

MICHIGAN DEPARTMENT OF CONSERVATION
Game Division

Report No. 2434
August 20, 1963

NORTH MANITOU ISLAND DEER
1962-1963

By I. H. Bartlett

In the fall of 1962, 80 adult bucks, 5 buck fawns, 108 adult does, and 9 doe fawns--a total of 202 deer were taken during the deer hunting season by hunters on North Manitou from the middle of October to mid-December, 1962. An effort was made to increase the kill in view of the heavy starvation losses during the previous winter but because of a shortage of hunters, only 202 deer were taken. Of this number between 30 and 40 deer were sold for venison.

Average weights of adult deer increased considerably above the past few years due to the low percentage of $1\frac{1}{2}$ year old deer in the hunter kill following heavy starvation last winter. Buck fawn weights were up a little but the sample was so small that the fawn weight change is considered coincidental.

As indicated by the attached age composition chart, the percentage of $1\frac{1}{2}$ year old deer in the kill dropped appreciably; bucks from 47 per cent in 1961 to 15 per cent in 1962 and females from 39 per cent in 1961 to 2 per cent in 1962. This reflects the major effect on the herd of the loss of a large percentage of the 1961 fawn crop during the winter of 1961-62.

Going back over the records it seems quite evident that the population explosion which occurred in the summer of 1961, was largely due to the light winter of 1960-61 and a subsequent survival of a very high percentage of the fawns born in the summer of 1961. This huge fawn crop went into the tough winter of 1961-62 and a large percentage of them were lost through malnutrition. In other words, under normal conditions many of these fawns would have been eliminated at birth. Because of the light previous winter, they survived the normal critical infant mortality period only to pass out of the picture during the tough following winter. Probably the only way they could have been "saved" would have been to shoot them during the hunt in the fall of 1962 along with the other 207 that were harvested. It is somewhat doubtful if an additional feeding program would have been sufficient to bring this large number of young deer through the winter.

This past winter of 1962-63 was about a normal winter so far as snow depth was concerned, but it was extremely cold with long sub-zero periods. Apparently about the "normal" number of deer were present on the island. Any excess in the fawn crop apparently had been eliminated by a return to "normal infant mortality" at the time of birth--June 1962.

During the winter (1962-63) 60 tons of Kellogg deer food pellets were fed in the usual manner--34 feed troughs scattered about the island in the usual places in which 100 pounds of pellets were placed twice a week starting in December and continuing through to mid-April. Most of the snow was gone by early April but light feeding was continued as long as deer were taking the pellets from the troughs--mid-May. While I was on the island May 1-6, one feeding trip was made and approximately 50 pounds of food was placed in each trough. Only 3 of the 34 feed troughs on the island still contained food from the previous feeding 5 days before.

The enclosure on the north end of the island was examined. It was found that some types of reproduction inside the fence had reached the height of 8 feet along with blackberry and elderberry bushes about the same height. Outside the enclosure the deer herd kept similar growth trimmed to ground level.

Fifty-eight dead deer were found on the island this spring during rather meager searches in strategic areas. About 25 of these deer were in the vicinity of the Bournique Place. The others were scattered in small groups in the Tamarack Lake country, near the west side, and in the big Pot Hole. Others were widely scattered individuals. It is estimated that the losses during the past winter was 100 or more animals, only a few of which could be attributed to deer season crippling losses.

Browsing pressure on natural foods continued heavy with ground juniper still being held at snow level. Creeping juniper seemed to continue its recovery but the old network of dead vines still indicated it was far below its previous density. Spring growth on the island this year seemed slow. The grass in the openings was green but there was little evidence of trillium or dutchmen's britches which have been abundant other years at this time. Leeks were common as usual covering acre after acre.

Timber cutting has moved from the north end of the little lake down to the central portion of the island with the trucks using the road to the west side.

Fluelling reported that only 3 turkeys survived the winter but that he had planted 10 this spring bringing the total to 10 hens and 3 gobblers. In addition 4 chukars and 3 pheasants had been released.

With the reproductivity potential of the island herd established at 600 or more fawns a year (from the fawn loss winter 1961-62) there should be no hesitation to harvest 300-400 deer a year from the island. Apparently when the population pressures are relieved the additional survival of fawns the following spring more than makes up for the removals. It is strongly recommended that between 300 and 400 deer be removed in the fall of 1963.

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AGE COMPOSITION OF THE 1962 KILL*

Age	Males		Females	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
6 months	5	06	9	08
1½ years	13	15	3	02
2½ years	34	40	47	40
3½ years	21	25	21	18
4½ years	8	10	16	14
Over 4½ years	3	04	21	18
Total Aged	84	100	117	100

*Age composition of the 1962 kill as determined
by Island Manager Marvin Fluelling.

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WEIGHTS AND AGE OF DEER KILLED
ON NORTH MANITOU ISLAND

October, 1962 thru January, 1963

M A L E S					F E M A L E S								
50	6 Mo.	120	2½	126	3½	41	6 Mo.	105	2½	89	3½	115	4½
57		121		128		49		105		95		115	
60		123		133		50		105		100		117	
62		123		133		50		106		100		117	
65		125		136		52		106		104		119	
		125		137		52		106		105		123	
87	1½	128		137		53		106		109		123	
98		128		140		56		106		110			
100		128		141		60		107		110		95	5½
100		129		143				108		110		105	
106		129		150		85	1½	108		112		105	
107		130		150		91		108		112		105	
112		131		151		95		110		114		110	
112		131		160				110		116		112	
116		133				83	2½	110		117		117	
122		134		114	4½	83		110		118		121	
123		138		125		88		112		120		122	
125		140		140		88		112		121			
134		141		140		90		112		123		97	6½
		149		142		94		114		127		108	
85	2½	150		150		95		114		128		113	
100		154		156		95		114				125	
100		156		166		99		115		100	4½		
115						100		117		102		104	7½
115		111	3½	150	6½	100		118		106		110	
117		113				101		119		108			
118		117		126	7½	103		120		108		85	8½
119		121				103		122		110		104	
119		123		135	8½	104		122		114		105	
120		125				105		130		114		110	
120		126		157	No age	105				115		114	
												105	9½

Total Wt. 10,532 -- 85 males

Total Wt. 12,145 -- 117 females

Males	Number	Percent of Weighed Total Kill	Average weight
Fawns	5	02	58.8
Adults	80	40	128.0
Total Males	85	42	123.9
Females			
Fawns	9	04	51.4
Adults	108	54	108.2
Total Females	117	58	103.8
Total Deer	202	100	112.3

NORTH MANITOU ISLAND DEER

DEER HUNTING KILL, STARVATION, AND OTHER LOSSES

Year	WINTER LOSSES*		HUNTING KILL				Unident- ified	Total
	Sample count	Estimated total	Adult		Fawn			
			Males	Females	Males	Females		
1937	5	10	15	1		2		18
1938			25	12	2	2		41
1939	5	10	40	5				45
1940			55	29	8	3		95
1941	8	20	91	40	4	4		139
1942	25	50	91	70	11	4		176
1943	32	50	89	116	39	48		292
1944	20	50	155	104	20	23		302
1945	4	10	33	9	6	2		50
1946	22	50	113	23	2			138
1947	164	300	133	58	7	4		202
1948	47	100	77	41	1	1		120
1949	25	50	117	52	5			174
1950	116	200	112	75	4	5		196
1951	37	70	78	127	10	13		228
1952	20**	75	83	139	23	29		274
1953	9	30	68	120	27	23		238
1954	27	100	152	113	13	11		289
1955	7	50	138	135	7	6		286
1956	43	70	94	116	21	14		245
1957	3	20	139	84	20	11	12***	266
1958	17	40	134	75	11	8	5	233
1959	72	100****	149	80	10	4		243
1960	46	75	121	91	4	8		224
1961	10	20	144	53	7	3		207
1962	390	500	80	108	5	9		202
1963	58	100						
Total	1,212	2,150	2,526	1,876	267	237	17	4,923

* Approximately 80% due to lack of sufficient food (many could not get to it), about 20% due to crippling during hunt, and other causes.

** Reported by Hadra as having been seen in vicinity of feeding stations. No extensive searches were made.

*** Eight males and four females killed but not weighed or aged.

**** Readjusted.

