Missoula, Montana, March 10, 1933

Following is an outline of the Game Patrol trip made in company with Harry Case for the primary purpose of apprehending a man in the name of Boyd who was thought to be poaching on the Selway deer preserve.

Missoula, Ford, Apple, Case and I left Missoula in a government car at 8:30 a.m., February 14, 1933. We drove to Hamilton where we interviewed Supervisor Lowell of the Bitterroot Forest and obtained that information he had regarding Boyd, who was supposed to have gone up Lost Horse Creek, and Alkire, who was supposed to have gone up Blodgett Creek. Both Boyd and Alkire were supposed to have left Hamilton for the back country Feb. 15.

We had dinner in Hamilton and then parted company with Ford and Apple, who were going into the back country by way of Blodgett Creek, and Case and I continued up the Bitterroot River to the mouth of Lost Horse Creek in the car. We left there at about 1:30 p.m. on skis.

We were each carrying a pack weighing about 30 pounds. Each pack consisted of the following articles:

1. Kayak bed

2. 3 pounds of dried beef

3. 2 " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " " 

The following miscellaneous articles were divided about equally between us:

- matches
- candles
- flashlight
- pocket compass
- 1-man mess kit
- roll of adhesive tape
- supply of belt lacing
- 1 small hand axe
- 3 pounds of ski wax
We skied up Lost Horse Creek. When we had traveled about one mile inside the Forest boundary we found a dim snowshoe trail. We followed this trail which led us to a small trapper cabin at the mouth of the North Fork where we remained all night. We arrived at this cabin at 7:30 p.m., having skied approximately 7 miles. The snow in this vicinity was 5 feet deep and slightly crusty.

As near as we could determine from examination of the snowshoe tracks, they were from two to three days old but due to recent snows we could not ascertain whether these tracks were headed up or down the creek.

February 15 we left the cabin at 8:00 a.m. and followed snowshoe tracks up a Government trail about 5 miles to a point where we discovered a small "wikiup." Here we found fresh boughs which had been cut and made into a bed, a newspaper dated January 15, and a snuff can dated January 12, 1923. There were signs of a recent campfire in front of the wikiup. We estimated that this fire had been built not more than two days before. We left here following the snowshoe trails till about 5 p.m., when on account of the fresh snow which had been falling all day we could no longer follow them. We traveled on until about 7:00 p.m., and made camp for the night under a tree. The distance traveled this day was approximately 8 miles. Snow at this point was about 6 feet deep.

February 16 we left camp at 9:00 a.m. and started for the head of Lost Horse Creek where we planned on staying for the night in a cabin located at Twin Lakes. On account of the loose snow which made traveling very difficult, we did not reach the forks of the creek until late in the evening and unfortunately we followed the fork of Lost Horse which led us up above Bailey Lake. On account of this it was necessary to make camp in approximately 12 feet of snow. Approximate distance traveled was 7 miles.

February 17 we left camp and traveled on up the creek about 1 mile to a point where we could see that we were on the wrong fork of Lost Horse Creek. We contoured around the mountain to Twin Lakes and located the cabin reaching there about 11:00 p.m. This cabin had not been inhabited since the heavy snow fall and because of the deep snow we were unable to enter this cabin.

Ranger Case knew of another cabin about 5 miles down Moose Creek, so we decided to make this cabin for the night. We traveled down Moose Creek until darkness overtook us and made camp under a tree. We were approximately 7 miles from the divide. The snow depth was 7 feet.
February 18 we left camp and traveled down Moose Creek. A short way from the camp we saw an otter track which was the first sign of game we had seen since leaving Missoula. We continued down Moose Creek to the mouth of Dead Elk Creek. There we back tracked about 1 mile and looked for a trapper cabin on the south side of Moose Creek which Ranger Case had found Boyd using as headquarters in 1932. We were unable to locate this cabin, so we continued down Moose Creek to the mouth of Jeanette Creek where we camped for the night in an old trapper cabin. We arrived here about 7:00 p.m., having traveled 10 miles. A stove had been set up in the cabin since Ranger Case's visit late last summer and he believed someone had intended to occupy the cabin during the winter. However, there were no tracks to indicate that the cabin had been used at any recent date. The snow at this cabin was approximately 7 feet deep.

February 19. Left cabin at Jeanette Creek and traveled down Moose Creek to Cougar Cabin, reaching there about 8:00 p.m. Distance traveled about 6 miles. Approximately 2 miles above Cougar cabin I saw a mountain goat on the south side of Moose Creek. I was not close enough to determine its condition. From Moose Creek Falls down to this cabin moose tracks were numerous. Two cow moose were seen. It was very interesting to note that these moose were traveling without much apparent difficulty through approximately 6 to 7 feet of loose snow. It was evident that these moose had been feeding on moss in the open channels of the creek. We were able to get within 10 feet of a cow moose feeding in one of these channels. When she saw us she ran up the
creek and disappeared in a tunnel formed over the creek by drifted snow. From tracks it was evident that she had entered the creek about one-half mile above where we discovered her and had fed down the creek this distance for there were no other tracks leading in or out of the creek in this distance. Before she discovered us we watched her make several attempts to get out of the creek but the snow at that point was about 7 feet deep and she was unable to make the grade. Both the moose seen were in excellent condition.

February 28 the snow depth at Cougar Cabin after all night thaw and rain was 67 inches. Left Cougar cabin, traveled down Moose Creek on route to Elbow Bend Ranger Station. Both elk and moose tracks were found about one mile below Cougar cabin, but none were seen until after crossing Cedar Creek. Approximately 60 head of elk were seen between Cedar Creek and Elbow Bend. These consisted of both sexes and all were in excellent condition. So also saw two cow moose. We reached Elbow Bend Ranger Station at about 8 p.m., having traveled 7 miles. There was a good cabin at this station and we welcomed a change from our soup stick and dried beef diet. The snow depth at the cabin was 68 inches.
February 21. In order to reduce the weight of our packs we left our beds at Elbow Bend Ranger Station and taking only our food supply with us we traveled down Moose Creek to the Blum Ranch. We arrived here at 4:30 p.m. having covered 10 miles since morning. The snow as 50 inches deep at the Blum Ranch. About 50 head of elk, of both sexes, were seen during the day. All of these, including calves, were in excellent condition. Ranger Case pointed out two large elk licks. One was above Elbow Bend Ranger Station and the Blum Ranch. The elk had not been using these licks for several days. A large number of old tracks, made probably a week before our arrival were noted at the lick just above the Blum Ranch, but evidently the elk had moved back to the higher country north of Moose Creek. While at the Blum Ranch Range Case telephoned Supervisor Brooks at Kooskia reporting our location, and our failure to connect with Boyd.

February 22. We left Blum Ranch about 9:00 a.m. and skied down Moose Creek 4 miles to Moose Creek Ranger Station arriving there at noon. At the station were two co-operative (Biological Survey and Forest Service) trappers and three other men who were temporarily employed on the Selway National Forest during the field season. The Government trappers stated that they had picked up 21 pelts from coyotes poisoned during January. They also stated that they had a poison and trap line about 40 miles long along the Selway River and believed that they had found only a small percentage of the coyotes they had actually poisoned. I can readily see how the frequent snow storms would make it very difficult to locate poisoned coyotes. Rod Richards, who is one of the men spending the winter at Moose Creek Ranger Station, reports that he has killed 8 coyotes.
February 23. It rained and snowed most of the night. The two Government trappers left about 9:00 a.m. for Bear Creek Ranger Station. Ranger Case and I decided to remain for the day at Moose Creek and rest up. We had not yet definitely decided whether we would return to Missoula by way of Kooskia, Idaho or go up Bear Creek and down Lost Horse Creek. Ranger Case called Supervisor Brooks at Kooskia and made arrangements for him to call Supervisor Lowell at Hamilton and find out whether Boyd had been in Hamilton since our departure. Later in the day Supervisor Brooks reported that Boyd had not been seen in Hamilton since February 12. Ranger Case then decided that Boyd was probably trapping in the head of Bear Creek. We then made plans to leave for Missoula by way of Bear Creek.

February 24. We left Moose Creek Ranger Station at 7:15 a.m. and followed Government trail up the Selway River 12 miles to the Bear Creek Ranger Station arriving there at 2:00 p.m. The snow here was about 3 feet deep. We crossed numerous snow slides which had occurred the day before. Thirty-one deer, mostly does and fawns, and two bull elk were in excellent condition. One dead cow elk was found near the trail about 300 yards before reaching Bear Creek Ranger Station. The cause of her death was undetermined. However, it was evident that she had not died from lack of food.

February 25. We left Bear Creek Ranger Station at 6:30 a.m. We traveled up Bear Creek to the mouth ofSanta Creek where we camped under a tree for the night. Distance traveled approximately 11 miles. The snow was about 5 feet deep. Between Bear
Creek Ranger Station and the mouth of Squaw Creek about 20 deer
and about 35 head of elk, and two otter were seen. We were
within a few paces of the otter. They were the first live otter
I had ever seen. Otter tracks were numerous all the way up the
creek. Ranger Case and I made an estimate based on the tracks
seen, that there were at least 10 otter between Bear Creek Ranger
Station and the point where we camped. All the deer and elk seen
during the day were as fat as one would ordinarily expect them to
be during the hunting season. Numerous coyote tracks were seen
during the day's travel. In my opinion the coyotes will do con-
siderable damage to the deer in this locality as soon as the snow
crusts.

February 26. We left camp about 7 a.m. and continued up
Bear Creek and camped under a big rock just below Cove Peak. We
had traveled approximately 8 miles. The snow here was 7 feet
deed. A few elk tracks were seen between Santa Creek and Granite
Creek. No elk tracks were seen above Granite Creek. Judging
from the tracks seen there were few elk wintering above the mouth
of Squaw Creek. One moose was seen about a mile below our camp.
This moose was traveling through such deep snow that one could
very easily have caught up with him on skiis. He was, however, in
excellent condition.

February 27. We left camp about 5:30 a.m. and traveled up
to the head of Bear Creek and followed a Government trail down
Lost Horse Creek to the wickup first located by us on February 15.
Distance traveled - 16 miles. About 6 miles from the head of Lost
Horse Creek we discovered a snowshoe trail heading down the creek.
As near as we could tell these tracks were about 2 days old and had
come from the vicinity of Fish Lake which is located at the head of
the South Fork of Lost Horse Creek. We followed these tracks to
the wickup where we spent the night. This wickup had been occupied
recently.

February 28. Left camp at 6:00 a.m., following the snowshoe
tracks down Lost Horse Creek to the main road at Charles Heights
Station. I saw two large bull moose just above the mouth of the
North Fork of Lost Horse Creek. Both these moose were in good
condition. This is the only game we saw in Lost Horse Creek and
no other game tracks were seen. We stopped at a ranch and called
the Supervisor's office at Hamilton and made arrangements to have
a car sent up after us. The car arrived about 1:00 p.m. and brought
us to Missoula, arriving here about 4:30 p.m. Distance traveled
this day was about 10 miles.

The total distance traveled on skis during the trip was
approximately 123 miles. Skiing was exceptionally poor the 14
days we were on the trail due to loose unsettled snow, new snow
which fell almost every day, occasional rains and warm weather.
This trip was made primarily for law enforcement, and no special effort was made to secure other information. However, some very interesting things were noted regarding game habits. The most interesting thing of all was the observation of the feeding habits of the elk. In no instance did I notice where the elk had been pawing for food. It is evident that their diet consists chiefly of ceanothus sanguineous. They were utilizing branches of this brush as large as 3/4 inches in diameter. It was also noted that they are consuming, when available, a large amount of lichens which hang from the trees. This is especially true along Bear Creek where the ceanothus brush is not so plentiful. While elk are usually considered grass-eating animals, I am now convinced that they can live and thrive almost entirely on ceanothus brush. No doubt the tree lichens make up an important part of their forage in this locality.

Another interesting thing that was called to my attention by Ranger Case is that the male elk do not grow as large antlers as those grown by male elk in the vicinity of Yellowstone National Park. During our trip we saw several large bull elk and I took special notice of their antlers. Those having as many as 6 or 7 points per antler were much smaller and I believe smoother antlers than the 6 and 7 point antlers of Yellowstone Park elk. The small size of these antlers is probably due to the shortage of certain chemicals in the forage they eat. Ranger Case tells me that the Idaho State Game Department is now carrying on some experiments to determine whether it is possible to increase the size of these antlers by putting out medicated salt.

The deer seen while on this trip were blacktail and whitetail. Both were found in the same localities mainly along the Selway River between Moose Creek and Bear Creek and up Bear Creek approximately 5 miles. While I cannot state definitely, I believe they are consuming practically the same type of forage as the elk. In almost every bunch of deer seen a good percentage of fawns were noticed.

Our trail through this locality was limited to the creek bottoms and we had little chance to observe the extent of the range that the elk were using. In my opinion the elk herd offers a good chance for elk study, especially a study of their winter habits. It seems that the size of this herd would justify some expenditures for game study and management work.

In my opinion the following are needed:

1. In order to properly carry on game work in this locality at least three cabins are needed, one cabin on Bear Creek near the mouth of Squaw Creek, and two cabins on Moose Creek, one probably at the mouth of Jeannette Creek and another about half way between there and Elbow Bend Ranger Station. These cabins should be
stocked with food and beds sufficient for winter game patrol. Without these cabins it is difficult to thoroughly cover this game range.

2. Counts of the elk should be made in order to determine the size of the herd. January and February would probably be the best months to obtain these counts on account of the snow conditions.

3. A map should be made showing the location of all available winter range, and the portions of this range which are now being utilized. Before making this map a study should be made to ascertain the type of forage which these elk rely upon for winter feed, and the per cent of utilization which is desired. The establishment of quadrats would facilitate this study.

4. Consideration should be given to the importance of salting as a means of influencing the drift or securing better distribution.

5. Determine the maximum number of elk that the available range will support.

6. A study should be made to determine how the desired number can be maintained such as adjusting game preserve boundaries, creating additional game preserves, adjusting opening and closing dates of the hunting season, predatory animal control, study and control of disease, etc.

7. A set of big game pictures would also be useful.

8. Another point is the need of fish planting in the head of Moose Creek. About 3 miles above Cougar Cabin there is a small falls sufficient to keep fish from going up the creek. From this point to 1 mile of the divide at the head of Moose Creek this is a wonderful stream and provides abundance of fish food. On account of the distance it will be helpful to have holding troughs, one at Elbow Bend Ranger Station and one at Moose Creek.

Attached is a map showing the country which we covered and the localities in which game were seen.

Respectfully submitted,

W. W. Welz

Forest Ranger.

Enc.