10-23
(May 1929)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Yellowstone NATIONAL PARK

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FILE NO.

MONTHLY REPORT

February 1941

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ARNO B. CAMMERER,
Director.

U. S. GOVERNMENT PRINTING OFFICE 6—7410

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYOMING

March 5, 1941

MEMORANDUM for the Director:

Following is the report of activities for Yellowstone National Park for the month of February 1941:

000 - General

010 - The month of February was noted for its unusually moderate weather, and there were very few storms and little precipitation.

The third annual Montana Day in Yellowstone National Park was celebrated on February 16. Beautiful, clear weather prevailed during the entire day and 2300 people in 558 automobiles from all parts of the State of Montana were present. The Gardiner Commercial Club operated a portable ski lift near the northeast entrance for the benefit of skiers and other winter sports enthusiasts, while hot dogs and coffee were served at the Buffalo Ranch to all visitors. All those making the scenic sixty-mile drive from Gardiner to Cooke, Montana, were rewarded by seeing antelope, elk, Rocky Mountain bighorn sheep, buffalo and other game along the route.

A training school for C.C.C. enrollees, out-of-school youths and employees of the National Park Service was initiated by the Montana State Vocational Education Department, working in conjunction with the C.C.C. District Headquarters at Fort Missoula, Montana, and is part of the national defense program to train men for industry. Classes in auto mechanics, arc and acetylene welding, machine shop practice, automotive maintenance, and blacksmithing are held two nights each week and on Saturday afternoons, with C.C.C. and N.P.S. employees as instructors.

Considerable emphasis was placed on safety practices in all departments throughout the month. Safety shoes have been purchased by the majority of employees in the garage and other departments where their use is advisable. Approved sunglasses for the prevention of snowblindness have also been purchased by many of the rangers and members of the snow removal crews.

Skiing and other winter sports were stimulated by the excellent weather conditions and the Yellowstone Winter Sports Association was organized for the purpose of purchasing a ski lift for the use of Yellowstone Park residents and for the promotion of other winter sports activities.

UNITED STATES
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NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYOMING

020 - General Weather Conditions (Also see attached report)

At Mammoth Hot Springs, February averaged 5.6 degrees above the normal temperature; the highest daily maximum was 49° on the fifth and the lowest temperature in the month was 5° on the fifteenth. In the last 38 Februarys, only six have had a higher mean temperature. A more unusual feature is that this winter December, January and February have had respectively, temperature departures above normal of plus 5.0°, 6.6° and 5.6°, all winter months milder than normal. Precipitation the same months has been deficient by -.28, -9.49 and -0.03 inch. Snowfall of only 7.5 inches this February is below the normal of 12 inches. The seasonal total is quite deficient at the lower elevations but somewhat better at 8,000 feet and higher, where it is equal to last year's snow accumulation.

The following tabulation shows the snow depths near the close of February for a number of locations in the park over a comparative ten-year period:

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941
Buffalo Ranch	24	24	3	11	27	20	18	14	17	13
Bechler River	64	79	43	42	87	70	59	82	64	57
Northeast E.	30	41	31	20	36	40	35	38	34	16
Gallatin	27	38	20	25	36	30	32	26	18	19
Lake	32	38	20	20	38	28	40	26	31	31
Mammoth	12.4	12.4	*	6.5	20	8	7	6	8.6	2.1
Old Faithful	46	64	31	24	56	---	—	42	40	27
Snake River	43	70	41	38	76	58	44	62	49	52
Tower Falls	23	24	4	18	30	21	22	14	13	14
West Yellowstone	38	45	23	31	55	50	39	40	32	33.

100 - Administrative

110 - Superintendent's Special Activities

Superintendent Rogers returned to the park from leave on February 19.

150 - Maps, Plans and Surveys:

All field work accomplished was on the Mammoth Service road. Office work continued on plans for the cabin development of the Lake area, which is about completed. Data were compiled for the Master Plan development outlines and drawings made for revision of these general development and utility sheets. A number of sheets for the construction program were completed.

050 - Mineral Testing Operations (also see annual report)

At Hancock Hot Springs, laboratory personnel [illegible] degrees above normal temperature, the 42 year daily average was 49° on the 27th [illegible] the lowest temperature in the month was 5° on the 11th. In the last 30 years, only six have had a higher mean temperature. [illegible] annual feature is that while minor [illegible], January and February were had respectively, temperatures above normal of plus 3.6°, 8.6° and 5.6°. All wild or exotic mildew [illegible]. Precipitation in the month has been defined by ".39", ".19" and "0.03 inch". Snowfall of only 7.3 inches this February is below the normal of 14 inches. The normal total is quite deficient as the Jones Library and monument [illegible] at 8,000 feet and higher, where it is used to late [illegible] water [illegible].

The following tabulation gives the snow depths near the 1st of February for a number of locations on the park over a [illegible] ten-year period:

	1952	1951	1950	1949	1948	1947	1946	1945	1944	1943
Buffalo Woods	24	24	3	12	4	27	20	16	14	17	13
Bonsai River	64	19	41	44	37	70	70	60	64	64	27
Mortement R.	30	41	32	40	5	40	32	26	26	26	16
Gallatin	27	36	20	23	21	30	31	24	18	18	19
Lake	24	18	10	2	14	18	20	10	4	4	14
Hancock	12.4	12.4	-	0.5	0	4	7	0	0.3	0.4
Old Faithful	48	64	32	44	24	---	---	40	42	42
Snake River	43	70	44	28	24	58	64	48	44	32
Tower Falls	23	24	4	16	8	32	28	24	22	24
Week following	28	18	20	24	20	32	32	20	20	24

100 - Administration

110 - Superintendent's General Activities

Superintendent Myers returned to the park from leave on February 19.

130 - Maps, Plans and Surveys

All field work accomplished was on the Hancock Service road. Office work continued on plans for the cabin development of the Lake area, which is about completed. Data were compiled for the Master Plan investigation outlines and drawings made for revision of Canoe General Development and Utility sheets. A number of sheets for the construction program were completed.

Rocky Mountain Bighorn Sheep on winter range of Yellowstone Park
Photo by Long

160 - General Publicity

Several special press releases were sent out during the month, among them a release on the third annual Montana Day celebrated on February 16.

200 - Maintenance, New Construction and Improvement

210 - Maintenance

With continued light snowfall, only two snow plow trips were made to Cooke, Montana. Frost boils along this entire road developed. Both the Cooke and north entrance roads were patrolled and portions sanded. An ice jam developed in the Gallatin, on Bacon Rind Creek near the highway, necessitating its blasting as the bridge was threatened.

230 - Special Improvement Activities

CCC - There were two CCC Companies in Yellowstone National Park during the month of February; Camp NP #1, Mammoth, and Camp NP #7, Glenn Creek. The average company strengths and average number of enrollees turned over to the technical agency were as follows:

	Av. Company Strength	Technical Use
NP #1, Mammoth	191	138
NP #7, Glenn Creek	200	136.

On February 5 ninety-four new enrollees arrived for Camp NP #1 and ninety-five new enrollees for Camp NP #7, bringing these camps to full company strengths. These new men were not turned over to the technical agency until February 12 as they were held in camp for orientation.

The main jobs for the above two camps were as follows:

Preparation of Materials
Razing undesirable structures & obliterations
Minor road
Sewer system
Cottage construction
Contact work.

No side camps were operated during the month. Progress made on all jobs was fair due to weather conditions. No jobs were completed during February.

400 - Interpretation

410 - Lecture and Guide Service

A lecture was given and movies were shown by the Assistant Park Naturalist to 50 members of the Federal Employees Union on February 3. On February 16 he showed movies and talked to 160 CCC boys of Camps 535 and 544.

431 - Botany

The 1940 Range Study Report was distributed during the early part of the month by rangers. Copies were sent this year to all of the ranger and naturalist personnel of the park and to a number of other national parks having range problems similar to those of Yellowstone Park.

500 - Use of Park Facilities by the Public

510 - Increase or Decrease in Travel (See attached travel report)

Skiing conditions were fair during the month and the wildlife show was excellent. Mild weather encouraged motorists to visit the northern section of the park to engage in winter sports and observe the herds of elk, bison, deer, antelope and numerous bighorn. Montana Day recorded a new high for winter travel when 558 cars carrying 2300 passengers entered the north gate.

February 1941
Travel by Gates

Entrance	First Entry		Re-entry		TOTALS	
	Cars	Pass.	Cars	Pass.	Vehicles	Pass.
North	32	78	895	3,350	927	3,428
West (Closed)	—	—	—	—	—	—
South (Closed)	—	—	—	—	—	—
Northeast	—	—	346	1,280	346	1,280
East (Closed)	—	—	—	—	—	—
TOTALS.....	32	78	1,241	4,630	1,273	4,708

520 - Visitors

R. W. Clark, Vice President, Northern Pacific Railroad, and Mrs. C. E. Denny, wife of the President of Northern Pacific Railroad, in February 3; out same day.

Former Assistant Chief Ranger George W. Miller and family in park February February 26; out February 28.

600 - Protection

610 - Ranger Service

Ranger activities for the month consisted of: regular ski and snowshoe patrols, hunting patrols along the north boundary, supervision of winter sports activities, conducting of examinations for national park service and CCC truck drivers, preparation of a truck driver's manual, building fire inspection at Mammoth, elk distribution studies on the northern winter range, live elk trapping operations, additions to the wildlife index and some highway patrols.

4.3 - Salary

The [illegible] salary [illegible] was established [illegible] of the month by [illegible]. Regular pays may [illegible] to [illegible] [illegible] temporary and [illegible] personnel of the [illegible] a member of [illegible] national [illegible] may [illegible] [illegible] [illegible] [illegible]

500 - Use of Free Facilities by the Public

510 - Increase or Decrease in Level (see previous level report)

[illegible] occur there are [illegible] during the [illegible] [illegible] [illegible] [illegible] [illegible] of the park to engage in water sports and [illegible] the banks of the [illegible] dance, and [illegible] and swimming [illegible]. Persons may [illegible] a [illegible] [illegible] minor [illegible] over [illegible] are carrying [illegible] [illegible] [illegible] [illegible]

January 1963
Travel by Train

Terminus	Class of Service	Express Train	Time	Local Train	Time	Fare
Perth	1st	Yes	[illegible]	[illegible]	[illegible]	[illegible]
Kent (Closed)	—	—	—	—	—	—
Leith (Closed)	—	—	—	—	—	—
Inverness	—	—	[illegible]	—	—	[illegible]
Peel (Closed)	—	—	—	—	—	—
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

520 - Fisheries

[illegible] [illegible] [illegible] [illegible] [

10-157
Dec. 1933)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

Yellowstone National Park for the month of February 1941

	This Month	This Travel Year To Date	This Month Last Year	Last Travel Year To Date	Increase for Travel Year	
					Number	Percent
RIVATE TRANSPORTATION:						
ars first entry, ...	32	2825	233	3814	-989	-23.3
)rs reentry, ...	1241	3451	339	3842	-391	-01.
otorcycles, ...						
Total motor vehicles, ...	1273	6276	572	7656	-1380	-18.
ersons entering via motor ehicles, ...	4708	18642	1643	21730	-3088	-14.2
ersons entering via other rivate transportation, ...						
Total persons entering via private transportation, . . .	4708	18642	1643	21730	-1380	-06.3
THER TRANSPORTATION:						
ersons entering via stages, .						
ersons entering via trains, .						
ersons entering otherwise, . .						
Total other transportation, .						
RAND TOTAL ALL VISITORS, . . .	4708	18642	1643	21730	-1380	-06.3

	This Year	Last Year	Increase	
			Number	Percent
utomobiles in public camps during month.				
ampers in public camps during month, ...				

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TRAVEL REPORT

| | | |

One arrest was made and six automobile accidents were investigated. A fire experience record of all permanent protection department personnel was compiled and a new organization chart prepared.

620 - Police Protection

Frank Roberts, Jr., age 37, or Gardiner, Montana, was apprehended on February 11 while operating a trap line on the west side of the Yellowstone River about 3-1/2 miles below the town of Gardiner. In the U. S. Commissioner's Court, he entered a plea of guilty to a charge of attempting to capture wild animals. He was ordered to pay a fine of fifty dollars and his gun and ten traps were confiscated.

630 - Wildlife Protection and Fish Cultural Activities

Bears: One bear was reported seen near the Canyon Hotel on several occasions during the last week of February. A new bear incident chart was prepared for the purpose of keeping statistical records in the office during the next five-year period.

Beaver: Parasitic beetles were collected from a female beaver which was accidentally run over by a motorist, and sent to Dr. Hadleigh Marsh at Montana State College for identification and laboratory study at the college. The parasites were identified by Mr. D. J. Pletsch of the Entomology Department as Platypsyllus castoris. The beaver was weighed and measured and the skull prepared for a laboratory specimen. The complete reproductive tract and organs were shipped in fixative to Dr. H. W. Mossman, Anatomy Department, University of Wisconsin, Madison, Wisconsin, to fill a request.

Bighorn: A number of observations and studies of the bighorn in the Tower Falls and Mammoth districts was made by Park Ranger Cammill and by district rangers and assistants. While notes from these observations have not been compiled, the animals seen were reported, with few exceptions, to be in apparent good condition.

Buffalo: Abattoir operations at the Buffalo Ranch were completed on February 7 and the final shipment of carcasses was made to Indian agencies on February 17.

On the seventh and eighth, 54 young buffalo were tested for Brucellosis through the assistance of Dr. Howard Welch of the Montana State Veterinary Research Laboratory. Thirty-six buffalo which reacted negatively were held in the corrals to fill approved live buffalo shipments.

Due to crusted snow in the Lamar Valley which prevented the range buffalo from securing a sufficient amount of natural forage, feeding of the animals from hay stacked at the ranch was begun on February 27. An

Visitors viewing elk at Buffalo Ranch on Montana Day, February 16, 1941
Photo by Ewers

average of 270 animals, in addition to the 36 kept in corral, was being fed daily at the close of the month.

Small groups of buffalo were scattered from the Lamar Canyon to Cottonwood Creek with a few in the Slough Creek area.

At the close of the month, four requests for live buffalo, totaling 26 animals, were pending and it is expected that these shipments will be completed by the end of March.

Elk: Elk remained widely scattered in small groups throughout the northern winter range and during February tended to work up from the lower valleys to higher country due to the light snow and mild weather conditions. With prospects for obtaining a satisfactory general elk count this spring appearing very unfavorable, an experiment in determining distribution and number of the animals was tried by three closely coordinated observers who covered the entire winter range area. These observations, which were made for the most part on horseback, were begun on February 3 and were continuous until completion of the survey on February 17. This survey accounted for slightly more than 9,600 elk actually seen.

As in past months, very little migration of elk from the park occurred to open hunting areas in Park County, Montana. The hunting season in this area will close March 1.

Elk trapping operations which were begun in December were continued and on February 20 fourteen animals were captured at the Blacktail trap. Three of these later broke through the corral and escaped. The remaining eleven were loaded and trucked on February 24 to a location near Butte, Montana, where they were to be released for restocking the range in that area. This was the first live shipment made this winter.

680 - Accidents

Six automobile accidents were investigated during the month. Government owned cars were involved in four accidents as follows:

February 5, 1941 - John Juhasz, CCC enrollee, driving Dodge Truck, 1-1/2 ton dump body;
February 9, 1941 - Joe Soos, CCC enrollee leader, driving Chevrolet truck, Service No. 88,278;
February 16, 1941 - Lee L. Coleman, District Ranger, driving Ford Patrol car, Service No. 108;
February 22, 1941 - Jerry B. Reed, CCC enrollee, driving Chevrolet 1-1/2 ton stake body truck, Service No. 88,278.

Complete reports of investigations covering these accidents have been transmitted to the Director.

900 - Miscellaneous

Rex Rundell, employee of the Yellowstone Park Company and friend of many of the National Park Service employees in Yellowstone National Park, died of a heart attack at Salt Lake City, Utah, on February 4, 1941.

The Local Civil Service Board conducted an examination for Engineering Aide on February 8, with one contestant present.

Nature Notes for January-February were published the first part of February and mailed out during the first week in February. Preparation of the next issue for this year has been started and the editorial work practically completed.

Mr. George Marler, who is a ranger naturalist in Yellowstone National Park during the summer, is lecturing in Idaho on the Trumpeter Swan. He is sponsored by the Emergency Conservation Committee of the National Audubon Society.

The Yellowstone Library and Museum Association committee has announced the awarding of a fellowship in history to Sydney R. Barsky of the University of Wyoming at Laramie, the stipend being $250.00. The subject chosen for investigation is the "Aboriginal Use of Yellowstone Park Lands". This is the first fellowship granted by the Association and if it proves successful, the policy will be carried on year after year, probably with a larger stipend set aside for this use.

The regular monthly meeting of the Federal Employees Union was held on February 3, 1941.

On Sunday, February 9, a party of Livingston sportsmen and two U. S. Forest Service officers was conducted on an observation and inspection trip over the northern winter range, particularly for observations of elk and range conditions. Members of this party appeared to be keenly interested in the Yellowstone elk problem and method of elk reduction.

Edmund B. Rogers,
Superintendent.

900 - Miscellaneous

o. 1030–Met'l.

U. S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

MONTHLY METEOROLOGICAL SUMMARY

ION YELLOWSTONE PARK, WYO. MONTH FEBRUARY, 1941

TEMPERATURE, °F.				RELATIVE HUMIDITY (Greenwich time)			PRECIPITATION		WIND			WEATHER		date
Maximum	Minimum	Mean	Normal mean	11:30a.m. A. M.*	Local noon	P. M.*	Total (inches)	Snowfall (inches), P. m. to p. m.* (unmelted)	Prevailing direction	Highest velocity	Direction	Percentage of possible sunshine	Character of day (a)	River stage (feet)
47	13	30	19	71	40	18	0	0	S	12	SW	90	clear	1
39	17	28	19	45	67	56	0	0	S	17	S	84	clear	2
41	15	28	19	81	59	52	0	0	S	16	S	73	pt.cldy	3
44	15	30	19	76	50	53	0	0	S	12	S	89	clear	4
49	15	32	19	58	46	46	0	0	S	11	S	100	clear	5
40	12	26	19	72	49	60	0	0	W	8	N	100	clear	6
42	9	26	19	81	40	44	0	0	W	9	S	100	clear	7
36	10	23	20	72	37	75	0	0	S	18	SW	76	clear	8
34	20	27	20	80	67	89	T	T	SW	21	SW	33	cloudy	9
34	22	28	20	82	70	75	.06	0.4	S	17	SW	4	cloudy	10
40	31	36	20	90	77	92	.05	0.5	S	15	SW	0	cloudy	11
32	12	22	20	91	93	71	.13	1.6	N	25	NW	13	cloudy	12
31	5	18	20	82	66	65	0	0	S	18	SW	65	pt.cldy	13
37	18	28	21	78	67	55	0	0	SW	15	SW	80	pt.cldy	14
37	5	21	21	83	69	46	0	0	S	16	SW	81	pt.cldy	15
36	13	24	21	84	62	58	0	0	SW	15	SW	100	pt.cldy	16
38	12	25	21	84	57	52	0	0	S	12	S	100	clear	17
38	6	22	21	82	58	50	0	0	W	9	N	100	clear	18
29	12	20	22	88	84	96	T	T	N	9	NE	26	cloudy	19
37	15	26	22	94	79	60	T	T	SW	13	SW	30	pt.cldy	20
45	18	32	22	88	68	44	0	0	SW	13	S	94	pt.cldy	21
41	28	34	22	75	72	72	.01	0.1	S	21	SW	41	cloudy	22
32	14	23	22	82	91	89	.01	T	N	9	N	34	cloudy	23
34	12	23	22	89	86	96	.30	1.4	E	19	NE	3	cloudy	24
30	12	21	22	80	65	60	.03	3.5	W	18	N	35	cloudy	25
31	9	20	22	84	56	61	T	T	SW	18	SW	100	pt.cldy	26
39	15	26	22	71	48	65	0	0	S	19	S	72	pt.cldy	27
45	31	38	23	65	52	62	T	0	SW	21	SW	41	cloudy	28
57.8	14.8	26.3	~~~	79	63	63	b 0.58	b 7.5	S	c 25	c NW	63		
30.5	10.9	20.7	~~~	78	65	67	0.01	12.0	S	~~~	~~~	52		

5:30 a. m. and p. m., 105th meridian time. T indicates a trace of precipitation. aSunrise to sunset. bTotal. cMonthly.

SUMMARY

BAROMETRIC PRESSURE

mean 30.17
30.61, date 3
29.34, date 11

TEMPERATURE

49, date 5
5, date 15
s this month since 1904; highest 55, lowest -40
daily departure +5.6°
daily departure since January 1, 1941, +6.2°
gree days 1083

PRECIPITATION

amount in 24 hours 0.30, date 24
re from normal this month -0.03
lated departure since Jan.1.1941 -0.52
, greatest 24-hour amount 4.5, date 24;
on ground on 15th 2.7, and at end of month 2.1

WIND

Prevailing direction S, average hourly velocity 6.7
Highest wind velocity this month since 1904
41 miles from NW, on 12, in 1923

WEATHER

Number of days clear 9, partly cloudy 9, cloudy 10, with measurable precipitation (0.01 inch, or more) 7

MISCELLANEOUS PHENOMENA—DATES OF

Hail -
Halos, solar 13; halos, lunar -
Fog, light 19; fog, dense -
Frost, light -, heavy -, killing† -
Sleet -
Thunderstorms -
Duststorms -

†Frosts not recorded in autumn after first "killing", except in Florida and along the immediate coast of the Gulf of Mexico.

MEAN TEMPERATURE AND TOTAL PRECIPITATION THIS MONTH IN—

		83		95		07	26.8	19	19.2	31	25.2 0.25
		84		96		08	23.2	20	21.4	32	21.2 0.70
		85		97		09	21.0	2	24.4	33	10.2 0.76
		86		98		10	15.2	22	12.9	34	28.8 0.24
		87		99		11	14.6	23	16.4	35	24.2 0.48
		88		00		12	22.4	24	26.2	36	10.9 1.60
		89		01		13	10.3	25	27.6	37	17.8 1.30
		90		02		14	20.1	26	27.1	38	24.0 0.96
		91		03		15	26.4	27	22.9	39	12.6 0.94
		92		04	23.8	16	24.4	28	19.8	40	24.6 1.51
		93		05	17.0	17	19.5	29	13.7	41	26.3 0.58
		94		06	23.8	18	18.2	30	27.6 0.69	42	

Charles L. Howard
75-3-1-41
Weather Bureau.