

REPORT ON LIVE TRAPPING AND TAGGING MOOSE AND DEER, WINTER 1955
AND ON MOOSE CALF TAGGING, SPRING 1954 AND 1955

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September 16, 1955

Mr. E. G. Oldham,
Forester-in-Charge
Parks and Recreation Division
B.C. Forest Service

Dear Sir:

The attached report entitled:
"Report on Live Trapping and Tagging Moose and Deer, Winter 1955 and on Moose Calf Tagging,
Spring 1954 and 1955" is submitted herewith for your approval.

Yours very truly,

*RYE per
R.W. Ritcey*

R.Y. Edwards
Wildlife Section,
Parks & Recreation Division

APPROVED R Y Edwards
i/c - Section

Date: September 23/55

APPROVED in accordance with attached
addenda.

E. G. Oldham
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Date: November 3/55

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Date: _____

REPORT ON LIVE TRAPPING AND TAGGING MOOSE AND DEER, WINTER 1955

AND ON MOOSE CALF TAGGING, SPRING 1954 AND 1955

by

R.W. Ritcey

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British Columbia Forest Service

Parks and Recreation Division

E. G. Oldham, Forester

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Live trapping was intensified during the winter of 1955 with the operation of two additional traps at the Hemp Creek trapping site. Additional leads were constructed to funnel more moose to these traps. A new trap constructed on the Murtle River near Pyramid was not operated due to its relative inaccessibility.

New traps at Hemp Creek

Two new traps (Fig. 1) were set in the wings of the main corral at Hemp Creek, resulting in the capture of 15 moose. Larger catches can be expected after the addition of a few hundred feet of leads near the south trap. Mortality in these traps was slightly higher than in the corral, resulting in three deaths.

The traps cost approximately \$100 each plus some labour by wildlife workers. These units were effective in capturing moose as had been expected but the following difficulties arose:

- (1) Dropping gates were dangerous to animals because the small size of traps made it possible for animals to reach the end of the trap before triggers released both gates. This has been rectified by simultaneously triggering of the gates, though there is still danger of animals being hit when two are traveling together.
- (2) Small size increases the danger of cows trampling calves.
- (3) It is difficult to make moose enter the small squeeze in these traps. This last difficulty has been largely overcome by the addition of a gate to force animals to the squeeze entrance.

Corral Trap

The main trap captured 25 moose and 2 deer during its period of operation in 1955. Tagging efficiency was improved with the construction of two gates to the squeeze and an exit through the squeeze wall for release of tagged animals. Flesh injuries were reduced by attaching a moose hide to the squeeze gate. Further improvement to the squeeze will be made by attaching green hides to the walls when available. The addition of a new metal lever trigger developed by Mr. T. Helset and the use of nylon monofilament as a trip agent all but eliminated escapes through trigger failure.

Aspen rails of the corral showed some deterioration but should last another season before replacement is necessary.

Gates to both corral and traps are too heavy to be handled easily and will be counter-weighted. This will reduce injuries to trapped animals and save time when resetting traps.

Winter Tagging, 1955

Animals tagged and released at the traps are listed in Table 1. In addition, three male calves and two cows were killed in trapping operations as described above. Total captures then included 26 cows, 6 bulls, 7 male and 1 female calf. Of the cows, 4 were believed to be yearlings and one of the bulls was long yearling. It is difficult to distinguish long yearlings from young adults in many cases and these classifications should be accepted with reservation.

As in the previous year, the traps caught a disproportionately large number of cows and calves. It seems likely that this is because more females winter on the low flats rather than because they are more readily trapped than males. It is noted that the first mature bull was captured on March 17 after the capture of 17 cows and calves. This tends to indicate that bulls are late in arriving on lower range. The records do not show conclusively whether there is any difference in the movement of sexes to summer range.

Moose captured were all in good shape and tick infestations were light. The first adult ticks on trapped moose were noted on March 29. Shedding occurred somewhat later than in the previous spring with the first noticeable loss of hair recorded on April 10. A calf captured on April 16 was definitely patchy. However, as late as May 2, a mature bull was still in full winter pelage.

Cow #166 - 167 had a broken carpal bone about a foot above the hoof in the right foreleg. This injury had healed but the leg was crooked, causing the foot to be 4-5" out of line when it came to earth. This track could be easily recognized on sand or mud but in loose snow there was difficulty in distinguishing its track from that of a normal animal. At the time of capture, in mid February, this animal seemed to be in good shape with its mobility little impaired by the injury.

Bull #229 - 230 had a broken nose with this appendage being displaced so far to the right that the incisors of the lower jaw did not register against the upper jaw when at rest. It could not be determined whether or not this was a new injury. The nose seemed to be solid and there was no sideways motion which would be expected if the break were new. Blood issued from nose and mouth while the animal was in the corral. This would be expected even if the break had occurred before the animal entered the trap. Normal animals often injure nose and mouth enough to cause blood to run, and a displaced nose would make the mouth and nose more vulnerable when striking the corral walls.

Since the previous winter, the following reports have been received of tagged animals:

1. Deer with red or pink tag on road approximately 1.4 miles NW of corral, July 11, 1954. Mr. F. Philips and Mr. D. Davidson.
2. Tag #135, no plastic, on yearling bull shot Gauge Hill by Mr. Rankin on December 6, 1954.
3. Deer with pink tag seen at Bear Creek, approximately 14.5 miles south of corral, February 20, 1955. Mr. Grant.
4. Moose with red tag seen on ridge 0.6 miles N of corral, Feb. 10, 1955. R. Ritcey. (This is probably #116, tagged Feb 2).
5. Tagged moose seen 0.5 miles E of corral by Mrs. F. Ludtke, early March 1955.
6. Cow moose, pink disk left ear, on track counting line 5.2 miles N of corral. April 21/55. J. C. Norman.
7. Belled moose (\$209) heard afternoon of April 20, .7 miles NNW of corral by J. Hogue. Heard morning of April 21 approx. 1.0 miles NNW of corral by H. Hogue. Heard and seen on April 25, approximately 5.2 miles N of corral by R. Miller. Heard S of Shadow Lake May 12 by several F.S. personnel, and heard subsequently on more than one occasion in this vicinity over a period of two weeks.
8. Tag #132 with pink disc found 75 yds N of trapping site in June 1955. This animal tagged on May 7, 1954, apparently died shortly after leaving the corral.

No previously-tagged animal was recaptured during trapping operations. It is possible that memory plays some part in this for one would expect some repeats on the basis of the number of animals already tagged. In several instances, it was noted that moose has walked nearly inside a trap before turning back and circling the trap leads. Such behaviour appeared to be more prevalent than during 1954 trapping operations.

Loss of tags may also be a factor. This aspect will lend itself to study with most moose now being tagged with two tags. At least some of the plastic markers are broken, leaving only the metal part of the tag as in the case of #135. The plastic used, cellulose acetate, becomes brittle in cold and many markers must become casualties in winter. Experiments with other types of plastics are needed.

Trapped moose offer an excellent opportunity for obtaining weights and measurements of live animals. Weights of live moose are scarce and a contribution by us in this regard would be valuable. It may be possible to obtain certain measurements simultaneously, such as should height and girth where it would not be necessary to restrain the animal too much. A platform scale is needed for weighing, and the squeeze should be modified to accommodate it.

Summer Moose Tagging, 1954 - 1955

In 1954, approximately 56 miles were covered in a trip to Stillwater from May 27 to June 2. Three calves were tagged on this trip, and two were captured subsequent to this, one at Pyramid Lakes on June 7, and one on the east slope of Battle Mountain on June 20.

The first calf tagged in 1955 was captured at the base of Green Mountain at Hemp Creek on May 30. Four were tagged on a trip through Stillwater and French Meadow. One of these was deserted by its mother and was kept in captivity for a day and a half before it died. A sixth calf was captured when it was seen swimming in Murtle Lake on July 2.

Results of both summers' calf tagging are given on Table 2.

The following summarizes general information gathered to date during calf tagging operations:

1. The most fruitful method of finding calves is to search as many areas as possible where cover is not so dense as to hamper the pursuit of calves. More calves are usually found on a first trip through an area than on subsequent trips. Cows either take calves from the region or are more wary to approach once disturbed. When hunting, workers should move into the wind and as quietly as possible.
2. An area where bark has been stripped from several willows and where there is a concentration of beds with shed hair indicates a calving spot. If a cow moose is seen nearby, a calf is usually found also. Calves found at such places can be easily captured whereas calves found elsewhere usually require a pursuit. It is concluded that cows leave the calving spot as soon as calves are able to travel. This appears to be in second or third day after birth.
3. Peak of calving occurs in the last week in May, with the earliest birth recorded by wildlife workers being May 23. Reports have been received of births as early as May 21. The best period for calf tagging is between May 27 and June 10th.
4. A dog is required for maximum efficiency in finding and capturing calves.
5. No direct evidence of predation on calves has been obtained in 5 summer's calving studies. Scats from bear have been found to contain remains of young moose calves, but it could not be ascertained whether or not this was carrion.
6. Weights and measurements of captured calves show considerable variation with weight range being 27 - 50 lbs., and overall length being from 32 - 44".

Tagging at Mahood Lake

Two mature moose have been captured while swimming Mahood Lake by Assistant Ranger C. Gaglardi. One was a female captured June 14, 1954 and tagged with #142 or #145 in the left ear, pink on green square tags, right ear marked with a 3" slit. The other was a male tagged July 7, 1954 with #143 pink on green tag on back of right ear.

Summary, Conclusions, and Recommendations

Winter live trapping in the winter of 1955 resulted in the capture of 40 moose and 2 deer. Two new and smaller traps proved their worth by capturing 15 moose in their first winter.

Five recently born calves were successfully tagged in the spring of 1954 and 1955. The total moose successfully tagged to date in Wells Gray Park is 73. Of these, 54 were adults or rising yearlings trapped at Hemp Creek, 2 were adults caught in Mahood Lake, and 17 were recently born calves.

To obtain maximum value from live traps at Hemp Creek, it is recommended that:

1. Gates to live traps be counterweighted for easier handling, and to reduce injury to animals and gates.
2. Additional leads be constructed to the south trap.
3. Experiments with plastics to replace cellulose acetate as a marker be initiated.
4. A weighing platform be installed in squeeze of main corral to obtain accurate weights of live moose.

It has been found through five summer's experience that the period of best success for calf tagging in Wells Gray Park is between May 27 and June 10th. Hunting with a dog over as much open moose country as possible during this time results in most captures.

No direct evidence of predation on young calves has been obtained as yet.

Note: of the four recommendations appearing above, Nos. 1 and 2 have been carried out, No. 3 will result in experiments this winter, and No. 4 will be expanded in a detailed recommendation soon to be submitted by R.W. Ritcey, and approval is therefore deferred.

September 12, 1955

R.Y. Edwards

APPENDIX I

Black Bear Cubs Tagged

Four black bear cubs have been tagged in the past two years. One set of twins was tagged at their den 3/4 mile south of the moose corral at Hemp Creek on April 19, 1954. One was a male, tagged with #182 white plastic outside left ear. The other, a female, was tagged with #181 white plastic inside left ear.

Another set of twins was tagged near their den in the swamp east of the Dodds' property on Trout Creek on April 28, 1955. These were captured by falling a cedar snag which they had climbed to a height of 60'. One was uninjured by the fall; the other sustained only bruises, no bones were broken. The male was tagged in the right ear with tag #232 pink plastic. The female was tagged with #231 in the right ear, no plastic.

Ears of cub bear as so small that plastic markers have to be cut so tiny as to be of little value. It is doubtful if any of the tag would be visible on a bear in the wild. Our only hope of returns is from bears killed by hunters or homesteaders.

TABLE 1: MOOSE AND DEER TAGGED AT HEMP CREEK WINTER 1955

Date	Tag & plastic marker description*		Sex & Age **
	Left ear	Right ear	
Feb. 2	#116 red	--	female, mature
Feb. 5	#151 red	#138 red	female, yr (?)
Feb. 10	cropped	#156 blue	female, mature
Feb. 11	#161 pink	#160 red	female, young
Feb. 14	#162 blue	#163 red	female, mature
Feb. 17	#165 red	#164 blue	female, young
Feb. 19	#167 red	#166 green	female, mature
Feb. 21	#170 green	#169 red	female, mature
Feb. 21	#171 blue	#172 blue	female, yr (?)
Feb. 23	--	#175 blue	female, young
Feb. 25	--	#123 red, #127 blue	female, mature
Feb. 25	#131 green	#139 blue	male, calf
Feb. 26	#158 red	#154 red	female, mature
Feb. 27	#173 red	notched	female, mature
Mar. 9	#176 green, back	#174 green, back	female, mature
Mar. 9	#177 pink	#178 pink	male, calf
Mar. 17	#180 blue, torn ear	#179 blue	male, mature
Mar. 19	#185 green	#185 pink	female, yr.
Mar. 23	#207 blue	#205 green	female, mature
Mar. 23	#204 pink	--	female, mature
Mar. 29	#203 pink	#201 green	male, yr.
Mar. 31	--	#189 blue	female, mature
Mar. 31	#192 pink	#191 green	female, yr (?)

April 10	#187 red	#188 red	male, mature
April 16	#222 pink	#221 blue	female, mature
April 16	--	#220 red	male, mature
April 19	#195 red	--	male, calf
April 19	#196 red, #206 red	--	female, mature
April 20	#209 red, plus bell about neck		female, mature
April 20	--	#210 pink	female, calf
April 25	bell about neck	#202 red, #211 pink	female, mature
April 25	--	#212 blue #213 red, back	male calf
April 28	--	#216 red, #217 red	female, mature
April 29	#219 red	#223 green	female, mature
May 2	#229 green	#230 blue	male, mature
DEER:			
Feb. 6	#153 red		male, mature
Feb. 9	#157 blue	#155 red	female, mature

* All tag shapes are circular and placed on inside of ear unless otherwise indicated.

** Calf: moose born in 1954. Yr: Moose born in 1953. Young: probably born in 1953 or 1952.

TABLE 2: RECORD OF RECENTLY BORN CALF MOOSE TAGGED 1954 - 1955

1954	Place	Sex	Tag Description
May 27	Stillwater S.	female	#130 red on blue, right ear
May 30	Gauge Hill	female	#27 red on blue, left ear
June 1	Stillwater hill, S	female	#28 pink on blue, right ear

June 7	Pyramid Lakes	male	#137 red on blue, right ear
June 20	Battle Mtn E slopes 4500'	male	#134 white on blue, right ear

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May 30	Green Mtn at Hemp Creek	male	#243 white on red left #244 white on red left
May 31	Stillwater flat S	male	#257 blue on pink left #258 red on blue right
May 31	Stillwater hill S	female	#259 red on green right back #260 blue on red left
June 3	French Meadow S	female	#256 pink on green, left ear female twin of this animal died
July 2	Murtle Lake near entrance to Twin Lakes	male	#245 no plastic marker