



DECEMBER, 1931.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Yellowstone NATIONAL PARK

FILE No.

MONTHLY REPORT

DECEMBER, 1931.

IMPORTANT

This file constitutes a part of the official records of the ational Park Service and should not be separated or papers thdrawn without express authority of the official in charge. All Files should be returned promptly to the File Room. Officials and employees will be held responsible for failure observe these rules, which are necessary to protect the integry of the official records.

HORACE M. ALBRIGHT,

U. S. GOVERNMENT PRINTING OFFICE $_{1929}$ $_{6}$ —7410

Director



DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

YELLOWSTONE NATIONAL PARK

YELLOWSTONE PARK, WYO.

CE OF THE SUPERINTENDENT

January 5, 1931.

The Director, National Park Service, Nashington, D. G.

Dear Mr. Director:

Following is the report of activities of the Yellowstone Tational Park for the month of December, 1931.

000 - General

020 - General sather Conditions

fter the 15th, every day in Movember was below normal in temperature. The deficiency continued into December. Until December 17th, with but three days averaging normal or clightly above, the 4th, 7th, and 8th, the temperature was below normal. From the lat to the lath, inclusive, in December, there was an accusulated departure of 111 degrees, or very nearly seven degrees per day. This pariod embraced the coldest part of the mouth, the 10th to the 16th, inclusive, runging from eight to 17 degrees below normal in mean temperature, and with the extreme minimum temperature of the month, -6, on the 14th. From the 17th to the 29th, inclusive, every day was above normal, and the deficiency of the earlier portion of the month was wiped out, a small plus deposture being substituted. The 30th und 31st were below normal, the conth closing with anall accumulated negative departure. The average for the month was 21. degrees; the normal mean temperature for December is 21.6 degrees. The highest temperature of the month, 49 degrees, on the 10th, was the highest December temper ture in the 45 years of record. The month avers ed a reser then in 1930, and colder than in 1989.

Precipitation (all of which except .Ol on the flat fell in the form of snow) totalled 1.14 inches, which is 0.15 inch less than nor al. This count was greater than in December, 19.0, and less than in December, 1920. now fell to a total depth of 19.6 inches. The total for December, 19.0, was only 7.1 inches. The greatest answfall within 4 hours in the month jut p so was 7.0 inches, on the 35th-35th. The mow cover, measured 4th alimin tion of the effects of drifting and wind sweeping in mind, was least on the ...

9th, and 22nd, on each of .ich dates thickness of 9.4 inches as co ried.

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SER ICE

YELLOWSTONE NATIONAL PARK

I I WAS A STREET, WHEN THE PARTY OF THE PART

all oils processes to process out one process

and at the second of the first and

roll of the same

THE RESERVE ASSETS

Jacques + TAT

YELLO YSTONE PARK, WYO.

Ministra accomplying and the substitution of proper and his assembled

THE THE VALL OWN AND INCOME. IN COLUMN 2015 AND ADDRESS OF THE PERSONNEL.

and we get the part and the part and the part of the part and the part

. The state of the

בב דר דוים עדי וויוד פון דו

The greatest thickness of the month, 19.5 inches, was necessred at 6 a.m. on the 26th. At 6 p.m. on the 31st, the average depth of snow on the ground was 15.4 inches. .Ol inch, or more, of precipitation occurred on 16 days. Snow on the ground at 6 p.m., December 31, 1940, amounted to 11.0 inches.

Cloudy weather predominated during the month; there were 8 days averaging clear, 7 partly cloudy, and 18 cloudy. Sunshine averaged 32 per cent of the possible duration. December was the second month of the year 1931 in which the prevailing wind direction was other than outhwest. The month showed South winds strongly prevailing. In May North winds prevailed. December's average hourly velocity was 7.2 miles, with a maximum velocity for the month of 29 miles, from Southwest, on the list.

O21 - In the park

The first real anomators this winter hit Yellowstone was on December 25, adding new snow ranging in depth from 8" at Marketh to 90" at Bohler River.

Following are the snow depths over the park according to drainage:

Yellowstone Draimge	1929	1930	1951	
Buffalo fanch	G	14	16	
Conyon	30	11	22	. Verus
Coolea	50	16	20	2007
Cold Creek	16	8	27	Cover
Cravice	24	18	20	
Crystal Springs	1.6		27	29 30 31
Cub Creek	30			1
Hellroaring	10	12	12	
Lake	18	10	20	0
Lower Llough Creek		1.7	10	± 000
Mizmoth	5	23.	1.1	H
Norris	14	12	83	: (8)
Norris Canyon Divide	25	14	27	53
Soda Butte			11	100
Sportsman Lake	45	14		
Towar Falls			12	100 A A A A A A A A A A A A A A A A A A
Upper Slough Creek	1.3	24	10	DRAIN.
Thorofare	20	14	200	16. 07.0
Madi son hiver Dyninage				
Terror but and but but and an approximation				500
Ole Faithful	11	16	26	16 0.
Hiveraide	10	1.6	56	
Madisen Junction	70	1.0	2	The state of the s
same ages of man appear			0000	

The party of the p

SUPERIOR - ID

specified is not been also and were ablest ones still the pathodays.

	186	92	=/4	والمناف المارية
	100	64 E1 60		D-00 11/12/01
	60	15.1		
NAME:	60			1000 1000
	60			1106111111
			Vil.	
4			EX.	interior Cold
3 5	11			the Book Avet
	SUBBREGOR			A Toront
·				MAY BOARD NAME
		M		otim our.
() ()				Amort a G. maldi
Č,				Service Me
bug			1	and second

Snake River Drainage	1929	1930	1931
Two Ocean Pla teau	30	23	40
Snake River (7 M.P.)	41	17	67
Mink Creek	33	14	35
Fox Creek	32	12	34
Aster Greek	38	21	55
Bochler River	14	10	54
Cascado			88
Gallarin River Brainag	<u> </u>		
Callatin	18		38
Shoahone River Draine	10		
Sylven Pass	18	20	20

Yellowstone Lake froze over on Becamber 17. Last year this lake froze over on Becamber 20 and on Becamber 19 in 1929.

100 - Administrative

110 - Status of Work

Although quite a few employees were on leave during the enth work to kept current. Chief Clerk Hundley was acting Superintendent durin the outh in the absence of Mr. Hiwards, who was on leave during the entire month. He left on December 2 to attend a few stry meeting at polaris and for the coast.* Mr. Joffe was on leave also during the enth. He left Yellowstone on December 4 for California and will be my until January 9 or 10. Miss Margaret Sabin, who was on leave the entire month of November, returned to Yellowstone on December 8. Me was assisting the Toll in Denver for several days until the return of iss hit of the life on the Coast Mr. Edwards went to Mt. Rainier Park and had a short visit with left. Tomlinson and other park officials.

180 - Circulars, placards, publicity bulletins, etc.

Attached hereto are copies of the hunting report for the second of 1931 and December Sature Notes.

200 - Main tanance, Deprovements and New Construction

Following is a brief report of the ctivities under to rvision of the Engineering Department for the sath of the contract.

No construction projects were ctill during to such an in which work consisted of most removal on the ordinary road and the consisted of several small rock slides in the chiner conven.

Personnel of the engineering ection consisted of the rk and construct on rocken whose appointment was a limited on leading to this for the second sec

A CONTRACT OF THE PARTY OF THE DATE OF STREET TABLE 11 SWAN HARM 85 THE PERSON (0) Application of the last of the MANUFACTURE STATES WALL SECURE K\$11,K\$50 THE RESERVE OF THE PARTY OF THE April 1997 AND AND ADDRESS OF THE PARTY OF A DESCRIPTION OF THE PARTY OF T PULL STANSON - 002 TAG - DESIGN SET THE the real party of the representative and the same party of a party of THE RESERVE THE PARTY OF THE PA to the name of my married and an array of the same of the are with a finishing to principle a family of the principle of the princip colog left for the could be the color of the color of the color Drive have of the day about the set I women as well-set that at Commercial and the second commercial and the particular of the second control of the sec AND AND DESCRIPTION OF THE PARTY OF THE PART which early markets want to market will form and decisions will extend at their it till v or de louis and a minima to the election of the elec . I deither any major fun rearitable. and controlled a policy of controlled a fifth COLD TO JOHNSON AND THE PROPER AND THE REAL PROPERTY AND ADDRESS OF THE PARTY ADDRESS OF AND REAL PROPERTY AND ADDRESS OF THE PARTY AND A PROPERTY OF THE PARTY OF THE to extend on the control of the cont there is not to be been purposed and the same and THE RESERVE AND THE PARTY OF TH particular for the fact of the commence of the following the table of the first particular pro-AND RESIDENCE OF A SHARE SHEET AND ADDRESS OF THE PARTY O and the same of th and the second state of the contract of the co

gaged for the most part in working up unit cost data for the a son's activities. The Fark Engineer was on annual leave from December 12 to the end of the month.

Carpenter shop: Work of this department consisted of minor repairs in buildings at headquarters.

Painting Department: Work of this department consisted of painting and plastering, laying linoleum and waxing floors in some of quarters at learnoth.

Electrical Department: The Chief Lectrician was engaged in repairing telephones, installing base plugs, replacing airing end cleaning water heaters in various quarters. He substituted two days as power plant operator, and was on leave 11 days.

Senitation Department: The following work was done by the laster Plumber and his assistants during the month: Operating and maintaining the unter and sever systems. On account of very low unter it was necessary to shut do not the hydro-electric plant on two occasions. Eleven heating plants for heating the administration building, gurage and employees' quarters were maintained and operated during the month. One of the above plants is first with oil fuel. Carbage and askes were hauled and cleanup work was done daily. General maintenance to inside plumbing systems and sheet metal work on the various roofs.

the control and the state of the control and the state of the state of

They were the few facts the property and the few first the state of the

AND THE RESIDENCE OF THE PARTY OF THE PARTY

The state of the s

400 - Flora, faune and natural phonomena

410 - Ranger, maturalist and guide service

The usual ranger activities were carried on during the entire month. Extensive patrols were made at the finish of the hunting season, which closed on December 20. The patrol camp at the Deckard I not was discontinued on this date. The complete hunting season report covering all activities on the hunting in the areas adjacent to the park is attached elsewhere in this report. The heavy enowators on Christmas day, runging from 8" of new snow in Maxmoth to 25" in Beckler River and it extremely hard skiing for the run ers on patrol in the interior of the park.

Chief Aunger Buggley was in attendance at the Forest Frotection Board meeting held in Spokane. He left Yellowstone on December 3, returning the Svening of December 5.

Acting Superintendent Hundley and the Chief langer were in Livingston on December 7 on matters partaining to the land in the northern elk run.

The Chief Ranger and Forest assistant left Yellowstone on December 11 for Ogien to attend the fire conference which was held from the 14th to 10th inclusive. On December 13 they attended the erest Protection coard seting which was also being held there. The Chief I mg r left Ogien on the evening of December 17 for Helena to attend the State game weeting. In returned to headquarters the afternoon of December 11. Fred John ton returned to quarters from Ogien on the evening of December 19.

420 - Tuscum ervice:

The following report is submitted by the Acting I at Maturalist for the month of December:

II. Permanent Projects

A. Administrative

The ranger naturalist applie tions information later for 1951 were ravised and mimographed.

B. Mature Notes

The combined November-December is sue of Wature Wes framed to about 750 persons, with a stock on hand of 35 copies.

C. Library

A report on the status of the library was alle to the rin wednet in the form of a memorandum. Books and purphl to conscioud for the with total 362; pumphlets carded and filed total lab. Mainteen and the status and a book were received.

400 a Direction on Advert placement

particularly benefit from a work a dill

A property of the control of the con

Name appropriate former and its missionable to the parties from the parties of the parties and parties and parties and parties and parties are produced from the parties of the parties of

Control of the regard that his her printed to the party of the party o

Compact Property and

the following the property on the property of the best deposit the sec-

- - -

estamentalisti, +1

THE REPORT OF THE PARTY AND PERSONS ASSESSED AND PARTY A

ARREST PROPERTY.

to be succeed to the court of t

TOTAL ..

 Most of the issues of the Journal of Forestry for 1929, 1900 and 1931 were received as a gift from Ir. . H. Rush.

D. Assets / coessions

December 1 - Founted alk horas, gift from Chief Ranger George F. Baggley.

December 3 - Specimen of great gray owl (?), ift from Mr. George Nack of Gardiner, Contena.

December 11 - Benver study skin tanned by Jones Bros., Denver, Colo.

December 15 - Bones from chalk cliff (on road Cardiner to Livingston),
identified by University of Montana as michippus.

One iron Indian dart, found in Livingston, Contana.
One old rusted Springfield rifle, found near Cardiner.
The three items above, received on December 15, are
all gifts of Trapper J. F. V. .vans, Livingston, ont.

December 31 - Photograph of the second Wellowstone I in Apperintendent, Col. P. W. Norris, and a peneranic view of a wagon train in the Upper Ceymor Basin taken August 30, 1870.

By parchase from Mr. C. Maith through the Ashington Office.

E. Museum Bork

The processing of the buffalo skeketon was continued.

The museum workshop was alessed and straightened.

Two coyotes were skinned, one for use as a study specimen and the other for use as a mounting or a study specimen.

Skinned great gray oul (?),

F. Lentern Slides

No work was done on this project during the wonth.

G. Equipment

Received one tumbler water boater.

H. Pho togra pha

No new negatives were received. Frists to all pasted, except for the checking of about 100, which may be duplicate. eare now ready to check the 17 volumes, revise the intex and count to the title and book labels.

I. Publicity Clippin s

No work was done during the month on this project.

AN OWN AND RELEASE OF AN ADDRESS OF THE RESIDENCE OF THE PARTY OF THE

De Barrier, Concessions

Marine View and Pile Spins Vie Address & E. Schener.

The state of the s

A STATE OF THE PARTY OF T

COLUMN 4

about the season and all the property and

ACCRECATE SECTION AND PARTY OF THE PARTY OF

And the party of t

ALT ARE THE PART CONTROL

To Danker Skipes

A STATE OF LAND AND ADDRESS AND ADDRESS OF THE PART OF

Joseph and H

Appeared from the ballion from Developed

FI DEBUGGE

The second secon

rather writing, I

affection while are about any parties upon your about all

J. Sales Publications (None)

K. Personnel

Assistant Fork Natur list Norman . Scherer was on lowe 134 days; Junior Pork Naturalist Horma Baggley 3 days, and us us Caretaker ilfred lead, 21 days.

440 - Insect Control

The annual forest insect report for Yellowstone Estimal Park has been prepared with the exception of data pertaining to the type and insect survey work during the past season. The report will be completed within the next few days and forwarded to the proper offices.

Tracings for the work completed on the type map will be started soon and it is hoped that prints will be available some time in February. Approximately 304,491 acres were mapped in 1931, which brings the total area supped to date to 559,547 acres.

450 - Birds

The freezing over of Yellows tone Lake caused birds in that vicinity to seek smaller areas of open water. I Stemboat Foint 150 due on and 8 swan were counted. At lest Thumb 2500 ducks, with mallards and olden yes predominating, and 1.5 gease and 15 swan were observed. All of these birds were noted to be in about 5 acres of open water at the est Thumb boat dock. Clarke's Crows, casp robbers and ravens are being seen over the entire park.

470 - Animals

All animals at this time are noted to be in good condition and forage conditions are good. They are well scattered and pawing for feed through mow ranging from 8" to 18" in depth. The losses of game in the open hunting territory adjacent to the park is disclosed in the hunting season report attached.

and Thorofare. Following are the various count taken the latter part of the month: Helirearing 400; Bellroaring to lough rock 300; Cotto-wood Basin 600; Blacktail and vicinity 750; Lower Lar bloy 600; I or Falls 100. Leveral hundred were observed to letter art of the month on the east and west side of the Gardiner liver in the vicinity of Cardiner and the old rifle range. About 60 head are wintering in the dison River, and approximately 125 between countries and 114 lithful.

Doer: Twenty-six door ro bein fed daily at the on a r tion of cottonseed cake and clover hay. In much of these nimals my be counted between the other and fordiner; 50 were counted on the Gene

times and annual states of

1 = 57

the party of the p

and one that a few

the larger was all the control of the state of the state

alight - Oth

The same and all the same and another same and the same a

slein - Wi

the product of the party of the

The selfed of the second of th

The state of the s

Preservation Asneh. small bends are to be seen on the ridges north and west of Gardiner; 25 were counted at Old Faithful. Il dear seen are in excellent condition, and forage conditions are good.

Moose: Total moose counts for the various districts as made during the past month are as follows: Bechler River 12; make River 25; Thorofare 92; Riverside 6. Some of the 92 counted in Thorofare were counted twice in much as they were traveling a great deal. All of these animals are in excellent condition with forage conditions good.

Antelope: The antelope herd is well scattered over the entire country between Mammoth and Reese Crock and north in Bear Gulch, and the Buffalo Flats, and may be seen in small bunches on all the ridges in this territory. However, no counts are available with the exception of about 60 on the Game Preservation Rench. Their condition is noted as good, with forage conditions good.

Sheep: Twenty-one sheep were counted in the vicinity of Junction Butte near Tower Falls on December 14 and this same number was again counted on December 17. Included in this total are 5 spring lambs. Twelve sheep were also counted in the Gardiner Canyon on December 29. The feed troughs were also placed in the Gardiner Canyon on this same date and filled with cotton-seed cake and hay. Four large name were seen to be contentedly eating this ration that same afternoon. All of these animals seen to be in fair condition with forage conditions good.

pleted on Recember 15. One shipment of two buffalo was made on recember 15 to J. F. Richman of Ft. Leavenworth, Kensas. This shipment completed the buffalo to be disposed of this year. A total of 22 animals were shipped alive to various individuals and zoos throughout the country, and 201 were slaughtered to be given to the various Indian agencies in northern on tana and to the indigent people of Idaho and Jaming. Is soon as the remaining buffalo carcasses are shipped to the Blackfeet gamey a complete report covering the entire buffalo disposed of will be submitted. Such buffalo carcass disposed of costs 5.29 delivered at Gardiner, Ont. This cost was provated and itemized per animal as follows: woundup 1.14; alanghter \$2.32; trucking 42¢; issues 1.41. This amount of a trifle over 1¢ per pound is a very cheep price to pay for buffalo meat, when it is considered that in previous years buffalo meat has demanded from 75¢ to 1.00 per pound.

The roundup of buffalo will be started on Jenuary of for the purpose of correling and weaning this year's calf crop.

and Firshole Rivers. From Otter Creek to the and Volceno on the Llowetone River 23 muskrat hats were counted. Three coyotes and less seen on the ice trying to break in two these hats. However, they were unsuccessful. beaver at the Yangey Ranch are heavy cutting unking son.

the first which has so made of all the above from the first product to have

The party of the last two periods in the set of the set

A PARTY OF THE PAR

beaver was killed by copotes near the Yellowstone liver in the vicinity of Tower Falls. This animal was about 100 yards from the river.

Predatory nimels: This month 27 coyotes were killed, as compared with 21 for the same month in 1930, which makes a total of 76 to date, as compared with 52 last year, and 90 in 1929 for the same periods.

Buffalo Ranch and Other Funch Activities: At the Buffalo Ranch the slaughter was carried on until December 15. Lince that time cleanup work and the feeding of buffalo has been the order of the day. Preparations were also made at the Buffalo Ranch for the roundup to be made on January 6. Feeding will be started shortly after the first of the month at the Slough Creek Ranches and the Same Preservation Ranch.

On December 21, 10 additional horses were taken to the Merrill Ranch in Miner Basin for wintering. This makes 58 horses that we are wintering out of the park this year.

480 - Natural Phenomena

Marmoth Rot Springs

With continued winter conditions, the changes noted are as follows:

Hymen Terrace - activity on the east side has discontinued, and is now shifting to the south. The flow of water is about the same as during November.

Diama Torrace - is discharging a large volume of water. The flow over the formation trail is eroding and cutting in places. The yellow coloration is beautiful.

Minerva Terrace - continues in a dried-up condition. There is a very slight amount of steem activity. A small amount of water remains in a pool, frozen over solid.

with a large value of water, as during November.

Cleopatra - activity has diminished. There is a very slight flow of water.

Main Terrace - continues about the same as in Movember.

Orange Spring Yours - is more active than formerly, the southwest half being wet, and strands of sulphur bacteria forming near the top, with dark green coloring halfway down the slopes.

before you will all your beautiful and take before it folial are beauty

The part of the latter of the part of the

The control of the co

Account Inthel - Did

200700-24000-0

en en men personale de la provinción de la compansa de la compansa

18808705

the property of the same of th

The last and the second of the

The same of the sa

The literal distriction of parties of parties of the parties of th

to not place you and many auditabation of placeton a principle

COLUMN STREET, STREET, SAN THE STREET, SAN THE STREET, SANS

the research of places are relied on a long of a long point more.

The research of places are the paint of th

Blue springs - has shown considerable fluctuation during the month.

During the first part of the month, the springs were practically deed, and the pools dried up; while the close of the month shows a large volume of water flowing, and all of the pools filled.

white Elephant - shows practically no change from previous months.

Angel Terrace - is very active on the north and east alopes, and continues its flow from the ten-foot crack, obliterating the old trail from the top of angel Terrace. Diane and angel Terraces still hold first and second places for the volume of water discharged and the heauty of color.

Jupiter Terrace - shows decreased volume of water. The most activity is near the center. The south end is becoming dark green in color.

The spring near the Nichels' tennis courts has showed increased activity for the past month, exceeding that for the month of November, which had been the greatest up to that time.

Morria Coyner Basin:

On December 14, W. J. Mead reports the pool of mercid spring as being filled to its normal level, with the spring boiling constantly to a height of about five feet. The steaming went, previously reported about five to six feet below the surface on the west side, is now covered with water, and is very active. The vent on the south side is inactive, while the middle and north vents continue active. The water has changed color from slate gray to grayish green, indicating that it is clearing.

Old Faithful Geyser Basin:

Ranger Curtin Skinner reports that on December 31, he timed Old mithful for six consecutive eruptions and the interval was 65 minutes, with no maintion.

In Black Sund Besin, Hamikerchief Pool is filled with water again, after having been dry all summer and fall. He tried a small cloth in it, which was drawn down, but not returned.

500 - Use of Park Pacilities by the Public

510 - Increase or decrease of travel

The generally mild and fair weather which provailed for most of the past menth and the unusually good condition of the Living ton-Ordiner road has helped considerably in boosting preseason travel. Four hundred extyfive visitors, traveling in 1.6 cars, via the north entrance, total travel for the month of technology.

530 - Visitors

December 1: Mr. ad fra. .ivind looyen of Clacier arrived at headquarters for a short visit.

-9-

and a special party of the property of the party of the p

there is not consider an extensive an extensive for the constitution of the constituti

the second secon

The second terms are around about the second second

Die J. Thursday

WHITE STREET AND BATTER MATE

Total in the case of an expense of the state of the second section of the second section of the second section of the second section s

all in code along a control of the control of the party of the party of the code of the co

THE ROLL WITH STREET, SALES AND ADDRESS OF THE PARTY ADDRESS OF TH

Special or managed of Palagraphy - RA

and the transmitted and the control of the control

spelluly a full

at the printing of the property of the policies.

- December 18: Chaster Henry, business lager of trus au at Fort Harrison, Helena, Contine, companied by ra. Houry and son, companied by game. They are visiting round rs. Andly until conday, December 21.
- December 21: Arthur Lamey, to the Commander of the Marrican Lagion and Herbert Kibler, to the Adjutant of American Lagion, drove to Marmoth in the afternoon. Ar. Landley and r. Ruch took them toward the Buffalo meh, but were a blo to reach the ranch because of snowdrifts.

900 - Miscallaneous:

Medical Service: Dr. Ivan T. Budaeff, Resident Physician, reports 45 office visits and 36 home visits during the month of December.

Post Office: Business in the Post Office was practically nor al for the month of December, but as usual was much heavier than for the other winter months, due to the heliday season.

Church Services: Christmas services were held in the chapel on und y evening, December 27, by Rev. L. D. Amith, from Livingston, ontana.

The Committy Christmas entertainment was held in the centeen on the evening of December 25. The centeen was attractively decorated with and a large Christmas tree. A stage was erected on which the school children gave their program. Later Janta Claus distributed gifts to 11 th children. This was followed by denoing and support. The program is well ttended seemed to be theroughly enjoyed.

Ranger and Mrs. Gerald Yetter are the product parent of a son born in Denver, Colorado, the latter part of localier.

Very truly yours,

Ouy D, Limits

cting au rint mient.

LC

The party property of the control of

A STATE OF THE PARTY OF THE PAR

THE RESERVE OF THE PARTY OF THE

45

the second property and the second party of th

e e

of test on a facilities from the contract the party of the party of the last of the party of the

THE RESIDENCE

PROPERTY.

San San

pu.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL FARK SERVICE

TRAVEL REPORT

	This Month	This Travel Year	This Month Last	Last Travel Year	Increase for Travel Year	
		To Date	Year	To Date	Number	Percen
IVATE TRANSPORTATION:						
rs first entry,	. 186	2298	190	1410	388	63
rs reentry,	•	100		104	78	78
torcycles,	B solved year profession beautiful and the contract of the con	entro mintervedigi entropolita kalifizida kalifizida kalifizida entropolita entropolita entropolita kalifizida	n var de state de servicio	1	-1	100
Total motor vehicles,	186	2480	190	1515	963	6:3
rsons entering via motor hicles,	. 465	700b	570	3071	3194	82
rsons entering via other ivate transportation,	· · · · · · · · · · · · · · · · · · ·		gering till till till till state	administration of the second o	The state of the s	oppyletikkille – verdaddyddig telliferellindered o
Total persons entering via private transportation,	465	7065	570	J871	3194	82
HER TRANSPORTATION:						
rsons entering via stages,	•					
rsons entering via trains,	•					
rsons entering otherwise, .	P mandanumber or			Production of the second	rearrage) the days of the principle.	
otal other transportation,	The state of the s					
ND TOTAL ALL VISITORS,	465	7065	570	3871	3194	38
		-	This		Incr	ease
			Year	Year	Number	Percen

0.157

PETATE STIMU PRETATE OF THE INTERPED POWER OF THE WAY

TRAPEL REFORT

in the state of the state of

7 11 2 311	= g, to	11/17	0/17		
4447 170017	9115	NAME OF TAXABLE PARTY.	advatti.	This	
10112 34 34			$t = -\frac{1}{2} \left(\frac{1}{2} - \frac{1}{2} \right)$		
11-2169 - 00-00					
11-11-7	1			Control and the second	

ELL TENTERS

- Special								
1	27	jeri	outry			1995	TUN.	
5	. ~		7.1				100.0	

er re snorring via por reching a control of the reching a control of th

To 1 pers na le via

THE TAU OF SAIN TICH

THE SHE THE THE THE THE

TOTAL WIRTH THAT IN STREET

the strange of the plant of

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF AUTHORIZED PROJECTS

Description of Projects		Percent Constructed	!	Probable Date
	To Date	This Month	Last Month	Completion
A Warned a Beauty	100	0		
2 - Mammoth-Morris Acad	1.00	0		
3.1- Madison-Old Faithful	99	ø	4	
5.4- Signa	50	0		
5.8 -Fost Comst. Maint.	1,00	0		
8.6- Bear Feeding Grounds	100	0		
5.7- Lowis River Bridge	90	0	1.5	
6 - Old Faithful Trails	100	0		
8 - " Parking	100	0		
9.1- Artist Point Cleanup	100	0		
9.2 -Artist Point Ciling	100	0		
O.1 -Norri s-Madison Oil	700	0		
0.2 -Norris-Madison Cleanup	100	0		
10.3 -Norris-Madison Bridge		ō		
3 -E. IntLake Sutte Cleanu	100	0		
5 -Canyon-Tower Jet-Cleanup	100	0		
o -Manwoth ater Jystom	100	0		
12 -Manmoth Lover Cysten	100	0		
85.8 -Loop Besterment	100	0		
25.9 - 7 "	All Sales V	4		
45.1 - Cleanup (Firehole Cas- ondes-Chaidian)	40	0		
45.1 - Cleanup (Inspiration Point)	55	0		
45.2 - Closnup (A.BhtLake Butte)	35	0		
44 '- Seal oo t ciling & stain	65	0		

^{\$2,000} additional work programed, June 10, 101.

58

TED STATES

DETAILER OF THE INTERIOR

. O ... L FARK SERVICE

TALE TO THE SED PENTRES

for the Month f

					managaringhing Miller - Miller
	otell	Crnstructed	d Constructed	5,72	I suriçiled of Pier, or a
- China a setting a setting of the contract of			The state of the s	A PRINCIPLE SERVICE SERVICE OF THE PERSON NAMED IN COLUMN 1	

.0-159 ıy, 1931)

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

National Park for the Month of 191.

		Thi	s Month	This Mon	nth Last Year
HAND TO RECEIVE AND		Appointed	Non-Appointed	Appointed	Non-Appointed
per of	employees beginning of month	75	23	73	40
ber of	additions	0		1	0
otal		78	3	74	40
ber of	separations	1	23	4	33
ber of	employees close of month	74	9	70	7
per of	promotions during month	0		0	,
regate	amount of annual leave taken	424		1909)	ann anti-pipi dikka Pandania pipingan-pa 1990 dan pa
regate	amount of sick leave taken.	63	1	21	ens regue mogishming scholadek, drink "-destrolations of the de-
regate	amount of leave without pay	1		0	

UNITED STATES

DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

STATUS OF PERSCHNEL

Nation P' for the Woman on

		ntn II Von-A-cov		
	- 81		Filled server state: Sta	ul e., 10 ees heg mine of north
4	1	e magnifesti entresso de constante que	,	File() and The
	and the second			enity Misqui in
		91		or moldgess clear of north
				The state of the s
				Manni Steal Isomae Enthopon
	3		Continue of the second	المراال ١١٨ و المراال
				in east to hout no
			- vision so	

NATIONAL PARK SERVICE

REPORT OF PARK REVENUES

Yellowstone

December, 1931

National Park for the Month of

			Last Year
	.0	113.50 \$	2,231.83
Park revenue on hand beginning of month,	•	46.20	763.94
Received,		159.70	2,995.77
Total,	•	156.30	2,255.83
Remitted,	. 5	3.40	739.94
On hand close of month,			
		\$ 156,64	0.35
Park revenues received this year to date,	,	171,22	9.52
Pank revenues received last year to date,		14,58	9.17
Increase, de		.08520	24
Per cent of increase,		angung and the second superior and an arrange shade of the analysis and an arrange shade of the analysis and the arrange of th	

DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

REPORT OF PARK REVENUE

	Tay 7	THUS			W	2 -(7		10111011101
			I	o njno.	e enj 10	2.0 P. G. C.	1 6.01	isu	
j						Offin Lateral Print Lat.		-vallager plane; va	
U	34.	-			and the second s			mingrad ((((()))) and ((())) and	обицифија, [—] начина обицифија,
was and	30.00		,		onth, .	of m	ginning	n hand be	rk revenue o
T. P	8 7	,							ceived
03,505,2	(, , , ,		Total,
						· .			mitted,
								of month,	hand close
15,050,7	Was E								
				* - *	c.te.	ear in	this ye	receired	rk revenues
07.					dote,	0. TS	ast ye	received	r) revenues
	59.								Increase,
	urbs (87) de- April 1666							increase	Per cent of

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

REPORT OF TELEPHONE AND TELEGRAPH BUSINESS

National Park for	r the Month of								
	 Thi: Mont		This double Last Year				Phongo - je gore		
OCAL BUSINESS									
les of circuit maintained	4141	* 311	172	3.77	945	1493	007: 021 20 30		
eceipts from measured service calls			-(-(-)						
TOTAL RECEIPTS									
DNG DISTANCE BUSINESS								12	
Outbound calls	· 70		48		19		59	7	
TOTAL LONG DISTANCE CALLS									
eceipts from Long Distance business.			5	4	1	- (20	1	
MLEGRAPH BUSINESS									
ssages via Western Union									
ceipts from relegraph hommas confiner transfer receipts.									
CTAL RECEIPTS TELLPHONE & TELEGRAPH DEPT-									

DEPARTMENT OF THE INTERNUE

INTO TALL PART SECURE

THE RESIDENCE OF THE PARTY OF T

The second of the section

The second second

.

. .

ISC

CAC BUGINESS

Lecters of destruction of the following services of the following serv

CALL THE REAL PROPERTY.

COLUMN TO COMPANY CALLS.

LA CALLET OF THE CALLS.

COLUMN TO CALLS OF THE CALLS.

CALL ST CALL

201 (20) (Q 1)

Tanada della

العامي ليا لا للبير بالا الأيارة

mentary function and the same

0.00000

COLUMN TWO

- S o - Fumblish that the same of

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

*ELECTRICITY GENERATED, SOLD, USED, ETC.

		This Travel		Last Travel Year		ase for l Year
		To Date	Year	To Date		Percent
arrent generated,	54910.0	425710.0	60810.0	(12 × 12 × 12 × 12 × 12 × 12 × 12 × 12 ×	-3632.0	-019 -17
arnished to other Governmental agencies,	55900.0	40 3 74 50 9。 0	59791.7	07E648.9	1910.1	005-7
Total current generated,	54910.0	423710.	60810.3	43.0	-8602.0	-019
nount receivable from the sal	e of elec	etricity,			\$ 50.50)

Indicated by K. W. H.

UNITED STATES

DEPARTMENT OF THE WITERIOR

NATION L MAIL LES LES

*ELECTRICITY GENERAL CONDUCTOR

..... Na ichal Pork

	Turer	08 T	in T	1	Trie	
MINT 3	' a am rM	-101-6	1805	elle ol	Heal F	
and the second s	mgan gandar ganav = 1 -up -uno ngura					. See the gate fraction and and age and the first one and the see .
			11/4/200	•	12	rent generated,
			, T	U151,	Valida	ld to park operators,
						13 to others,
						. microst o object Governmental agencies,
and the size	INCOLL	-		colo sapo	the sens - was such as one	ed by Nelional Park Service,
		x		754		Tet Lournite gineratud, .
						May to the state of the state o
			quilip provi	D providing spales for the popular SD++ 14-10 (FM)		

.H .W .H d betaliant

United States

Department of the Interior
National Park Service
Yellowstone National Park
Yellowstone Park, Wyoming.

HUNTING REPORT

SEASON OF 1931

December 30, 1931.

GENERAL

In the practical working out of Yellowstone National Park as a great game sanctuary it ties in with many areas of land both public and private, and areas that are open and closed to hunting, in states adjoining the Park. This status, of course, has some influence on the game of the Park and their drifts to and from the winter ranges, most of which are near the border of the Park or just outside. This hunting season report is meant to convey a brief picture of the hunting season merely as it relates to the game of the Park and to herds of game which spend a part of their time in the Park and a part outside of the Park.

During the hunting season the Park Service has maintained an intensive patrol along the Park boundary and has cooperated with the different state game departments in an effort to keep accurate records of all game killed and to keep game law violations as low as possible. Our efforts have not extended outside the Park except where we could be of special help to state officials. Our cooperation with the states has been toward the end that the regulated taking of surplus game could be accomplished in a sportsmar-like manner.

From the hunter's standpoint the past season can be considered as successful. The comparative tables for the most part show increased kills in nearly all areas, even though the same mild weather condition of last year prevailed. This is probably due to the more intensive hunting, which in turn may be accounted for by the fact that there are so many unemployed men.

In a majority of the cases in which arrests were made for violation of hunting laws, the offenders could not furnish sufficient money to pay their fines and the sentences were either suspended or juil centences imposed. This was particularly true along the north line and in creas accessible by motor vehicles.

WEATHER

The weather this year was very similar to that which provided during the hunting season of 1930. Conditions were almost ideal until Movember 8, when a storm occurred that covered the park with an average show depth of about 12 inches. Unsettled weather with occasional clear days and cold

waves prevailed during the remainder of the hunting season. At no time was the snow crusted and no decided drift of game occurred during the season.

RANGE

It is the consensus of opinion that feeding conditions for the game were exceptionally good this year. However it should be noted that all the territory in the vicinity of Hellroaring, Tower Falls, and Crevice in Yellowstone National Park were very heavily grazed.

WYOMING (Toton and Park Counties):

There are three game preserves in these two counties which are adjacent to the park, namely, the Hoodoo, Shoshone and Teton preserves. The only areas open to hunting is a small area on Crandall Creek near Cooke, Montana, areas on the north and south forks of the Shoshone River and the Upper Yellowstone country. The area in the vicinity of Bridger Lake and that adjoining the park in the region of the Upper Yellowstone is closed to moose hunting. Special permits are issued for the killing of moose in open hunting territory. The hunting season in Wyoming opens September 15 for sheep, deer and clk and closes November 15.

Checking stations along the main roads were established in Wyoming this year and they proved to be very successful in securing accurate figures on the game killed. These checking stations in Jackson Hole were established on the main roads at the edge of the valley. These stations checked every person entering in search of game. Of course, the local residents of the valley would not be traveling in or out and therefore were not checked. It is estimated that between three and four hundred elk were killed by these local hunters. A checking station was also established on the east entrance, or Cody, road 22 miles below the Park boundary at the Wapiti Ranger Station. These checking stations this year have clearly shown that this manner of securing accurate game kills should be continued.

Following is a table showing comparative figures, for game kills in Wyoming:

TABLE I

		Elk D 1931	Do 1930	er 1931	Mod 1930		Sh=		Boa 1930	
Sylvan Pass	40	95	100	245#	0	1	0	1		
(North Fork of Shoshor	ne)								3	
(South Fork of Shoshor	ne)									
Upper Yollowstone	28	32	12	11	10	8	2	Ci	0	7
Ccoke	*	31	*	40	*	2	*	8	*	6
Jackson Hole	1200	2320**								

[#] One illegal kill

^{*} Figures not available for 1930.

^{**} Does not include kills by local people

IDAHO (Freemont County):

Deer season - October 11 to 20, inclusive Elk season - December 1 to 15, inclusive

Information as to the number of elk kills made in this country is very meager and estimates run from 100 to 125, so 113 will be taken as an estimated number. Deer kills totaled 15 with none recorded for last year. Hunters in this section of Idaho were exceptionally numerous this year and had there been the usual heavy snowfall and stormy weather they probably would have taken a heavier toll of game.

Comparative figures for game kills made in this section are as follows:

TABLE II

					Elk	Deer
1970	3	٠			50	0
1931	٠				113	15

MONTANA (Gallatin County):

The hunting season in Gallatin County opens October 15 and closes November 15. The hunting in this county occurs largely along the Madison River and Red Canyon near West Yellowstone and on the Gallatin River north of the Gallatin Came Preserve. The same system of cooperative patrols with the Forest Service and the State Came Wardens was used this year. The deer season which had been closed in 1930 was reopened in 1931.

Following are comparative game kill figures for this area:

TABLE III

				20 44 5 22		Moose			
]	1930	1931	1330.	1931	1930	1931	1970	1931
West Yellowstone		43	54	0	6	1#	4#	1	0
Gallatin		35	94	0	26	3#	0	0	1

Illegal kills (no scason on moose)

MONTANA (Park County):

As stated in provious reports this hunting und presents greater problem and requires more attention than any area discent to Yellowstone. A few clauses in the Mont no State Come Laws were changed this year shigh relieved the situation somewhat, one of which prohibited the hunting and killing of game within the limits of a city. This curtailed some of the game kills that had been customary in the past within the city limits of Gardiner. Also, the boundaries of the state game preserve were changed so as to include the Game Preservation Ranch.

The same system of putrolling that was employed in 1929 and 1930--Park Service, Forest Service, Montana State Came Warden cooperative organization-was used this year.

No decided drift of elk beyond the boundaries of the park occurred during the season. Scattered groups of elk were the usual formation used in their movements toward the hunting areas and frequently these elk were frightened back inside the park by hunters before eight a.m., the time set for firing.

During the season there was one arrest made for hunting inside the Park. There were also two elk found within the park boundaries that had been shot and dressed; the carcasses were turned over to the state of Montana. The guilty parties were not apprehended.

Following is a set of comparative figures for game kills on the north line:

TABLE IV

	•		•	Dcer 1930]	
Gardiner and vicinity		304	175#	29	33"
Crevice			29		13
Hellroaring		6	: 19		0
Slough Creek		6	67		10
Mammoth					4*

^{# 12} illegal kills (killed on game preserve) and one elk found dead.

The following table shows comparative kills for all areas surrounding the Park:

TABLE V

	E 1930	lk 1931	De 1930	er 1931	Moo 1930		Bo 1930	ear 1931	Sh 1930	eep 1931
Cardiner	300	175	29	33	3					
Crevice		29		13						
Hellrouring	8	19								
Slough Creek	8	67		10			5			
Cooke		31		40		2		6		8
Sylvan Pass	40	95	100	245		1				1
Upper Yollowstone	28	32	12	11	10	8		7	2	
Bechler	50	113		15						
West Yellowstone	43	54		6	1	4	1			
Gallatin	35	94		26	3			1		
Mammoth				4						
Jackson Hole	1200	2320								
TOTALS	1712	3029	141	403	17	15	6	14	2	9

Assistant Chief Ranger Francis D. LaNoue was in active charge of all field work in connection with the hunting season patrol.

[&]quot; 14 illegal kills, on game preserve and out of season.

* Accidental deaths.

See Work Report In Then pour 6/2 11 2 hr replace g broken work it gla-8 hrs fanting Darlev room (304) Land of

Gardine	300	175	29	33	ن					
Crevice		29		13						
Hellroaring	8	19								
Slough Creek	8	67		10			5			_
Cooke		31		40		2		6		8
Sylvan Pass	40	95	100	245		1				1
Upper Yollowstone	28	32	12	11	10	8		7	2	
Bechler	50	113		15						
West Yellowstone	43	54		6	1	4	1			
Gallatin	35	94		26	3			1.		
Mammoth				4						
Jackson Hole	1200	2320								
TOTALS	1712	3029	141	403	17	15	6	14	2	9

Assistant Chief Ranger Francis D. LaNoue was in active charge of all field work in connection with the hunting season patrol.

December nork Rythit 171 Janhans et 8 hrs. layer of lines lener 2. poetting in genoat Center 4 hrs. parting boller room (304) 4 hrs. parting floor & Junter-rose of 4. on leave Return Inactus 8. parting at miles Junites 4. Jatch plasteining. his don there I gently the

4 her seins ing Head Hocken Jane I Show sent the int of fell of flow 1 / 2 Quarter 9. no Materiary a Holman Ino te to feel of the second o sho there of the day , to, banting at the his 2. warny Plantacher Ini

Tellowstone Park Wyo. January 2nd, 1932

REPORT OF ELECTRICAL & TELEPHONE BUSINESS FOR DECEMBER 1931_

Peak load in calls

	This Month	This Mo. Last Yr.	Increase	Percent Inc.
Miles of circuit maintained	532	528	4	,0075
No, of telephones connected	186	172	14	081
No, of measured service call	S			,
No. of other calls				

C. P. Pale



Yellowstone Far "yo. January 2nd, 1932

TORK REPORT FOR DECEMBER 1931

Installed two base plugs or convenient outlets in Garage.

Water heater taken out, cleaned & reinstalled in Mr. Caffertys qts.

Cleaned & serviced Guard hse. & Garage pump motors.

Repaired two damaged telephones (in shop)

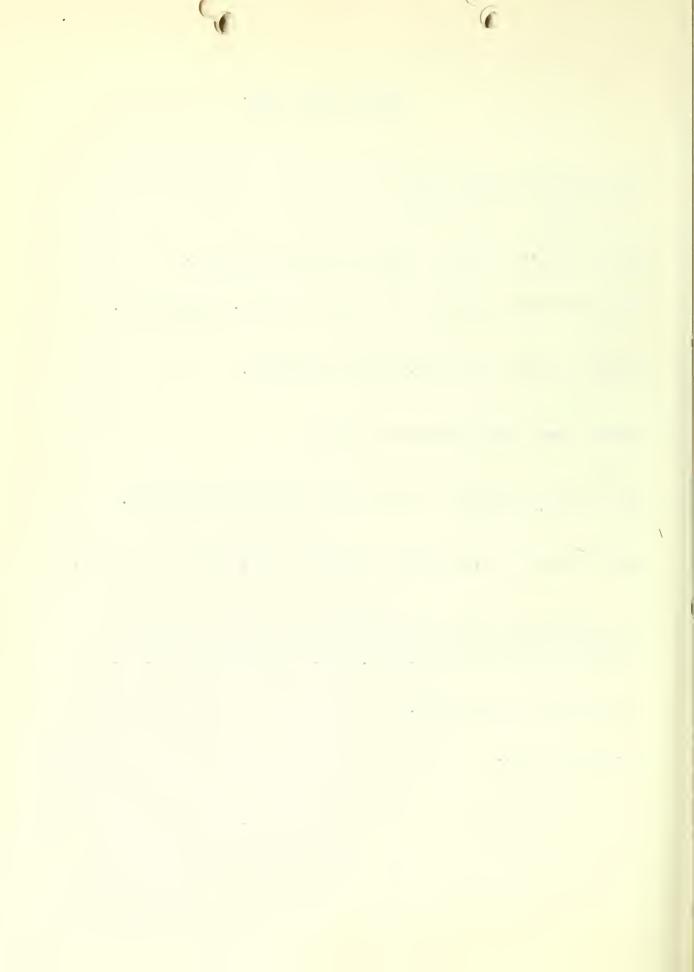
Took down two " installed one drop light in Mr.Fred Johnstons qts.

Replaced wiring in "r.Nielsons qts taken down acct. papering a painting.

Inventoried about 1/2 the Government bldgs. at "armoth for making up schedule showing electrical appliances & possible amount of current consumed in each bldg. (per. memo.from Mr.Edwards, Nov.2nd.)

Two days power plant operator.

11 - days on leave.



UNITED STATES POST OFFICE YELLOWSTONE PARK WYOMING

CHESTER A. LINDSLEY

Postmaster

January ±, 1932.

TO TOR DESTROY HOW THEY RECKE

ost ffice:

Business in the fost Office was practically normal for the month of December, but as usual was much heavier than for the other winter months, due to the holiday season.

Thurch ervices:

Christmas services were held in the chapel on unday Evenin; December 27th, by 'ev. .J.Smith, from ivingston, ont.

rof



Report of a love in lacks and fut i'll down and new thresholds Ton writer and market book as fine mille for any 16 1 162 de arte server to feet. + to one when there . and a common min next to the time (tin J F & Jacon



UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

TRAVEL REPORT

	This	This Travel	This	Last Travel		ase for l Year
	Month	Year To Date	Last Year	Year To Date		Percent
VATE TRANSPORTATION:						
s first entry,	. / 6	221		14/10	100	
s reentry,		1 -				00-
orcycles,		oon-arrigen moonin roomin validadaalinaassa kirjaliyaassa assa assa ka				11.3
otal motor vehicles,	. 186	240	1/		,	
sons entering via motor icles,	. Mis	7065	F . 1		2 . / /	
sons entering via other vate transportation,				palled and the second of the s	er – e fri gallig til til riteritisklig til til retarbille film ti	ng dilikh-uk for a silikhingga para-u-na-umanaya daliya
otal persons entering via rivate transportation,	· 11.5	70-			- 1/1// -	
ER TRANSPORTATION:						
sons entering via stages,	٠					
sons entering via trains,	•					
sons entering otherwise, .	Ø grap gammaterhater v		gderdelener gelt vlar a dell'idilik diplilinga parel li rind	lateral Ballion State		
otal other transportation,			- Jan			
ND TOTAL ALL VISITORS,	. 1.2	0			1774	=)-
		Milligeness ammengigene spreis som som rammerisme sister	This		Incre	ase
			Year	Year	Number	Percent

SUTATION OF THE DEPARTMENT OF THE INTERIOR NATION LEARN SCRICE

	TROOF TENDERT											
(โละสาย 20ชีซีซีซีซีซีซีซีซีซีซีซีซีซีซีซีซีซีซีซ												
107 650-700 1 2 70V-70	La v .ar	1-1-1 1-1-1 1-1-1	Inla ra. · Ye r	1'1 (†1)								
, 45 1e _C 1∈ h	eT ∴ eT	1214	9, ₹,₩									
					PRIVATE TRANSPORTATION:							
					lare resultry,							
prince of the second se		the spelling	ver vesetges = -	-	/alarcycles							
		6 min		on disc	Total To or vehicle:							
					entering a notor rehicles,							
					perions intering villother or relation.							
					To i person estaring is							
					ITHER TPASSORTHER							
					for the entering via stage,							
					מרי הו הלודות עם "ריות							
				-	anta ing itheman.							
					no (d'intre edit l'							
					JPAN TOTAL AL LISTTURE							

Yellowstone Park, Jonin . January 1.1.52.

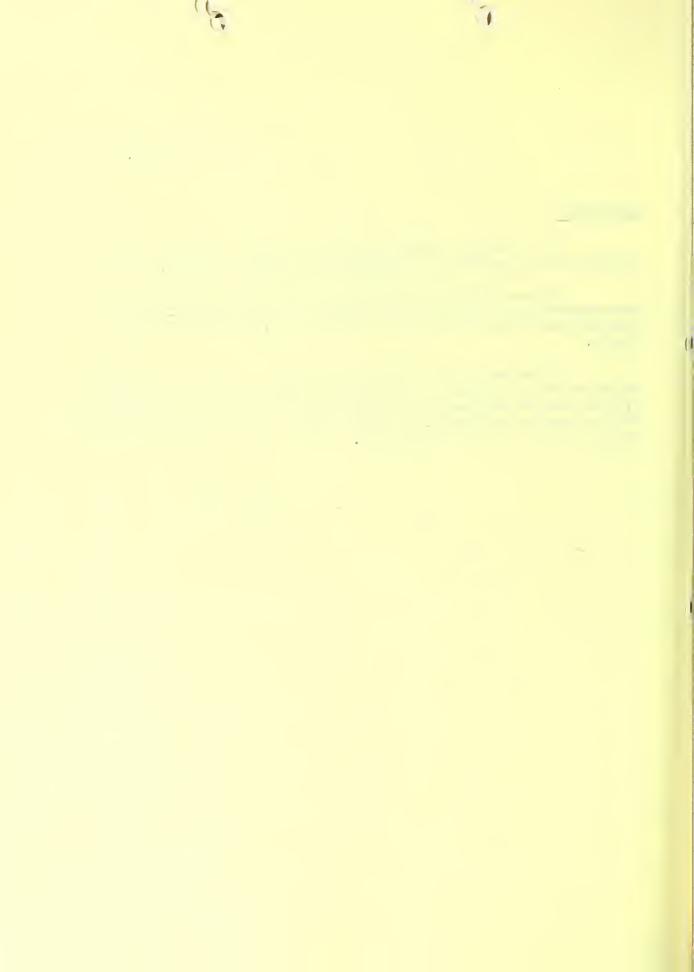
MELOKA IDUL:

The following report of activities under the supervision of Engineering for the month of December is herewith submitted.

No construction projects were active during the month and maintenance work consisted of snow removal on the Gardiner-Tammoth road and the clearing of several small rock slides in the Gardiner Canyon.

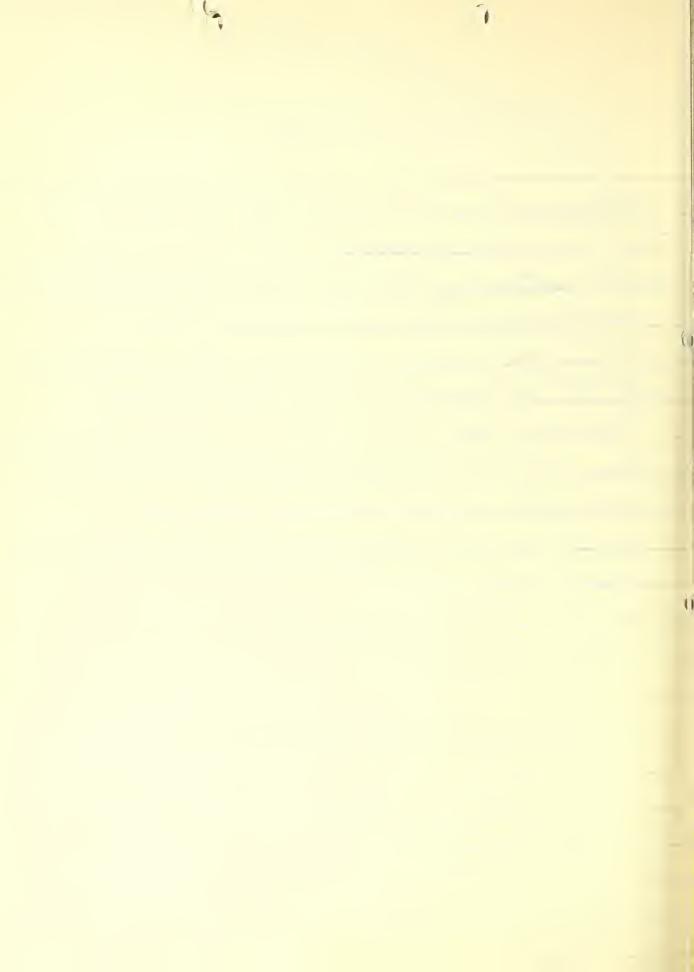
Personnel of the engineering section consisted of the Park Engineer.and one rodman whose appointment was terminated on December 8. This force was engaged for the most part in working up unit cost data for the seasons activities. The Park Engineer was on annual leave from December 12 to the end of the month.

-

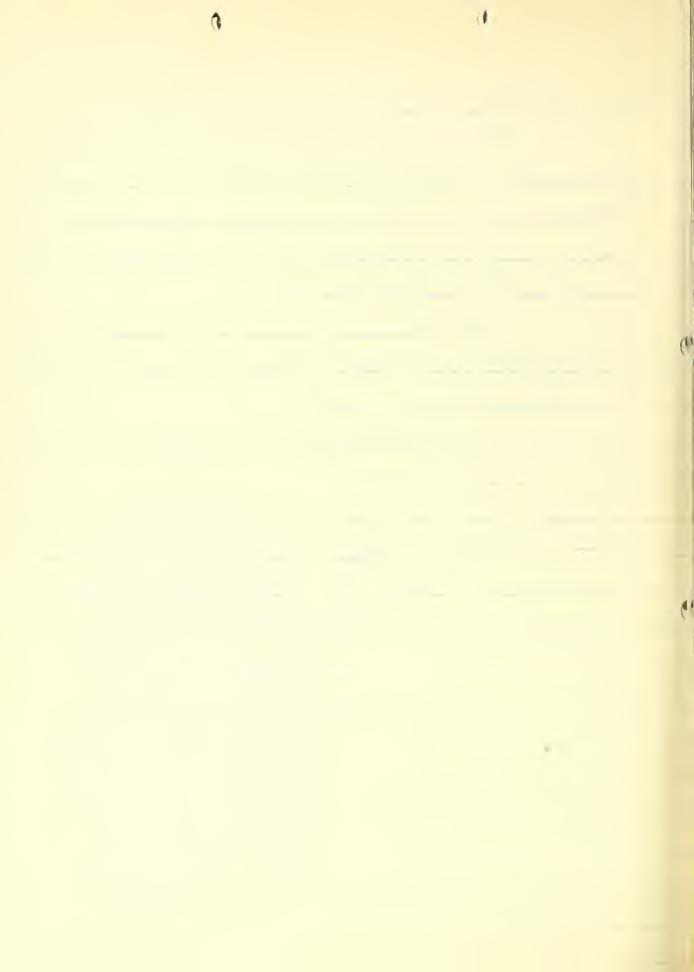


Exect at 1

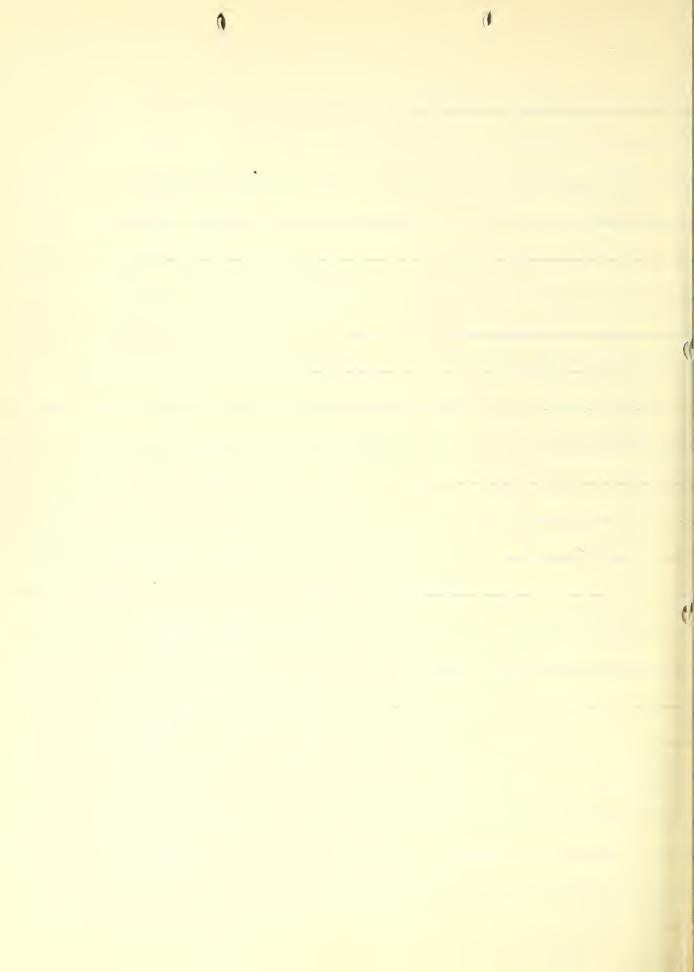
The produce of the production of the second va h areal, de la perlace en la companya de la c wash du 1 le comproted with in dea to to the . Traceign for the deline - ap will de - ar Zet printe men de la commence de la app 304 40 acco which it go to the tree and ing ! to 5.19, 217 acres.



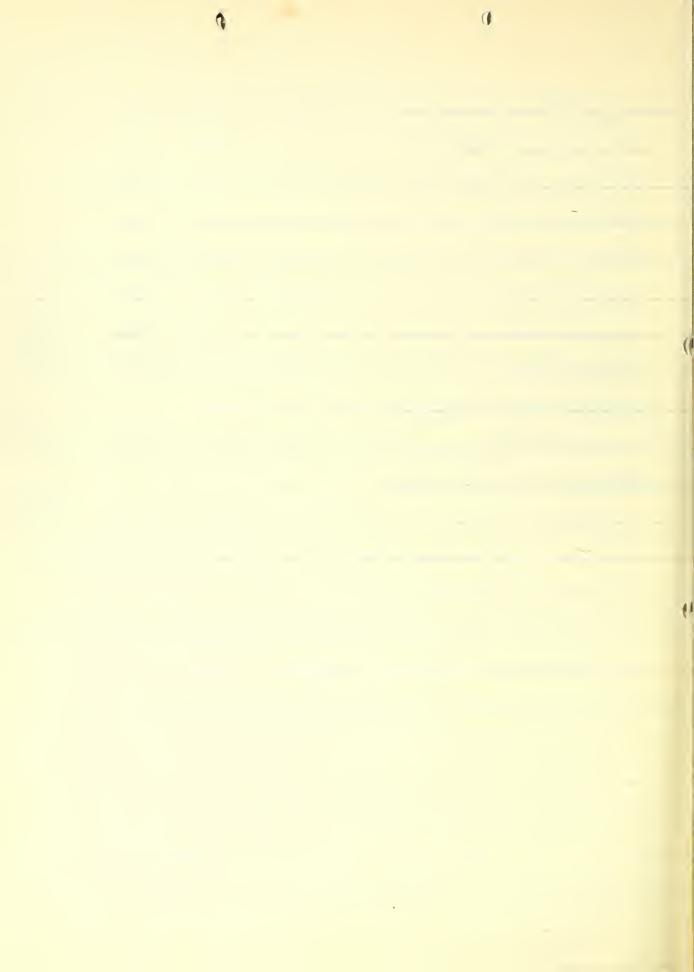
021 In the tack. Flex in (me (man - me) multe bet me lun se ou blec 25° a very new succes we en en def en feder 8" I war to 28" at Rudulu Paris. Fallowing are the surar, depeter our the fute acces in to drumage 1 (analus 022. Little apperendent to Flu Copy - Ly and la road max clare to land an porte.



-----1 . . 22 AVE = 5 20 29 30 01 27 20 1 1 28 27 Anda Butte 11 Tomer Falls 12 23 1/2 Madrian jet



Such low-173 Two down to tail 40 ate on hills for it 67 Tiche L 36 /a. .. 34 55 54 Carcacle 151 68) Perliper I will forthere King by Denie 12. 2. 2. -La 142 1.



410 - Ranger, Maturalist and Guide Service

The usual ranger activities were carried on during the entire month.

Resolution the season, which closed on December 20. The patrol camp at the Deckard Ranch was about the key patrols were made at the finish of the hunting season, which closed on December 20. The patrol camp at the Deckard Ranch was about the key park this report discontinued on this date. The complete hunting season report covering all activities on the hunting in the areas adjacent to the park is attached elsowhere in this report. The heavy snowstorm on Christmas day, ranging from 8" of new snow in Mammoth to 28" in Bechler River made it extremely hard skiing for the rangers on patrol in the interior of the park.

Chief Ranger Baggley was in attendance at the Forest Protection Board meeting held in Spokane. He left Yellowstone on December 3, returning the evening of December 6.

Acting Superintendent Hundley and the Chief Ranger were in Livingston on December 7 on matters pertaining the to the land in the northern elk range.

The Chief Runger and Forest Assistant left Yellowstone on December 11 for Ogden to attend the fire conference which was held from the 14th to 18th inclusive. On December 12 they attended the Forest Protection Board meeting which was also being held there. The Chief Ranger left Ogden on the evening of December 17 for Helena to attend the State game meeting. He returned to headquarters the afternoon of December 21. Fred Johnston returned to headquarters from Ogden on the evening of December 19.

420 - Museum

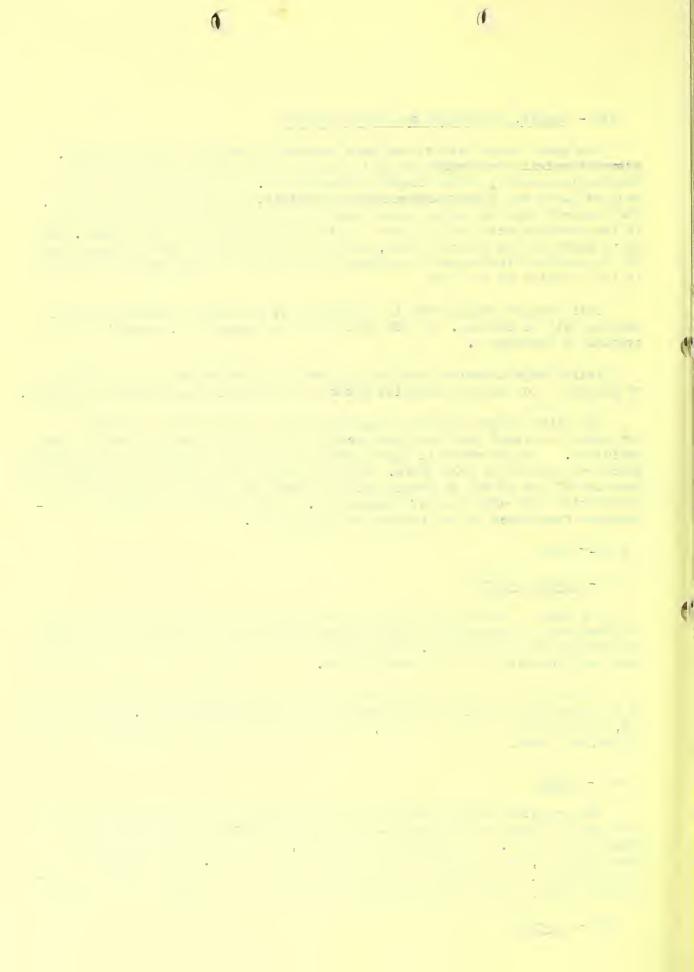
440 - Insect Control

The annual forest insect report for Yellowstone National Park has been prepared with the exception of data pertaining to the type and insect survey work during the past season. The report will be completed within the next few days and forwarded to the proper offices.

Tracings for the work completed on the type map well be started soon and it is hoped that prints will be available some time in February. Approximately 304,491 acres were mapped in 1931, which brings the total area mapped to date to 559,347 acres.

460 - Pirds

The freezing over of Yellowstone Lake caused birds in that vicinity to seek smaller areas of open water. At Steamboat *pri Point 150 ducks and 8 swan were counted. At West Thurb 2500 ducks, with mallards and goldeneyes predominating, and 125 geese and 15 swan were observed. All of these birds were noted to be in about 5 acres of open water at the West Thurb boat dock. Clarkes Crows, camp robbers and ravens are being seen over the entire park.



All animals at this time are wainex noted to be in good condition and forage conditions are good. They are well scattered and pawing for feed through snow ranging from 8" to 18" in depth. The losses of game in the open hurting territory adjacent to the park is disclosed in the hunting season report attached.

Elk: Very few elk are reported from the Snake River, Bechler River and Thorofare. Following are the various counts taken the latter part of the month: Hellroaring 400; Hellroaring to Slough Creek 300; Cottonwood Basin 600; Blacktail and vicinity 750; Lower Lamar Valley 200; Tower Falls 100. Several hundred were observed the latter part of the month on the east and west side of the Gardiner River in the vicinity of Gardiner and the old rifle range. Avout 50 head are wintering in the Madison River, and approximately 125 between Fountain and Old Faithful.

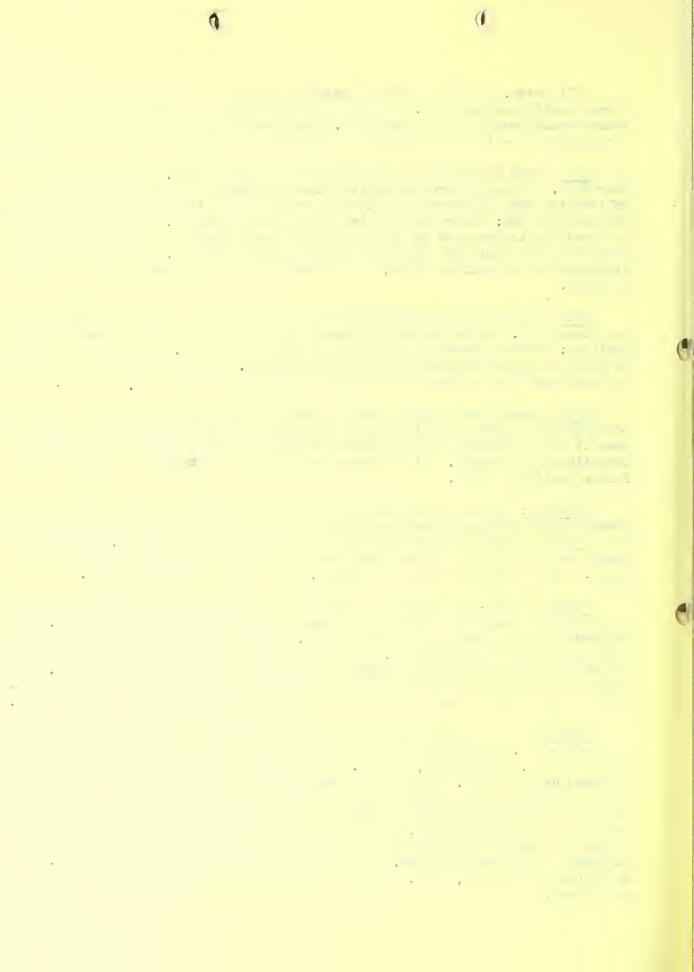
Deer: 26 deer are being fed daily at Mammoth on a ration of cottonseed cake and clover hay. Large numbers of these animals may be counted between Mammoth and Gardiner; 50 were counted on the Game Preservation Ranch. * Small bands are to be seen on the ridges north and west of Gardiner; 25 were counted at Old Faithful. all deer seen are in excellent condition and forage conditions are good.

Moose: Total moose counts for the various districts as made during the past month are as follows: Bechler River 12; Snake River 25; Thorofare 92; Riverside 6. Some of the 92 counted in Thorofare were counted twice inasmuch as they were traveling a great deal. All of these animals are in excellent condition with forage conditions good.

Antelope: The antelope herd is well scattered over the entire country between Marmoth and Reese Creek and north in Bear Gulch and the Buffalo Flats and may be seen in small bunches on all the ridges in this territory. However, no counts are available with the exception of about 60 on the Game Preservation Ranch. Their condition is noted as good, with forage conditions good.

Sheep: Twenty-one sheep were counted in the vicinity of Junction Butte near Tower Falls on December 14 and this same number was again counted on Dec. 17. Included in this total are 5 spring lambs. Twelve sheep were also counted in the Gardiner Canyon on December 29. The feed troughs were also placed in the Gardiner Canyon on this same date and fixthwax filled with cottonseed cake and hay. Four large rams were seen to be contentedly eating this ration that same afternoor. All of these animals seem to be in fair condition with forage conditions good.

Buffalo: The buffalo slaughter which commerced on December 2 was completed on December 15. One shipment of two buffalo was made on December 16 to J. F. Richman of Ft. Leavenworth, Kansas. This shipment complted the buffalo to be disposed of this year. A total of 22 minute animals were shipped alive to various individuals and zoos throughout the country, and 201 were slaughtered to be given to the various Indian agencies in northern Montana and to the indigent people of Idaho and Wyoming. As soon as the remaining buffalo carcasses are shipped to the Blackfeet agency a complete report covering the entire buffalo disposed of will be submitted. Each buffalo carcass disposed of costs \$5.29 delivered at Gardiner, Mont. This cost was prorated and itemized per animal as follows:



Round up \$1.14 Slaughter \$2.32 Trucking 42¢ Issues \$1.41

This amount of a trifle over 1 ¢ per pound is a very cheap price to pay for buffalo meat, when it is considered that in previous years buffalo meat has demanded from 75 ¢ to \$1.00 per pound.

The roundup of buffalo will be started on January 6 for the purpose of corraling and weaning this year's calf crop.

Small Animals: Muskrats and beaver are reported as busy in the Madison and Firehole Rivers. From Otter Creek to the Mud Volcano on the Yellowstone River 23 muskrats huts were counted. Three coyotes were also seen on the ice trying to break in two these huts. However, they were unsuccessful. Bank beaver at the Yancey Ranch are busy cutting quaking aspen. On December 17 one beaver was killed by coyotes near the Yellowstone River in the vicinity of Tower Falls. This animal was about 100 yards from the river.

Predatory Animals: This month 27 coyotes were killed as compared with 21 for the same month in 1930, which makes a total of 76 to date, as compared with 52 last year, and 90 in 1929 for the same periods.

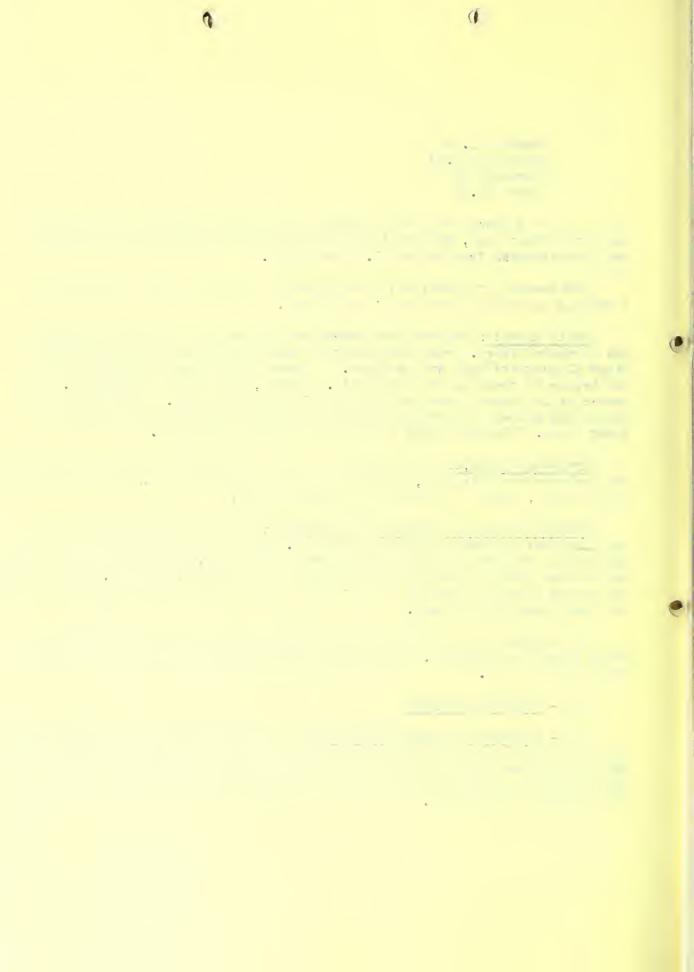
Buffalo Ranch and Other Ranch Activities: At the Buffalo Ranch the slaughter was carried on until December 15. Since that time cleanup work and t the feeding of buffalo has been the order of the day. Preparations were also made at the Buffalo Ranch for the roundup to be made on January 6. Feeding will be started shortly after the first of the month at the Slough Creek Ranches and the Game Preservation Ranch.

On December 21 10 additional horses were taken to the Merrill Ranch in Miner Basin for wintering. This makes 58 horses that we are wintering out of the park this year.

480 - Natural Phenomena

510 - Increase or Decrease in Travel: The generally mild and fair weather which prevailed for most of the past month and the unusually good condition of the Livingston-Gardiner Road has helped considerably in boosting preseason travel. 465 visitors traveling in 186 cars via the north entrance was the total travel for the month of December.

530-0



Comort of the dicational op rt nt

for

-sember 1931

ll. . e nent rojets

. dinietrative

he rener naturalist applications and infortion latter or 1922 were revised and in excepted.

L. sature Notes

The combined how ber-becember issue of ature lotes as fr to about 750 persons, with a stock on head of L5 copies.

C. Library

re ort on the status of the library was set the uperint ndent in the form of a semorandw. Books and pamphlets occurred for the month total 362; suphlets a reded and filed total lad. hirteen magazines and 1 book were received.

D. User Accessions

December 1 - Counted alk horns, lift from this former course.

lecember 3 - peci a of grat gry owl (), ift rome. Logical of ardine, ontana.

December 11- enver study skin samed by Jones Brown, Denver, tolo.

ton), identified by niver ity of ontana as ichirpus.

PROPERTY LANGESTON SET TO PROPERTY

-

The personnel of the latest and the

enthrensisten, p.

The state of the last test and the state of the state of

ARTEC PURPOSE AND

arranged to the first of the same of the particular and the same of the same o

DESCH .

And he was the second of the s

plant from a partie of the parties o

DESCRIPTION OF THE PERSON OF

1) where the Trans and the parent and toleran - dependences

the same of the contract of the same of th

when a training a series were to become that place and a serious will designed

markets of course of the course of the course of the course of

- Yellow

The sales of the s

. useu ori

he proces sin of the buff los eleton was continued.

the manus cark for was cleaned and straightened.

other for use a a unting or study specimen and the

kinned great gray owl (1).

F. Lintern lides

work was done on this projet during the worth.

. at

Deceived one tumbler wat r beater.

. heto retha

I. ublicity Clippings

, o wor was done during the south or this projet.

J. Seles Fublications (none)

L. ersonnel

Junior ark turnist ere ley, day; and take take ilfo

CC Taperinte at

Dr. Depus

Drl ussell

r. Hall

Liseu (2)

etull of itte

cting or a tor list.

The state of the second second

To Service John St.

ACCUPATION OF RESIDENCE OF THE RESIDENCE ACC

proceedings of the party of the

The Address of the Control of the Co

THE REAL PROPERTY.

Letter relect in

more and particular continues while or word the figure in-

Attended of

COUNTY INSIDE SALARS NOT LOT LOT LOT

Marchael .

The same of the sa

CONTRACTOR OF THE STATE OF THE

solvening with an exercised our subsettlement and the real or

- terms understated ones at
 - Dimensi al

The same of the sa

Intimation 5

STATE OF THE PERSON

Alterior Section

(II) money

COLUMN DESCRIPTION

.

UNITED STATES DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYO.

ICE OF THE SUPERINTENDENT

SUMMARY

of

Thermal Activity During Month of December, 1931

Mammoth Hot Springs:

With continued winter conditions, the changes noted are as follows:

Hymen Terrace- activity on the east side has discontinued, and is now shifting to the south. The flow of water is about the same as during November.

Diana Terrace- is discharging a large volume of water. The flow over the formation trail is eroding and cutting in places. The yellow coleration is beautiful.

Minerva Terrace- continues in a dried-up condition. There is a very slight amount of steam activity. A small amount of water remains in a pool, frozen over solid.

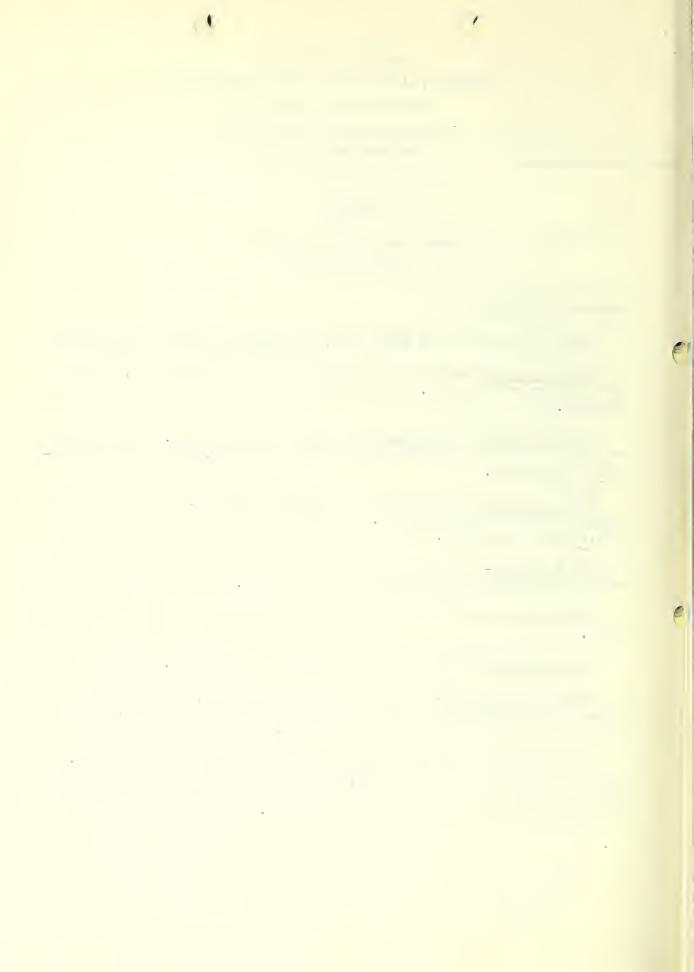
Mound Terrace- continues its activity on the north and west slopes with a large volume of water, as during November.

Cleopatra- activity has diminished. There is a very slight flow of water.

Main Terrace- continues about the same as in November.

Orange Spring Mound- is more active than formerly, the southwest half being wet, and strands of sulphur bacteria forming near the top, with dark green coloring halfway down the slopes.

Blue Springs- has shown considerable fluctuation during the month. During the first part of the month, the springs were practically dead, and the pools dried up; while the close of the month shows a large volume of water flowing, and all of the pools filled.



White Elephant- shows practically no change from previous months.

Angel Terrace- is very active on the north and east slopes, and continues its flow from the ten-foot crack, obliterating the old trail from the top of Angel Terrace. Diana and Angel Terraces still hold first and second places for the volume of water discharged and the beauty of color.

Jupiter Terrace- shows decreased volume of water. The most activity is near the center. The south end is becoming dark green in color.

The spring near the Nichol's tennis courts has showed increased activity for the past month, exceeding that for the month of November, which had been the greatest up to that time.

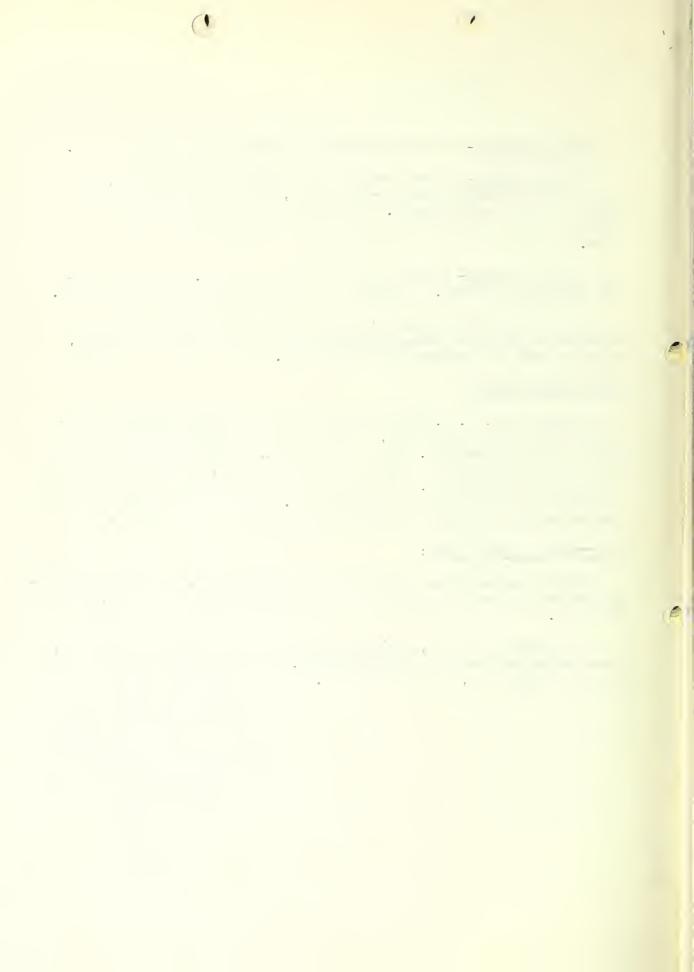
Norris Geyser Basin:

On December 14, W. J. Mead reports the pool of Emerald Spring as being filled to its normal level, with the spring boiling constantly to a height of about five feet. The steaming vent, previously reported about five to six feet below the surface on the west side, is now covered with water, and is very active. The vent on the south side is inactive; while the middle and north vents continue active. The water has changed color from slate gray to grayish green, indicating that it is clearing.

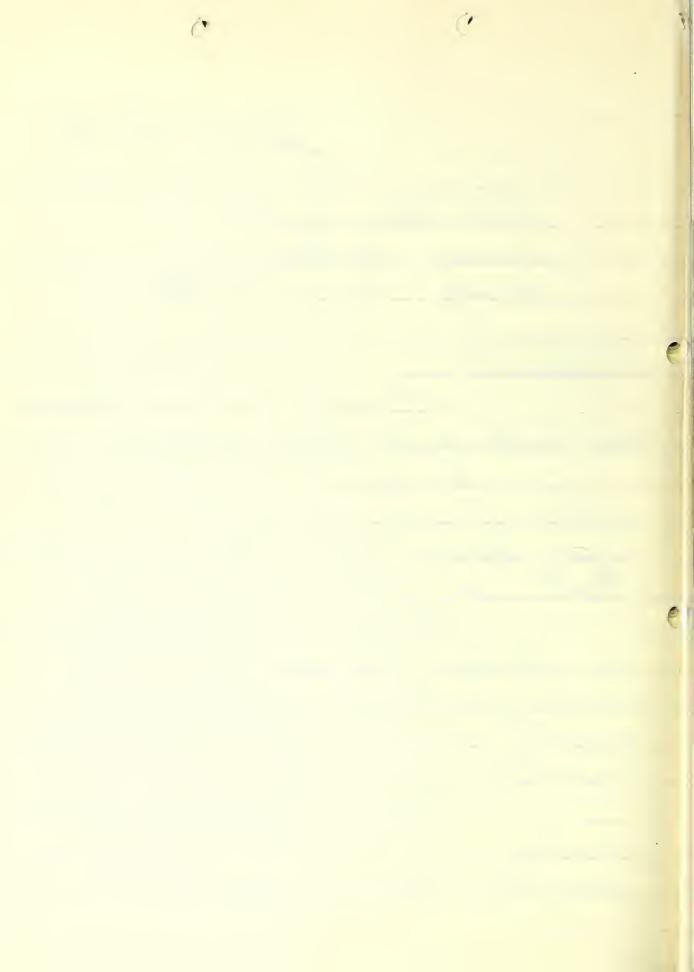
Old Faithful Geyser Basin:

Ranger Curtis Skinner reports that on December 31, he timed Old Faithful for six consecutive eruptions and the interval was 65 minutes, with no variation.

In Black Sand Basin, Handkerchief Pool is filled with water again, after having been dry all summer and fall. He tried a small cloth in it, which was drawn down, but not returned.



James 5- 32 - our on the Sanctar to factour. during becomes 1931 6 tenter and manie the water and seems siture. On account a! were water in to see the see the die Style - Com Lunt on two years Eleven heating war In reating the Getmine muse; & Garage and come quartel were mountained and aberated comme a more Che's the heren years wied ut all ul



Laute Ginare, so and con li com in due d'un mai Eneral munturance mude de de de de de sheet metals work on vanuer rocke

YELLON NATION IN THE 146 3 3

