	1
TY		1	2	

Age vs. Beak Tip

	Black			Horned		
	U	M	F	U	M	F
HY		22			4	
AHY					2	
SY					1	
ASY		6			1	
TY		3				


Measuring the bill length and wing arc.

Gene Groshon and Jason Avery

Goals for 2021

- Investigate alternatives to the FoxPro caller
- Experiment with a net site along the powerline right of way
- Actively participate in the data management plans in the Northern
- Saw-whet Owl pre-conference workshop at the World Owl Conference in Lacrosse, Wisconsin
- 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

2020 Annual Report

Date of Issue February 2021

CALVERT STEWARDS VOLUNTEER PROGRAM
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Calvert Nature Society: www.calvertparks.org
Calvert County Natural Resources Division:
www.calvertcountymd.gov/NaturalResources

CALVERT COUNTY PARKS & RECREATION
NATURAL RESOURCES DIVISION

CALVERT NATURE SOCIETY
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