

THE MOHONK TRUST

December 1978

RESEARCH REPORT - Owls of the Northern Shawangunks

ABSTRACT: The observations of six species of owls in the northern Shawangunks during 49 years are summarized. It is believed that the population of these predators has not changed significantly during the period. Detailed records are given for the Great Horned Owl because of its importance as a predator and its relation to the reintroduction of the Peregrine Falcon. Screech, Barred and Saw-whet Owls have a lesser function in the ecosystem due to size of prey taken or restricted habitat. Snowy and Barn Owls have been very rare visitants.

Introduction

The significance of owls as predators suggested that a summary of Mohonk records would be of value to other research projects. In this report consideration is given to the possibility of changing status, to their distribution on the mountain, and to their functions in the ecosystem.

The nocturnal habits of owls have limited the opportunity for observations. This has meant that the records are not a true indication of the geographical distribution of owls on the mountain. Some of the records were noted while I was in bed!

The following have contributed to the owl records: Keith Smiley, Virginia Smiley, Jim Stapleton, Karl Beard, Brad Snyder, Heinz Meng and Howard Cleaves.

The species are treated in the order of observed abundance rather than their taxonomic position.

Great Horned Owl (Bubo virginianus)

The records of this species in the vicinity of Mohonk Lake during the last 49 years indicate that it has been constantly present, with no reason to assume a significant change in population. During this period Great Horned Owls were heard 88 times and seen -- not including the three nesting records -- on only eight occasions! The details of hearings and sightings are given in Appendix 1.

Life History and Behavior

During the evening of 6 December 1930, the typical four-note hoot was heard accompanied by "a guttural grunting or clucking sound which was fainter." Sometimes the second sound was given at the same time as the first and at other times it came immediately after it. It was surmised that there may have been two birds

Cont.

and they were perhaps courting. The calls kept up for about 20 minutes.

On 7 April 1932 at 4:30 p.m. in bright sun, heard hooting for 10 minutes, Rhododendron Swamp area.

On 24 April 1932 at 2:00 a.m., in the light of half moon from my Oak Cottage window, I listened to hooting near the Greenhouse. I squeaked like a mouse. Almost immediately the owl lit in the top of a nearby oak. After hooting a few times, it flew away. A little later I made more squeaks and brought him back briefly.

On 5 May 1939, hooting heard 3 p.m. in Coxing Valley. This daytime hooting has occurred fairly regularly.

In May 1953, report from Dr. Meng of a nest in a deciduous tree near Kleine Bonticou cliff.

On 9 May 1959 at Copes Lookout, I saw a young one on a limb in sunlight at 4 p.m. It was quite gray around the head with rather short ears and was clumsy in flight.

On 30 September 1970, call heard at Elms 5:30 a.m. It had an odd quality -- tremolo of notes of hoot.

Spring 1974, a nest was found on ledge of Kleine Bonticou. One young raised. Formerly a Red-tail Hawk nest, per Heinz Meng.

1 March 1975, nest with 2 eggs, same location as above. Adult flew by twice. Called with 2 hoots when harassed by crows. On 23 March adult sitting, 2 eggs still. On 11 April one downy young. On 23 April one downy young banded, no flight feathers, less than 9 inches long. Blue Jay feathers and half of a Flicker on ledge. One pellet, collected.

In February and March 1976, on several occasions, J. Stapleton played hoot recordings at Sleepy Hollow. No response from owls was received.

In April 1977, a nest was found in the Trapps. There was whitewash on the forest floor and immediately beneath the nest several pellets and Turkey Vulture feathers.

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The distribution of the records through the year was as follows:

Jan.	12	July	1
Feb.	6	Aug.	6
Mar.	10	Sept.	10
Apr.	6	Oct.	18
May	4	Nov.	9
June	1	Dec.	12
		Spring	3
		Summer	<u>1</u>
		Total	98

Two thirds of these records were in the period September through January, with October the high month (20% of all records.) Is that the time of territory determination? Is the somewhat higher March calling associated with feeding nestlings?

The majority of the observations were within a mile of Mohonk Lake, which is where the observers would chance to be when the Great Horneds would be hooting. I suspect that this owl is generally distributed in the northern Shawangunks since its varied foods might be more general than that of the smaller owls. See Appendix 2 for an interesting food reference.

Interactions

1930's (date not recorded) I recall finding a Great Horned Owl feather near the Greenhouse which smelled strongly of skunk.

27 April 1940 An owl which I believed was a Great Horned flew out from a crack beneath the overhanging cliff directly above the 1929 falcon eyrie. Whitewash was seen below this crack at other times. The possible interaction between the two species is discussed in the falcon research report, now in preparation.

15 April 1956 A Great Horned Owl being annoyed by Crows south of Sky Top.

March 1977 One seen on Farm Road being mobbed by Crows.

July 1978 During the hacking attempt, the remains of two of the young Peregrine Falcons were found in the talus below Millbrook cliff with evidence that both had been killed by Great Horned Owls.

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Screech Owls (Otus asio)

This owl has been recorded regularly from 1930 to the present, except during the 1940's. I believe this gap was due to lack of observation and recording. No change in numbers is indicated by the records.

A tabulation of the Screech Owl cards shows that it was heard 82 times and seen only 6 times during the 49 years. Six of the 82 hearings were during daylight hours. Several of the night records were noted as occurring at a full moon period. Several times an imitation of their call seemed to produce a response from the owl. This distribution of the heard records through the year is of interest:

Jan.	1	July	5
Feb.	4	Aug.	11
Mar.	4	Sept.	22
Apr.	1	Oct.	17
May	2	Nov.	9
June	4	Dec.	<u>2</u>
		Total	82

Seventy-two percent of all observations were in August through November with September the high month. These records may be skewed by the pattern of my activities at different times of year. Sometimes I have heard the calls while in bed. The day-time sightings were as follows:

March 1952 One perched in opening of a rough rock foundation of Mohonk House, being scolded by Blue Jays.

November 1956 On ground under an overhanging rock in Glen Anna.

February 1961 Roosted all day in a Hemlock at West Pines, scolded by Chickadees and Crows.

June 1975 Mobbed by several species of birds, early evening at Duck Pond.

November 1976 Seen by Jim Stapleton late at night below Kleinekill as it slowly circled him at about 4 meters.

January 1977 Seen in a tree beside Mohonk House during most of the day, being annoyed by Blue Jays.

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A Screech Owl was found dead in a garage in the Clove
7 March 1963.

The records on geographical distribution of Screech Owls at Mohonk Lake are limited by the bird's nocturnal habits. Over half of the hearings were at the Elms, where I have lived since 1950. A fifth of the records were at Oak Cottage or the Mountain House, which have been the areas of my activity through the years. About one-seventh of the records were at the Duck Pond from my times of camping there in the earlier years and reports from naturalists resident there in 1974, 1975 and 1976. The balance of the hearings were single records from such localities as the Clove, Pine Hill and Sawmill (3), Sky Top, Glen Anna, North Lookout and Mountain Rest.

I believe that the Screech Owl has maintained its status as a minor predator of small mammals through the five decades.

Barred Owl (Strix varia)

During the last 5 decades the Barred Owl has been recorded on 22 occasions. Of these, 14 were hearings, 5 were sight records, and 3 were heard and seen. Twelve of the records were in daytime. No nest has chanced to have been found, though it is considered a breeding species for Ulster County. The following is the distribution of Mohonk records through the year:

Feb.	1	July	1
Apr.	9	Sept.	4
May	1	Oct.	2

This suggests to me that the April hooting may be associated with food-gathering for the young.

My impression is that Barred Owls are somewhat more restricted as to habitat than the Great Horneds. Many of the records were from stream valleys, usually centered at the upper ends -- as Mossy Brook and Duck Pond. I find no reason to think that the population of this owl has changed significantly through the period of my observations.

Saw-whet Owl (Aegolius acadicus)

Although this species was not added to the avifauna of the northern Shawangunks till 1960, I now believe that it has probably always been here in limited numbers. The following are the records:

15 July 1960 Caught in a guest room of the Mohonk Mountain House. This was on 6th floor, 60 feet above the ground. From its plumage it was judged to be immature and fairly young. In Birds of New York John Bull rated this as a breeding record for Ulster County, the only one. Its weight was 85 g. After banding the bird was released.

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19 Oct. 1961 One found dead near the Mohonk House.

6 Feb. 1963 One seen flying against the front door of the Laurels Cottage, mid-morning, chased by Blue Jays and Crows. Flew to a hemlock tree and then off into the woods.

24 Nov. 1966 Observed with flashlight near the Barn. It flew from the ground to a tree branch.

24 Oct. 1975 One found dead at the Council House below a picture window.

5 Feb. 1975 Heard before daylight at the Sky Top falcon eyrie.

15 July 1976 Heard at Elms an hour before sunrise.

Snowy Owl (Nyctea scandiaca)

The following are the only Mohonk records:

1927 Early winter, seen at Sawmill.

1928 10 March, seen on Laurel Ledge road.

1960 20 November, seen from Bonticou Crag.

1960 26 December, seen near Breezy Lawn.

I presume that during the occasional southward movements of Snowy Owls, there would be more food available in the valleys than on the mountain.

Barn Owl (Tyto alba)

The only record was 5 July 1971 when one was found in weeds along edge of Sky Top Road. It was alive but died before it reached me. One leg and foot were stiff while the body was still warm.

Daniel Smiley
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Appendix 1.

Locality Records

Great Horned Owl

Area

Year	Date	Locality	MB	DP	R-SH	KB	Other
1930	10/12, 13	Croquet Court	✓	✓			
	12/6	Bruin Path	✓				
1931	✓26	Deer Paddock	✓				
	✓26	Eagle Cliff	✓				
	✓26	Mossy Brook	✓				
	✓9, 23	Oak Cottage	✓	✓			
	1/28	Home Farm					✓
	2/20, 22	Mossy Brook	✓	✓			
	3/15	Duck Pond					✓
1932	2/12, 22	Pine Hill	✓	✓			
	4/7	Rhododendron Sw.					✓
	4/24	Oak Cottage	✓				Seen
	5/30	Sky Top	✓				
	10/22	Oak Cottage	✓				
	11/24, 29	Oakwood					✓
1933	✓	Oak Cottage	✓				
	9/1, 22	Oak Cottage	✓	✓			
	10/19	Oak Cottage	✓				
	12/9	Sky Top	✓				
	12/9	Rhododendron					✓
	12/14	Duck Pond					✓
1934	2/19	Oak Cottage	✓				
1935	✓19	Sky Top	✓				
1936	2/16	Oak Cottage	✓				
1937	9/10	Oak Cottage	✓				
1938	9/2	Oak Cottage	✓				
	11/10	Brook Farm					✓
1939	5/5	Glove - Hess House					✓
1941	2/11	—					✓
1942	11/22	Elms	✓				
1943	3/15	Gateway					✓
	6/30	Sawmill	✓				
1944	3/27	Mossy Brook	✓				
	10/11	Pine Hill	✓				
1945	10/6	Sky Top	✓				

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cont.

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Locality Records - Great Horned Owl

Year	Date	Locality	Area:				
			MB	DP	R-SH	KB	Other
1946	8/21	Pine Hill	✓				
	11/29, 30	Oak Cottage	✓	✓			
1950	12/18	Pine Hill	✓				
1951	2/21	Eagle Cliff	✓				
	9/16	Eagle Cliff	✓				
	12/30	Duck Pond			✓		
1952	8/17, 29	Eagle Cliff	✓	✓			
	9/25	Pine Hill	✓				
	9/27	Garden Road	✓				
	10/1	Pine Hill	✓				
	11/2	Pine Hill	✓				
1953	May	Klaine Bonticou					✓ Nest
1954	2/19	Oak Cottage	✓				
	9/4	Mossy Brook	✓				
1955	11/12	Elms	✓				
	11/24	Log Cabin	✓				
1956	4/15	Sky Top	✓				Seen
	8/17	Pine Hill	✓				
	12/6	Oak Cottage	✓				
	12/31	Sleepy Hollow				✓	
1957	1/17	Sky Top	✓				
	10/27	Sleepy Hollow				✓	
	12/11	Lake	✓				
	12/28	Laurels	✓				
1958	2/12	Oak Cottage	✓				
	4/22	Woodland Drive					✓
	9/13	Lake	✓				
1959	5/9	Copas hookout					✓ Seen
	10/13	Sleepy Hollow				✓	
	12/15	Elms	✓				
1960	3/9	Pine Hill	✓				
	6/23	Chestnut Spring			✓		Dead
1963	10/20	Sky Top	✓				
1964	10/8	Overcliff				✓	Seen

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Locality Records - Great Horned Owl

Year	Date	Locality	Area:				
			MB	BF	R-SH	KB	Other
1969	5/6	Sleepy Hollow			✓		
	10/1	Mossy Brook	✓				
	10/26	Greenhouse	✓				
1970	9/30	Elms	✓				
	10/4	Elms	✓				
1972	2/18	Elms	✓				
	4/4	Elms	✓				
	10/21	Elms	✓				
1974	Spring	Kleine Bonticou				✓	Nest
	5/1	Brook Farm					✓
	10/10	Duck Pond		✓			
1975	10/29	Forest Drive		✓			
	3/1	Kleine Bonticou				✓	Nest
	10/7	Duck Pond		✓			
1976	1/9, 11	Duck Pond		✓✓			
1977	1/28	Sawmill	✓				
	3/27	Farm Road					✓
	Spring	Trapps					✓
1978	12/30	Pine Hill	✓				Nest
	4/6	Bonticou Cruz				✓	Seen

Summary of records - 49 years

Heard	88
Seen	5
Nest	4
Dead	1
Total	98

Area:

Mossy Brook - Mohawk Lake	66
Duck Pond	12
Rhododendron Swamp - Sleepy Hollow	7
Kleine Bonticou	4
Other	9
Total	98

Appendix 2

Food

The few Mohonk observations on food of the Great Horned Owl are included in the discussion of behavior.

The following quotations are from Life Histories of North American Birds of Prey, Part 2, by A.C. Bent, Bulletin 170, United States National Museum, 1938.

Page 306:

"I believe that it prefers to feed on the smaller mammals, mainly those that are active at night, as these are more readily available and easier to catch in its favorite haunts than are birds and poultry; where these are sufficiently numerous, they make up the bulk of the food of this owl. The list of mammals taken includes hares and rabbits of various species, gray, red, flying, and fox squirrels, chipmunks, various rats and mice, including our destructive house species, muskrats, ground squirrels, pocket gophers, spermophiles, minks, weasels, large and small skunks, woodchucks, opossums, porcupines, domestic cats, shrews and bats. Most of the records indicate that the cottontail rabbit is the most prominent item."

Page 312:

"To illustrate the value of the great horned owl as a ratter, H.A. Surface (1904) published part of a letter of O.E. Niles, from which I quote as follows: 'In the nest where he captured the young owls he noticed several full-grown Norway rats, with their skulls opened and the brains removed. On descending to the ground he also noticed the bodies of many rats around the tree, and out of curiosity counted them, and found the bodies of one hundred and thirteen rats, most of them full grown. They all appeared to simply have had their skulls opened and the brain removed; and from their undecayed appearance, all must have been captured within the previous week or ten days.'"

Supplement to Mohonk Trust Report

Owl Records

Christmas Count - John Burroughs Nat. Hist. Soc.
Ulster Co., N.Y.

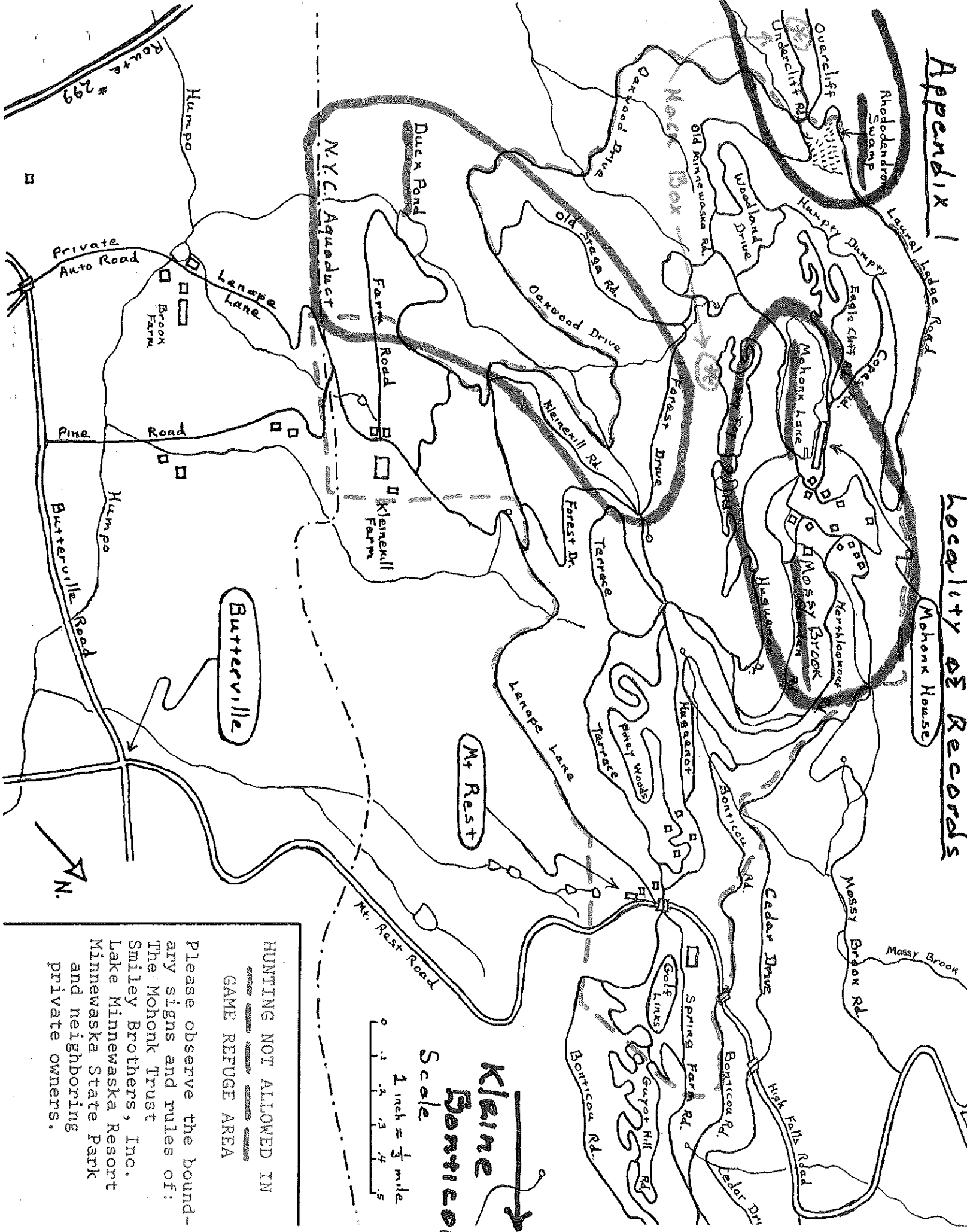
Barred Screech Gr-horned Long-ear Snowy Barn Saw-whet

Year	Barred	Screech	Gr-horned	Long-ear	Snowy	Barn	Saw-whet
1950						(none)	(none)
51			1				
52							
53				2	(1)		
54							
55		1	1	4			
Av.				0.4			
1956			2				
57			2				
58		1	-				
59		3	3				
60		1	3		(1)		
61		1	5				
62			2				
63			1				
64		-	-				
65			-		1		
Av.				1.8			
1966			5				
67							
68							
69			(1)				
70							
71							
72		1	1				
73	1	(1)					
74			(1)				
75		1	1				
Av.	-						
1976	2	1	1				
77		1	3				
78			5				
Av.	-						
				3.0			

() = not on count day

Jan. 1969
D.S.

Locality of Records



Kleine
Bonticou

Scale
1 inch = 1/2 mile

HUNTING NOT ALLOWED IN
GAME REFUGE AREA

Please observe the boundary signs and rules of:
The Mohonk Trust
Smiley Brothers, Inc.
Lake Minnewaska Resort
Minnewaska State Park
and neighboring private owners.