THE 1966 BARREN GROUND CARIBOU TAGGING PROJECT

in Manitoba

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by

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Conservation Officer.

Acknowledgments

The barren ground caribou tagging project has been a cooperative project between three governmental agencies - the Canadian Wildlife Service, Indian Affairs and the Manitoba Government - for eight consecutive years. Special thanks go to the Canadian Wildlife Service and Indian Affairs for their continued support and trust. Additional thanks go to Manitoba Government Air Service for timely transportation and the use of radio equipment. The Manitoba Forest Protection Branch deserve a good deal of credit for the use of the Canso aircraft for transporting equipment and men in and out of Duck Lake. Thanks go to the Northwest Region for the use of equipment and the services of Mr. Arnold Clark. Special consideration is given to the patience and efforts of the tagging crew.

Abstract

Twenty-five caribou were tagged in the Little Duck Lake area in 1966. Twenty-three were adult males and two were adult females. Most of the animals were tagged on Little Duck Lake.

In addition to the ear tagging, a crew of two Canadian Wildlife Service biologists and a Saskatchewan biologist, placed bright fluorescent "Saflag" vinyl collars around the necks of ten caribou. Four inch wide green collars with large black letters on either side were attached to nine adult males and a three inch wide pink collar with a large black number "1" on either side was attached to an adult female caribou. Eight adult males and one adult female also wore Manitoba ear tags.

Two aerial reconnaissance flights preceded the actual tagging operation. However, a last minute change in course caused the animals to bypass Nejanilini Lake on the east side.

Introduction

The Duck Lake caribou tagging project has now been in operation for eight consecutive years. In late 1958, Mr. J. D. Robertson of the Manitoba Wildlife Branch, suggested to the Technical Committee for Caribou Preservation that consideration be given to "catching caribou by canoe at water crossings to ear tag them." In September, 1959, Mr. Robertson directed the first tagging operation on Little Duck Lake in Northern Manitoba and successfully tagged 112 animals. Since this initial start the Canadian Wildlife Service and Indian Affairs of the Federal Government and the Manitoba Wildlife Branch have cooperated fully on the project and have ear tagged a total of 2,463 animals (see Table 3.). Tagging success has varied from 0 in 1963 to 549 in 1965. In 1966 the caribou failed to utilize the Nejanilini Lake crossings but the crew managed to tag 25 stragglers, mostly at the mouth of the Wolverine River at Nejanilini Lake and Little Duck Lake.

The objectives of the tagging operation are:

1. To determine if the Manitoba-Keewatin herd is discreet from the Saskatchewan-MacKenzie herd.
2. To collect data on the seasonal movements and range of the Manitoba-Keewatin herd.
3. To collect data on the longevity of individual animals.
4. To collect data on the survival of fawns.
5. To collect data on the seasonal and total kill of caribou by natives.

As of August, 1966 data on 90 tag recoveries are available. Tags have remained on caribou for as long as 63½ months and recoveries have ranged as far north and east as 328 miles, south 230 miles and west 300 miles.

In addition to the ear tagging effort this year a team consisting of two Canadian Wildlife Service biologists, Mr. G. Parker and Mr. F. Miller and a Saskatchewan biologist, Mr. M. Popper, attached bright collars around the neck of caribou. Ten caribou were marked in this manner (see Table 2). Nine of these animals also wore Manitoba eartags.

The 1966 Duck Lake caribou tagging crew members were:

Mr. J. D. Robertson, Game Administrator, Manitoba Wildlife Branch, Winnipeg.

Mr. E. Engen, Conservation Officer, Manitoba Wildlife Branch, The Pas.

Mr. A. Clark, Conservation Officer, Northwest Region, The Pas.

Mr. Horace McCullum, Brochet Resident.

Mr. John Baptiste Merasity, Brochet Resident.

Mr. Nichodemous Donttouze, Brochet Resident.

Mr. Thomas Duck, Churchill Resident.

Mr. Horace Saunders, York Landing Resident.

Methods

By prior arrangement with the Manitoba Wildlife Branch, the Canadian Wildlife Service were to follow closely the southward summer

migration of the Manitoba-Keewatin herd from the calving grounds in the Kaminuriak Lake (95° 40' W, 65° 00' N) region by means of aircraft and keep us informed on their progress. However, due to aircraft problems and consequently a late start, the Canadian Wildlife Service team of Mr. Gerry Parker and Mr. Frank Miller, were unable to locate the migrating herd for some time. Then on July 19th, a report was received by Mr. Gunn of the Department of Northern Affairs and National Resources in Churchill, from a mining company aircraft that approximately 20,000 animals were sighted immediately south and west of Kaminak Lake (95° 10' W, 62° 10' N). A subsequent search of the area on July 26th and 27th by Mr. Parker and Mr. Miller failed to locate the reported animals. Also covered during this flight was the area south of Kaminuriak Lake to the south of South Henik Lake then east to Naguse Lake, south to Idahon and Baralzon lakes. Only a few animals were sighted. On July 29th they located a herd of 5,000 animals between Idahon and Malaher lakes heading in a south-southeast direction. Mr. J. D. Robertson, Game Administrator in Winnipeg, was immediately notified and the decision made for the tagging crews to be moved to the tagging site as soon as possible.

The crews arrived at Duck Lake on August 4th and 5th. An aerial reconnaissance flight on August 5th in Baralzon, Idahon, Malaher and Nejanilini lakes area resulted in the sighting of only 300 animals in scattered groups mostly northeast of Nejanilini Lake (see Map 1). Fresh tracks of hundreds of animals were sighted 20 miles northeast of Nejanilini

Lake heading in a southeasterly direction. This, more than likely, was the route taken by the 5,000 animals sighted on July 29th between Idahon and Malaher Lakes. No caribou or fresh tracks were sighted north of Nejanilini Lake. A few animals were in the Wolverine River area immediately northeast of Nejanilini Lake.

On August 6th one tagging crew along with the Canadian Wildlife Service crew moved to Nejanilini Lake and set up camps at the main crossing and Roblin Island. The Manitoba crew set up the 3-watt radio and were in daily contact with the 40 watt radio at Duck Lake Post House. No caribou or caribou tracks were observed by the Manitoba or C.W.S. crew in the camp areas. On August 19th both crews moved to the north end of Nejanilini Lake at the mouth of the Wolverine River. Eight caribou were tagged between August 9th and August 13th crossing the Wolverine River. Included were four animals marked with Canadian Wildlife Service collars.

On August 14th both crews moved back to Little Duck Lake and remained there until August 17th when the tagging effort was terminated. During this period seventeen animals were tagged on Little Duck Lake including six animals collared by the Canadian Wildlife Service crew (Tables 1 and 2).

An aerial survey was flown on August 15th covering the area east of Little Duck Lake to Caribou Lake, north to Idahon Lake and south through Beralzon and Nejanilini lakes. The purpose of this flight was to determine the location or route taken by the 5,000 animals sighted on July 29th and to determine whether or not caribou in any great numbers

were located north of Nejanilini Lake to justify prolonging the tagging effort. Only a few caribou were sighted east and north of Nejanilini Lake. Therefore, the decision was made to terminate the operation on August 17th.

Discussion

The yellow herculite streamers were shortened to four inches from six inches this year. The original purpose of the six and nine inch streamer was to attempt to observe the tagged animals from the air. However, no tagged animals were seen from the air and the long tag proved to be a hinderance to the animal. Tags and streamers were lost when the animal stepped on the long streamer while feeding and ripped the tag from its ear. A recent report from a tag recovery stated that the caribou's eye turned white from the constant beating it took from the streamer. The only purpose the streamer now has is to alert the native hunter of the metal tag. The tag itself is not sufficient because it becomes embedded in the hair of the animal's ear.

A 3/8 inch diameter hole has previously been used on the streamer to attach it to the metal tag. However, this provided a fairly loose fit for the tag and a number of tags were becoming disengaged from the streamer when hung on the wire in the tagging boat. As a result they would be stepped on and be ruined or sometimes lost. This year we began using a 2/8 inch hole in the streamer. This provides a snug fit and it was felt the wear on the streamer would be considerably lessened.

Recommendations

1. Serious thought should be given to adopting a similar technique of marking caribou as the Canadian Wildlife Service are now experimenting with, namely, attaching bright coloured collars around the necks of caribou. There now exists a vacuum in Manitoba bounded on the north by the 60th parallel, on the south by the 57th parallel, the west by the 100th longitude and the east by the 95th longitude, in which few tag recoveries are made due to the absence of hunting communities. Aerial sightings of marked animals by caribou research people could be made in this area where we lack tag returns from native kill.
2. Five hundred Nasco 49 cattle ear tags should be purchased with the number series 3501 to 4000. The tags are manufactured by the National Band and Tag Company, Newport, Kentucky.
3. One 18 h.p. Johnson or Evenrude outboard motor should be purchased for use on the larger 19' tagging canoe. One 9.8 Mercury outboard motor should be written off or traded in. This motor is not dependable at all on the caribou tagging operation.

Table 1. Daily tagging success and classification of caribou marked during the 1966 Duck Lake project.

Date Tagged	Adult Males	Adult Females	Total
August 9	.	1	1
August 10	1	.	1
August 11	2	1	3
August 12	3	.	3
August 13	1	.	1
August 14	6	.	6
August 15	5	.	5
August 16	5	.	5
Totals	23	2	25

Table 2. Canadian Wildlife Service record of markings and corresponding Manitoba eartag numbers.

Date	Sex and Age	Manitoba Tag Number	C. W. S. Numbers	C. W. S. Collar Letter or Number	C. W. S. Collar Colour and Width (inches)	Location
August 11	Adult Female	2510	127, 128	1	3 - Pink	North Islands
August 12	Adult Male	2514	177, 178	E	4 - Green	Wolverine River
August 12	Adult Male	2516	179, 199	F	4 - Green	Wolverine River
August 13	Adult Male	2517	180, 182	G	4 - Green	Wolverine River
August 15	Adult Male	2519	188, 189	A	4 - Green	Duck Lake
August 14	Adult Male	2521	186, 187	K	4 - Green	Duck Lake
August 15	Adult Male	2523	194, 195	H	4 - Green	Duck Lake
August 15	Adult Male	2435	190, 191	B	4 - Green	Duck Lake
August 15	Adult Male	2436	196, 198	D	4 - Green	Duck Lake

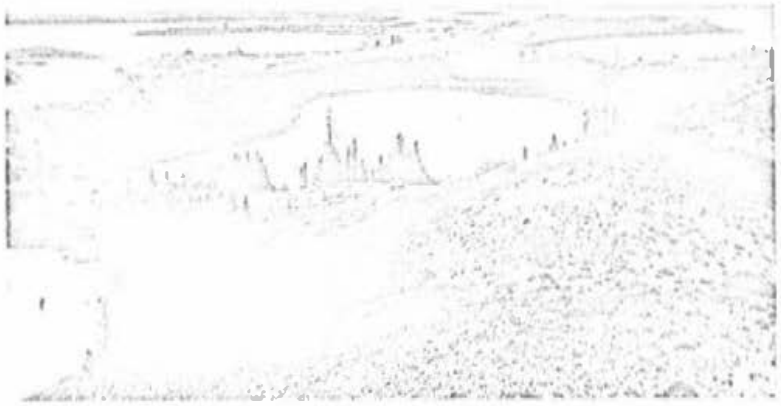
Table 3. Sex and age of the Duck Lake tagged caribou samples from 1959 to 1966.

Date	Number Tagged	Adult Male	Adult Female	Adult Sex Unknown	Yearling	Fawn	Sex and Age Unknown
1959	112	26	56	0	4	20	4
1960	226	32	134	2	7	51	0
1961	530	212	146	4	33	67	68
1962	478	223	200	0	28	27	0
1963	0	0	0	0	0	0	0
1964	543	214	175	0	46	102	6
1965	549	224	143	0	51	74	57
1966	25	23	2	0	0	0	0
Totals	2,463	954	858	6	169	341	135
% of Total		38.7	34.8	.3	6.9	13.8	5.5

Table 4. Chronological record of the caribou marked during the 1966 Duck Lake tagging operation.

Date Tagged	Tag Number	Sex	Age	Recorder
August 14	2431	Male	Adult	Robertson
August 14	2432	Male	Adult	Robertson
August 14	2433	Male	Adult	Robertson
*August 15	2435	Male	Adult	Robertson
*August 15	2436	Male	Adult	Robertson
August 16	2437	Male	Adult	Robertson
August 16	2439	Male	Adult	Robertson
August 16	2440	Male	Adult	Robertson
August 9	2507	Female	Adult	Engen
August 10	2509	Male	Adult	Engen
*August 11	2510	Female	Adult	Engen
August 11	2511	Male	Adult	Engen
August 11	2512	Male	Adult	Engen
*August 12	2514	Male	Adult	Engen
August 12	2515	Male	Adult	Engen
*August 12	2516	Male	Adult	Engen
*August 13	2517	Male	Adult	Engen
August 14	2518	Male	Adult	Engen
*August 15	2519	Male	Adult	Engen
August 14	2520	Male	Adult	Engen
*August 14	2521	Male	Adult	Engen
August 15	2522	Male	Adult	Engen
*August 15	2523	Male	Adult	Engen
August 16	2524	Male	Adult	Engen
August 16	2525	Male	Adult	Engen

* C. W. S. Collar attached.



A typical sand and rock esker located on the north shore of Nejenilini Lake, immediately north of the main crossing.

A mature stag caribou standing along the shore of the Wolverine River, northeast of Nejenilini Lake.

A mature stag caribou wearing a Canadian Wildlife Service vinyl collar around its neck. The collar can be seen easily with binoculars for a distance of two miles or more.

A small herd of caribou feeding along the east shore of the Wolverine River, north east of Nejanilini Lake.

The main camp of a Geodedic survey crew located on the south west shore of Beralzon Lake, 40 miles north of Nejanilini Lake. This could be one of the factors that caused the migrating caribou to turn south eastward before reaching Nejanilini Lake.

Horace McCullum and Horace Saunders on lookout north of Nejanilini Lake.

Map 1. Barren ground caribou tagging project reconnaissance flight taken August 5th, 1966.