

Report of the 1943-44
Winter Game Survey.¹

Introduction

The first game survey was made on the Asotin Creek drainage in February of 1939, under the direction of Ranger Kenworthy. Approximately 5760 acres was covered. 393 elk and 23 mule deer were counted. The Game Management School of the State College of Washington and the Soil Conservation Service participated in the survey.

The next game survey was made on the Asotin Creek drainage in February of 1941, under the direction of Ranger Tucker. Approximately 28000 acres was covered, including the area covered in 1939. The Game Management School of the State College of Washington furnished most of the men for this survey. 767 elk and 507 mule deer were counted.

During the winter of 42-43 an intensive survey was conducted on all of the winter range of the Asotin big game herds, part of the winter range of the Wenaha big game herds, and some scouting was done on the winter range of the Tucannon big game herds. The survey was under the direction of Ranger Tucker. Assistant Ranger Windl and Guards, Courtney, Shafer and Davenport comprised the crew. From January 10 to February 5 the crew worked the Asotin big game winter range, with two days spent on the Tucannon big game winter range. From March 8 to March 18 was spent on the Wenaha big game winter range. The crew was assisted for one week in the Wenaha area by two men from the Oregon State Game Commission, Henry Schneider, and Art Thompson. The following count was made:

Asotin big game range	Elk	1249	Mule Deer	316
Wenaha big game range	Elk	325	Mule Deer	962
Tucannon big game range	Elk	<u>217</u>	Mule Deer	<u>78</u>
Totals		1791		1356

The outstanding facts brought to light in the survey of 1943 was, that due to the severe winter and deep snow, big game was forced into the lower country for a longer period and much lower than they normally are required to go to secure winter feed. This resulted in much damage to haystacks and farmer's pastures, chiefly by elk. Many deer died of starvation and malnutrition, particularly in the Wenaha and Crooked Fork areas. The extent of this loss was not apparent until later in the spring, when many dead deer were found by our maintenance crews and during range inspections. Large areas near the mouth of Crooked Fork were browsed even to the extent of stripping all needles from Douglas Fir and Yellow Pine within reach of deer and elk.

During the winter of 1943-44 it was decided to continue the game survey work and range utilization studies on a somewhat different basis. Two experienced Men, Arthur G. Courtney and F. Eugene Shafer were assigned to make a winter long study of the big game, their habits, distribution, migrations,

¹ This document was transcribed from a photocopy of the original, which is located in the Supervisor's Office Silviculture Library Archives. To the greatest extent possible, this version is an exact duplicate of the original text.

and forage utilization. Arrangements were made to work with the Game Protectors of Asotin and Garfield Counties, to the extent that the Game Protectors other duties permitted them. It was also planned to work with representatives of the Oregon State Game Commission. It was decided to make repeated trips into the same areas to observe the changing conditions, shifts of animals, extent of forage utilization, food preference, food availability and other factors affecting big game.

General Description

In order to cover the areas, it was necessary to put out food caches before winter snow made travel impossible in the high country by truck. Food was purchased November 22 and food caches were put out and camps set up from then to December 4. Caches were left at Clearwater R.S., Wenatchee G.S., Saddle Spring G.S., and Long Meadows R.S. Tent camps were set up at the mouth of First Fork on Crooked Fork and at the mouth of Fairview Creek on the Wenaha River, with food caches. Bedding was left at camps, so that very little in the way of supplies or equipment had to be packed in during the winter.

On December 6, Courtney and Shafer went to Wenatchee G.S. and worked the adjacent area until December 18. During this time there was about a foot of snow along the summit of the mountains from Big Butte to Cold Spring. From this point toward Mt. Misery the snow rapidly became deeper until at Wickiup it was about 2 feet deep. This entire period was warm and sunny in the mountains with freezing nights. The lower country was under a thick blanket of fog. It was observed that a great many elk were moving into the area along the summit from Little Butte to Wickiup, here they seemed to stay and were feeding in the timber for the most part, but would graze on the open south slopes some during the nights. The elk that were moving into the area apparently were coming up out of the Wenatchee Canyon and from the Mt. Misery area. There was very little use being made of the Triple Ridge, Mt. Hogback Ridge, Short Ridge and Smiley Ridge areas, except the upper timber covered parts of these ridges. Principle forage used was black moss in the timber; green annual grasses, bluebunch wheatgrass and poa species on the open south slopes. There was considerable concentration of both deer and elk along the summit during this time. Even so very little use was being made of browse plants.

From December 20 to 24 was spent at the camp on the Wenaha. The country from Crooked Fork to Butte Creek was covered and the Moore Flat area. The ridges were all bare of snow. There was very little game in the area at this time.

From December 27 to January 1, Shafer worked alone, Courtney being sick. Shafer made a trip up the Wenaha to Hoodoo Trail, then to Long Meadows, from there to Elk Flat, to the Wenaha Forks and then down the river. There was about 4 inches of snow at Long Meadows and 16 inches at Elk Flat. Very little game was seen, but tracks were plentiful, both deer and elk. The game was all in the heavy timber. It was evident that there was quite heavy use by elk from Elk Flat to the Wenaha Forks and down as far as the mouth of Rock Creek on the Wenaha River.

From January 3 to January 8, Courtney and Shafer worked from Iron Springs, making one trip to Clearwater R.S. on January 5. There was 19 inches of snow at Clearwater. At this time there was a good many elk in the Iron Springs areas and some deer.

From January 10 to January 15, Courtney and Shafer worked from the Foredyce ranch on Lick Fork. Trips were made to the Al Dick ranch and the Black ranch and the Horak ranch. Elk mostly in the timber and above 4000 feet elevation.

From January 17 to 20, Courtney and Shafer worked from Saddle Spring G.S. Shafer then took sick and off the job for some time.

From January 24 to January 28, Courtney and Larry Burgess, Asotin County Game Protector, made a trip to Clearwater R.S. and Lick Creek. Deer and elk still in the high country and feeding chiefly on

black moss. Plots on Lick Creek still unused. Courtney worked along January 29 and 31 on Cabin Ridge and upper Cloverland.

From February 1 to February 5, Courtney and Davenport made a trip from the Tucannon R.S. into Third Fork. There was 30 inches of snow at Indian Corrals February 5. Roy Clark, Garfield County Game Protector, assisted Davenport and Courtney at the start of this trip, taking the boys from the end of the road to the top of the mountain with his horses. There was very little game in this area at this time.

From February 8 to February 12, Courtney worked alone from the Harlow ranch in upper Eden. The breaks of Elbow, Bear Creek and the Grande Ronde River were covered. No elk seen in this area but some deer.

From February 14 to February 19, Courtney worked in the Crooked Fork area. Shafer returned to work February 17 with Courtney.

From February 21 to February 26, Courtney and Shafer worked in the Wenaha area from the Fairview tent camp.

From February 28 to March 4, Courtney and Shafer worked from the Foredyce ranch and the Black ranch. The Lick Creek, Asotin Creek and Smoothing Iron areas were covered again. Staked plots had received no noticeable use by either deer or elk.

From March 6 to March 11, Courtney and Shafer worked in the Long Meadows area. There was about 16 inches of snow at Long Meadows on March 7, but it had melted and settled to about 8 inches on March 11. Game all in the heavy timber feeding on black moss and difficult to see.

From March 13 to 18, Courtney and Shafer worked from the tent camps on Crooked Fork and Wenaha River.

From March 20 to March 25, Courtney, Shafer and Ranger Tucker prepared this report. Burgess and Clark assisted on day, on March 22.

Cooperation with State

Larry Burgess, Asotin County Game Protector, and Courtney made a trip to Clearwater R.S. on January 25, 26 and 27, then went to Foredyce ranch and examined the Lick Creek area on the 28th. During this trip the area around Iron Springs, along the Iron Spring-Clearwater road, the breaks of Sheep Creek, breaks of Tucannon River and the vicinity around Clearwater, was covered. Examination of the staked plots in the Lick Creek area was made, but no browsing or grazing had occurred.

Roy Clark, Garfield County Game Protector, went with Courtney and Davenport from the Tucannon R.S. to the mouth of Panjab Creek where Courtney left his car. Clark had horses and took Courtney and Davenport to Indian Corrals, from where they went on with snow shoes.

Clark and Burgess put in two days on the Tucannon River with Davenport. Joe Drolet, Whitman County Game Protector, was also with them during this time.

Condition of Game

Both deer and elk have been in good condition throughout the winter, although for the last month or six weeks they are noticeably thinner.

However, they are all strong.

There were no cases of disease observed among the deer or elk.

There was no opportunity to check on parasites.

Malnutrition was an unimportant factor this year as all deer and elk appeared to be healthy and strong.

Predators are not numerous, except for coyotes, and although they appear to be slightly on the increase, their numbers are about the same as they have been for the last several years. Only 13 were counted this winter.

Very few bob cat tracks were seen, not to exceed a dozen.

Four cougar tracks were seen, all adult, one was seen at Palmer Corrals, two on Moore Flat, and one on the Three Forks trail between Saddle Butte and the Neal ranch.

Occurrence of Small Game

Very few snowshoe rabbits were seen and the scarcity of tracks indicates that the rabbit population is at a very low point.

Only three martin tracks were seen, one on Saddle Butte, and two on the divide near Indian Corrals.

Fifty four blue grouse and twenty three native pheasants were counted, which indicates that grouse are by no means plentiful.

Approximately sixteen coon tracks were noticed along the Wenaha River, four on Crooked Fork, and one on Asotin Creek.

Condition of Range

For the purpose of this report the range of the Asotin elk herd and the Wenaha elk herd will be divided into two types as follows:

- (a) The Canyon Type, which consists largely of open grass covered hills with many timber covered slopes intermixed with the open country.
- (b) The Timber Type, which as a rule is at a higher elevation and consists of various timber types intermixed with open glades, park lands, and some smaller grass covered slopes.

Type (a) usually provides most of the winter forage for both deer and elk. However, during the winter of 43-44, on account of the light snowfall, this type was not used by the game nearly as much as during normal winters. The timber type therefor has been used as winter range during the past winter by the majority of the game, with only relatively small numbers drifting down on the usual winter range.

The principle winter food plants of the timber type were observed to be the following:

Relative use		Relative abundance	Rated preference	
			Deer	Elk
1. Alectoria fremontii	Black moss	1	2	2
6. Prunus emarginata	Bitter cherry	6	6	6
5. Acer glabrum douglasi	Mountain maple	5	5	5
2.	Annual grasses	4	1	1
4. Poa species	Blue grass	3	4	4
3. Agropyron spicatum	Bluebunch wheatgrass	2	3	3
0. Pseudotsuga taxifolia	Douglas fir	Abundant	Used only as a	last resort
0. Pinus ponderosa	Yellow pine	Abundant	Used only as a	last resort

On account of the light snowfall, deer and elk were not forced out of the higher country and the timber type was used to a very large extent as winter range. As a result there was less concentration of game than usual. Such concentrations as did occur were for much shorter periods than occurs during most winters. The chief concentration areas were, Lick Creek, Smoothing Iron, Sheep Creek and the south breaks of the main divide from Little Butte to Cold Springs. Even in these areas no overgrazing occurred, probably because of the short periods of concentration.

The grasses in all of the Canyon Type started to grow last fall, and furnished green forage throughout the winter when the ground was bare. This was particularly true of the Wenatchee, Crooked Fork, and Wenaha areas.

There seemed to be a much larger crop of black moss than has been the case for several years. Both deer and elk seemed to prefer to stay in the timber type and forage on this food.

A good cover of grasses was left on the ground last fall over most of the Canyon Type. An abundance of perennial grasses was left in the Lick Creek, Smoothing Iron, and lower North Fork Asotin Creek areas. The Wenatchee Creek, Cottonwood Creek and Rattlesnake Creek areas were left with a good cover of perennial grasses, except for small areas where cattle had concentrated. The lower Crooked Fork and much of the lower parts of First, Second, Melton, and Third Forks had an abundant cover of grasses, although the canyon bottoms of Melton, Second and Third Forks had been too closely grazed by cattle on account of poor distribution. Most of the Wenaha breaks are in good condition, showing rapid improvement, with plenty of grasses left after the cattle were taken off. Areas that are deficient in grass cover include, the upper breaks of First, Second, Melton and Third Forks, around the summit, and many of the glades of the timber type.

No winter damage to grasses occurred this last winter, as a result of grazing by game.

Garfield County Game Protector, Roy Clark, says that the white tailed deer on Tucannon River seemed to concentrate on the blue grass and clover meadows in preference to other food. Mule deer on the other hand seem to prefer the hillside grasses. Clark's largest single day count on the Tucannon white tail deer was 45, and he estimates that there is not to exceed 120 of these deer in that area.

Actual Count for winter of 1943-44

Month	Herd	<u>Deer</u>		Bulls	<u>Elk</u>	
		Bucks	Undetermined		Undetermined	
December	Asotin	16	148			77
January	Asotin	1	52	35		381
February	Asotin		12	4		60
March	Asotin		29	9		164
	Totals	17	241	48		682
December	Wenaha		15			6
January	Wenaha		22			11
February	Wenaha		204	6		55
March	Wenaha		150	6		65
	Totals		391	12		137
December	Tucannon					
January	Tucannon	7	57			16
February						
March						
	Totals	7	57			16
December	Grande Ronde					
January	Grande Ronde					
February	Grande Ronde		45			
March	Grande Ronde					
	Totals		45			
	Grand Totals	24	734	60		835

The following estimates were made March 22, 1944 by Larry Burgess, Asotin County Game Protector; Arthur G. Courtney, Asotin District Dispatcher; F. Eugene Shafer, Asotin District Guard; and G.J. Tucker, District Rangers.

Name of Estimator	Herd	<u>Actual Count</u>		<u>Estimated Populations</u>	
		Deer	Elk	Deer	Elk
Larry Burgess	Asotin			400	850
Arthur G. Courtney	Asotin			450	1000
F. Eugene Shafer	Asotin			700	900
G. J. Tucker	Asotin			<u>500</u>	<u>1200</u>
				<u>4/2050</u>	<u>4/3950</u>
				512	987
	Asotin	258	730	500	950
*Larry Burgess	Wenaha			750	
Arthur G. Courtney	Wenaha			700	800
F. Eugene Shafer	Wenaha			600	600
G.J. Tucker	Wenaha			<u>750</u>	
				<u>4/2800</u>	<u>2/1400</u>
				700	700
	Wenaha	391	149	700	700

*Tucker and Burgess agreed to leave the estimate of the elk in the Wenaha herd to Courtney and Shafer.

Note. No estimates were made for the Grande Ronde and Tucannon herds because there was insufficient data available.

Analysis of Data

What is normally summer range on both the Wenaha and Asotin herd areas, was used as winter range during the past winter. Both the winter range and the summer range is poorly stocked with browse plants of high palatability, such as willow, elder, mountain mahogany, juniper, etc. The summer range produces a good supply of black moss, but the amount seems to vary greatly from year to year. There was a good supply of this forage available during the past winter and the moss supplied most of the food for deer and elk. Browse plants were very lightly used, even those of highest palatability. However, this was no doubt a good thing as it will give these plants a chance to recover from the unusually heavy browsing that occurred during the winter of 42-43. Mountain Mahogany in the Asotin and Wenaha areas was badly overused in the winter of 42-43. Small areas of mountain maple, bitter cherry, sweet cherry, ocean spray, ninebark, Douglas fir and yellow pine, were overused during the winter of 42-43. Mountain mahogany is slow to recover from overuse, but the other browse species are making rapid recovery, except for the plants that were killed or very nearly killed.

Very little use was made of the grasses during the past winter, although considerable use can be expected during April, May and June, particularly the grass along the lower edges of the normal summer range and the upper edges of the normal winter range.

Damage to Hay or Crops

There was very little damage to privately owned land by deer or elk during the past winter. There were a few small areas where some damage occurred. Elk damaged two hay stacks on the Foredyce ranch during the latter part of February, probably destroyed and scattered about a ton of hay. At the Horak ranch the hay was all in the barns, but up to 50 head of elk fed some with the cattle on the feed lot and used part of the hay put out for the cattle. This condition also prevailed at the Al Dick ranch, although fewer elk were on the feed lots. Some damage occurred on the Black ranch, mostly in the form of taking part of the feed from the feed lots. At the Dale Ausman ranch on Mallory Ridge some damage was done to the hay stacks. The period of conflict with domestic stock was of short duration this winter and was not of a serious nature.

Intermingling of Herds

It is believed that there is an exceptional amount of intermingling of the Asotin and Wenaha elk herds, and a considerable amount of intermingling of the Tucannon herd with both the Wenaha and Asotin herds. Many elk were observed migrating from the Wenaha herd range into the Asotin herd range during December.

Sex Ratio

Of the 682 female and calf elk counted in the Asotin herd, using the figure of 20% annual increase, 136 head would be calves, with 546 cows, and 48 bulls. This would give a sex ratio of 11 cows to one bull.

For deer, the December count for the Asotin and Wenaha herds was 163 females and fawns, and 17 bucks. With an annual increase of 50%, there would be 81 fawns and 82 does, with 16 bucks. This would be a sex ratio of approximately 5 does to one buck. The count of deer after December is not included, because the bucks began to shed their antlers in January.

Carrying Capacity

It is very difficult to determine the proper carrying capacity of the winter range. Each winter brings a different problem. During the past winter very little use was made of what is usually considered the winter range. The special elk hunts of last summer were of considerable benefit in reducing the elk to the approximate carrying capacity of the Asotin herd area. 674 head of elk were checked by the Game Department during the two special hunts, with their estimate of probably 50 either unchecked or died from wounds, making a total of approximately 725 elk removed from the Asotin herd during the special hunts. The Game Commission estimates that approximately 200 bulls were taken out of the Asotin herd area, and that part of the Wenaha herd area that lies in Asotin and Garfield Counties. This would make a total of approximately 925 head of elk removed from the two herds in 1943, and it is estimated that a total of somewhere near 850 of these were taken from the Asotin herd. An estimated additional 30 head of elk were taken out of the Wenaha herd area through Troy, Oregon, or approximately 100 elk from the Wenaha herd during the fall season. There would be an additional drain from the Wenaha herd, taken out through the Walla Walla and Touchet Ranger Districts, of which we have no estimates. It is our opinion that there is as yet insufficient data available to make a reasonably accurate estimate of the carrying capacity of the Asotin and Wenaha herd areas.

Conclusions and Recommendations

Elk tend to concentrate during the months of April, May and June, on the open glades, dry meadows, park lands and open ridge tops. During these months the areas are most susceptible to damage from trampling, and the annually recurrent heavy grazing at this time reduces the vitality of the older plants and acts to reduce the numbers of seedlings that can establish themselves.

It may be that these areas will have to be considered sacrifice areas, if we continue to maintain our present numbers of elk.

We recommend that further studies be carried out to determine the proper carrying capacity of the winter range. We recognize that the severity of the winter greatly influences the winter distribution of the elk and deer, and believe that the winter range should be able to support the deer and elk through a hard winter without damage to the forage resources.

It is further recommended that studies be undertaken to determine as accurately as possible the safe optimum carrying capacity of the summer deer and elk ranges.

We have read this report, after having assisted in the preparation of it, and consider it to be a factual account of the game situation in the Asotin and Wenaha herd areas.

Arthur G. Courtney Asotin District Dispatcher

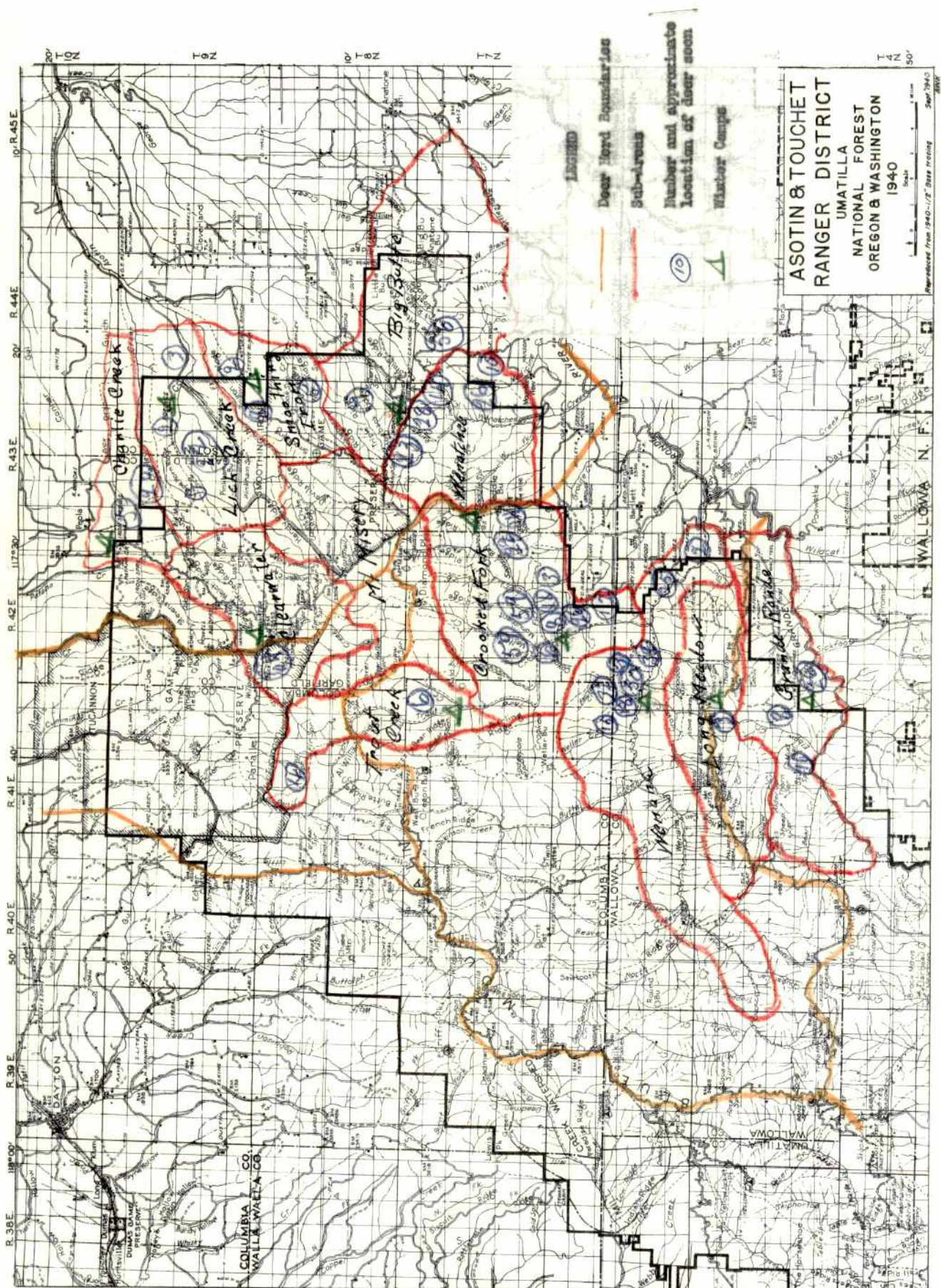
F. Eugene Shafer Asotin District Guard

Larry Burgess Asotin County Game Protector

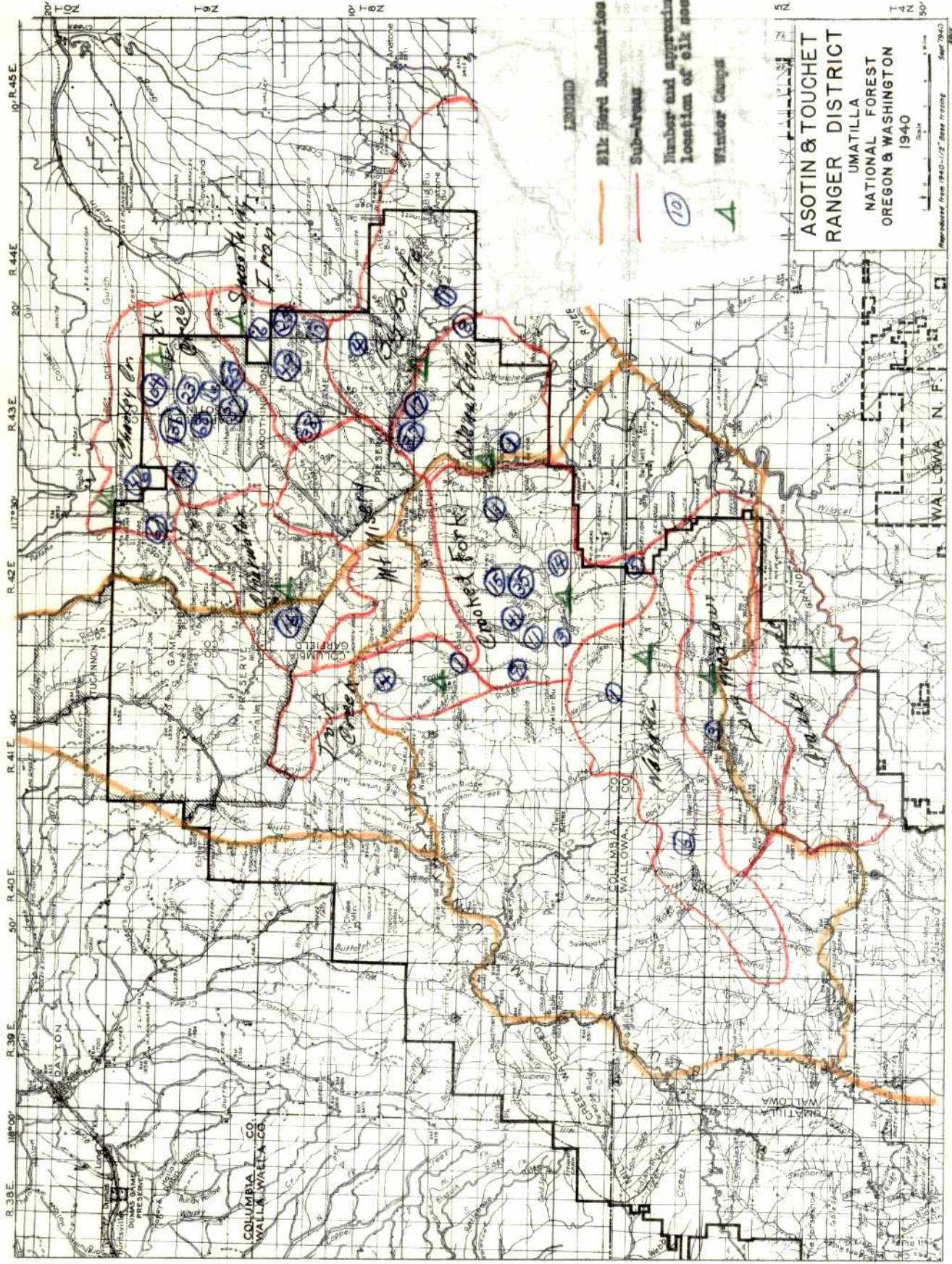
Roy Clark Garfield County Game protector

G. J. Tucker Asotin District Ranger

Note: I believe that due to the counting period extending over a four month period, there is a good chance of duplicate counts being made on certain groups of elk, due to their migratory nature.



2



**ASOTIN & TOUCHET
RANGER DISTRICT
UMATILLA
NATIONAL FOREST
OREGON & WASHINGTON
1940**

- Legend**
- Elk Herd Boundaries
 - Sub-herds
 - Winter Camps
- Number and approximate location of elk horns
- ①②③④⑤⑥⑦⑧⑨⑩⑪⑫⑬⑭⑮⑯⑰⑱⑲
- ▲

Reproduced from 1940-1942 Reap Printing, Sept 1940

Scale: 1:50,000

0 1 2 Miles

0 1 2 Kilometers