Nanny Pinkley

GOUTHWEGTERN MONUMENTS MONTHLY REPORT SEPT. 1933



DEPARTMENT OF THE INTERIOR
NATIONAL PARK
SERVICE

NATIONAL PARK SERVICE

W. C. Mark Company of the control of

A STATE OF THE STA

SOUTHWESTERN MONUMENTS SEPTEMBER REPORT

INDEX

CONDENSED GENERAL REPORT

Travel	155	
Annual Travel Figures	156	
Weather		
Engineering Activities	157	
E.C.W. Activities	157	
Field Trips	157	
Personnel		
Visiting Park Service Offici	als158	
	•	
REPORTS FROM THE MEN	IN THE FIELD	
Aztec Ruins186	Gran Quivira	16
Bandelier164	Mail Count	194
Bandelier E.C.W188	Montezuma Castle	184
Canyon de Chelly162	Natural Bridges	189
Casa Grande185	Naturalist Division	
Chaco Canyon180	Pipe Spring	182
Chiricahua168	Tonto	173
Chiricahua E.C.W168	Tumacacori	
Closing194	Walnut Canyon	
El Morro Custodian Report170	White Sands	
El Morro Ranger Report169	Wupatki	177
Engineering190	Yucca HouseHovenweep	180
THE SUPPLEM	<u> </u>	
Library List		204
Cheirotherium Footprint at Wupatki		
El Morro Petroglyph Interpretation		232
Bandelier Flora List		233
Bandelier Bird List		
Walnut Canyon Bird List		236
Impressions of a Temporary Ranger, by		
13-h - 64-111-41-4		o de

More Gactus Labels-----

SOUTHWESTERN MONUMENTS. PERSONNEL

HEADQUARTERS Southwestern Monuments, Coolidge, Arizona: Frank Pinkley, Superintendent, Hugh M. Miller, Acting Assistant Superintendent. John H. Diehl, Associate Engineer. Robert H. Rose, Assistant Park Naturalist. Dale S. King and Louis R. Caywood, Junior Park Naturalists. Robert L. Cole, ECW Clerk. Luis Castellum, Temporary Clerk-Stenographer.

GENERAL FIELD MEN: Charles A. Richey and Harry Langley, Resident Landscape Architects. J.B.Hamilton, Associate Engineer. Andrew Clark, Topographer. J. H. Tovrea, Chief Engineering Aide. C. E. London, Carl Schmidt, Rodmen.

FIELD STATIONS:

- 1. Arches---Moab, Utah. J. M. Turnbow, Custodian.
- 2. Aztec Ruins --- Aztec, New Mexico. Johnwill Faris, Custodian.
 Robert W. Hart, Ranger Archeologist.
- 3. Bandelier --- Box 669, Santa Fe, New Mexico. Earl Jackson, Custodian. Jerome W. Hendron, Temporary Ranger.
- 4. Canyon de Chelly---Chin Lee, Arizona. Robert R. Budlong, Custodian.

 J. Douglas Harritt, Temporary Ranger.
- 5. Capulin Mountain --- Capulin, New Mexico. Homer J. Farr, Custodian.
- 6. Casa Grande Ruins --- Coolidge, Arizona. W. J. Winter, Custodian. Charlie R. Steen, Park Ranger.
- 7. Chaco Canyon --- Crownpoint, New Mexico. Thomas C. Miller, Custodian.

 Lewis T. McKinney, Temporary Ranger.
- 8. Chiricahua --- Willcox, Arizona.
- 9. El Morro --- Ramah, New Mexico. E. Z. Vogt, Custodian.
- 10. Gila Cliff Dwellings --- Cliff, New Mexico. No Custodian.
- 11. Gran Quivira --- Gran Quivira, New Mexico. W. H. Smith, Custodian.
- 12. Hovenweep---Cortez, Colorado. No Custodian.
- 13. Montezuma Castle---Camp Werde, Arizona. Martin L. Jackson, Custodian. Frank Fish, Park Ranger.
- 14. Natural Bridges --- Blanding, Utah. Zeke Johnson, Custedian.
- 15. Navajo---Kayenta, Arizona. John Wetherill, Custodian. Milton Wetherill, Trail Foreman.
- 16. Pipe Spring---Moccasin. Arizona. Leonard Heaton, Acting Custodian.
- 17. Rainbow Bridge --- Rainbow Lodge, Arizona. No. Custodian.
- 18. Saguaro --- Tucson, Arizona. No Custedian.
- 19. Sunset Crater --- Flagstaff, Arizona. J. W. Brewer, In Charge.
- 20. Tonto---Roosevelt, Arizona. Woodrow Spires, In Charge.
- 21. Tumacacori --- Box 2225, Tucson, Arizona. George L. Boundey, Custodian, Martin Evenstad, Park Ranger.
- 22. Walnut Canyon --- Flagstaff, Arizona. Paul Beaubien, Park Ranger.
- 23. White Sands --- Alamogordo, New Mexico. Tom Charles, Custodian.
- 24. Wupatki --- Flagstaff, Arizona. J. W. Brewer, Park Ranger.
- 25. Yucca House --- Cortez, Colorado. No Custodian.

CONDENSED REPORT

Coolidge, Arizona October 1, 1935

The Director, National Park Service, Washington, D.C.

Dear Mr. Director:

The Condensed Report for Southwestern Monuments for September, 1935:

TRAVEL:			
	September, 1935	September, 1934	September, 1933
Aztec Ruins	1,891	1,673	1,090
Bandelier	1,594	1,492	634
Capulin Mountain	5,000	2,500	
Casa Grande	1,691	1,429	1,070
Chaco Canyon	8 75	670	662
Canyon de Chelly	153	102	Fig. com 100 100 100
Chiricahua	5 7 6	6,530	****
El Morro	240	300	240
Gran Quivira	545	328	395
Montezuma Castle	1,782	1,839	1,735
Natural Bridges	8 7	200	24 7
Navajo		131	
Pipe Spring	472	284	285
Sunset Crater	665		
Tonto	338	30 5	,
Tumacacori	93 7	7 88	426
Walnut Canyon	1,214	1,124	*
White Sands	3,644		*
Wupatki	250	194	57
Yucca House	38		date can not work

Actual Reported
Registration 21,992 19,889* 6,841
(*Labor Day Dedication Celebration brought 6,000 special visitors to Chiricahua.)

The 16 Monuments which reported both in 1934 and 1935 showed a decrease from 19,758 to 17,645---2,113 visitors, or 10.6%. This decrease was caused by the unusual number of visitors to Chiricahua in 1934. Actually, the Monuments gained almost 30% in 1935, 1sf the abnormality is eliminated.

The 11 Monuments which reported both in 1933 and 1935 showed an increase from 6,841 to 10,364---3,593 visitors, or 51.4%. A remarkable increase.

Thus, eliminating the abnormal Chiricahua figure, it would appear that September, 1935, as a travel month was about 28% better than the same month in 1934; 51.4% better than the same month in 1933.

CONDENSED REPORT (CONT.)

ANNUAL	TRAVEL	FIGURES
--------	--------	---------

ANNOAD TRAVIL PIGOTED	1935	1934	1933
Arches	30C*	275*	425*
Aztec Ruins	10,738	10,142	7,546
Bandelier	12,381	9,457	3,906
Canyon de Chelly	988	650*	435*
Capulin Mountain	24,000*	22,000*	14,000*
Casa Grande	27,345	26,776	21,771
Chaco Canyon	6,565	6,068	5,817
Chiricahua (1)	6,420	15,331*	
El Morro (2)	2,475	2,800*	2,467*
Gila Cliff Dwellings	100*	75*	
Gran Quivira	4,649	4,342	3,56 3
Hovenweep '	200*	125*	425*
Montezuma Castle (3)	14,919	18,619	13,899
Natural Bridges (4)	700	75C	654
Navajo (5)	446	675*	375*
Pipe Spring (6)	4,896	8,544	2 , 548
Rainbow Bridge	430*	390*	385*
Saguaro (7)	9,900*	2,500*	
Sunset Crater (8)	5,688	2,500*	
Tonto (9)	5,350	7,005*	
Tumacacori	13,081	11,238	8,869
Walnut Canyon	11,328	10,000*	
White Sands (10)	33,912	33 , 900*	12,000*
Wupatki	1,369	1,080*	1,250*
Yucca House (11)	300*	150*	300*
Total	198,480	195,392	100,635

* estimated

- (1) Great apparent decrease due to close check on visitors, and the fact that no large celebration of importance was held. Actually, visitors probably increased in number at Chiricahua.
- (2) El Morro's slight decrease due to very bad road conditions.
- (3) Montezuma Castle shows a decrease attributable to bad highway conditions.
- (4) Threatening weather and heavy rains cut down Natural Bridges' total.
- (5) For the first time we have an accurate total for Navajo. Not sonhigh as was estimated in 1934.
- (6) Pipe Spring reports more cut-of-state, but much less local travel.
- (7) More accurate checking of visitors reveals this Monument much more popular than preveiously supposed.
- (8) The foregoing statement applies also to Sunset Crater.
- (9) An accurate visitor check showed our 1934 estimate slightly too high.
- (14) This year's total probably very accurate, which means that we overestimated a little last year.
- (11) A registry book at Yucca proves more visitors than we had supposed in 1934.

CONDENSED REPORT (CONT.)

The 19 Monuments which reported both in 1933 and 1935 showed an increase from 100,635 to 198,480----59,059 visitors, or 58.6%.

The 25 Monuments reported in 1934 and 1935 showed an increase from 195,392 to 198,480---3,088 visitors, or 1.5%.

Thus it would appear that 1935 as a travel year was 58.6% better than 1933; only 1.5% better than 1934. However, when the factors of unusual occurrences of celebrations and powr road conditions are eliminated, it is believed that 1935 actually should show an increase of about 10% in travel. It is noteworthy also that this year's totals are far more accurate than any we have been able to obtain heretofore, due to increased personnel and careful checking methods.

It is well to note that such Monuments as Aztec Ruins, Bandelier, Casa Grande, Chaco Camyon, Gran Quivira, etc., where an absolute check can be maintained, show consistent gains.

WEATHER

September is a beautiful month in the Southwest, and the northern Monuments have come in for their full share of warm sunny days, and crisp nights, although Wupatki seems to have experienced an unusual amount of rain. Moisture in the Montezuma Castle region has produced superlative forage conditions.

Chiricahua and Tumacacori in the highlands near the Border have had good rains, but Casa Grande and Tonto in the Gila and Salt River Valleys need more rain.

FIELD TRIPS

Superintendent Pinkley and Engineer Diehl left Headquarters Sept. 15 for an inspection trip through New Mexico and northern Arizona Monuments. They accompanied Miss Isabelle Story, Park Service Editor.

Junior Naturalist Caywood was stationed at Aztec Ruins on museum preparation work until Sept. 22, when he assumed relief duties at Wupatki.

ENGINEERING ACTIVITIES

Engineer Diehl spent most of the month in the field, supervising and inspecting ECW and other work on National Monuments. The topography crew under A.E. Clark continued work on the headquarters area at Walnut Canyon, and checked the boundaries of Sunset Crater. Chief Engineering Aide J.H. Tovrea at the Coolidge Office prepared sketches, maps, and survey data, to be submitted to the Superintendent or the Branch of Plans and Designs.

E.C.W. ACTIVITIES

BANDELIER

1. Headquarters comfort station completed, as well as entrance road

CONDENSED REPORT (CONT.)

stone guard rail.

- 2. All carp sites in camp ground equipped with approved fireplaces.
- 3. Excavations completed for all utility buildings.
- 4. Warehouse building completed except carpenter work on openings and painting.
- 5. Gasoline and oil building 50% complete.
- 6. Worn area and road obliteration carried on.
- 7. Rock quarrying activities occupying much attention.
- 8. Wall around utility area completed September 20.

CHIRICAHUA

- 1. Echo Canyon horse trail completed for 2800 feet.
- 2. Nine hundred additional feet completed on Sara Deming trail.
- 3. Bonita Canyon campground 100% complete, including fireplaces and dips.
- 4. Headquarters and camp ground water systems complete, as well as reservoir pipe line.
- 5. Completed spring development fencing.
- 6. Headquarters comfort station complete.
- 7. Eight hundred feet of road obliteration.
- 8. Maintenance crew worked all month on Massai Point road.
- 9. Rustler Park Forest Service cabin completed.

PERSONNEL

- 1. Robert W. Hart, Jr., newly appointed Ranger-archeologist at Aztec Ruins National Monument, assumed duties September 15. Mr. Hart, who comes from Greenwood, S.C., enters our staff with excellent training of five seasons as Temporary Ranger at Mesa Verde National Park.
- 2. W.J. Winter assumed duties as Custodian, Casa Grande National Monument, September 16. He is a graduate in Anthropology from the University of Arizona, has done graduate work at the University of Chicago, and previous to accepting the Custodian's appointment, was employed in the Historical Division Offices in Washington.

Our temporary rangers this season have done uniformly and unusually excellent work; it is hoped that we may obtain their services again. A list of the men separated during the month, and their dates of separation from duty, follows:

- 3. Jerome W. Hendron, Bandelier National Monument, September 30.
- 4. J. Douglas Harritt, Canyon de Chelly National Monument, Sept. 30.
- 5. Lewis T. McKinney, Chaco Canyon National Monument, September 30.
- 6. Alfred Peterson, El Morro National Monument, September 14.
- 7. Paul Beaubien, Walnut Canyon National Monument, September 30.
- 8. James W. Brewer, Jr., Wupatki National Monument, September 30.

VISITING PARK SERVICE OFFICIALS

The Headquarters and Casa Grande staffs were very pleased to receive a short visit from Director Cammerer September 27.

REPORTS FROM MEN IN THE FIELD

WHITE SANDS

By Tom Charles, Custodian

Our travel count is complete to September 20. From September 20, 1934, to September 20, 1935, there were 33.001 visitors in the Heart of the Sands. With an estimated count of 911 for the last ten days of September, we will have 33,912 the past year. Part time count shows that 23.5% of those passing through the monument visit the center of the Sands. On that basis we have had a grand total of 144,306 visitors through the monument during the past year.

I want to thank you for the fine meeting of Park Service officials which we had here on the 10th and 11th of this month. It seemed the best meeting we ever had at the White Sands. Suggestions of one department proved to be the hopes and desires of the others. Of course, I would not want the Washington group to think we were all a bunch of "yes" men. You will remember the heated argument you and I had as to whether the proposed picnic ground was 200 yards from the Turn-around as you thought, or a mile as it seemed to me, and that some one suggested that each one present take up his share of the difference in opinion between us and it would get us together. We introduce this incident as evidence of the prevailing harmony.

It seems to me there was a sort of general feeling there had never been any mistakes made at the White Sands, or, if there had been, no one present knew anything about them.

I have already sent you prices on the posts designed to keep automobiles out of the scenic area beyond the Turn-around. I certainly hope that our plans work out and that before long we may have a few small tables with cheap sun-shades over them at the picnic ground. These tables would no doubt keep a large percentage of picnickers from eating their lunch on top of the most convenient and attractive sand-dume.

To my notice each table should have a portable fire-place near and a trash can which simply covers a hole in the ground into which may be dumped the chicken bones, paper plates, and the watermelon rinds.

By the way, since you left, all the watermelon seeds out there at the Sands, which were then unsprouted, have come up. One place, about ten feet square, is green with growing watermelons. (If chickenbones would sprout like that we would soon have a profitable industry at the Monument.)

WHITE SANES (CONT)

Up to now the clean white sand-dunes have been an invitation to everyone with a lunch basket. We are hopeful that we can hold the scenic area free from automobile tracks and grease, and in fact keep the dunes as pure and white and rippled as the day when we first invaded the sacred area.

We are all learning a lot about those "sands that creep," it seems to me. Cld settlers say that over an experience of fifty years they have found that the cuter edge of the Sands move eastward about eight inches a year. We have found out in the past year that at the Turn-around the drifts are likely to move much more rapidly than that, in fact, they are likely to move eight or ten feet in one night. We planted a tree about ten feet from the edge of a drift some months ago and today the sand is not only over to the tree, but it is four feet deep there and the poor sapling, although nearly five feet high has but a few inches of its green top out of the dune, struggling for its very existence.

When Wildlife Technician Borell left the Monument last week he took one of our little white lizards with him for identification. He also found some lovely specimens of lizards, much larger than the white ones, and with brilliant blue markings.

Our new well, with the pitcher pump, is proving a source of pleasure. One night recently six people camped at the well and next morning I found a miniature swimming pool dug out of the sand. Its walls were two feet high. We could have told them before they started that their work would profit them nothing for the sand takes up water like a sponge. These young fellows could have pumped from now on without getting anything more than wet sand for their labor.

Sunday I ran across two cars, with ll travel-worn people, stopped at the well, and after filling up with the mineral water (which I am not recommending for its agreeable taste) they decided to clean up a bit. They tried it on their hands and faces and apparently liking the sample, most of them started in for a considerable bath.

From a distance I could see the wisdom of Harry Hommons precaution in having the overflow from the pump empty off, down grade, some ten feet from the well.

These two incidents are the unusual attempts at pleasurable uses of this well water. But every day, scores of thirsty people are glad to get a drink of this cool fresh water with little thought of whether the taste is caused by sulphur, magnesia, or what not, so long as they have the implied assurance of the Park Service that the water will not hurt them. To date, it is one of our best improvements.

Today we are introducing Ben Dougherty, taking the place of Charlie

WHITE SANDS (COMT)

Sutton who resigned to assume the duties of Superintendent of CCC Camp 37 in the Forest Service. We are glad to see a man of Charlie's ability and fidelity receiving a deserved promotion. Mr. Daugherty is an experienced road man and did the grader work on the original road project into the Sands.

GRAN QUIVIRA

By W. H. Smith, Custodian

Travel has been fairly constant through the entire month here. I have registered 545 visitors entering the Monument in 134 vehicles. This is quite an increase over last month and I believe it a better registration than during the same month last year.

There are 15 States represented, including New Mexico. Texas has the leading number of cut-of-state travelers for the month.

I had an excellent month up to the time school started, but I have noticed a lull in travel during the last few days.

A camp meeting convened here on August 23, and lasted until September 3, which added to the registration to some extent.

I am having some much needed work done here. I purchased four rolls of slated composition roofing weighing 90 pounds to the roll which is reputed to give from ten to 15 years of satisfactory service. I then removed the old roof which proved to be a longer job than I had predicted because nail heads would break off, making them hard to pull.

After removing the old roof I put the decking in as good shape as possible with the grade of lumber used and replaced the roof of the Museum, getting a job that should weather the storms for some time. There was some overhanging wall on the mission that looked as if it might give away and spoit this new job so I had a little patch work done on this. I think now it will be safe.

I am having some thistles cut out of the trails and around the grounds. By cutting them now, piling, and burning them as soon as they are dry enough, I think we will get rid of lots of seed. The grounds will be more pleasant for ones who wish to venture away from the beaten trail.

On August 24, I had Mr. Willard H. Andrews, Art director, New Mexico State Advertising, visiting the ruins. While here, Mr. Andrews took some pictures of the Mission and the Indian pueblo. He does some writing for the New Mexico State Highway Journal and he said he was planning to write an article on the Gran Quivira for an early issue.

GRAN QUIVIRA (CONT)

September 18, I was honcred by a visit from a party of treasure seekers who are trying to secure a permit to excavate here for the mythical 16 billion dollars in gold bullion. They propose to start their tunnel at the opening on the parking Area and excavate on a level until they intersect the tunnel Mr. Otero was working.

Weather conditions have been splendid for the past month. Nice warm sunny days and cool nights. You can see that autumn is swiftly approaching as the vegetation has about all reached maturity. The gramma grass is fine over the entire country, and it headed out, which insures the stockmen a good winter for their stock. Those in the country who were fortunate enough to raise a crop are busy harvesting beans and saving feed. *******

CANYON DE CHELLY By Robert R. Budlong, Custodian

Total number of visitors to this National Monument for the month of September, 153. Of this number, 78 drove within the canyons by car; 55 drove to the rim of Canyon de Chelly, and of these, 22 descended the trail opposite White House Ruin. Twenty persons rode horseback within the canyons.

States, represented by Cars:

1. (
New Mexico 16	Oklahomal
Arizona 14	Iowa 1
California 9	Maine 1
Cclcrado 2	South Dakota 1
Pennsylvania 1	Nebraska 1
-	Total $\overline{47}$

States, represented by visitors:

Arizona	29 28 20 8 5 4	Pennsylvania 3 Nevada 3 Cklahoma 2 Icwa 2 Arkansas 2 Indiana 2 Nebraska 1 Kentucky 1 Total 153
		Total 153

Maximum temperature for the month was 95, on the 19th. Minimum temperature, 41, on the 8th. No rain fell at Chin Lee during the month.

This has been a dry month, roads have been very rough, and are badly in need of scraping. The canyon has been moderately dry during

CANYON DE CHELLY (CONT.)

most of the month, and very dry during the latter part of the month. Since the majority of the cars visiting this Monument are equipped with standard narrow tires, the dry, soft sand has either discouraged or prevented many of them from entering the canyons.

Nights are becoming very cool, and we expect killing frosts before the end of the coming month.

The Soil Conservation Service has resumed work within the canyons. They are using a tractor and scraper on the Indian lands in the canyons in their agricultural development work. Fields are being graded and terraced, and some flood control work is being done - the diversion of water from gulleys and arroyos for purposes of irrigation.

Much of the fencing put in last fall has suffered, especially during the spring of this year. Fences have gone down, some fencing has sunk beneath the quicksands. This damage is being repaired. Posts are being pulled, and set to greater depths. By the use of metal caissons, cylinders of rock are being placed around the lower ends of the posts.

I am taking another series of photographs of this fence work, to add to the series I made last year. I also wish to secure photographs showing the agricultural development work being done by the Soil Conservation Service within the canyons, for inclusion in our records at this National Monument.

Our two PW projects here - the construction of the sewer system and water system for the proposed Custodian's residence - have been brought to a halt, due to exhaustion of funds. The sewer system has been completed, with the exception of the filter trench, which has not yet been built. The discharge pipe from the septic tank at the Thunder-bird Ranch has been connected with the completed sewer line. The water line is 90% complete. The water storage reservoir is 40% complete. We have no water supply, no well having been drilled. It is hoped that we may be able to get sufficient funds for the completion of these two projects. It would be most unfortunate, not to say highly inconvenient, if, after the completion of the custodian's residence, all those attractive chromium-plated faucets and other fixtures should prove to be merely decorative, and not at all useful.

The Indian School at Chin Lee recpened on September 16, and new pupils are still arriving.

Ranger J. D. Harritt completes this season's work at the end of this month. This will be a real blow, and we will be mighty sorry to lose him. However, we hope he may return next season. By the way, Boss - his uniform arrived some time ago, and he bought a brand new pair of boots to go with it. But the first day he were those boots he did a lot of hiking on the trail, with the result that for a week

. Ogranic na vision manne nagonago i in manenten savan napo principio de la consensión de la consensión e e e emb

CANYON DE CHELLY (CONT.)

he was limping about most pitifully. One evening about that time we were browsing through some old records concerning the Navajos of this part of the reservation around the year 1902, and found one name that seemed to suit Doug perfectly. We've tried to make it stick, but I'm afraid most people find the pronunciation of it too difficult. It is about as follows: "Hashkae ylth dol'is" meaning, "The Warrior who drags his feet over the ground."

The many peach orchards in the canyons have produced a good crop this year, and all during the latter part of this month we have had a steady stream of Indian wagons and cars entering the canyons to buy the peaches. These Indians are not counted as visitors to this Monument.

Cn the 24th of July Betty and I drove toward the Hopi country, to witness the Snake Dance at Walpi. Two other local cars left about an hour before we did, but we caught up with them about twenty miles from Chin Lee, where one of them was bogged down in deep mud. Cur three cars took turns becoming bogged down during most of the afternoon, but we reached Keams Canyon that night.

Next day we attended the Butterfly Dance at Mishongnovi in the morning, and the Snake Dance at Walpi in the afternoon. We were fortunate in being in the front line of the great crowd - in fact, Betty thought we were too close. When the snake ring was made, its circumference passed within six inches of her. She was sitting on the ground, but when the Snake Priests advanced toward the ring, preparatory to casting into it their burdens of snakes, she rose rather hurriedly, and witnessed the remainder of the ceremony standing.

We returned to Chin Lee via Holbrook and Gallup. We also attended the second day of the Indian Ceremonial at Gallup.

This month we complete the travel figures for the year. The estimated number of visitors to this National Monument for the last travel year was 650. Visitors this year, to date (this is only the 22nd of the month), by actual count, 958. Our visitors for the month of September, last year, numbered 102. This year they number 153. Accordingly, we show an increase of over 47% for this year's travel over that of last year; an increase of exactly 50% for this September over actual visitor attendance last September. Business seems to be picking up.

BANDELIER

By Earl Jackson, Custodian

VISITORS:

Visitors numbered 1594, arriving in 474 cars, from 32 states, Washington, D. C., and three foreign countries - Holland, England, and

BANDELIER (CONT.)

Hawaii. Travel drops just as naturally after Labor Day as leaves do after a hard frost.

The six highest states by travel were: New Mexico, 697; Texas, 295; Oklahoma, 134; Colorado, 169; Kansas, 57; Illinois, 51. Our travel figure compares with 1492 visitors for September, 1934, showing an increase of 102, or nearly 8%.

It is of interest to note that in preparing the annual travel report to September 30, I found an increase of 23.7% over 1934. This increase is approximately 3000.

The largest party of the month was a group of 31, from a girls' 4H club in Farley. New Mexico.

WEATHER AND ROADS:

Precipitation for the month was .40. There wouldn't have been any if stormy weather had not paid a mild visit on the night of the 23rd with a winter-type rain which does considerable good.

As is to be expected during the month-long dry season so customary after the summer rains are over, the roads have been passable at all times, but have become quite corrugated and disagreeable to travel over. I think this condition had very little to with diminution of traffic.

SPECIAL VISITORS:

August 25 - A girls' 4H club from Farley, New Mexico, consisting of 31 persons, arrived late for a visit of two nights and a day. I found them careful campers and a good group on the ruins trips.

September 5 - A party including Congressman J. J. Dempsey and wife, of New Mexico, and Paul Harvey, of the Hotel Paso Del Norte, El Paso, were in for a short visit during the evening.

September 6 - After an annual meeting of the Western Association of Fish and Game Commissioners, representing 11 western states, was held in Santa Fe, a group of 15 delegates and their wives visited Bandelier. Elliot Barker, state game warden, president of the association, and a strong booster for this place, brought them in.

September 7 - Dr. and Mrs. S. M. Adler, of Albuquerque, visited for an afternoon. Both are good amateur archeologists, and quite interested in the archeology of this section.

September 8 - Deric Nusbaum was in for a short while quite late in the evening.

September 10 - Congressman and Mrs. Clark W. Thompson, of Texas, were in for an afternoon, principally to observe C.C.C. activities.

BANDELIER (CONT.)

September 11 - Mr. and Mrs. W. J. Winter were in for a brief "hello" on their way to Casa Grande Ruins, Coolidge, Arizona. "Jack" is pretty well known to a number of you fellows in Washington, and he is sure to become well known among the Scuthwestern bunch. Won't say too much about Jack, for we went to school together at the University of Arizona, and he might tell off on me.

September 15 - Joseph A. Bursey, Director of the State Travel Bureau, was in. He is very much interested in publicity possibilities for the Santa Fe district.

Mike Hollander, Manager Radio Station KIUJ, in Santa Fe, was in, and volunteered facilities of that station for broadcasting general interest features of Bandelier.

Paul Reiter, Curator of the State Museum, and family, were in for a few minutes.

Chuck Richey arrived for a five-day stay.

September 16 - Mr. Pinkley and his daughter, Nancy, arrived for a four-day stay. Jack Diehl accompanied them.

September 18 - Miss Isabelle F. Story arrived, and the Custodian was much pleased to meet the Editor-in-chief for the first time. In her two days here, despite the fact that she had an injured arm, she managed to cover as much territory as anybody else, and to see a great deal.

FOREST FIRES:

We have been so phenomenally lucky this year on forest fires that I put this caption in only to call attention to the conspicuous absence of fires during September. Since October 1, 1934, there has been only one reportable fire on the monument.

NATURE NOTES:

Fall is approaching, cold weather is soon-to-be, and the tent caterpillars are again less numerous. But they got in their unsightly work before they left. The cottonwood trees are stripped almost as badly as they were last year, and some of the Gambels Oaks are affected.

The caterpillar pests are gaining a foothold in this country, it seems. Every year some part of northern New Mexico is devastated by them, and they shift about frequently in intensity. Great areas of quaking aspens north and west of Santa Fe are completely stripped of leaves.

Under a W.P.A. project in Santa Fe it is planned this winter to make an intensive study of the caterpillars. They will be artificially

BANDELIER (CCNT.)

kept warm this winter and developed in a laboratory, and seven or eight different types of parasites will be tested to determine which is most efficacious. A few days ago I talked with Norman Appleton, the man who is in charge of this test work. He is interested in our caterpillar problem in Frijoles Canyon, and learning of our interest in his work and control possibilities has agreed to keep me posted on developments in their work. Next month it seems we may learn something of interest from him on the experiments.

Deer appear to be growing more numerous of late. Several have been seen in the last week on the mesa levels above Frijoles. A few nights ago a tourist ran into a large buck with his automobile, apparently not seriously injuring it, for it left on all fours with no loss of blood, at great speed; he really side-swiped the creature.

Jim Fulton, forestry foreman, has been busy of late gathering herbarium specimens for permanent keeping here, in anticipation of a museum. A list of botanical types was started here last year, and this list has been gradually growing. A partial listing of Fulton's identifications will be appended to this report each time he has time to prepare more specimens.

Betty Jackson (my better half) is now started on bird-banding, and has been checking birds to see how many of the types observed by Mr. Borell in August are still here in September. Her list is appended.

GENERAL:

This has been quite an interesting and satisfactory month from our standpoint. Ranger Hendron and I have found a very interested run of visitors, as might be suggested by the long list shown of special visitors (which could be much longer).

As a result of the visits of Messrs Pinkley, Diehl, and Richey (fortunately they were all here at the same time) many problems pertaining to permanent development were settled, and other valuable points were also settled by Mr. Pinkley.

Educational progress is well under way again with steadily growing information on flora and fauna of this region.

The Custodian has found time to undertake some experiments in construction of small sections of mud and stone walls with varying admixtures of cement and sand contained. The purpose of this work, done at odd times, is to leave a number of specimens of walls standing under normal weathering conditions until such a time as we may hope for rehabilitation projects on ruins. From all these test sections, we should learn, when we destroy the sample walls, just which mixture is strongest and best in appearance. Reckon it's about time to sign off, and let someone else talk.

CHIRICAHUA

By Wm Stevenson, In Charge

I herewith submit the following Monument report for the month of September.

Heavy rains during the month of August have left the approach roads to the monument in bad condition. This probably to some degree accounts for a 50% decrease in travel from last month. 576 visitors arrived in 141 cars, bringing the total registration since June 1, 1935, to 5,320. 17 states and Panama were represented.

During the past two weeks freezing temperatures have been noted each morning and preparations for winter are being made.

Mr. Borell of the Wildlife Division was a visitor here this month. He expressed his approval of the Wildlife pool created near the spring Development Area.

CHIRICAHUA ECW

By Wm Stevenson, Project Supt.

Echo Canyon Horse Trail is progressing satisfactorily. Only a small crew has been available for half of the month on this project due to a shortage of men. 2800' have been completed to date. 900 feet have been completed this month on Sara Leming Trail.

The Bonita Canyon Campground is complete. Campground roads have been graded and surfaced, fireplaces and parking stubs finished and a few landscape touches added this month. Fireplaces and tables are being shown as 100% complete as the 20 which have been built are adequate for the present Campground. Dip No. 1 in the Campground has been completed.

The headquarters and Campground Water systems are complete. The 4" line from the 10,000 gallon reservoir to the headquarters area has been completed this month.

The spring development area has been fenced this month marking the completion of this project.

The Headquarters Comfort station is complete.

Eight hundred feet of road obliteration has been accomplished this month.

Heavy rains during August combined with several showers this month have necessitated keeping a maintenance crew on Massai Point road the entire month.

The Forest Service cabin at Rustler Park is complete. Materials are all on the ground for the Fly Peak cabin. Mr. Winn, supervisor of

CHIRICAHUA EC# (CONT.)

of the Coronado National Forest, has agreed to finish the Fly Peak Cabin and the remainder of the Forest Service projects on our program.

We were visited this month by Mr. Borell of the Wildlife Division and Mr. Diehl and Mr. Tovrea of the Coolidge Office.

EL MORRO RANGER By Alfred Peterson, Temporary Ranger

Visitors since August 25, 240.

Since it will be necessary for me to leave for Tucson not later than the morning of the 13th in order to register at the University for the coming year, I shall at this time submit a brief report covering the time since the last monthly report.

For the past week or more, the weather has been dry, but during the last few days in August and the first of September rains damaged these dirt roads and travel was slow. However, we have had some very interesting visitors, among them being Dr. F. W. Hodge, Director of the Scuthwest Museum, and party including several artists. Dr. Hodge first visited El Morro in 1889, at which time the large arroyo, now filled in with C.W.A. labor, was only a small ditch that one could step across or at the most a short jump. He was very keen about wanting to spend several days here but could not because of having been chosen as a judge for the Inter-Tribal Indian Ceremonial at Gallup. The party had camped at the Vogt Ranch the night before, and Custodian Vogt treated them to a picnic dinner in our Nine Pine Cove at noon of the day of their visit.

Incidentally, Dr. Hodge wanted a set of my pictures for the Museum, but I am of the opinion that he ought to have a set of those excellent Park Service photographs that Mr. Grant took last spring.

On August 30, the famed writer, Rupert Hughes, and his charming red-headed wife, were here. Mr. Vogt had met them in Gallup and promised them a picnic dinner at El Morro. Mr. Vogt had to leave for his mining job, but Vogtie, Jr., ably carried on and gave a most excellent demonstration of the Vogt hospitality. I never did tell my pal Vogtie what nice things Mrs. Hughes said about him for fear he'd get the swellhead. Their visit was a complete success, I believe, and a most enjoyable one. Mrs. Hughes was thrilled at her first out-door dinner cooked in a dutch oven.

September 5, after a slack spell, was a good day for visitors, and among them were Mr. Ralph Anderson and his wife. Mr. Anderson is Park Service photographer at Yosemite Park, and introduced himself as a member of the family - especially as we both have Scandinavian names. The Andersons expressed themselves as highly pleased with their visit, complimented the ranger, and expressed regret that the end of day made

EL MORRO (CONT.)

it necessary for them to be on their way. The Southwestern Monuments report was mentioned, and Mr. Anderson exclaimed enthusiastically that they certainly did enjoy reading it. It would seem, Boss, that your particular branch of the Park Service has a distinctive personality.

The frames I designed for holding translation cards three years ago are still working in fine shape. These particular frames were made in somewhat of a hurry, were not quite completed according to plan, and yet they are giving good service. In order to be a success they should be very carefully made and due observance given to details that might be easily everlooked. For instance, one frame did not have the end pieces carefully fitted and driving rain found a crack - which I stuffed with gum. Of course, some of the cards in the frames were water-stained before being put in the new frames and may give the impression that the present frames are not giving proper protection.

Regarding the water pipe from the Cove to below the Cabin, I plan on leaving it just as it is - with the hose attached and all. Vogtie can keep check on it until freezing weather threatens, when it will have to be taken care of. I would suggest that, at that time, the plug be removed from the "T" fitting at the high point at the dam, and that the hose and everything - including the valve - be removed from the lower end and stored. This will prevent the possibility of water accumulating in the pipe and freezing. Also, the end of the pipe in the water should be raised and held above the water level.

The nights and mornings are growing chilly and a fire in the little wood-burning cook stove does not come amiss. Therefore, I think it best that I put the new Coleman Cabin Stove back in the carton it arrived in and stow it under the table. I think it will be safe, especially since I think most of the local people are friends to the Monument.

As cowered by Time Slips already submitted to your office, work has been done on some of the erosion dams in the arroyos cutting the surface of the monument soil. This work was authorized by Custodian Vogt on his last visit at the Monument, and, accordingly, I located a truck and driver and two helpers to haul brush and lava rock from the areas beyond our boundary to build up weak spots in these dams. The job was bigger than anticipated, but I think the dams are OK until next summer. We are learning something about how erosion dams should be constructed.

Any necessary additions to this report will be made in person within a few days when I expect to be in your office on my way to Tucson.

EL MORRO CUSTODIAN

By E. Z. Vogt, Jr.

The month of September has been rather quiet around here with the

EL MORHO (CONT.)

custodian and ranger both gone and few visitors traveling the El Morro Scenic Highway. The custodian left on the first and Pete left for Tucson on the 15th.

WRATHER AND ROADS:

We are having usual beautiful fall weather, warm sunny days, when the autumn sky looks its bluest above El Morro's towering pinnacles, followed by cold frosty nights, when one can sleep like a million dollars breathing the fresh crisp air.

The roads are in their usual condition——rough but dry and quite passable. A rare specimen of public interest was the county grader that chugged into Ramah one day this month. The people of Ramah ran out their front doors to catch a glimpse of this grader like a bunch of Zuni Indians when they first saw an airplane. The smooth condition of the roads after the passing of the grader was soon ruined by prop haulers and well drillers who traveled the roads with their heavy trucks after the first rainstorm.

VISITCAS:

Most prominent visitor of the month to brave the roads and see El Morro was Rupert Hughes, famous author and scenario writer. Mr. Hughes was accompanied by his charming wife, and both got a big thrill cut of their half day visit. It was here in the Nine Pine's Cove that they ate their first meal cooked out-of-doors over a camp fire. Mr. Hughes was greatly impressed by the fact that homesteaders hauled the dirty-looking water from the cove as far as 25 miles.

Another eminent visitor was Major-General Van Deman, U. S. Army, San Diego, California. With him was his wife, Irene Van Deman who runs the V and R Ranch in the Jemez Mountains.

FLORA AND FAUNA:

Never before have I seen the gramma grass cure in such fine shape as it is this fall, especially inside the monument fence where the grass is a foot high and has taken on the reddish color of cured gramma. The Rocky Mountain Bee Plant and clover in the reclaimed area have gene to seed and prospects for a luxuriant growth over this area for next year look very promising.

Pinons are scarce this fall, and the numerous flocks of Pinon jays are consuming the whole crop. These jays poke their long beaks into the green cones and extract the pinons before the first hard frosts crack the cones open and permit the nuts to drop to the ground. This method of obtaining the nuts gives the birds a start on the Indian pinon pickers who must wait until frost.

EL MORRO (CONT.)

SIDE-INTEREST STUFF:

One night moonlight night about two weeks ago, I was attending a corn roast near the ranch, when about ten-thirty a Navajo horseman loped his tired horse over the hill past us and on towards Ramah. Ten minutes later Wilfred Ashcroft, the Indian Stockman who has charge of the Ramah Chapter of Navajos, sped by us in his Indian Service car traveling south. We knew that something serious was happening among the Navajos south of Ramah.

Next day was Sunday and enroute to El Morro I stopped at Puerta Gigantes to investigate the matter. In very poor Spanish I was told the story of a thrilling but most brutal fight that took place there the night before. It seems as though Richard Pino and squaw rode into Puerta Gigantes settlement as drunk as lords. The squaw soon became hysterical and frightened her horse which started to run away. In an attempt to stop the horse, Frank Martin grabbed ahold of the horse's bridle. This enraged the squaw and she called her husband. Richard Pine, of course, began to call Frank all sorts of bad names in English, Spanish, and Navajo. Then Frank lost his temper and talked back. Richard soon found a pinon club, and Frank in sheer defense grabbed a similar club from the wood pile. A terrific fight ensued in which Pino was knocked down and lay for two hours unconcicus and bleeding badly in front of a hogan, the other Navajos being afraid to touch him. By the time the Indian stockman arrived, Richard had getten up, and the effects of the whisky having worn off, he was already settling his trouble with Frank.

I was shown the battered combatants sleeping in the shade and large spot of dried blood where Richard had lain unconcious. Where these Indians get their whisky is not known exactly.

GENERAL:

Last Sunday I noticed a few lightly-scratched names above the Martinez inscription on the north face of the Rock. These names belonged to Mexican sheepherders and were soon removed. But it shows
that people are violating Monument rules and that such people will
have to be watched more closely in the future. It is possible that
they can't read the signs forbidding the engraving of names on the
rock, in which case they will have to be told and the matter explained
to them.

There seems to be little danger of the water overflowing in the cove and washing an arroyo in the reclaimed area. The water is fully two and a half feet below the level of the spillway, and homesteaders are hauling water from it every day. By the first snowfall, if we don't have any heavy fall rains, the water will probably be low enough to prevent any overflow all winter. However, I shall check on it each week and let water run out of the pipe for a day or so if we have any SOUTHWESTERN MONUMENTS

172 MONTHLY REPORT FOR SEPTEMBER, 1935

EL MORRO (CONT.)

rains.

Necessary repair work done by two local men and myself on the erosion control dams in the big arroyo south of the ranger's cabin. With an old Chevrolet truck ten loads of lava rock and six loads of cedar brush were hauled and dumped into the yawning holes in five of the dams, which will now hold until spring and prevent further washing of the arroyo.

TONTO

By Woodrow Spires, In Charge

WEATHER:

This has been a very pleasant month. The maximum reached 103, with an average of 95 degrees. The minimum was 65 degrees, with an average of 70 degrees. This gives a mean average of 82 degrees, which is unusually low for the month of September.

Precipitation for the month was 1.49 inches, which is less than a 1/3 of that for last month. Withstanding this decrease, the dam is holding its own which shows more precipitation on the higher drainages.

TRAVEL:

During the month, the Monument was visited by 338 visitors, of which 226 climbed the trail to the Lower Huin and 22 continued on to the Upper Ruin. This gives 56% of the total visiting the Lower Ruin and 6% of the total visiting the Upper Ruin. All of the visitors to the Upper Ruin first visited the Lower Ruin, so we still have 34% of the visitors who can see the ruins from the parking area only 5/8 of a mile away.

This is about the same as having seen a newspaper on the rack across the street; you could not tell whether it is the Los Angeles Examiner, New York Times, or the local weekly. You cannot tell whether the ruins are constructed of adobe bricks, solid stone, or puddled formation. Yet 34% of the visitors say, "We can see it from here, why waste our time and energy climbing that hill," and drive away, thinking what a sap that fellow was to think we would climb the hill to see that stack of mud, rock, or whatever it is.

When their friends say, "did you visit Tonto National Monument?" They say, "Yes, it surely was interesting, wasn't it?" Probably 10% of the 34% are physically unable to make the trip. That would still leave 30% of the total in this class.

SPECIAL VISITORS:

August 27, Mr. and Mrs. Salon Ayers of Alpine, Texas, which is the

TONTO (COMT.)

home of Texas State Teachers College, where Mr. Ayers is employed as Professor of Commerce, stopped for a short visit which ended in their spending the night and next forenoon at the Monument. The reason for this extended visit was a high center in the road and the low center of their coupe, a difficulty which could only be straightened out by a mechanic. They said it was a very enjoyable visit and they were well repaid for their delay.

September 1, Mr. John H. Farbes, traveling freight and passenger agent for the Atchison Topeka and Santa Fe Railway Company, accompanied by two Boy Scout teachers, spent the afternoon and night at the Monument, visiting both the Lower and Upper Ruins and left good boosters for the Park Service.

September 14, Mr. J. H. McClure, former Freight and Passenger Agent for the Southern Pacific, arrived at the Apache Lodge for a short visit. Since then he has been over to the Monument twice. Mr. McClure is responsible for the improvements which were instituted on the Monument by the Southern Pacific in 1930-31.

September 25, Dr. C. a. Lieb, one of the leading athritis specialists of New York City, spent a half a day, visiting both the Upper and Lower Ruins.

GENERAL:

Another month without a brass hat; it looks as though this is the forgotten Monument, as Charlie would probably say, "not even a towel inspection!"

I am still waiting for that promised visit of Junior Naturalist King, who is going to help straighten out a few tricks with which I am not familiar.

The rattlesnakes are quite pesky at the present; you have to watch every step in the evenings. I have killed 14 this month. The Fraziers killed two on their back porch. They seem to come cut only in the mornings and evenings; as it is probably warmth they are seeking, they coil up in the road basking in the late evening sun mostly.

In the spare time I have worked on the trail, the road, the Ford and the spring, which has kept me fairly busy on the slack days.

WALNUT CANYON

By Paul Beaubien, In Charge

1214 visitors registered this month to bring the total for the year to 8356. There are actually more visitors during the whole year as the register sheets for January, February, and March were blown away. ProbSOUTH/ESTERN MONUMENTS 174 MONTHLY REPORT FOR SEPTEMBER, 1935

WALNUT CANYON (CONT.)

ably only a few more than a hundred registered during those months due to the bad condition of the entrance roads.

Have also found that many visitors do not register unless I am at the Observation Point to request them. Often only the parents register for a large family and many parties are timid about forcing themselves into the register booth when another party is before them.

There is a bit of fall in the air and I expect but few campers till next June. Two or three Temporary Rangers have passed through recently, and I am thankful for the trail money assigned here. Am digging some garbage pits to get in shape for the more strenuous trail making.

The engineers have finished the topographical maps of the important areas here and are now working at Sunset Crater. Addison Pinkley, Rodman, left to attend the University of Arizona while Cliff London arrived to take his place.

Andy Clark, topographer, spent two evenings printing some trailside signs for me. Have received more compliments on their lettering than on the information displayed. Last Sunday Andy talked of substituting for me awhile for the experience. The first party to arrive asked to have their two babies watched while they took the trail to the cliff dwellings. Without hesitation Andy decided to work on his maps.

TUMACACORI

By George Boundey, Custodian

Visitors for September, 937.

This has been a month of much rain. Every water hole is filled and not a cattleman complaining.

Flowers which have not been in evidence in several years are now in full bloom; many of the varieties are new to me.

As you know we have a teacher from San Diego and conduct a small school for our children here on the Monument.

With the aid of the bird book Mr. Rose so kindly loaned us, the school has very carefully identified the following birds for this month. I believe the Naturalists will be interested in one or two of those mentioned.

Scissor-tailed Flycatcher. (I spent the summer of 1916 keeping up the water for the McNew and Beard interests at the very edge of the White

TUMACACORI (CCNT.)

Sands cpposite Alamogordo, New Mexico, and the Scissor-tailed Flycatchers were fairly common there and in the foot hills of the Sacramento Mcuntains near Alamogordo. This is the first specimen I ever saw in these parts.)

California Cuckoo
Scott's Oricle
Louisiana Tanager
Cardinal
Arizona Blue Grosbeak
Lazuli Bunting
House Finch
Green Back Gold Finch
Vermillion Flycatcher
Yellow Breasted Flycatcher
Western Red Tailed Hark
Sparrow Hawk
Ferruginous Rough-leg Hawk
Sharp-shinned

Fox Sparrow
Scott Sparrow
Desert Black-throated
Western Vesper Sparrow
Western Lark Sparrow
Black throated Desert Sparrow
Sage Sparrow
Rocky Mountain Song Sparrow
Black Phoebe
Road Runner
Rocky Mountain Pygmy Cwl
Gila Woodpecker.
Phainopepla
Great Blue Heron

Meat is a great delicacy among the Indian population in this vicinity and all during the summer months' nesting time and all the guns have never been silent until this year.

Some time ago, when Mr. Evenstad and I received our appointments as game wardens, we let it be known among the population round about the Mission that we would arrest any one killing song birds that had state protection, or any birds killed out of season. The result is that even the Sonora Pigeons have finished their nesting this year and all birds are much more plentiful than ever before.

A dove and pigeon shoot was scheduled by one of the Fude Ranches near here for Sunday afternoon. It was before the law was cut for either dove or pigeon so I sent word over that I hoped I wouldn't have to do anything about it. When the guns began to pop I took a walk over there and we have never had any trouble since.

An item in the Tucson Star this morning is to the effect that some land in the vicinity of this Monument is to be added to the Monument by purchase. If this item is true, it is undoudtedly a strip of land lying to the north and east of the Monument and not only includes foundations of other walls and buildings but also includes a strip of timbered and brush land lying along the river bottom which is a very paradise for birds both nesting in this locality and those in migration. I believe this purchase would be the greatest addition the Monument could receive.

TRAVEL:

171 guests registered at Wupatki Pueblo; 160 registered at the Citadel. 81 names appear on both registers, leaving a total of 250 visitors to this Monument in September, 1935. (September, 1934: 194; September, 1933: 57).

There were two overnight camping parties.

At Citadel a heavy rain on the night of the 25th and another a short time later washed a hole through the roof at Nalakihu and flooded the floor so that some visitors to this group were unable to register.

WEATHER:

Definitely pleasant. High temperature 33 degrees on the 18th; low 55 on the 24th. Precipitation: Unmeasureable traces on the 4th, and 18th; 1.4 inches on Elst and 25rd.

NEWSWCRIHY VISITORS:

Rain-gauge imspection brought Dr. Colton and Miss Bartlett through the Monument on August 30.

Mr. and Mrs. Carl E. Schmidt with Addison B. Pinkley, all of Walnut Canyon, N. P. S. topography crew were here September 2. When I write "all" I mean all, because Beth is crew, too. Paul Beaubien and his brother-in-law were also here on that day.

A picnic of 12 on the 3rd was joined by the Brewers on Dr. and Mrs. Colton's invitation. Young America visits Wupatki!

Mr. and Mrs. Horace M. Albright, son Bob, and daughter Marian, were here September 7 with Mr. and Mrs. M. R. Tillotson. None of those folks need any further identification, but your local representative had to remove a film of house building mud before he was recognizable on that occasion.

Mr. E. W. Haury with Mr. and Mrs. L. L. Hargrave on the 13th (see Bowl).

On the 16th Miss Laura Gilpin, noted Southwestern photographer with Miss E. D. Forster, former Indian Service nurse, spent the afternoon taking pictures, the evening visiting cur local Navajos, and the next morning photographing Wukoki. Miss Gilpin expressed appreciation of our ruins, and Miss Forster liked our Navajos---two sure ways to our hearts.

Photographer followed photographer --- Mr. George Grant arrived on the 21st; we were glad to see him in our part of the Southwest at last.

WUPATKI (CCNT.)

CHEIRCTHERIUM:

For twenty-nine and one-half months I've been drilling our local Indian friends to bring to me everything they see that is unusual--- archeological, geological, or ethnological. On Sunday, September 15, my labors were rewarded when Clyde Peshlacai rode into Wupatki carrying a Moncopi Sandstone cast of a "dinosaur" track. Not only is this the first occurrence, to my knowledge, of a cast found near the Monument, but also seems to be larger than any found elsewhere. (see Supplement)

Perhaps I should add that the "unusual" offerings are not always so unusual to our unimaginative way of thinking; Clyde's other offering of the same day was a curiously shaped bit of lava which he explained was the throat bone of an animal made of the blood of the "Monster Evil" killed a long time ago by the Holy Twins!

BCWL:

About 2C feet north of the present parking area at Wupatki Pueblo is a "problematical" structure that has been known as both a Bowl and a Reservoir.

It is roughly 90 feet long on its N-S axis (inside dimension), and 40 feet wide on its E-W axis. Its walls rise about 2 feet above the present surrounding surface, and the interior level is now about 7 feet below the top of the massive walls. The thickness of the wall at their base is unknown, but about 5 feet (average) is indicated on the surface, while the walls widen toward the base. No indications of a roof are visible. A depression in the top of the wall, where a N-S axis would cut appears on both the north and south ends.

That's just about the way I described our "bowl" when Sallie and I visited the Snaketown dig where Mr. Haury, Field Director for Gila Pueblo, was working a similar structure.

This Snaketown structure, Mr. Haury believes, greatly resembles the "ball court" known to have been used in Aztec, Toltec, and Mayan cultures. If such a distinct culture trait is found common to Mexican and Central American civilizations, Hockams, and Puebleans a very interesting field of conjecture opens. Hence the interest in the Wupatki "bowl" was greatly heightened, and Mr. Haury made a special trip to see it this month. He concluded that we very possibly have a ball park; impressive similarities between this and type structures are the general cutline, the massive receding walls, and the end depressions.

We're hoping to have these similarities checked by excavation as soon as possible.

NATUPALIST ACTIVITIES:

The first mammal to move into the new specimen case is Catalogue Number Z.100B, a Cottontail: Sylvilagus auduboni. Immature male; Sept.

WUPATKI (CONT.)

£

13, 1935, and he's expecting a lot of company real soon.

Also in the case are three botanical collections of plants bloomed, to date, on the Monument.

A letter from Chief Ansel F. Hall states that the collection I forwarded to his office for identification has been turned over to Dr. Mason.

Three visitors to the Monument on the 19th reported 3 wildcats seen near Heiser Spring. One of the visitors was Dave Pierce, C.W.A. employee, Project 10, Wupatki.

Sallie and I saw a coyote on the 17th in Deadman's Wash.

Looks like I've ocvered the month to date (9/21), welcomed Louis Caywood this morning, and am all ready to take off for a two week vacation. (What's an Honorary Custodian Without Pay's status while the Custodian is on a vacation without pay?)

Louis is going to round out the report with some of his impressions of Jupatki.

Rain, rain - go away, come again some other day - Lcuis and Winnie would like a chance to look over Wupatki. We were reyally received by Jimmie and Sallie upon our arrival here Saturday morning, July 21, and given the key to the Pueblo. The day was spent on a hurried inspection of the Mcnument and explanations of various little details that were to prove helpful.

Sunday dawned bright and clear, (July 22) and we saw the Brewers off on their journey. Quite a busy time was spent showing a total of 16 visitors over the Monument strung over the entire day. The weather from that time on has been very disagreeable - cloudy with rain and wind thrown in. Monday morning I baited the bird traps and put one down by the spring outlet, the other being behind the pueblo, hoping to be able to do a little bird banding while here. So far I have caught one antelope ground squirrel and one SAGE THRASHER. The Thrasher now carries band number 35-130451 of the Wupatki bands. Here's hoping the bird banding business picks up.

Winnie and I are very much impressed with this Monument so far and hope that the weather will permit our seeing more of the surrounding country before we leave here. The Monument shows a great deal of care and hard work. The trails are well laid out, also well kept and the roads into the ruin and within show attention and are certainly well signed. Jimmie and his H.C.W.P. are doing a good job.

We have been expecting to welcome the Boss and his party to Wupatki SOUTHWESTERN MONUMENTS 179 MONTHLY REPORT FOR SEPTEMARK, 1935

WUPATKI (CONT.)

for the last fer days, but so far they have not arrived. We hope they don't forget us. (Sept. 25)

YUCCA HOUSE, HOVENWEEP By T. C. Miller

Following is the report for Yucca House and Hovenweep National Monuments for the month of September:

TRAVEL AND RCADS:

35 pecple have registered in our new book for the month of September at Yucca House, coming from the following states: Arizona, California, Colorado, New Mexico, New York, Missouri, and Washington, L. C.

The Monument boundary fence was up and the gates were closed. The roads were dry and passable. It was a great pleasure to inspect Yucca House and Hoverweep with the Superintendent's party.

HOVENWEEP:

I arrived at Hovenweep on the 23rd about noon. It was a pleasant surprise to find the Superintendent's party on the job, with a fine lunch spread out under a big juniper tree. After having our lunch, we looked the place over. We found a few new names scratched on the walls of the Ruins. The new names were dated August, 1935. Boss, do you think it would help if I build a box and establish a register at those ruins? Then the visitors could paw over that, write their names and date their visits. This might help at a Monument where there is no Custodian. I would like to try that with your permission.

CHACO CANYON

By T. C. Miller, Custodian.

Activities in the Chacc Canyon National Monument for the month of September were as follows:

CENERAL

Heavy rains during the first part of the month washed out our roads and completely stopped travel from the south for three days. The road to the north was passable but badly washed, and very rough until we got the washouts repaired and the road graded. Costodian Faris, Aztec Ruins, was good enough to lcan us his road grader. We already had the Aztec Ruins truck borrowed, so with this equipment we graded and repaired 10 miles of road. We greatly appreciate the loan from our good neighbor. We now have our roads passable, to say the least, and the visitors are coming again.

CHACO CANYON (CONT.)

WEATHER:

Maximum for the month was 89 degrees on the 19th. Minimum 41, on the 11th. Precipitation .92 inch was recorded for the month. The greatest in 24 hours was .54 on the first.

TRAVEL:

875 people arrived in 284 automobiles, coming from 22 states and the District of Columbia. For the same month last year, 670, - an increase of 205 people. Travel from October 1, 1934, to and including September 30, we had 6565, for the same period last year 6068, an increase of 497 people. Over night campers for the month, 116.

SEPCIAL VISITORS:

The Jemez field School headed by Dr. Edgar L. Hewett, Dr. R. G. Fisher, Dr. Donald D. Brand, from the University of New Mexico, Dr. G. E. Bowden, and Dr. F. R. Fairclough, University of Southern California, arrived on the 25th of August and departed on the 26th.

Junior Naturalist and Mrs. Louis R. Caywood arrived September the 4th and departed on the 5th. Park Naturalist Rose arrived on the 8th. Bob's visit was not official, but we were mighty glad to have him.

The Monument was inspected on the 20th and 21st, by Superintendent and Nancy Margaret Pinkley, Miss Isabelle Story, Editor-in-Chief, National Park Service, Washington, D. C., Associate Engineer John Diehl, Southwestern Monuments, and Charles A. Richey, Resident Landscape Architect. We were glad to have this party with us. We hope they come again, and stay longer next time.

CENERAL IMPROVEMENTS AND MAINTENANCE:

On September 18, the north approach to the Chaco Bridge collapsed. We spent the following two days repairing it. It required 12 loads of rocks, 2 loads of brush, and two loads of dirt, to rebuild the approach. We have maintained 9 miles of our approach road to the south, and some of our road here in the Canyon, using the Dodge truck and grader we borrowed from Aztec Ruins. We also put in one box culvert here in the Canyon to the South of Chaco Wash, a bad mud hole where traffic was continually sticking after each rain.

The big signs at Chetro Ketl and Pueblo Bonito have been repainted, also several small ones. Most all of the weeds at Chetro Ketl and Casa Rinconada have been cut and burned. Pueblo Bonito has been cleared of weeds, inside and out; however, we tried to leave all the grass and flowers that we possibly could. We burned most of the weeds, etc. that had drifted in against the fence that incloses Pueblo Bonito.

One ramada, just east of the old one, on the Public Camp Ground, has been built during the month. The old ramada was good, but too small for the big parties that we have handled this season.

CHACC CANYON (CONT.)

PERSCNNEL:

Temporary Ranger McKinney's appointment expires September 30. Before he signs off I want to thank him publicly for the splendid manner in which he carried out all assignments given him. Mr. McKinney has made the Service many friends here at the Chaco this summer. He has proved to be one of the best men I have had the pleasure of working with during my ten years in the Service. We regret very much to lose him; we can only hope to have him back again next season.

PIPE SPRING

By L. Heaton, Acting Custodian

At the close of another travel year, I have been thinking of what success or failures I have made with the public in giving them information and courtesies expected from a custodian. I think we have had a very successful year, with few complaints and a little praise and a lot said half way between. There seem to have been more people interested in the fort that last year as our figures show there were more tourists this year than last and less local travel.

My greatest problem in handling the visitors is when some local friend brings some relative or other person cut to see the Monument, and in their enthusiasm to show the place off they do all the talking. There are lots of interesting points that are missed and some mistakes made which I can hardly get corrected if at all. Maybe I don't have the knack of capturing the interest of these local people who think they know all about the place. If there is any one in the Service who can help me out in this matter, I would thank them a lot.

Travel this month came in as usual with only a day or so that the roads were washed out in places, but several parties stated that they would not have missed the Monument for anything.

Cur visitors came from the following states: Utah, 102; California, 6; Cklahoma, 8; Wyoming, 6; Texas, 2; Chio, 4; Montana, 3; Washington, D. C., 1; Arizona, 108; N.P.S. 15; U. S. Army, 16; N.F.S., 4; C.C.C., 1C; Nevada, 2; local travel, 184; total 472. The last 7 days, I estimate at 105 making a total of 576 for the month of September.

We have had 11 campers here---the most that we have had for months; in addition, there were 15 or 20 workmen on the CCC camp construction.

Weather records show that the month has been rather dry, getting colder as the days go by; last week there have been several storms in the mountains.

Trees and plants are making ready for their long winter's sleep; the late flowers are giving us their beauty as a last farewell for the summer season.

PIPE SPRING (CONT.)

I have a very good start on the plant collection end of this Monument that I intend to study this winter and maybe with the help of the good wife we can get them named and a report sent some time before spring. There is surely a good field to work in plant life in this Monument, as I have upwards of a 100 plants now, and I am sure that I have not collected all species.

Some local news that might be of interest to you and to be included in the report:

The stockmen are out gathering their cattle for sale. Some loan outfits are asking for their money, and, as prices are good, the cattle will be sold.

After today there will be no CCC's or Army officers here in camp for a while, as this cutfit has been ordered to Finto, Utah, to build another camp. Who will take their place, we don't know. A Mr. Crane will be superintendent of the ECW projects. The other Foremen, I have not heard from.

I think we have work cutlined for the boys for the two weeks that they are conditioned here if the ECW has the equipment to work with. Mr. Cowell came out on the 21st, and we went over the program and cutlined the work that we thought would best be done first, such as the cleaning cut of the drain, filling up of the wash, fencing and road grading.

I am in hopes that the campground program will be approved so that we can get it ready for the planting of the trees this fall or winter.

I have had to return three more pieces of Picneer relics to their cwners.

I am beginning to think that the Park Service is going to have a hard time to collect the furniture that will be needed to furnish the fort as it was in the early days. There are several organizations in the country that call themselves The Daughters of the Pioneers, and their project is to preserve the pioneer relics, and each town has a place to show them to the public. We may be able to get them to see the benefit of having their stuff placed in the Fort here, as it is the Monument to those early Pioneers.

As the school year is here and I have children attending, I am moving the family to Moccasin for the year at least during the coldest part as I find it is rather hard on them to make the trip and it is a large expense to make the trip twice a day for me. So I think it best that they live closer to school. By the time the next report is written I will have to do my fall clean-up of dead weeds, leaves, and what not. So will continue my report next month.

MONTEZUMA CASTLE

By Martin Jackson, Custedian

Another month has rolled around as well as another travel year. We made a fair showing in way of visitors for the month, with 1782 compared with 1839 this month last year, but even so we are off for the year compared with last year. Will not offer any reasons at this time for our being off in number of visitors as I dwelt quite in detail on this subject in the past months.

The reads leading into the monument have been and are at present in the worst condition in years due to unusually heavy rains during the summer, and believe it or not, visitors do not fail to inform me of the fact and a big percentage seem to be under the impression that it is entirely my fault or negligence, and some seem to be quite surprised when I inform them that we have no say whatever about the roads outside the Monument boundary.

While the rains have brought about bad road conditions, they have produced very fine range conditions for the stockmen. One of the old timers told me a few days ago that he had lived in the district for 50 years and had never seen as much grass as can be seen this year. Cattle are at a good price and buyers plentiful. With the Phelps Dodge smelter at Clarkdale turning out copper again and adding more men to their pay rolls the outlook for the district is better than it has been for some time.

Cur old friend and booster, Charley Bell, who has a cattle ranch to the north of us recently drilled a well for stock water. At a depth of 185 feet he got a good flow of artesian water. This well is about 3-1/2 miles almost due north of the Monument. I think this rather strangthens my argument in favoring an attempt for artesian water here instead of a pump or water ram which has been suggested. Will take this matter up with you at another time.

We had a visitor during the month that had put in quite a bit of time in some of the national parks. He remarked that at times the bears had the bad habit of entering tents and making themselves quite at home by helping themselves to any and everything in the place to eat. He said that he had gotten a bad burn before entering the park and that he had been using Sloans Liniment in treatment of the burn. He admitted that he was a great believer in the liniment. He was not strong for the smell and that he could see no reason why even a wild bear would be. So he saturated a rag with the liniment and hungit out in front of his tent. He further insists that the bears took off and stayed off. Am perfectly willing for any one to take this information for what they think it is worth. As for myself, will simply say that it is not an argument for or against Sloans Liniment.

Norman Jackson, who has been taking an active interest in birds

MCNTEZUMA CASTLE (CCNT.)

of the southwest, reports having seen the following on the Monument for the first time.

Egret Green Tailed Towhee Western Blue Grosbeak Ferruginous Rouch Leg Hawk

CASA GRANDE

By W. J. Winter, Custodian

The report this month is written in collaboration with Ranger Charlie Steen, who was Acting Custodian until September 16. In fact, I am told that by that time the outfit here was beginning to doubt if a man named Jack Winter really existed, as my date of reporting for duty was deferred several weeks past that originally planned. However, we finally managed to get here the night of the 15th and were most hospitably received. Our furniture was days overdue, as freight shipments are liable to be, and we shall always be grateful to Hugh and Christine Miller for taking such excellent care of us until we could move into our own quarters.

Our visitor count for the past month totals 1691, a substantial increase of 262 over September of last year. It is also an increase of 315 over last month.

Among visitors worthy of notice we find Dr. and Mrs. E. W. Haury of the Gila Pueblo, Globe, Arizona, accompanied by Dr. and Mrs. F. H. H. Roberts, Jr., of Washington, D. C. Dr. Roberts is with the Bureau of American Ethnology, Smithsonian Institution. September 23 the ruins were viewed by Dr. Lad Cutak and his assistant, Mr. Arthur Christ, of the Missouri Botanical Gardens in St. Louis. They were on a field trip taking pictures of desert flora and were en route to the Thompson Arboretum. September 26, we received a call from Arizona's Congresswoman, Mrs. Isabella Greenway, with a party from Tucson.

Last, but by no means least, we yesterday had the pleasure of greeting Director Cammerer. This was Mr. Cammerer's first visit here in a long time, and we were all sorry that he could not stay longer. After a brief inspection, he left for the south to visit Saguaro, Tumacaccri, and Chiricahua.

Cur summer weather is leaving us. The maximum temperature this month was 107 on the 16th, with a minimum of 55 on the 9th. Precipitation was .59.

An unusual number of Indian visitors is recarded for this month. Among the tribes represented were the Pima, Papago, Yaqui, Flathead,

CASA GRANDE (CONT.)

Eualpai and Mohave.

With the cool evenings volley ball games have been resumed, promoted by Bob Cole, star athlete of the Chief Clerk's office (voice from office, "How about the Chief Clerk?"). Oh, well....

Bird banding activities have been resumed, though we still lack an adequate supply of bands. Our first Gila woodpecker and another road-runner were caught this month, as well as the usual number of cactus wrens. Ranger Steen was bitten by a ground squirrel caught in a bird trap. The squirrel will recover. Traps for catching nocturnal mammals are planned. These may be banded, if feasible, or parhaps marked in some other way.

The boys in the ranger quarters are feeling more civilized now, since a new bathroom has been installed. Perhaps the unaccustomed luxury will aid in keeping them home nights. Charlie alleges that he took baths anyhow.

Fortunately the deadline for printing this report is at hand. I can now claim that I would have written more if I had time. Anyhow, here endeth my first attempt at a monthly report. May the future show improvement!

AZTEC RUINS

By Johnwill Faris, Custodian

It is always a little hard to write the September report, because it seems that there is always a little sad touch to the thought that the visitor count will drop until next season. This particular September, however, has held up remarkably well and surpasses considerably any like month since my term as Custodian. The number visiting the Monument during the month of September total 1891. These people were on the whole a very high type and in looking back over the month we feel that we may mark up an exceptional month all the way around.

Several important changes have taken place, one of the most important being the establishment of a permanent ranger. Oscar Tatman served very efficiently until the 15th of the month when Robert W. Hart, Jr., arrived to fill the position. Mr. and Mrs. Hart are certainly fitting into the harness in splendid shape and already he has caught the spirit of the place and is putting out a brand of service that is superior to even our standards. Mrs. Hart has already decided that Aztec Ruins is far ahead of any other rain and that the town is the best in the Southwest, so you can see that they have the right idea already, and one that all the other Rangers and Custodians will sooner or later realize. Already I hear strong voices raising in protest, but who should know better than we folks? I might say at this time too, that I shall deny any allegations in connection with the above.

AZTEC RUINS (CCNT.)

Louis Caywood, Junior Park Naturalist, and Winnie were with us a portion of the month and we certainly did profit by and enjoy them both. Louis has taken hold of the museum plans and worked up several cases which we have on display at the present time in our new lobby. While the plan is by no means complete and we have worlds yet for Louie to do, we have a definite start and will add to this nucleus as our exhibits arrive and our time will permit installation. We hated very much for Louie to leave us and wish him all the luck in the world at Wupatki or wherever he may go.

Bob Rose stopped in on his way east and gave Louie and me a me points on the collection we were working on. We appreciated his giving the time when he was on vacation. Chuck Richey was in for a few minutes the early part of the month and then was in again just the other day. He has some fine things in mind for Aztec and we are looking forward to the time when it will all come to pass. Cal Miller was in on a couple of his trips by and not being satisfied with taking back the Dodge after giving it to me, he has taken my grader. I think that giving me that Dodge was a frame-up in the first place.

On the 12th, we were honored with a very nice visit from the Governor and his party. He was most interested and promised us his cooperation in getting a road from the highway to our Monument. He placed his position at our service and insisted that we call on him for any help that he might extend. The 21th, the Boss, Miss Story, Nancy Margaret, Jack Diehl, and Chuck Richey all stopped in with us. It is not often that any but Chuck get around, and we are glad to have them when they come. Miss Story was one of my first official visitors upon entering the Service six years ago, and it seems mighty good to have her drop in. We also had an opportunity to go over several problems of vital interest to the Monument, and feel that we have profited materially from the visit of these folks.

Preceding this visit a day or so, we were honored with a visit by Apostle Richard Layman and party from Salt Lake City, and Mr. Hart tells me that it was one of the most interesting parties it has been his privilege to ever show through a ruin. We hope that they enjoyed their trip as much as we enjoyed having them and that they will return at every opportunity.

Monument problems have not been of any special magnitude this month, in fact everything has moved along in fine shape. Hart is takeing hold of things in a way that is most pleasing and is taking quite a worry of our minds.

The Goodman Paint Company of Durange Colorado, repainted our unit, since the first application on the administration and museum building was fading, and they did not feel that they wanted that type of advertising. They gave us an excellent job and we certainly appreciate their

AZTEC RUINS (CONT.)

interest and action. The building now presents a very uniform appearance and we have the assurance of the Goodman Paint Company that if it does not remain so, they will come down and repaint it as many times as is necessary.

We are indebted also to these people for a very nice bit of advertising in the recent Spanish Trails Fiesta held in Durange. They have one of the nicest windows in the city and very graciously allowed us the use of it for the Fiesta. Louis Caywood and myself took up a display that seemed to prove very popular and has caused a lot of favorable comment.

After being up in this section of the country for over six years, I made my first trip to Yucca House and Hovenmeep this month. Custodian Miller on one of his inspection trips invited me to go with him, and I enjoyed them both very much. I am ashamed to have waited this long to get to them, but the opportunity never presented itself until now.

The Gallup Inter-tribal Ceremonial, I understand, was one of the most successful since the affair started and we are indebted to the Independent of that city for a very nice writeup on our attraction and the great Kiva in particular.

We notice in the papers that Mr. Leavitt is leaving Mesa Verde. It has been a pleasure to have worked with him, and we regret his leaving very much. We wish him success wherever he may go, and are looking forward to as pleasant relations with his successor as we experienced with Mr. and Mrs. Leavitt, so saying endth September.

BANDELIER ECW

By H. B. Chase, Project Supt.

The headquarters comfort station has been completed this month with portal connection to headquarters office building. The final painting is being done on the interior at this time, and the entire building will be open to the public by October 1.

The stone guard rail along entrance road will be completed to the point of termination by October 1. Footings for the entire project are completed at this time. The finished project will include 963 lin. ft. of guard rail constructed.

Fireplaces of the new approved design have been constructed at all camp sites in the camp ground.

All excavation for the remaining buildings in the utility area has been made this month; the project new is 100% complete.

The warehouse building has been completed with exception of the

BANDELIER ECW (CCNT.)

carpenter work on window and door openings, and painting. This crew is now working on that work and the building should be ready for occupancy by October 5.

With receipt of approval of shop and gasoline house a large crew immediately started construction. The shop roof sheathing is being placed today and the gasoline and oil building is 50% complete. We hope to move into these buildings not later than October 15.

The landscape crew has spent most of the month obliterating worn areas and roads by scarifying and moving in rocks and duff in preparing for the coming planting season.

The rock quarry has again been one of the largest operations of the month.

Construction of the wall around the utility area connecting the buildings was completed about the 20th of this month.

Even though the office building has been occupied the past four months, it has only been until recently that it has been 100% complete with the installation of electrical wiring and fixtures.

NATURAL BRIDGES

By Zeke Johnson, Custodian

I hope this report won't be late. I have been at the Monument the last six days and how it has rained! Never stopped for 36 hours, and I had to come in today as we were out of provisions. And talk about mud ---I was six hours coming in.

Dr. W. H. Hopkins of Salt Lake City and a friend had been there for several days waiting for the rain to stop but decided it would not, so they left at one p.m. yesterday. I left at 7:40 this morning and found them stuck on the hill; they had been there all night. I helped them up to Maverick Spring, a distance of five miles. It took us until 11:00 a.m., and I left them there and arrived here at 2:00 p.m. I will go back early in the morning. The three men are taking topography of camp sites and because of delay will be there for three or four days yet.

There have not been as many visitors this year as there were last, but many more from other states. Utah nor San Juan have had any excursions but never in the history of the Monument have there been so many interested people.

Among the number was George Grant, the Park Service photographer. He spent the best part of three days getting what he was after. The above-mentioned Dr. Hopkins was more than pleased with his eight-mile

SOUTHWESTER! MONUMENTS 189 Monthly Report for September, 1935

NATURAL BRIDGES (CONT.)

hike in the rain. I took him to the Bridges 18 years ago in mid-winter and he said he just had to come back. He is the man who took the first automobile through the Monument Valley to Kayenta, and he named the valley.

There have been 87 visitors this month, making 567 that have registered, and I am sure that there have been more than 100 others that failed to do so. A large number visited the Monument in the last days of May when I was not there to take care of the book. Then some said they did not care to register, and others came to Edwin and went back while I was hiking with previous parties. So I think we are safe in calling the number 676.

The cldest man who ever hiked to all the Bridges did it on the 20th of this month. Joseph McCuin, age 77 years and nine months. He said he never enjoyed anything more in his life than that eight-mile hike, and said, "I may come again."

Because of so much rain there may be no more visitors this month, but there will be a lot of them in October. Regards to all the bunch.

ENGINEERING

By John H. Diehl, Park Engineer

At Bandelier National Monument and Chiricahua National Monument, the CCC camps have been busy attempting to complete their individual work programs for the fifth period; somewhat handicapped by new enrollees and their total below normal. Projects in each monument will no doubt be incomplete and will have to be continued in the next period as supplemental projects.

Engineering needs for ECW projects in the monuments have been attended to by the engineer foremen attached to each camp with enrollee assistants.

Topographic work on the headquarters area at Walnut Canyon National Monument has continued, and boundaries of Sunset Crater Monument have been checked by the survey crew with A. E. Clark. Rodman Pinkley resigned from this crew the middle of the month, in order to enter Arizona inversity, and was replaced by Rodman London from the field office at Coolidge.

At the Coolidge office, J. H. Tovrea, chief engineering aide, has prepared sketches, maps, and survey data, to be submitted either to the Superintendent or to the Branch of Engineering.

The first part of the month, official trips were made to Chiricahua National Monument, Carlsbad Caverns National Park, from whence we brought back another Chevrolet pickup and the memory of a gigantic spectacle. Also SCUTHWESTERN MONUMENTS 190 MONTHLY REPORT FOR SEPTEMBER, 1935.

ENGINEERING DIVISION (CONT.)

White Sands National Monument was visited with Superintendent Pinkley, Chief Clerk Miller, Custodian Charles, Mr. Borell of the Wildlife Division, and Mr. Richey of the Branch of Plans and Designs. A program was formulated for development subject to purchase of the Garton property, and the allotment of additional funds.

On September 15, in company with the Superintendent and his daughter, we left Coolidge, Arizona, for Santa Fe, New Mexico, where on the 18th we met Miss Story from the Washington Office of the Park Service, who is to visit the Southwestern area.

Up to date (26th) we have stopped at Bandelier, Chaco Canyon, and Aztec Ruins National Monuments, Mesa Verde National Park, Hovenweep, Yucca House, and El Morro Monuments, and as this is being written, we are floundering around some of the scapiest mud existing at Canyon de Chelly. Actually some spots are so slick that you just can't stay put on them and I wouldn't endeavor to prophesy which direction we go next, although plans call for us to reach Petrified Forest on the 27th, where Miss Story will stop for a couple of days while Superintendent Pinkley and myself either squirm through the mud to Navajo Monument, or take the more promising route to Flagstaff, Arizona, and the Monuments in that vicinity.

NATURALIST DIV.

By Dale S. King, Jr. Park Naturalist

Staff

Park Naturalist Rose has been on annual leave during the latter 20 days of the month. Junior Naturalist King has been at Headquarters during the entire month except for a trip to Safford, September 23, which has been the subject of a special report to the Director. Junior Naturalist Caywood was on relief duty at Aztec Ruins National Monument until September 22 when he assumed relief duty at Wupatki National Monument.

Supplies Received

450 cactus labels from the Field Division of Education, Berkeley. 112 Lantern slides from the Field Division of Education, Berkeley. Small supply of entomological preparation materials.

Junior Naturalist Dale King Report

OFFICE WORK: Wrote 47 letters

Finished listing Headquarters library Sent office materials and books to Walnut Canyon Prepared annual travel figures Copyread, lettered Monthly Report material

EDUCATIONAL: Shipped eight bird traps to fibe Monument banding stations
Continued Casa Grande banding activities in absence of Custodian
Shipped Navajo National Monument entomological material to

NATURALIST DIVISION (CONT.)

University of California for identification.

Prepared annual animal census report for Washington Office.

GUIDED: Remainder of time.

Junior Naturalist Louis Caywood Report

During the past month I spent a profitable and enjoyable stay at Aztec Ruins.

Upon arrival, July 27, I found that Johnwill had left on his vacation and the Ranger, Oscar Tatman, was up to his neck guiding visitors. I plunged in and for a week Oscar and I hardly saw one another. He would take a party and by the time he returned I would have left with a party and was in the rulins. He would then leave with a waiting party so when I arrived back to the Lobby he would be gone and so on throughout the day.

After Johnwill returned I took a ccuple of days off - my first in quite a while - and spent one day and night at Chaco where Cal certainly showed Winnie and me the works. Mrs. Cal treated us like old friends, that is the grand part of this Southwestern Monuments Family, one never feels like a stranger when visiting the Monuments for the first time, and we had a most enjoyable time. We took the Millers a few pears (only 90 pounds) to can. People say that isn't many, but I bet that after Cal had peeled half of them he was wishing the Caywoods hadn't come to see them. Another day was spent going over the trails and the Museum at Mesa Verde National Park.

Johnwill's place of business looked like a storage house when we arrived. There were crated cases and huge crates of plate glass all over the place. In fact, some of it was too heavy and big to get inside the Administration Building. So after Johnwill returned from the San Diego Fair it fell our lot to unpack the cases and start putting them together. There were nine cases in all. They came all knocked down so it proved quite a job. By the end of my stay we had stained and assembled six. In one was placed the Stratigraphy or The Story of the Trash Layers. It was successfully installed after much labor in getting it fitted and fastened into the proper case. This exhibit indeed gives visitors a better understanding as to the method used in determining relative ages of peoples from the stratified debris left by them. A second exhibit installed was Exhibit No. 2 - a large archeclogical map of the Southwest showing the various culture areas with small water color sketches of the various monuments. A third case was temporarily installed consisting of four large water color pictures of pueblo life. In a fourth case was placed representative pottery of the Aztec Ruins.

Mr. Goodman of Durange, who was repainting the Administration

SOUTHWESTERN MONUMENTS 192 MONTHLY REPORT FOR SEPTEMBER, 1935

MATURALIST DIVISION (CONT.)

Building asked Johnwill if he would put an exhibit in his store window in Durango as part of the Spanish Trails Fiesta, September 21 and 22. Such a display was made and consisted of the following sections: (1) Three large water color paintings depicting pueblo life. These were hung in the back of the window. (2) A child burial covered by matting. (3) Two pueblo baskets. (4) A selection of Mesa Verde pottery found at Aztec Ruins. (5) A selection of Chaco pottery found at Aztec Ruins. (6) A tree ring exhibit of a section of log from Johnson Canyon cut in 1909. Cards telling of a number of interesting dates and events were tied into the proper tree ring by cords of the year each event took place. (7) A number of stone axes and arrow points. (8) Typical bone awls. (9) A pueblo sandal and (10) A large cooking jar of corrugated ware. The day after the display was put in, the first party of visitors to the Monument mentioned they visited Aztec only after seeing the interesting display in Durange. Mr. Goodman of the Goodman Paint Company, who was so kind as to ask us to fix up his window seemed well pleased.

A new Ranger, Mr. Bert Hart and bride, Adeline, are recent comers to the Monument, and I am sure that I will be joined by the rest of the folks in Southwestern Monuments in wishing them many years of happiness in our Southwestern Monuments Family. Bert comes well prepared after several seasons of temporary work in Mesa Verde National Park. His home is in South Carolina, but I am sure he will like the West for his new home just as well if not better.

While at Aztec I banded two SAY PHOEBE, Nos. 35-38210 and 35-38213. They were both caught on a screen porch as there are no bird traps at Aztec Ruins.

I left Aztec September 20 to report at Wupatki National Monument as relief for the Custodian over the period of his vacation. So ends another month of the traveling Junior Park Naturalist of Southwestern Monuments. A third episode, "Tupatki National Monument" will continue next month.

With kindest regards to all from Winnie and myself. By the way - Winnie asks that I add that she enjoys thoroughly being the wife of a traveling Naturalist and thinks the Southwestern Monuments are grand places.

CAPULIN MOUNTAIN

By Homer J. Farr, Custodian

Reporting for Capulin Mountain National Monument for September, 1935:

Beautiful warm weather thrucut the month except the past few days. We have had some rain winding up with a two-inch snow. A light frost occurred on the night of the eighth but did no damage. Then, of course, we have had a good freeze this week. Corn, beans and other crops matured

CAPULIN MCUNTAIN (CONT.)

fair this season and was about a third average crcp.

The tourist crep has been extra good this season and are still coming plenty. The road and trails stay in fair condition with a little donation of a day or so now and then from the Custodian cleaning rock from the road. We have probably had about five thousand visitors this month and many whom I happen to talk to appeared to enjoy the trip very much, and I am learning that many many of the visitors have been here before. They seem to enjoy returning over and over again.

The Custodian is planning on placing the road and trails in splendid condition this fall for the 1936 travel.

MAIL COUNT

Mail count for the month of September:

Incoming, personal	652
Incoming, official	991
Total incoming	1643
Outgoing, official only	1660

Total pieces of mail handled 3303

CLOSING

Superintendent Pinkley is in the field as this report is closed, hence his usual sprightly closing comment must be omitted.

Hugh M. Miller Acting Superintendent THE
SUPPLEMENT
TO THE
MONTHLY REPORT
FOR
THE
SOUTHWESTERN

多角角角

MONUMENTS

WHERE WE ARE SERIOUS -BUT NOT TOO SERIOUS



NATIONAL PARK SERV

LIBRARY LIST

Following is a listing of volumes in the Southwestern Library, which, you will notice, is nothing more than a listing, since there has been no cross index, or detailed listing of articles in some of the volumes. This work will be done later.

However, we are running this list so that the men in the field will have a fair idea of the material that is available to them. Order books by name and number. You may keep volumes as long as you wish er until another man makes a request for the same volume.

We have also a large number of reprints, separates, and periodicals which will be listed in a future Supplement as soon as the work of tabulating them is finished.

PLEA TO ALL INTERESTED PERSONS HAVING BOCKS ON THE SCUTHWEST:
You will note that although we have more than 400 volumes, our Library
is very incomplete. If you have books on the Scuthwest or other volunes which deal with our problems, we will appreciate all donations of
books you feel free to give. Eventually we hope to build up a library
which will be of very great value to our personnel and visiting students.

AMPHIBIANS AND REPTILES

- 218a. Differential Characteristics of Scuthwestern Rattlesnakes Allied to Crotalus Atrox. Bulletin No. 6 of the Zoological Society of San Diego.
- By L. M. Klauber, San Diego, Calif., May 21, 1930. 72 pp. 219. New and Renamed Subspecies of Crotalus Confluentus Say, with Benarks on Related Species. Transactions of the San Diego Society of Natural History, Vol. VI, No. 3, Pp. 95-144.

By Laurence M. Klauber, San Diego, Calif., Feb. 28, 1930. 218b. A Statistical Survey of the Snakes of the Southern Border of California. Bulletin No. 8 of the Zoological Society of San Diego.

- By L.M.Klauber, San Diego, California, June 20, 1931. 93 pp. 2226. The Reptiles of Western North America. Occasional Paper X of the California Academy of Sciences. Vol. II, Snakes and Turtles. By John Van Denburgh, San Francisco, Nov. 23, 1922. pp. 618 to 1028.
- 362a. Report on Amphibians and Reptiles of the Navajo Country. Based b. upon Field Work with the Rainbow-Bridge---Monument Valley Expedition During 1933. Bulletin 3.

By Theodore H. Eaton, Jr., Berkeley, California, June, 1935. 20 pp.

ANTHROPOLOGY

- 68. Navajo Weaving (Its Technic and History)
 By Charles Avery Amsden. Foreword by Frederick Webb Hodge.
 The Fine Arts Press, Santa Ana, California, in cooperation with the Southwest Museum, 1934. 260 pp.
- 69. The Artifacts of Pecos

 By Alred Vincent Kidder. Papers of the SW Expedition Nu. 6,

 Published by the Yale University Press, New Haven, for Phillips
 Academy, 1932. 314 pp.
- 70. The Pottery of Pecos, Vol. I. The Dull Paint Wares.

 By Alfred Vincent Kidder. With a Section on the Black-onWhite Wares by Charles Avery Amsden. Published for Phillips
 Academy by the Uale University Press, New Haven, 1931, 166 pp.
- 137a. Thirteenth Annual Report of the Bureau of American Ethnology, Smithsonian Inst. 1891-92
- Government Printing Office, 1896. 462 pp.
 137b. 27th Annual Report of the B.A.E. of the Smithsonian Institution, 1905-06

Government Printing Office, 1911. 672 pp.

137c. 28th Annual Report of the B.A.E. of the Smithsonian Institution, 1906-07.

Government Printing Office, 1912, 290 pp.

- 137d. 48th Annual Report of the B.A.E. of the Smithsonian Institution, 1930-31 General Index, Annual Reports, Vols. I thru 48.

 Government Printing Office, 1933.1220 pp.
- 138a. Hopi Katcinas Drawn by Native Artists. Extract from the 21st Annual Report of the BAE of the Smithsonian Institution. By Jesse Walter Fewkes. Gov. Ptg. Office, 1904. 126 pp.
- 138b. Antiquities of the Upper Verde River and Walnut Creek Valleys, Arizona. Extract from the 28th Annual Report of the BAE of the Smithsonian Institution.
- By Jesse Walter Fewkes. Gov. Ptg. Office, 1913. 138c. The Ethnogeography of the Tewa Indians. Extract from the 29th Annual Report of the BAE of the Smithsonian Inst.

By John Peabody Harrington. Gov. Ptg. Office, 1916. 636 pp.

136d. Ethnobotany of the Zuni Indians. Extract from the 30th Annual Report of the BAE of the Smithsonian Inst.

By Matilda Coxe Stevenson. Gov. Ptg. Office, 1915.

- 138e. Designs of Prehistoric Hopi Pottery. Extract from the 33rd Annual Report of the BAE of the Smithsonian Institution. By Jesse Walter Fewkes. Gov. Ptg. Office, 1919.
- 138f. Localization of Tusayan Clans. Extract from the 19th Annual Report of the BAE of the Smithsonian Inst.
 By Cosmos Mindeleff. Gov. Ptg. Office. 1961.
- 139a. Mexican and Central American Antiquities, Calendar Systems and History. Translated from the German by Charles P. Bewditch. Bulletin 28, BAE, Smithsonian Inst. Gov. Ptg. Office, 1904.

- 139b. Handbook of American Indians, North of Mexico Bulletin 30, BAE of the Smithsonian Inst. Part I Edited by Frederick Webb Hodge. Gov. Ptg. Office, 1912. 972 pp.
- 139c. Handbook of American Indians, North of Mexico Bulletin 36, BAE of the Smithsonian Inst. Part 2.

 Edited by Frederick Webb Hodge. Gov. Ptg. Office. 1910 1221 pp. N-Z.
- 139d. Physiological and Medical Observations Among the Indians of Southwestern United States and Northern Mexico. Bulletin 34, BAE of the Smithsonian Inst.

By Ales Hrdlicka. Cov. Ptg. Office, 1908. 460 pp. Skeletal Remains Suggesting or Attributed to Early Man

- 139e. Skeletal Remains Suggesting or Attributed to Early Man in North America. Bulletin 33, BAE of the Smithsonian Institution.

 By Ales Hrdlicka. Gov. Ptg. Office. 113 pp.
- 139f. Antiquities of the Upper Gila and Salt River Valleys in Arizona and New Mexico. Bulletin 35, BAE of the Smithsonian Inst. By Walter Hough. Gov. Ptg. Office, 1907. 96 pp.
- 139g. Tuberculcsis Among Certain Indian Tribes of the United States Bulletin 42, BAE of the Smithsonian Inst.

 By Ales Hrdlicka. Gov. Ptg. Office, 1909. 48 pp.
- 139h. Preliminary Report on a Visit to the Navajo National Monument, Arizona. Bulletin 50, BAE of the Smithsonian Institution. By Jesse Walter Fewkes. Gov. Ptg. Office, 1911. 35 pp.
- 139i. Antiquities of the Mesa Verde National Park Cliff Palace. Bulletin 51, BAE of the Smithsonian Institution. By Jesse Walter Fewkes. Gov. Ptg. Office, 1911. 82 pp.
- 139j. The Physicgraphy of the Rio Grande Valley, New Mexico, in Relation to Pueblo Culture. Bulletin 54 BAE of the Smithsonian Institution.

By Edgar Lee Hewett, Junius Henderson, and Wilfred William Robbins. Gov. Ptg. Office, 1913. 76 pp.

139k. Ethnobotany of the Tewa Indians. Bulletin 55 of the RAE of the Smithsonian Inst.

By Wilfred William Robbins, John Peabody Harrington, and Barbara Freire-Marreco. Gov. Ptg. Office, 1916. 124 pp.

139n. Ethnozoclogy of the Tewa Indians. Bulletin 56 of the BAE of the Smithsonian Inst.

By Junius Henderson and John Peabody Harrington. Government Printing Office, 1914. 75 pp.

- 1390. The Maya Indians of Southern Yucatan and Northern British Honduras. Bulletin 64 of the BAE of the Smithschian Inst. By Thomas W.F.Gann. Gcv. Ptg. Office, 1918. 146 pp.
- 139p. Archeological Explorations in Northeastern Arizona. Pulletin 65 of the BAE of the Smithsonian Inst.

By Alfred Vincent Kidder and Samuel J. Guernsey. Gcv. Ptg. Office, 1919. 228 pp.

139q. Recent Discoveries Attributed to Early Man in America. Bulletin 66 of the BAE of the Smithsonian Inst.

By Ales Hrdlicka. Gov. Ptg. Office, 1918. 67 pp.

- 139r. Prehistoric Villages, Castles, and Towers of Southwestern Colorado. Bulletin 70 of the FAE of the Smithsonian Inst. By J. Walter Fewkes. Gov. Ptg. Office, 1919. 79 pp.
- 139s. Excavations in the Chama Valley, New Mexico Bulletin 81 of the Smithscrian Inst.

By J. A. Jeancon. Gov. Ptg. Office, 1923. SO pp.

- 139t. Archeclegical Observations North of the Rio Colorado. Bulletin u. 82 of the BAE of the Smithsonian Inst.

 By Neil M. Judd. Gov. Ptg. Cffice, 1926. 171 pp.
- 139v. Antiquities of the Jerez Plateau, New Mexico. Bulletin 32 of the BAE of the Smithsonian Institution.

 By Edgar L. Hewett. Gov. Ptg. Office, 1906. 52 pp.
- 14(. The Indians of Peccs, A Study of their Skeletal Remains. Papers of the Southwestern Expedition Number 4.
- By Earnest Albert Hooton, Yale University Press, 1936. 391 pp. 141a. Excavations at Zacatenco. Anthropological Fapers of the American Museum of Natural History. Volume XXXII, Part 1.

By George C. Vaillant. The American Museum of Natural History, New York, 1930. 197 pp.

- 141b. Excavations at Ticoman. Anth. Papers of the American Museum of Natural History. Vol. XXXII, Part II.

 By George C. Vaillant. The American Museum of Natural History, New York, 1931. 439 pp.
- 141c. Excavations at Tiahuanacc. Anth. Papers of the American Museum of Natural History. Volume XXIV, Part III.

 By W. C. Bennett. The American Museum of Natural History,
 New York, 1934. 494 pp.
- 141d. Archaeological Material from the Village Site at Hot Springs, Port Muller, Alaska. Anth. Papers of the American Museum of Natural History. Vol. XXXI, Part IV.
- 141e. Pueblo Bonito. Anth. Papers of the American Museum of Natural History, Volume XXVII.

 By George H. Pepper. Published by the Order of the Trustees, New York, 1920. 398 pp.
- 142a. The Functions of Wampum Among the Eastern Algonkian. Memoirs of the American Anthropological Association. Vol. VI, No. 1.

 By Frank G. Speck. 41 N. Queen St. Lancaster, Pa., Jan.-Mar. 1919. 71 pp.
- 142h. Notes on Cochiti, New Mexico. Memoirs of the American Anthropological Association. Vol. VI, No. 3.

 By Father Noel Dumarest. Lancaster, Fa., 1919. 236 pp.
- 142c. Pencescot Shacanism. Memcirs of the American Anth. Association Vol. VI, No. 4.
- By Frank G. Speck, Lancaster, Pa. 1919. 298 pp. 143a. Excavations at Casa Grande, Arizona. Feb-May, '27. Southwest thru Museum Papers No. 2.
 - m. By Harold S. Gladwin. Southwest Museum, Los Angeles, Calif. September, 1928. 30 pp.
- 143n. The Skeleton From Mesa House, A Physical Investigation. Southwest Museum Papers No. 5. By Bruno Cetteking. Southwest Museum, Los Angeles, Calif., November 1930. 48 pp.

- 1430. Archeological Explorations in Southern Nevada Report of the First Sessions Expedition, 1929. Southwest Museum Papers, Number 4.
 - 1. Introduction by M. R. Harrington
 - 2. Mesa House by Irwin Hayden
 - 3. An Unusual Burial in Mesa House Ruin, by Louis Schellbach
 - 4. Paiute Cave, by M. R. Harrington

Southwest Museum, Los Angeles, June 1930, 126 pp.

- 143p. The Seri. Scuthwest Museum Papers, No. 6.
 - By A. L. Kroeber. The SW Museum, Los Angeles. April, 1931. 60 pp.
- 143q. An Archeological Survey of the Twenty Nine Palms Region. Southwest Museum Papers No. 7.

By Elizabeth W. Crozer Campbell. SW Museum, Los Angeles.

November, 1931. 93 pp.

144. Anthropological Essays, Putnam Anniversary Volume. Presented to Frederic Ward Putnam in honor of his 70th birthday, April 16, 1909, by his friends and associates.

G. E. Stechert and Co., New York. 1909. 627 pp.

145. The Wall Preservation of Pueblo Bonito. Manuscript prepared under CWA.

By Gordon Vivian, April 4, 1934. 45 pp.

- 146. The Grewe Site, Gila Valley, Arizona. (Van Bergen-Los Angeles Museum Expedition) Los Angeles Museum Occasional Papers Number 1.

 By Arthur Woodward. Los Angeles Museum, December, 1931. 21 pp.
- 147. Santa Fe Sub-Quadrangle A. Second Report of the Archeological Survey of the Pueblo Plateau.

By Reginald G. Fisher. University of New Mexico, Press, Albuquerque, 1931.

148. Annual Report for 1931, the School of American Research in Santa Fe.

Palace of the Governors, Santa Fe, N. M., 1932. 74 pp.

- 149a. A Proposed Revision of the Rio Grande Glaze Paint Sequence.
 Lab. of Anthropology, Technical Series, Bulletin No. 5.
 By H. P. Mera. Lab. of Anth., Santa Fe., N. M., July, 1933.
 11 pp.
- 150. Report of the Archeological Excavations at Casa Grande National Monument under CWA Program, 1934. Supplement to the Southwestern Monuments Monthly Report for March, 1934.

By Russell Hastings, Southwestern Monuments, National Park Service, Coolidge, Arizona. 1934. 5 pp.

151a. Final Report, Archeological Reconnaissance Under CWA to Feb. 15, b. 1934, Chaco Canyon National Monument.

By Gordon Vivian, Albuquerque, May 12, 1934. 26 pp.
Petroglyphs of California and Adjoining States University

152. Petroglyphs of California and Adjoining States University of California Publications in Am. Arch. and Ethnology. Vol. 24, No. 2.

By Julian H. Steward. University of California Press, Berkeley, 1929. 238 pp.

153. Cuicuilco and the Archaic Culture of Mexico. Reprint from the Scientific Monthly, October, 1926.

By Byron Cummings. 15 pp.

- 154. Hchckam: A Chapter in the History of Red-on-Buff Culture of Arizona. Reprint from the Scientific Monthly, November, 1933. By Carl Trischa. 16 pp.
- Discoveries Relating to Prehistoric Man by the Doheny Scientific Expedition in Havasupai Canyon, Northern Arizona.

 The Cakland Museum, Cotober and November, 1924. 39 pp.
- 156. The Secret of the Scuthwest Solved by Talkative Tree Rings. Reprint from the National Geographic, December, 1929.

 By Andrew Ellicott Douglass. Mashington, D. C., Judd and Detweiler, 1929. 34 pp.
- 157. Chemical Examination of Prehistoric Smudged Wares. Reprint from the Am. Anthropologist, Jul-Sept., 1930.

 By Florence M. Hawley.
- 158. The Loom and Its Prototypes. Reprint from the American Anthropologist, April-June, 1932.

 By Charles Amsden.
- 159. Petroglyphs, the Record of a Great Adventure. Reprint from the American Anthropologist, Jan-March, 1931.

 Mary Russell F. and Harold S. Colton.
- 160. Prehistoric Pettery Pigments in the Southwest Reprint from the American Anthropologist. Oct-Dec. 1939.

 By Florence M. Hawley.
- Prehistoric Pottery and Culture Relations in the Middle Gila.

 Reprint from the American Anth., July-Sept., 1930.

 By Florence M. Hawley.
- 162. Monolithic Axe from Connecticut. Number One of Introductory Series, Conn. Arch. Appraisal.

 By Norris L. Bull. Hartford, Conn. 1931. 22 pp.
- 163m. The Craftsman
 New York, April, 1909.
- 163b. The Craftsman.
 New York, June 9, 1909.
- 164a. Art and Archaeology, Vol. VIII, No. I. Arch, Inst. of America, Feb., 1919.
- 164b. Art and Archaeology, Vol. IX, No I.
 Archaeological Inst., of America., January, 1920.
- 164c. Art and Archaeology, Vol. X, Nos. 1-2. Our National Mcnuments. Arch. Inst. of America, August, 1920.
- 164d. Art and Archaeology, Vol. XXIII, No. 1. Special Middle American No. Arch. Inst. of America, January, 1927.
- 164e. Art and Archaeclegy, Vol. X, Nos. 1-2. Out National Monuments. Arch. Inst. of America, August, 1920.
- 164f. Art and Archaeology, Vol. XX, No. 2. Midsummer American Number. Arch. Inst. of America, August, 1925.
- 164g. Art and Archaeology. Vol XI, Nos. 1-2. American Archaeology Double Number.
- Arch. Inst. of America, February, 1921.

 164h. Art and Archaeology. Vol. XVI, Nos. 1 and 2. American Archaeology Number.

 Arch. Inst. of America. August. 1923.

164i. Art and Archaeology, Vol. XIV, No. 3. American Archaeology Number.

Arch. Inst. of America, September, 1922.

- 164j. Art and Archaeology, Vol. XXIII, No. 3 America-Greece-Guatemala.

 Arch. Inst. of America, March, 1927.
- 165a. American Anthropologist, Vol. 21, No. 1.
 American Anth. Assoc., Lancaster, Pa. January-March, 1919.
- 165b. American Anthropologist, Vol. 21, No. 2
 American Anth. Assoc. Lancaster, Pa. April-June, 1919.
- 165c. American Anthropologist, Vol. 21. No. 3.
 American Anth. Assoc., Lancaster, Pa., July-Sept., 1919.
- 165d. American Anthropologist, Vol. 21, No. 4.

 American Anth. Assoc., Lancaster, Pa., Cctober-December, 1919.
- 165e. American Anthropologist, Vol. 21, No. 4.
 American Anth. Assoc., Lancaster, Pa., January-March, 1920.
- 165f. American Anthropologist, Vol. 22, No. 2.

 American Anth. Assoc., Lancaster, Pa. April-June, 1920.
- 165g. American Anthropologist, Vol. 22, No. 3.

 American Anth. Association, Lancaster, Pa. July-September, 1920
- 165h. American Anthropologist, Vol 22, No. 4.
 American Anth. Assoc., Lancaster, Pa. Oct-Dec., 1920.
- 165i. American Anthropologist, Vol. 23, No. 1.
 American Anth. Assoc., Lancaster, Pa. January-Warch, 1921.
- 165j. American Anthropologist, Vol. 23, No. 2.

 American Anth. Assoc., Lancaster, Pa. April-June, 1921.
- 165k. American Anthropologist, Vol. 23, No. 3.
 American Anth. Assoc., Lancaster, Pa. July-September, 1921.
- 1651. American Anthropologist, Vol. 23, No. 4.

 American Anth. Assoc., Lancaster, Pa., October-Lecember, 1921.
- 165m. American Anthropologist, Vol. 24, No. 1.

 American Anth. Assoc., Menasha, Wisconsin, January-March, 1922.
 165m. American Anthropologist. Vol. 24, No. 2.
- American Anthropologist, Vol. 24, No. 2.

 American Anth. Assoc., Menasha, Wisconsin, April-June, 1922.

 1650. American Anthropologist. Vol. 24, No. 3.
- 1650. American Anthropologist, Vcl. 24, No. 3.
 American Anth. Assoc., Menasha, Wisconsin, July-Sept., 1922.
- Annual Report of the Consulting Archaeologist to the Secretary of the Interior for Fiscal Year ending June 30, 1931.

 Government Printing Office, 1931.
- 167. Field Sessions in Archaeology and Anthropology. University of New Mexico Bulletin Vol. 47, No. 2.
 University of New Mexico Press, 1934.
- The Archaeological Survey of the Pueblo Plateau. Report of the State Arch. Survey of NM.

 By Reginald G. Fisher. University of New Mexico, Albuquerque. 1930. 22 pp.
- 169. The People of the Casa Grande Valley, Casa Grande Pageant.
 By Byron Cummings. No date. 30 pp.
- 170. Guide Leaflet for Amateur Archeologists. Reprint and Circular Series of the National Research Council.

 National Research Council, Washington, D. C., 1930. 11 pp.

- 171. Explorations and Field Work of the Smithsonian Inst. in 1917. Smithsonian. Misc. Collections, Volume 68, No. 12. Washington, D. C., June, 1918. 133 pp.
- 172. Archeological Investigations in the Tacs Valley, New Mexico, Curing 1920. Smithscnian Misc. Collections, Vol. 81, No. 12. By J. A. Jeancen. Washington, D. C., 1929. 29 pp.
- 173a. Excavations at Casa Grande, Arizona, in 1906-07. Reprinted b. from the Smithsonian Misc. Collections Vol. 50, Part 3. By J. Walter Fewkes. Washington, D. C., 1907.
- 174. Bulletin of the Southern California Academy of Sciences. Vol. XXXII, Part 3.
- Los Angeles Museum, Los Angeles. Sept. 30, 1933.

 177. Excavation and Repair of Sun Temple, Mesa Verde National Park.

 Department of the Interior, National Park Service.

 Government Printing Office, 1916. 32 pp.

 By J. Walter FEWKES.
- 178. Exploration of Ruins in the White Mountain Apache Indian Reservation, Arizona.

 No. 2856 from the Proceedings of the U. S. National Museum.

 By Walter Hough. Smithsonian Inst., U. S. National Museum,

 Washington, D. C., 1930. 20 pp.
- 179. Dating Our Prehistoric Ruins. Reprint from the Explorations and Field Work of the Smithsonian Institution in 1929. By Neil M. Judd, Washington, D. C., 1930.
- 188a. Pueblo II in the San Francisco Mts., Arizona.

 By Harold Sellers Colton.

 Pueblo II Houses of the San Francisco Mts., Arizona.

 By Lyndon Lane Hargrave.

 Bulletin 4 of the Museum of Northern Arizona, Flagstaff, Arizona,
 May, 1933. 75 pp.
- 188b. Pueblo Milling Stones of the Flagstaff Region and their Relation to Others in the Southwest.

 By Katherine Bartlett. Bulletin 3 of the Museum of Northern
- Arizona, Flagstaff, Arizona, January, 1933. 32 pp.
 251. The Primitive Family, in its Origin and Development.
 By C. N. Starcke. D. Appleton and Co., N. Y., 1889. 315 pp.
- 252. Preliminary Report on the Ethnography of the Scuthwest.

 By Ralph L. Beals. Submitted April 26, 1934, Civil Works

 Project SLF-4-x, National Park Service, Berkeley, California.
- 253. The Hopi Indians; a Community of People who have Always lived at Peace Without Courts, Jails, or Asylums. The Craftsman, Vol. X, No. 3, June, 1906.

 By Louis Akin, 15 pp.
- 254. Navajo Myths, Prayers and Songs with Texts and Translations. Vol. 5, No. 2, University of California Publications in American Arch. and Eth.
 - By Washington Matthews, Edited by P. E. Goddard. Berkeley, the University Press, Sept., 1907. 63 pp.
- 255. Notes on Reindeer Nomadism. Memoirs of the American Anthropological Assoc. Vol. VI, No. 2.
 - By Gudmund Hatt. Lancaster, Pa., April-June, 1919. 135 pp.

- 261. Lessons from Southwestern Indian Agriculture. Bulletin 125. University of Arizona, Ag. Exp. Station.

 By S. P. Clark, Tucson, 1928.
- 346a. Indian Tribes of Sequoia National Park Region National Park b. Service, Field Division of Education.

By Julian H. Steward, Berkeley, California, 1935. 31 pp.

348a. The Blackfoot. National Park Service, Field Division of b. Education.

By Julian H. Steward, Berkeley, California, 1934. 55 pp.

- 353a. Preliminary Report on the Ethnography of the Southwest.
 - b. National Park Service, Field Division of Education.
 By Ralph L. Beals, Berkeley, California, 1935. 38 pp.
- 355a. Material Culture of the Pima, Papago and Western Apache.
- b. National Park Service, Field Division of Education.
 By Ralph L. Beals, Berkeley, California, 1934. 45 pp.
- 356a2 Ethnology of Rocky Mountain National Park. The Ute an Arapaho.
 - b. National Park Service, Field Division of Education.
 By Ralph L. Beals, Berkeley, California, 1935. 27 pp.
- 361a. Report on Archaeological Reconnaissance in the Rainbow Plateau Area of Northern Arizona and Southern Utah. Based upon Field Work by the Rainbow Bridge---Monument Valley Expedition of 1933. By Lyndon Lane Hargrave, University of California Press, Berkeley, California, 1935. 56 pp.

BOTANY, FORESTRY

- 6. Formation of Vegetable Mould Through the Action of Worms. Charles Darwin, New York. D. Appleton and Co. 1883. 326 pp.
- 66. Flora of Utah and Nevada

 By Ivar Tidestrom. Contributions from the United States

 National Herbarium, Vol. 25. Government Printing Office,
 1925. 667 pp.
- 120a. Forest Conditions in the Black Mesa Forest Reserve, Arizona.
- b. U. S. Geological Survey, Professional Paper No. 23.

 Prepared by F. G. Plummer from notes by T. F. Rixon and

 Arthur Dodwell. Government Printing Office, 1904, 62 pp.
- 121. Forest Conditions in the San Francisco Mcuntains. Forest Reserve, Arizona. U. S. Geological Survey Profession Paper No. 22.

By John B. Leiberg, Theodore F. Rixon, and Arthur Dodwell. Government Printing Office, 1904. 95 pp.

- 122a. Plants of Rocky Mountain National Park. National Park Service, b. Department of the Interior.
- By Ruth E. Ashton, Government Printing Office, 1933. 157 pp. 123. Plants of Glacier National Park, National Park Service, Dept. of the Interior.
- By Paul C. Standley, Government Printing Office, 1926. 110 pp. 124. Check List of the Forest Trees of the United States, Their Names and Ranges. U. S. Department of Agriculture, Misc. Circ. 92.

By George B. Sudworth, Government Ptg. Office, 1927. 295 pp.

- 125. Cacti in New Mexico, Bulletin 73, New Mexico College Agricultural Experiment Station.
 - By E. C. Wooten, The New Mexican Printing Co., Santa Fe, New Mexico, 1911. 70 pp.
- 126. The Flowers of Woody Plants, Cornell Rural School Leaflet, Vol. XXIII, Number 4.
 - By Eva L. Gordon and Paul Kellogg., Cornell U., Ithaca, N. Y., March, 1930. 48 pp.
- 127. A Study of the Influence of Herbaceous Plant Cover on Surface Run-off and Soil Erosion in Relation to Grazing on the Wasatch Plateau in Utah., U. S. Department of Agriculture, Technical Bulletin 220.
 - By C. L. Forsling, Government Ptg. Office, March, 1931. 72 pp.
- 128. Suitability of Brush Lands in the Intermountain Region for the Growth of Natural or Planted Western Yellow Pine Forests., U. S. Department of Agriculture, Technical Bulletin No. 256.
 - By F. S. Baker and Clarence F. Korstian, Government Printing Office, August, 1931. 83 pp.
- 129. Range Resources of the San Luis Valley, Colorado. Agricultural College, Bulletin 335.
 - By Herbert C. Hanson, Fort Collins, Colorado, Colorado Agricultural College, March, 1929. 61 pp.
- 130. Instructions for the Scaling and Measurement of National Forest Timber, Forest Service, Department of Agriculture.

 Covernment Printing Office, 1928. 103 pp.
- 258. Manual of the Branch of Forestry. National Park Service, Dept. of the Interior.
 - Washington, D. C. July, 1935. 46 pp.

FAUNA

- 62. Mammals of the Mexican Boundary of the United States.

 By Edgar Alexander Mearns. Bulletin 56, United States National Museum, Smithsonian Inst. Government Printing Office, 1907.

 530 pp.
- 200a. Birds of New Mexico.
 - b. By Florence Merriam Bailey. Published by the New Mexico Depart-c.d.e.f. ment of Game and Fish, 1928.
- 201a. The Hawks of North America, Their Identification and Feeding b. Habits.
 - c. By John Richard May. The National Association of Audubon Societies, 1775 Broadway, New York City, 1935. 140 pages.

p13

- 202a. The Condor, Vol. XI, No. 2, March-April, 1909.
- 202b. The Condor, Vol. XI, No. 5, September-October, 1909.
- 202c. The Condor, Vol. XII No. 1, January-February, 1910.
- 202d. The Condor, Vol. XVI No. 5, November-December, 1914.
- 202e. The Condor, Vol. XVII, No. 2, March-April, 1915.
- 202f. The Condor, Vol. XVII, No. 4, July-August, 1915.
- 202g. The Condor, Vol. XXIV, No. 5, September-October, 1922.

- 202h. The Condor, Vol. XXV, No. 1, January-February, 1923.
- 203a. Birds of the Papago Saguaro National Monument and the Neighboring
 - b. Region, Arizona.
 - c. By H. S. Swarth
 - d. Contribution from the Museum of Vertebrate
 - e. Zoology, University of California, National Park Service,
 - f.g. Department of the Interior, Government Ptg. Office, 1920, 63 pp.
- 204. A Distributional List of Birds of Arizona. Pacific Coast Avifauna No. 10, Cooper Crnithological Club.

 By Harry S. Swarth, Hollywood, California. May 25, 1914.
 133 pp.
- 205. Birds Recorded from the Santa Rita Mcuntains in Southern Arizona, Pacific Coast Avifauna No. 15, Cooper Ornithological Club.

 By Florence Merriam Bailey. Berkeley, California, Nov. 8, 1923. 60 pp.
- 206. Birds of Yosemite. Yosemite National Park Nature Notes, Vol. XII, No. 5. May, 1933. 25 pp.
- 207. Propagation of Upland Game Birds. U. S. Department of Agriculture, Farmers Bulletin No. 1613.

By W. L. McAtee. Government Printing Office, 1930. 6C pp.

- 208. The History and Purpose of Bird Banding
 By Frederick C. Lincoln
 - Recent Returns from Trapping and Banding Birds
 - By S. Prentiss Baldwin
 - The Marriage Relations of the House Wren
 - By S. Prentiss Baldwin
 - Reprint from the "Auk", April, 1921. 27 pp.
- 209a. History and Present Status of the Breeding Colonies of the White b. Pelican.
 - c. By Ben H. Thompson. Contribution of the Wild Life Division, National Park Service. Occasional Paper No. 1. Nov., 1932. 84 pp.
- 210. The Grouse and Wild Turkeys of the United States and Their Economic Value. Biol. Survey Bulletin No, 24.
 - By Sylvester D. Judd. Government Ptg. Office, 1905. 55 pp.
- 211. Our Friendly Birds, An Introduction to the Birds of the Salt and Central Gila Valleys and Nearby Desert.
 - By Will H. Robinson. Published by the Chandler Arizonan, Chandler, Arizona, 1930. 36 pp.
- 212. Wild Animals of Glacier National Park
 The Mammals, by Vernon Bailey
 The Birds, by Florence Merriam Bailey.
 - National Park Service. Government Ftg. Office, 1918. 210 pp.
- 213. Fauna of the National Parks of the United States Fauna Series
 No. 2, National Park Service. Wildlife Management in the National
 Parks.
 - By George M. Wright and Ben H. Thompson. Covernment Printing Office, 1935. 142 pp.
- 214. Mammals of the Gran Canyon Region. Natural History Bulletin No. 1, Grand Canyon, Natural History Association. By Vernon Bailey. June, 1935. 42 pp.

- 215. Mammals and Birds of Mount Rainier National Park. National Park Service.
 - By Walter P. Taylor and William T. Shaw. Government Printing Office, 1927. 249 pp.
- El6. The Red Squirrel, Its Life and Habits. Bulletin of the N. Y. State College of Forestry. Vol 2, No. 1.
- By Robert T. Hatt. Syracuse, N. Y. 1929. 146 pp.
- 217. Foods of Some Predatory Fur-Bearing Animals in Michigan. Univ. of Michigan, School of Forestry and Conservation; Pulletin No. 1. By Ned Dearborn, University of Michigan, Press, Ann Artor, Michigan, 1932. 52 pp.
- 305. Fighting the Good Fight, An Account of Militant Conservation in Defense of Wild Life including the Report of the Emergency Con-Servation Committee for the Calendar Year, 1934. New York, 1935. 20 pp.
- 359a. The Zoology of Rocky Mountain National Park. National Park Service, Field Division of Education.

 By Baxter L. Smith, Berkeley, California, 1935.

FISHES

220. Methods for the Improvement of Michigan Trout Streams. Bulletin of the Institute for Fisheries Research, Mich. Department of Conservation.

By Carl L. Hubbs, J. R. Greeley, and Clarence M. Tarzwell, Ann Arber Michigan, Aug. 30, 1932. 54 pp.

221. The Fisheries of Maryland.

By W. L. Fairbands and W. S. Hamill, Maryland Development Bureau, Faltimore, Md. 1932, 198 pp.

GENERAL

- 2. Animal Magnetizm
 Alfred Binet and Charles Fere, New York. D. Appleton and Co.,
 1888. 378 pp.
- 12. Scientific Conferences

 Held in Connection with the Special Lean Collection of Scientific Apparatus. 1876. Chemistry, Biology, Physical Geography,
 Geology, Mineralology, and Meteorology. Scribner, Welford and
 Armstrong. New York. 441 pp.
- 67. Manual for Small Museums
 By Laurence Vail Coleman. G. P. Putnam's Sons, New York,
 London. 1927. 395 pp.
- 71. Who's Who in America, Vol. 18, 1934-35.
 Edited by Albert Nelson Marquis. The A. N. Marquis Co.,
 Chicago, 1934. 2749 pp.
- 79. A Course in Scientific German. Prepared by Harry Blake Hodges.
 Ginn and Heath, 1877, Boston. 69 pp.

- 322. Federal Citizenship Textbook, Course of Instruction for Use in the Public Schools by the Candidate for Citizenship. Fart I---- English for American Citizenship.

 Government Frinting Office, 1922. 163 pp.
- 328a. Problems of Installation in Museums of Art Publications of the b. American Association of Museums, New Series, Number 14.

 By Arthur W. Melton. Washington, L. C. 1935. 269 pp.
- 329. Technical Methods in the Preservation of Anthropological Museum Specimens. Bulletin 67, National Museum of Canada. By D. Leechman, Ottawa, F. A. Acland, 1931.
- 330. The Preservation of Antiquities

 By H. J. Plenderleith, The Museums Association, London, 1934.
 71 pp.
- 339. Taxidermists' Supplies (A Catalog)
 Jonas Bros., Penver, Colorado, 1932, 64 pp.
- 342. Exposure Tests on Colorless Waterproofing Materials. Technologic Papers of the Bureau of Standards, 248.
- By D. W. Kessler, Gowernment Printing Office, 1924. 33 pp. 343. A Dictionary of the English and German Languages.
- By Chr. Fr. Grieb, John Weik, Philadelphia, 1857. 1187 pp.

GECLOGY, GEOGRAPHY, CLIMATOLOGY

- 3. Popular Geology
 Hugh Miller. (A series of lectures read before the Philosophical Institution of Edinburgh). Boston. Gould and Lincoln.
 1865. 423 pp.
- 4. Old Red Sandstone.
 - Hugh Miller. Boston. Gould and Lincoln. 1865. 427 pp.
- 5. Elements of Geology
 Eliot Blackwelder and Harlan H. Barrows. American Book Company.
 New York. 1911. 475 pp.
- 30. Preliminary Field Report of the U. S. Geological Survey of Colorado and New Mexico.
- By. F. V. Hayden. Government Printing Office, 1869. 155 pp. 61. Tenth Annual Report of the U. S. Geological and Geographical Survey of the Territories embracing Colorado and Parts of Adjacent Territories, Being a report of Progress of the Exploration for the Year 1876.
 - By F. V. Hayden, U. S. Geologist. Government Printing Office 1878, 546 pp.
- 63. Outlines of Historical Geology.

 By Charles Schuchert. Second Edition, Rewritten. John Wiley
- and Sons, New York, 1931. 348 pp.

 The Papage Country (A geographic, geologic, and hydrologic Reconnaissance with a guide to desert watering places)

 By Kirk Bryan. Water Supply Paper 499, U. S. Geological Sur
 - by Kirk Bryan. Water Supply Paper 499, U. S. Geological Survey, Department of the Interior. Government Printing Office, 1925. 436 pp.

- 80. Invertebrate Fossils from the Pacific Coast. Bulletin 51 of the U. S. Geological Survey. Bulletin 52, and 53. Washington, Government Printing Office, 1889.
- 81. Journal of the American Geographical and Statistical Society.
 John H. Schultz and Co. New York, 1859, 310 pp.
- 82. Journal of the American Geographical Society of New York, Vol. VII.

Jerome B. Parmenter, State Printer, 1878. 396 pp.

- 83. Journal of the American Geographical Society of New York, Vol. XIII. New York, 1881. 219 pp.
- E4. Journal of the American Geographical Society of New York, Vol. XVIII. New York, 1886.
- 85. Journal of the American Geographical Society of New York, Vol. XX New York, 1888.
- 36. Journal of the American Geographical Society of New York, Vol. XXV New York, 1893. 609 pp.
- 87. Journal of the American Geographical Society of New York, Vol. XXIX
 New York, 1897. 494 pp.
- 88. Journal of the American Geographical Society of New York, Vol. XXX New York, 1898. 480 pp.
- 89. Bulletin of the American Geographical Society of New York. Vol. XXXIV. New York, 1902. 476 pp.
- 90. Bulletin of the American Geographical Society of New York, Vol. XXXVIII. New York, 1906. 804 pp.
- 91. Water Storage in the Truckee Rasin, California-Nevada. Water Supply Paper 68, Geological Survey, Department of the Interior. By L. H. Taylor, Government Printing Office, 1902. 90 pp.
- 92. Surface Water Supply of Colorado River. Drainage above Yuma. Water-supply Paper 211, Geological Survey, Department of the Interior.
 - By R. I. Meeker and H. S. Reed. Government Printing Office, 1908. 149 pp.
- 93. Preliminary Report on the Ground Waters of San Joaquin Valley, California. Water-supply Paper, 222, Geological Survey, Dept. of the Interior.
- By Walter C. Mendenhall. Gcv. Ptg., Office, 1908. 52 pp. 54. Some Resert Watering Places in Southeastern California and Southwestern Nevada. Water-supply Paper 224, Geological Survey, Repartment of the Interior.
 - By Walter C. Mendenhall. Gov. Ptg. Office, 1909. 98 pp.
- 95. The Salton Sea Region, California (A Geographic, Geologic, and Hydrologic Reconnaissance with a Guide to Desert Watering Places), Water-supply Paper 497, Geological Survey, Pept. of the Interior. By John S. Brown. Gev. Ptg. Office, 1923. 292 pp.
- 96. The Mchave Desert Region, California (A Geographic, geologic, and hydrologic reconnaissance) Water Supply Paper 578, Geological Survey, U. S. Department of the Interior.
- By David G. Thompson. Gev. Ptg. Office, 1929. 759 pp.

 97. Surface Water Supply of the United States, Fart IX, Colcrado
 River Basin. Water supply paper 649. Geological Survey, Department of the Interior. Nathan C. Grever, Chief Hydraulic Engineer,
 Government Printing Office, 1936. 99 pp.

- 98. Surface Water Supply of Hawaii, July 1, 1929, to June 30, 1930. Water-supply Paper 710. Geological Survey, U. S. Department of the Interior.
 - Nathan C. Grever, Chief Hydraulic Engineer. Government Printing Office, 1933. 101 pp.
- 99. Results of Spirit Leveling in Arizona, 1899 to 1909, Inclusive. Bulletin 403, Geological Survey, Department of the Interior. By R. B. Marshall, Chief Geographer. Government Printing Office, 1911. 94 pp.
- 100. Routes to Desert Watering Places in the Salton Sea Region, California. Water Supply Paper 490-A, Geological Survey, Dept. of the Interior.
 - By John S. Brown, Government Printing Office, 1920. 86 pp.
- 101. Routes to Desert Watering Places in the Mohave Desert Region, California. Water Supply Paper 490-B. Geological Survey, Department of the Interior.
 - By David G. Thompson. Government Printing Office, 1921. 269 pp.
- 102. Routes to Desert Watering Places in the Papago Country, Arizona. Mater-Supply Paper 490-D. Geological Survey, Dept. of the Interior. By Kirk Bryan. Government Printing Office, 1922. 427 pp.
- 103. The Constitution of the Silicates, Bulletin of the United States Geological Survey, No. 125. Government Printing Office, 1895. 109 pp.
 - By F. W. Clarke.
- 103b. The Eastern Portion of Mount McKinley National Park
 By S. R. Capps
 The Kantishna District and Mining Development in the Tatlanika
 and Totatlanika Basins
 By Fred H. Moffitt.
 Bulletin 836 D. of the Geological Survey, U. S. Gov. Ptg. Office,
 - 1932.
 Routes to Desert Watering Places in the Lower Gila Region,
- Arizona. Water Supply Paper 490-C U. S. Geological Survey, Government Printing Office, 1922. 315 pp.
 By Clyde P. Ross.
- 105a. Soil Survey of the Middle Gila Valley Area, Arizona, Bureau of b. Soils, Department of Agriculture.
 - c. By E. C. Eckmann, in Charge, Mark Baldwin, and E. J. Carpenter d. Government Printing Office, 1920. 37 pp.
- d. Government Printing Office, 1920. 37 pp.
 106. Soil Erosion a National Menace, Circular 33, U. S. Department of Agriculture.
 - By H. H. Bennett and W. R. Chapline. Gov. Ptg. Office, 1928. 36 pp.
- 107. The Geologic Story of the Rocky Mountain National Park, Colorado. Kational Park Service, Department of the Interior.
- By #illis T. Lee. Government Printing Office, 1917. 89 pp. 108. The So-Called "Build-up" and "Break-down" of Soil. Zeolites as Influenced by Reaction. Technical Bulletin No. 28, University of Arizona, College of Agriculture.
 - By P. S. Burgess. University of Arizona, Tucson, Arizona. September 15, 1929. 135 pp.

104.

- 109. The Base Exchange Property of Organic Matter in Soils. Technical Bulletin No. 3C, University of Arizona, College of Agriculture. By W. T. McGeorge. University of Arizona, Tucson, Arizona. June 15, 1930. 213 pp.
- 110. Groundwater Supply and Irrigation in the Rillite Valley. Univ. of Arizona, Agricultural Experiment Station, Bulletin No. 64.

 By G. E. P. Smith. Tucson, Arizona. May 12, 1910. 244 pp.
- 111. Arizona Gold Placers, University of Arizona. Bulletin 113., Arizona Bureau of Mines.

By M. A. Allen, Tucson, Arizona, Jan. 15, 1922. 24 pp.

112. A Resume of Arizona Geology, University of Arizona Bulletin 119.

Arizona Bureau of Mines.

By N. H. Farton University of Arizona Tucson Arizona.

By N. H. Tarton, University of Arizona, Tucson, Arizona. October 15, 1925. 298 pp.

113. Geology and Mineral Deposits of Southern Yuma County, Arizona.
University of Arizona, Bulletin No. 134. Arizona Bureau of
Mines, Geological Series No. 7.

By Eldred D. Wilson. University of Arizona, Tucson, Arizona. Feb. 15, 1933. 236 pp.

114. The Glacial History of an Extinct Volcano, Crater Lake National Park. Reprint from the Journal of Geology, Vol. XLIII, No. 2, 1935.

By Wallace W. Atwood, Jr., 26 pp.

- 115. Ancient Landscapes of the Grand Canyon Region (The Geology of Grand Canyon, Zion, Bryce, Petrified Forest, and Painted Desert.

 By Edwin D. McKee, published by same, 1931, Grand Canyon
 National Park, Arizona. 50 pp.
- 116. Gila River Flood Control, A Report on Flood Control of the Gila River in Graham C., Arizona. Letter from the Secretary of the Interior transmitting, 65th Congress, 3rd Session, Senate Doc. 436.

By Frank H. Olmstead. Gov. Ptg. Office, 1919. 94 pp.

- 177. Same as 116., but is bound copy.
- 118. The Vertebrata of the Tertiary Formations of the West, Book 1. U. S. Geological Survey of the Territories.

 By Edward D. Cope, Gov. Ptg. Office, 1383. 1009 pp.
- 119. Story of the Grand Canyon of Arizona.

 By N. H. Darton, Published by Fred Harvey, Kansas City, Mo. 1919. 75 pp.
- 256. Periodic Variation of Rainfall in the Arid Region. Bulletin N, Weather Bureau, U. S. Department of Agriculture. By William B. Stockman. Gov. Ptg. Office, 1905. 15 pp.
- 257. A Survey of Certain Waters of the Arapaho National Forest, Colorado. Bureau of Fisheries Department of Commerce. By Ralph G. Gilmore. Washington, May, 1935, 49 pp.
- 259. Dry Farming in Arizona. University of Arizona Agricultural Experiment Station, Bulletin 84.

 By A. M. McOmie, Tucson, 1918.
- 260. Irrigation and Agricultural Practice in Arizona University of Arizona Agricultural Experiment Station, Bulletin 63.

 By R. H. Forbes, Tucson, 1911. 83 pp.

- 262. The Climate of Arizona. Bulletin 130, University of Arizona Agricultural Experiment Station.

 By H. V. Smith, Tucson, 1930.
- 263. The Climate of Arizona. Bulletin 130, University of Arizona Agricultural Experiment Station.

 By H. V. Smith, Tucson, 1930.
- 264. Forty Years of Southern New Mexico Climate. Bulletin 59, New Mexico College of A and M, Agricultural Experiment Station. By J. D. Tinsley, Santa Fe, 1906. 43 pp.
- 306. Report: Investigation of the Salt and Gila Rivers Reservations and Reclamation Service. 62d Congress, 3d Session. Report No.1506 Government Printing Office, 1913. 736 pp.
- 309. Report: Investigation of the Gila and Salt Rivers--Reservations and Reclamation Service. House Calendar No. 390.

 Government Printing Office, 1913. 28 pp.
- 312b. Salt and Gila Rivers-Reservations and Reclamation Service,
 - a. Hearings Before a Subcommittee of the Committee on Expenditures
 - c. in the Interior Department, under H. Res. 103. Nos. 4,6,7,8.
 - d. April 26, 1912. Government Printing Office.
- 344a. Cutline of the Geology and Palaeontology of Scotts Bluff National Monument. National Park Service, Field Division of Education.
 - By William L. Effinger, Berkeley, California, 1934. 37 pp.
- 347a. A Report on the Geology of Devils Tower National Monument.
 - b. National Park Service, Field Division of Education.
 - By William L. Effinger, Berkeley, California, 1934. 14 pp.
- 354a. A Report on the Geology of the Southwestern United States.
 National Park Service, Field Division of Education.
- By William L. Effinger, Berkeley, California, 1935. 52 pp. 358a. The Geology of Rocky Mountain National Park National Park
- Service, Field Division of Education.

 By William L. Effinger, Berkeley, California, 1934. 28 pp.

GOVERNMENTAL

- Digest of Decisions of the Comptroller of the Treasury, 1894-1920. Government Printing Office, 1920. 2,497 pp.
- 32. Decisions of the Comptroller of the Treasury. July, 1920 to June, 1921. Government Printing Office, 1921. 1173 pp.
- 33. Lecisions of the Comptroller General of the United States. July 1, 1923 to June 30, 1924. 1083 pp.
- 34. Decisions of the Comptroller General of the United States.
 July 1, 1924 to June 30, 1925. Gov. Printing Office, 1165 pp.
- 35. Decisions of the Comptroller General of the United States.

 July 1, 1925, to June 30, 1926. Gov. Printing Office. 1137 pp.
- Decisions of the Comptroller General of the United States. July 1, 1926 to June 30, 1927. 971 pp.
- 37. Decisions of the Comptroller General of the United States. July 1, 1927, to June 30, 1928. 978 pp.

- 38. Decisions of the Comptroller General of the United States. July 1, 1928, to June 30, 1929. 779 pp.
- 39. Decisions of the Comptroller General of the United States. July 1, 1929, to June 30, 1930. 583 pp.
- 40. Decisions of the Comptroller General of the United States. July 1, 1930, to June 30, 1931. 639 pp.
- 41. Decisions of the Comptroller General of the United States. July 1931 to June 30, 1932. 579 pp.
- 42. Decisions of the Comptroller General of the United States. July 1, 1932 to June 30, 1933. 724 pp.
- Decisions of the Comptroller General of the United States. July 1, 1933, to June 30, 1934. 546 pp.
- 45. Index to the Published Decisions of the Accounting Officers of the United States. With Statutes, Decisions and Opinions Cited Therein, Also Cross References. 1894-1929. In Three Parts, Part I. Government Printing Office, Washington 1931. 857 pp.
- 46. Government Salary Tables. Prepared by the Treasury Department in Conformity with the Act of Congress Approved June, 30, 1906, for use in the Payment of Persons in the Employment of the Government who Receive Annual or Monthly Salaries. Government Printing Office, 1916. 273 pp.
- 47. Government Salary Tables Showing Basic Salaries. Government Printing Office, 1986. 184 pp.
- 43. Laws Relating to the Department of the Interior, and Appropriating Acts for the Fiscal Year Ending June 30, 1918, and Prior years. Government Printing Office, 1918. 471 pp.
- 55. Official Congressional Directory. 72d Congress, 2d Session. Second Editions, Corrected to January 13., 1933. Government Printing Office. 711 pp.
- 56. Official Congressional Directory. 73d Congress, 1st session. First Edition, corrected to June 3, 1933. Government Printing Office, 1933.
- 57. Official Congressional Directory. 73d Congress, 2nd Session. First Edition, corrected to Dec. 21, 1933. Gov. Ptg. Office, 1933. 715 pp.
- 58. Official Congressional Directory. 73d Congress, 2nd Session. Second Edition, corrected to May 4, 1934. Government Printing Office, 1934. 719 pp.
- 59. Official Congressional Directory. 74th Congress, 1st Session. First Edition, corrected to Dec. 20, 1934. Government Printing Office, 1934. 737 pg.
- 73. Official Congressional Directory, 73d Congress, 2d Session. First Edition. Government Printing Office, Washington, 1933. 715 pp.
- 74. Yearbook of Agriculture, 1934. United States Department of Agriculture. Milton S. Eisenhower, Editor. Gowernment Printing Office, 1934. 783 pp.
- 297a. Extract from the Annual Report of the Secretary of the Interior, Fiscal Year 1928, Relating to the National Park Service.

 Government Printing Office, 1928.

- 297. Report of the Secretary of the Interior for the Fiscal Year Ended June 3C, 1911. Government Printing Office, 1912. 82 pp.
- 298. Annual Report of the Secretary of the Interior for the Fiscal Year Ended June 30, 1929. Government Printing Office, 1929. 167 pp.
- 299a. Annual Report of the Secretary of the Interior for the Fiscal b. Year Ended June 30, 1931. Government Printing Office, 1931. 131 pp.
- 300a. Annual Report of the Secretary of the Interior for the Fiscal b.c. Year Ended June 30, 1933. Gcv. Ptg. Office, 1933. 329 pp.
- 301. Report of the Chief Clerk and Superintendent of Buildings to the Secretary of the Interior, June 30, 1918.

 Government Printing Office, 1919. 14 pp.
- 303a. First Report of the Director of Emergency Conservation Work,
 b. for the Period April 5, 1933, to September 30, 1933.
 Government Frinting Office, 1934. 58 pp.
- 304a. The National Parks and Emergency Conservation United States b. Department of the Interior, National Park Service.
 - c. Government Printing Office, 1933. 32 pp.
- 307. A Bill for the Establishment, Development, and Administration of the Boulder Canyon National Reservation, and the Development and Administration of the Boulder Canyon Project Federal Reservation and for other Purposes. 72d Congress, 2nd sessions, on S. 5637. Feb. 24, 1933. Government Printing Office. 43 pp.
- 308. Construction of Roads, Etc., in National Parks and Monuments. Hearings, 68th Congress, 1st Session, on H. R. 3682.

 Government Printing Office, 1924. 136 pp.
- 310. Construction of Roads, Etc., in National Parks and Monuments. 68th Congress, 1st Session, on H. R. 3682.

 Government Printing Office, 1924. 136 pp.
- 313. To Encourage the Development of the Agricultural Resources of the United States. H. R. 2913.

 Government Printing Office, 1921. 173 pp.
- 314. Yearbook of Agriculture, 1935. U. S. Department of Agriculture.
 Milton S. Eisenhower, Editor. Gov. Ptg. Office, 1935. 762 pp.
- 317. Report of the Committee on the Conservation and Administration of the Public Domain to the President of the United States, January, 1931. Government Printing Office, 1931. 82 pp.
- 319. National Conference on Cutdoor Recreation. Senate Document No. 158, 76th Congress, 1st Session.

 Government Printing Office, 1928. 104 pr.
- 323. Manual of Financial Procedure, Accounting and Reporting for State and Local Civil Works Administrations. Federal Civil Works Administration. Government Printing Office, 1934.
- 324. Handbook on Personnel Management and Procedure, Part 1, United States Forest Service, Region 5. 1932. 67 pp.
- 331. Park Recreation Areas in the United States, 1930, U. S. Dept. of Labor. Government Printing Office, May, 1932, 115 pp.
- of Labor. Government Printing Office, May, 1932. 115 pp.
 336. National Resources Board, A Report on National Planning and
 Public Works in Relation to Natural Resources and Including
 Land Use and Water Resources with Finding and Recommendations.

 Part II, Report of the Land Planning Committee.

HISTORY

- 49. The Outline of History, by H. G. Wells, Third Edition, the Mac-Millan Co., N. Y., 1921. 1171 pp.
- 50. Notes of a Military Reconnaissance from Fort Leavenworth, in Missouri, to San Diego, in California, Including Part of the Arkansas, Del Norte, and Gila Rivers. By Lieut. Co. W. H. Emory. Wendell and Van Benthuysen, Printers. Washington, 1848. ô14 pp.
- 52. The Romance of the Colorado River. The Story of its Discovery in 1540, with an account of the Later explorations, and with special reference to the voyages of Powell through the Line of the Great canyons. By Frederick S. Dellenbaugh. G. P. Putnams Sons, N. Y. and London. The Knickerbocker Press, 1902. 359 pp.
- 53. Tombston's Yesterday.

 By Lorenzo D. Walters. Acme Printing Co., Tucson, Arizona.
 1928. 293 pp.
- 54. Arizona Historical Review. January, 1933. Published by the Arizona State Historian, Phoenix. Vol. V, No. 4. Thru p. 346.
- 131. Father Kino, "The Apostle of California" His discoveries and explorations in California in a series of autograph letters, 1680-1687.

 Bibliotheca Americana, Fart III. Catalog of Maggs, Bros. 34-5 Conduit St. New Bond Street, London, W., 1922. 38 pp.
- 132. Report on the U. S. and Mexican Boundary Survey, made under the Direction of the Secretary of the Interior. 34th Congress, 1st Session, House of Representatives., Ex. Doc. No. 135. Volume I.
 - William H. Emory, Cornelius Wendell, Printer, Washington, 1857. 171 pp.
- 133. Preliminary Report concerning Explorations and Surveys principally in Nevada and Arizona.
 - Conducted 1871 under the immediate direction of George M. Wheeler, Corps of Engineers. Gov. Ptg. Office, 1972. 96 pp.
- 134. Report on a Survey from the Pimas Villages on the Rio Gila to Mesilla on the Rio Bravo del Norte with a view to determining the Practicability of a railroad from the Mississippi to the Pacific Ocean. House Document 129.
 - By Lieut. J. G. Parke, Washington, 1854.
- 135. Report of Explorations of a Route for the Pacific Railroad near the 32nd Parallel of Latitude from the Red River to the Rio Grande. H, Doc. 129.
- By Brevet Captain John Pope. Washington, 1854.

 The Californian, A Western Monthly Magazine. January-June, 1889.

 Volume I. The A. Roman Publishing Co., San Francisco. 580 pp.

- 250. The New Mexico Historical Review.

 Published quarterly by the Historical Society of New Mexico and the University of New Mexico.
- 335. The Preservation of Local Archives. A Guide for Public Officials. Prepared by the Public Archives Commission, under Direction of the American Historical Association. Washington, D. C., 1932. 16 pp.
- 345a. The History of Scotts Bluff, Nebraska. National Park Service, b. Field Division of Education.

By Dr. Donald D. Frand, Berkeley, Calif., 1934. 83 pp.

- 349a. Mount Rainier, Its Human History Associations, National Park b. Service, Field Division of Education. By H. E. Rensch, Berkeley, California, 1935. 46 pp.
- 351. History of Glacier National Park, with Particular Emphasis on the Northern Development. National Park Service, Field Division of Education.

By Ralph L. Beals, Berkeley, California, 1935. 27 pp.

352a. Chronology for Tumacacori Katicnal Monument With Bibliography.
b. National Park Service, Field Division of Education.

By H. E. Rensch, Berkeley, California, 1934. 37 pp.

357a. Historical Background for the Rocky Mountain National Park.
National Park Service, Field Division of Education.
By H. E. Rensch, Berkeley, California, 1935. 45 pp.

MISCELLANEOUS

- Estars and Telescopes
 By David P. Todd.
 A Handbook of Popular Astronomy. Boston. Little, Frown, and
 Co. 1899. 419 pp.
- 8. American Civic Annual, Vol. 1. 1929. Harlen James (Ed.). Am. Civic Assoc., Inc. Union Trust Bldg., Washington, D. C. 288 pp.
- 9. American Civic Annual, Vol. II. 1930. Harlean James (Ed.). Am. Civic Assoc., Inc. Union Trust Bldg., Washington, D. C. 340 pp.
- 16. American Civic Annual, Vol. III. 1931.
 Harlean James (Ed.) Am. Civic Assoc., Inc. Union Trust Bldg.,
 Washington, D. C. 350 pp.
- 11. American Civic Annual, Vol. IV. 1932.
 Harlean James (Ed.) Am. Civic Assoc., Inc. Union Trust Eldg.,
 Washington, D. C. 276 pp.
- 51. Arizona Year Book, 1930-31. A Compendium of Historical and Statistical Information Relating to the State of Arizona. Compiled by Forrest E. Doucette, Phoenix, Arizona, 1930. 481 pp.
- American Civic Annual. Edited by Harlean James, American Civic Assoc., Union Trust Bldg., Washington D. C. 1931. Copy 2. 549 pp.
- 75. The Principles and Practice of Surveying Vol. II Higher Surveying.

 By Charles B. Breed and George L. Hosmer. John Wiley and Sons,

 Inc. New York, 1918. 443 pp.

- 76. Principles and Practice of Surveying, Volume I, Elementary Surveying.
 - By Charles B. Breed and George L. Hosmer, John Wiley and Sons, New York, 1917. 591 pp.
- 77. Building Code recommended by the National Board of Fire Under-writers.

National Board of Fire Underwriters, 85 John St., New York. Fifth Edition, 1931.

- 78. The Civil Engineers Pocket-Book
 By John C. Trautwine. Trautwine Co., 257 S. 4th St.,
 Philadelphia. 1916. 1257 pp.
- 332. "You Can Make It, for Camp or Cottage"
 National Committee on Mood Utilization, U. S. Department of
 Commerce. Government Printing Office, 1930. 47 pp.
- 333. Dwelling Houses, A Code of Suggestions for Construction and Fire Protection. Recommended by the National Board of Fire Underwriters.

New York, 2nd Edition, 1920. 124 pp.

334. Modern Connectors for Timber Construction U. S. Department of Commerce.

Government Printing Office, 1933. 146 pp.

NATIONAL PARKS

- 13. General Information Circulars. National Parks and Monuments, 1918. Department of the Interior, Cffice of the Secretary, Washington, D. C.
- 14. General Information Circulars. National Parks and Monuments. 1919. Department of the Interior, Office of the Secretary. Washington, D. C.
- 15. National Park Rules and Regulations, 1920. Department of the Interior, Washington, D. C.
- 16. National Park Rules and Regulations, 1921. Department of the Interior, Washington, D. C.
- 17. National Park Rules and Regulations, 1922. Department of the Interior, Washington, D. C.
- 18. National Park Rules and Regulations, 1923. Department of the Interior, Washington, D. C.
- 19. National Park Rules and Regulations, 1924. Department of the Interior, Washington, D. C.
- 20. National Park Rules and Regulations, 1925. Department of the Interior, Washington, D. C.
- 21. National Park Rules and Regulations, 1926. Department of the Interior, Mashington, D. C.
- 22. National Park Rules and Regulations, 1927. Department of the Interior, Washington, D. C.
- 23. National Park Rules and Regulations, 1928. Department of the Interior, Washington, D. C.
- 24. Circulars of General Information, National Parks, 1929.

 Department of the Interior, Washington, D. C.

- Circulars of General Information, National Parks, 1930. 25. Department of the Interior, Washington, D. C.
- 26. Circulars of General Information, National Parks, 1930 (copy2) Department of the Interior, Washington, D. C.
- 27. Circulars of Ceneral Information, National Parks, 1931. Department of the Interior, Washington, D. C.
- 28. Circulars of General Information, National Parks, 1932. Department of the Interior, Washington, D. C.
- 29. Circulars of General Information, National Parks, 1934. Department of the Interior, Washington, D. C.
- 44. Laws Relating to National Park Service. The National Farks and Monuments. Compiled by Hillory A. Tolson. Government Printing Office, Washington, 1933. 318 pp.
- 62. The National Parks Portfolio By Robert Sterling Yard. Sixth Edition. Revised by Isabelle F. Story, Editor, MPS. Gov. Ptg. Office, 1931. 274 pp.
- 72. Proceedings of the First Park Naturalists' Training Conference, held at Educational Headquarters, Berkeley, California, Nov. 1, to 30, 1929.
 - U. S. Dept. of the Interior, NPS, 1932. Distributed by Ansel Franklin Hall.
- 180. Report on Wind Cave, Crater Lake, Sullys Hill Platt National Parks and Casa Grande Ruin. 1909. Compiled in the Office of the Secretary of the Interior. Gov. Printing Office. 12 pp.
- 181a. Report on Platt and Wind Cave National Parks, Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and Other Na
 - c. tional Monuments, Including List of Bird Reserves. 1911. Compiled in the Office of the Secretary of the Interior. Government Printing Office, 1912.
- 182. Report on Platt and Wind Cave National Parks, Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and other National Monuments, including List of Bird Preserves. 1912. Compiled in the Office of the Secretary of the Interior. Government Printing Office, 1912. 49 pp.
- 183. Report on Wind Cave National Park, Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and other National Monuments, including List of Bird Reserves. 1913. Compiled in the Office of the Secretary of the Interior. Government Printing Office, 1914.
- 184. Report on Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and other National Monuments, Including List of Bird Reserves. 1914.
 - Compiled in the Office of the Secretary of the Interior. Government Printing Office. 1914. 54 pp.
- 185. Report on Sullys Hill Park, Casa Grande Ruin, Muir Woods, Petrified Forest, and Other National Monuments, Including List of Bird Reserves. 1915.
 - Compiled in the Office of the Secretary of the Interior. Government Printing Uffice, 1915. 65 pp.

- 186. General Information regarding the Casa Grande Ruin Arizona. 1916. Government Printing Office, 1916. 31 pp.
- 187. General Information Regarding the Casa Grande National Monument, Arizona. 1919.

Government Printing Office, 1919. 31 pp.

- 265. Lassen Volcano Ranger Notes. Miscellaneous copies.
- 266. Hawaii National Park Nature Notes, Miscellaneous copies.
- 267. Glacial Drift (Glacier National Park) Miscellaneous copies.
- 268. Grand Canyon Nature Notes (mimeographed series) Misc. copies.
- 269. Crater Lake National Park Nature Notes. Miscellaneous copies.
- 270. Mesa Verde Occasional Papers.
 - 1. Bibliography of Mesa Verde National Park.
- 271. Mesa Verde Notes. Miscellaneous copies.
- 272. Yellowstone National Park Nature Notes. Miscellaneous copies.
- 273. Grand Canyon Nature Notes. Photolighoprinted series.
 Miscellaneous copies.
- 274. Yosemite Nature Notes. Miscellaneous copies.
- 275a. Proceedings of the National Park Conference held at the Yellowstone National Park, September 11 and 12, 1911.

 Government Printing Office, 1912.
- 276. Proceedings of the National Park Conference held at Berkeley, California, March 11, 12, and 13, 1915
 Government Printing Office, 1915.
- 277. Minutes of the Seventh National Park Conference held in Yellowstone National Park, Wyoming, October 22-28, 1923.
- 278. Minutes of the Eighth National Park Conference held in Mesa Verde National Park, Colorado, October 1-5, 1925.
- 279. Minutes of the Ninth National Park Conference held in Washington D. C., Nov. 15-20, 1926.
- 280. Minutes of the Tenth National Park Conference Held in San Francisco, California, Feb. 15-21, 1928.
- 281a. Conference of Superintendents and Field Officers Washington,
 - b. D. C. --Nov. 19-23, 1934. Vol. 1, pp 1-199, Sessions of Nov. 19 and 2C.
- 281c. Conference of National Park Superintendents and Field (fficers,
 - d. Washington, D. C.--Nov. 19-23, 1934, Vol. 2. pp. 200-322. Sessions of November 21.
- 281f. Conference of National Park Superintendents and Field Officers,
 - e. Washington, D. C., Nov. 19-23, 1934. Volume 3, pp 323 to 379. Morning Session of Nov. 22. Joint meeting with park operators.
- 281g. Conference of National Park Superintendents and Field Officers, Washington, D. C., Nov. 19-23, 1934. Vol. 4, Pp. 380 to 535. Afternoon sessions of Nov. 22. Group conference of Historical and Archeological Superintendents of Friday morning, Nov. 23rd. and the Final Afternoon Session of Nov. 23.
- 282a. Minutes of the 12th annual Conference of National Park Executives
- b. held at Hot Springs Nat'l Park, Arkansas, Apr. 3-8, 1932.
 283a. National Parks Bulletin, No. 53, July, 1927.
 - b. National Parks Association, Washington, D. C.
- 284. 39 copies. National Parks Bulletin, No. 54, November, 1927. The National Parks Association, Washington, D. C.

- 285. Ranger Katuralist Manual, Yellowstone Kational Park. Vol. II. Third Edition.
 - National Park Service, U. S. Department of the Interior, Yellowstone National Park, June 1, 1928.
- 286. Scientific Investigations in Yellowstone Mational Park.
 By Carl P. Russell. Field Naturalist.
- 287. Ranger Naturalists Manual of Yellowstone National Park. Vol. III, June 1, 1929.
 Yellowstone National Park, Wyoming, 206 pp.
- 288. Rangers Manual, Lassen Volcanic National Park. 18 pp.
- 289. Progress in Development of the National Parks. Department of the Interior, Office of the Secretary.

 By Stephen T. Mather. Gov. Ptg. Office, 1916, 36 pp.
- 290. Annual Report of the Superintendent of National Parks to the Secretary of the Interior, for the Fiscal Year Enged June 30, 1916. Government Printing Office, 1916. 89 pp.
- Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1917.

 Government Printing Office, 1917. 215 pp.
- 292. Report of the Director of the National Park Service to the Secretary of the Interior for Fiscal Year Ended June 39, 1918. Government Printing Office, 1918. 284 pp.
- 293. Report of the Director of the National Park Service to the Secretary of the Interior for the Fiscal Year Ended June 30, 1923, and the Travel Season, 1923.

 Washington, Government Printing Office, 1923. 198 pp.
- 294a. Report of the Director of the National Park Service to the b. Secretary of the Interior for the Fiscal Year Ended June 30, 1923, and the Travel Year, 1923.

 Government Printing Office, 1923. 198 pp.
- 295. Annual Report of the Director of the National Park Service to the Secretary of the Interior for Fiscal Year Ended June 30, 1929. Gowernment Printing Office, 1929. 176 pp.
- 296. Annual Report of the Director of the National Park Service to the Secretary of the Interior for Fiscal Year Ended June 30, 1932.

 Government Printing Office, 1932, 100 pp.
- 302a. Annual Reports of Field Divisions of the National Park Service, b. 1932. 74 pp.
- 311. A Bill to Establish a National Park Service and For Other Purposes. 63rd Congress, 2nd Session. On H. R. 104.

 Government Printing Office, 1914. 81 pp.
- 316. Trailside Notes for the Mctorist and Hiker Number Cne-Manmoth to Old Faithful, Yellowstone National Park.
 National Park Service, 1933. 36 pp.
- 318a. Research and Education in the National Parks. National Park thru Service.
 - i. By Harold C. Bryant and Wallace Atwood. Jr. Government Printing Office, 1932. 66 pp.
- 320. Report on the Proposed San Dunes National Park Indiana. National Park Service.
 - By Stephen T. Mather. Gov. Printing Office, 1917. 113 pp.

- 320. Report on the Proposed San Dunes National Park Indiana. National Park Service.
 - By Stephen T. Mather. Gov. Ptg. Office, 1917. 113 pp.
- 321. Early History of Yellowstone National Park and its Relation to National Park Policies. Kational Park Service.

 By Louis C. Crampton. Gov. Ptg. Office, 1952. 148 pp.
- 325a. Glimpses of Our National Monuments, National Park Service.
 Government Printing Office, 1926. 74 pp.
- 325b. Glimpses of Cur National Monuments, National Park Service.
 Government Printing Office, 1929. 81 pp.
- 325c. Glimpses of Our National Monuments. National Park Service. d. Government Printing Office, 1930. 74 pp.
- 326a. Glimpses of Our National Parks, National Park Service.
 Government Printing Office, 1931. 66 pp.
- 327a. Hawaii National Park, National Park Service.
 Government Printing Office, 1931. 20 pp.
- 327b. Yosemite National Park, National Park Service.
 Gowernment Printing Office, 1935. 37 pp.
- 327c. Carlsbad Caversn National Park, N. Mex. National Park Service.
 Government Printing Office, 1933. 51 pp.
- 327d. Mesa Verde National Park, Colorado, National Park Service.
 Government Printing Office, 1928. 62 pp.
- 327e. Rocky Mountain National Park, Colorado, National Park Service.
 Government Printing Office, 1927. 44 pp.
- 327f. Grand Teton National Park, Wyoming, National Park Service. U. S. Covernment Printing Office, 1932. 30 pp.
- 327g. Platt National Park, Cklahoma, National Park Service. 13 pp.
- 327h. The Proposed Olympic National Park. Emergency Conservation Committee, 734 Lexington Avenue, New York. April, 1934. Page 18.
- 337. Individual Reports of the Committee on Educational Problems in National Parks. 1929, 52 pp.
- 339a. A Camp Ground Policy, Forest Service, U. S. Dept. of Agriculture.
 b. By E. P. Meinecke, April 2, 1932. 24 pp.
- 341. Les Reserves Nationales des Etats-Unis (The National Parks of the United States) 1931. 64 pp.
- 350. Studies for Museum Development in Grand Canyon National Park.
 Submitted to Superintendent Tillotson, Nov. 15, 1934.
 By Ansel F. Hall, Chief, field Division of Education, National Park Service, Berkeley, California. 40 pp.
- 360a. General Report, Rainbow Bridge-Monument Valley Expedition of b. 1933.
 - By Ansel Franklin Hall, University of California Press, 1934. 32 pp.

NATURE TRAILS

- 315a. Nature Trails, an Experiment in Cutdoor Education. Misc.
 - b. Published No. 21 of the Am. Museum of Natural History.
 - c. By Frank E. Lutz, N. Y., 1926. 36 pp.

- 315d. Nature Trails, an Experiment in Cutdoor Education. Misc. Publ. No. 21 of the Am. Museum of Natural History. Second Edition. By Frank E. Lutz, N. Y., 1931. 38 pp.
- 315e. Trailside Family. The Nature Trails and Trailside Museum at f. Bear Mountain, N. Y. School Service Series Number 7, American Museum of Natural History.

By William H. Carr, 77th St. and Central Park West, N. Y., 1932. 32 pp.

- 315g. Trailside Transformation, The Nature Trails and Trailside Museums at Bear Mountain, N. Y. School, Service Series, No. 10, American Museum of Natural History.

 By William H. Carr, N. Y., 1934. 25 pp.
- 315i. Signs Along the Trail, The Museum and Nature Trails at Bear Mt., N. Y. New School Service Series No. 2, American Museum of Katural History.

 By William H. Carr, 1930. 28 pp.
- 315j. Trailside Conversations, Parts One and Two. The Nature Trails and Trailside Museum at Bear Mt., K. Y. New School Series No. 4 American Museum of Natural History.

 By William H. Carr, N. Y., 1930, 36 pp.
- 315k. Trailside Interdependence, the Nature Trails and Trailside
 Museum at Bear Mt. N. Y. School Service Series No. 8. The American Museum of Natural History.
 By William H. Carr. 1933, 22 pp.
- 3151. Blazing Nature's Trail, The Nature Trails and Trailside Museum at Bear Mt., N. Y. School Service Series No. 3, Second Edition, 1933.

By William H. Carr, N. Y. 21 pp.

- 315m. Trailside Actions and Reactions, The Nature Trails and Trailside Museum at Bear Mt. N. Y. School Service Series No. 5, the American Museum of Natural History.

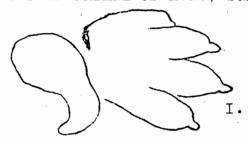
 By William H. Carr, 1931, 32 pp.
- 315j. Trailside Conversations, Parts One and Two. The Nature Trails and Trailside Museum at Bear Mt., N. Y. New School Series No. 4 American Museum of Natural History.

 By William H. Carr, N. Y., 1930, 36 pp.

CHEIROTHERIUM

A weathered natural cast of the foot-print of a large reptile was found recently near Wupatki National Monument and has been referred to the Museum of Northern Arizona by Mr. J.W. Brewer.Jr. for comparison with similar material.

The specimen which was found on the surface probably came from a layer about 140-150 feet above the base of the Moencopi Sandstone, a formation of Lower Triassic age. It measures 15.5 x 15.5 cm, and shows only the impressions of four digits—the fifth having probably been broken off. All the digits are armed with powerful claws and the depth of the impression (4.5 cm) indicates an animal of heavy build.





The imprint appears to be that of the front part of the left hind foot of an unusually large Cheirotherium, the print of the "palm" of the foot and of the recurved fifth digit being missing. If this is so, the entire length of the original imprint, by comparison with specimens in the collection of the Museum of Forthern Arizona, would have been over 27 cm---considerably greater than that of Ch.Barthi, the largest of the species of this genus from the Bunter Sandstone of Europe.

Tracks of this type, which have been known for a long time from the European Triassic beds, have not been described from the Moencopi Sandstone, although a paper on these and other tracks recently collected by the Museum of Northern Arizona is now in preparation.

The tracks in question were for many years supposed to have been made by an amphibian, but are now referred to the rentilian order, Thecodontia, an order which is probably ancestral to the crocodiles on the one hand and the dinosaurs on the other.

The most striking point about the complete tracks of Cheirotherium is the small size of the front feet, and the strongly recurved fifth toe, which causes the imprint to resemble that of a large fat human hand.

L.F. Brady, Curator of Geology, M.N.A.

(I have supplemented Mr. Brady's description with the above sketches. Fig. I is a complete track as shown in Vol. 8, No. 2, Museum Notes, and Fig. II is outline of "Wupatki" cast. JWB)

Read from bottom upward and to left. The trend of the successive petroglyphs follows the general direction of the climb.

Up where (5) and find pool of water (≳) by hand and (3) foot trail (4) Surmount these obstacles



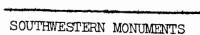


Zuni Indian as given to Custodian Vogt during the summer of Inscription Rock. The interpretation given is that of an old Above is copy of petroglyphs located on south side of

message is purported to refer. cliff, caused by water washing down through a fault, to which the Immediately behind the petroglyph is a large crevice in the

shelf of the orevice. interpretation, because a rock basin was found high up on the third Subsequent arduous climbing tended to uphold the Zuni's





BANDELIER FLORA LIST

カンパンカアファファ 1:		7101
Populus Angustifclia Populus Freemontia Populus Tremuloides	alicaceae - - -	Rarrowleaf Cottonwood Freemont Cottonwood Quaking Aspen
Robinia Nec-mexicana Thermopsis mentana	Pea Family	New Mexican Locust Thermopsis
Acer glabrum Acer negundo	Aceraceae - -	Dwarf Maple Box Elder
Ptelea crenulata	Ruta c ea e -	Hep Tree
Geranium caespitosum	Geraniaceae -	Geranium
Prunus melanocarpa Prunus Americana	Drupaceae - -	Choke Cherry Plum
Forestiera nec-mexicana	Oleaceae	
Philadelphus microphyllu Jamesia americana	Hydrangeace s -	ae
Alnus tenuifolia	Betulaceae	Mountain Alder
Quercus Gambellii Quercus undulata	Fagaceae ~ -	Gambel Cak Wavy-leaf Cak
Celtis Occidentalis	Ulmaceae -	Hackberry
Humubus lupulus necmexic	Mcraceae anus -	Hop Vine
Phoradendron juniperinum	Loranthacea	e Lesser Mistletoe
Monarda menthaefolia	Labiateae	
	017	(A) THE CO. II AND THE CO. III AND THE CO. III

Sclanaceae Tatura metelcides - Thorn apple Cnagra Hckeri Cnagra albicaulis Mentzelia decapetala Mentzelia multiflora Cercocarpus parvifclius Fragaria americana Fallugia peradeza Resa Fendlerii Mirabilis multiflora Mountain mancgany Strawberry Mountain mancgany Strawberry Mountain mancgany Strawberry Mountain mancgany Fendle Plume Fordece River Eank Grape Virginia Creeper Cressulariaceae River Eank Grape Virginia Creeper Cressulariaceae - Currant - Coseberry Anacardiaceae - Sumac - Peiscn Ivy Skunk Eush Caprifeliaceae - Elderberry Enderberry Ranuculaceae Cquilegia elegantula Clematis ligusticifelia - Mentzelia Mentzeli	BANDELIER FLORA LIST (CON	Γ.)	nanda-munamasasati talan dalam kana dipanda panga pipikatak naka pilanda anaki iya menamaka ana anaka asaba me Talan
Thorn apple Chagra Hockeri Chagra albicaulis Mentzelia decapetala Mentzelia multiflora Mentzelia multiflora Cercocarpus parvifolius Fragaria americana Fallugia paradoza Rosa Fendlerii Mirabilis multiflora Wiclaceae Wicla blanda Viola nephrophylla Vitaceae Vitis vulpina Parthenocissus vitaceae Ribes cereum Ribes leptanthum Ribes leptanthum Ribes despantula Rhus trilobata Caprifoliaceae Sambucus canadensis Sambucus melanocarpa Arctostaphylos uva-ursi Anacardiaceae - Red Columbine Clematis ligusticifolia Thalictrum Fendleri Pulsatilla hersutissima Arctostaphylos uva-ursi Dicasaceae Evening primrose Evening primrose Evening primrose Evening primrose Evening primrose Evening primrose Menutzelia primrose Menutzelia Mentzelia Mentzelia — Mountain mahogany Fragare Apache Plume Fendler's Rose Apache Plume Fendler's Rose White sweet Violet Furple violet Vitaceae — White sweet Violet Furple violet Vitaceae — White sweet Violet Furple violet Furglin's ceper Macardiaceae — Sumac — Sumac — Peison Ivy Skunk Bush Caprifoliaceae — Elderberry — Elderberry — Red Columbine — Pasque Flower Meadow Rue Pasque Flower Ericaceae — Fearberry		Sclenegese	
Chagra Hckeri Chagra albicaulis - Evening primrcse - Mountain mahcgany - Mountain mahcgany - Strawberry - Fallugia paradcza - Apache Plume - Fendler's Rose - Ao'clock - White sweet Violet - Furple violet - Vidaceae - Witts vulpina - River Bank Grape - Virginia Creeper - Currant - Currant - Cursant - Gooseberry - Anacardiaceae - Rhus cismontana - Rhus rismontana - Rhus rishotata - Sumac - Peison Ivy - Skunk Bush - Caprifcliaceae - Banbucus canadensis - Elderberry - Elderberry - Banunculaceae - Wieseae - Wingin's bewer - Win	Patura metelcides	DCTANAGEAE	Thorn apple
Chagra Hckeri Cnagra albicaulis -	Edvard Movorofacts		inoin appro
Chagra Hckeri Cnagra albicaulis -		Onagraceae	
Mentzelia decapetala - Mentzelia Mentzelia multiflora - Mentzelia Resacease Cercecarpus parvifelius - Mentzelia Resacease Cercecarpus parvifelius - Strawberry Fallugia paradeza - Apache Flume Resa Fendlerii - Fendler's Rese Mirabilis multiflora - 4 o'clock Vicla blanda Viclaceae Vicla blanda - White sweet Viclet Furple violet Vitaceae Vitis vulpina - River Bank Grape Parthenecissus vitaceae - Virginia Creeper Gressulariaceae Ribes cereum - Gurrant Ribes leptanthum - Geoseberry Anacardiaceae Rhus cismentana Rhus Rydbergii - Peisen Ivy Rhus trilebata - Skunk Bush Caprifeliaceae Sambucus canadensis - Elderberry Ranuculaceae Cquilegia elegantula Clematis ligusticifelia - Virgin's bewer Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flewer Ericaceae Arctostaphylos uva-ursi - Eearberry	Cnagra Hockeri	-	Evening primrcse
Mentzelia decapetala Mentzelia multiflora Resacease Resacease Apache Plume Fendler's Rese Nyetaginaceae Mirabilis multiflora Nyetaginaceae Mirabilis multiflora Viclaceae Vicla blanda Viola nephrophylla Vitaceae Vitis vulpina Parthenccissus vitaceae Ribes cereum Ribes leptanthum Ribes cismontana Rhus gismontana Rhus rishotata Rhus trilobata Rambucus canadensis Sambucus melanccarpa Caprifcliaceae Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri Pulsatilla hersutissima Arctostaphylos uva-ursi Resacease - Mentzelia Mentzelia - Wicharia mahogany - Franchery - Fundler's Rose - White sweet Viclet - Purple violet - Vitaceae - Virginia Creeper - Currant - Geoseberry Anacardiaceae - Currant - Geoseberry - Caprifcliaceae - Sumac - Peison Ivy - Skunk Bush - Red Columbine - Red Columbine - Virgin's bower - Meadow Rue - Pasque Flower - Ericaceae - Arctostaphylos uva-ursi - Eearberry - Ericaceae - Fearberry	Cnagra albicaulis	-	Mountain evening primrese
Mentzelia decapetala Mentzelia multiflora Resacease Resacease Apache Plume Fendler's Rese Nyetaginaceae Mirabilis multiflora Nyetaginaceae Mirabilis multiflora Viclaceae Vicla blanda Viola nephrophylla Vitaceae Vitis vulpina Parthenccissus vitaceae Ribes cereum Ribes leptanthum Ribes cismontana Rhus gismontana Rhus rishotata Rhus trilobata Rambucus canadensis Sambucus melanccarpa Caprifcliaceae Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri Pulsatilla hersutissima Arctostaphylos uva-ursi Resacease - Mentzelia Mentzelia - Wicharia mahogany - Franchery - Fundler's Rose - White sweet Viclet - Purple violet - Vitaceae - Virginia Creeper - Currant - Geoseberry Anacardiaceae - Currant - Geoseberry - Caprifcliaceae - Sumac - Peison Ivy - Skunk Bush - Red Columbine - Red Columbine - Virgin's bower - Meadow Rue - Pasque Flower - Ericaceae - Arctostaphylos uva-ursi - Eearberry - Ericaceae - Fearberry		T.oa sa ceae	
Resacease Cercocarpus parvifelius Fragaria americana Fallugia paradeza Fesa Fendlerii Nyctaginaceae Mirabilis multiflora Vicla blanda Vicla hephrephylla Vitaceae Vitis vulpina Parthenceissus vitaceae Ribes cereum Ribes leptanthum Ribes leptanthum Anacardiaceae Rhus cismontana Rhus Rydbergii Rhus trilebata Caprifeliaceae Cambucus canadensis Sambucus melancearpa Cquilegia elegantula Clematis ligusticifelia Thalictrum Fendleri Pulsatilla hersutissima Ricardaceae Arctostaphylos uva-ursi Resuntatin mahegany Fatuantegany Fa	Mentzelia decapetala	_	Mentzelia
Resacease Cereccarpus parvifelius Fragaria americana Fallugia paradeza Facease Resa Fendlerii Fendler's Rese Nyetaginaceae Mirabilis multiflera Nyetaginaceae Vicla blanda Viola nephrephylla Vitaceae Vita vulpina Parthenecissus vitaceae Ribes cereum Ribes leptanthum Ceresulariaceae Rhus cismentana Rhus rismentana Rhus rilebata Caprifeliaceae Sambucus canadensis Sambucus melanecarpa Caprifeliaceae			
Cereccarpus parvifelius Fragaria americana Fallugia paradcza Faculuria paradcza Faculuria paradcza Faculuria paradcza Faculuria paradcza Faculuria paradcza Faculuria paradcza Fendlerii Fendler's Rose Nyctaginaceae Nyctaginaceae White sweet Violet Violaceae Viola paphrophylla Furple violet Vitaceae Vitis vulpina Parthenccissus vitaceae Fibes cereum Faibes leptanthum Faculuria paradcza Caccssulariaceae Fibes cereum Fibes leptanthum Faculuria paradcza Anacardiaceae Rhus cismontana Fhus Rydbergii Fanus rilobata Faculuria paradcza paradensis Sambucus canadensis Sambucus canadensis Sambucus melancarpa Fanusculaceae Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri Furple violet Vitaceae Carcssulariaceae Currant Grosseberry Anacardiaceae - Currant - Grosseberry Anacardiaceae - Sumac - Sumac - Sumac - Paisen Ivy Falderberry Elderberry Fanusculaceae Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri - Meadow Rue Pasque Flower Ericaceae Arctostaphylos uva-ursi - Eearberry			
Fragaria americana Fallugia paradoza Fallugia paradoza Rosa Fendlerii Rosa Pendleris Rosa Rosa River Bank Grape Parthenocissus vitaceae River Bank Grape Virginia Greeper Corcssulariaceae Ribes cereum Ribes leptanthum Rosa Carrant Rosa Carrant Rosa Carrant Rosa Carrant Rosa Carrant Rosa Carrant Rosa Cardiaceae Rosa Carrifoliaceae Sambucus canadensis Sambucus canadensis Sambucus melanocarpa Caprifoliaceae Sambucus canadensis Sambucus melanocarpa Caprifoliaceae Sambucus canadensis Sambucus melanocarpa Caprifoliaceae - Elderberry Ranunculaceae Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Eearberry	•	Resacease	
Fallugia paradcza Rcsa Fendlerii - Fendler's Rcse Nyctaginaceae Nyctaginaceae Vicla blanda Viola nephrophylla Vitaceae Vitis vulpina Parthenccissus vitaceae Ribes cereum Ribes leptanthum Rhus cismontana Rhus Rydbergii Rhus trilobata Caprifoliaceae Sambucus canadensis Sambucus melanccarpa Caprifoliaceae - Elderberry - Elderberry - Red Columbine - Pasque Flower - Ericaceae - Ericaceae - Pasque Flower - Ericaceae - Pasque Flower - Ericaceae - Eearberry			
Rosa Fendlerii - Fendler's Rose Nyctaginaceae Mirabilis multiflora - 4 o'clock Viclaceae Vicla blanda - White sweet Violet Viola nephrophylla - Furple violet Vitaceae Vitis vulpina - River Bank Grape Parthenceissus vitaceae - Virginia Creeper Grossulariaceae Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Anus Rydbergii - Poison Ivy Rhus trilobata - Skunk Bush Caprifoliaceae Sambucus canadensis - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry		. . .	
Mirabilis multiflora — 4 o'clock Viclaceae Vicla blanda — White sweet Violet Viola nephrophylla — Furple violet Vitaceae Vitis vulpina — River Bank Grape Parthenceissus vitaceae — Virginia Creeper Cressulariaceae Ribes cereum — Currant Ribes leptanthum — Geoseberry Anacardiaceae Rhus cismentana — Sumae Rhus rismentana — Sumae Rhus rilebata — Peisen Ivy Rhus trilebata — Skunk Bush Caprifeliaceae Sambucus canadensis — Elderberry Sambucus melancearpa — Elderberry Ranunculaceae Cquilegia elegantula Clematis ligusticifolia — Virgin's bewer Thalictrum Fendleri — Meadow Rue Pulsatilla hersutissima — Pasque Flewer Ericaceae Arctostaphylos uva-ursi — Eearberry		-	_
Mirabilis multiflora - 4 o'clock Viclaceae Vicla blanda - White sweet Violet Viola nephrophylla - Furple violet Vitaceae Vitis vulpina - River Bank Grape Parthenccissus vitaceae - Virginia Creeper Grossulariaceae Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus cismontana - Sumac Rhus Rydbergii - Poison Ivy Rhus trilobata - Elderberry Sambucus canadensis - Elderberry Gambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry	Rosa Fendlerii	-	Fendler's Rose
Mirabilis multiflora - 4 o'clock Viclaceae Vicla blanda - White sweet Violet Viola nephrophylla - Furple violet Vitaceae Vitis vulpina - River Bank Grape Parthenccissus vitaceae - Virginia Creeper Grossulariaceae Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus cismontana - Sumac Rhus Rydbergii - Poison Ivy Rhus trilobata - Elderberry Sambucus canadensis - Elderberry Gambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry		Nyctaginaces	10
Vicla blanda - White sweet Violet Viola nephrophylla - Purple violet Vitaceae Vitis vulpina - River Bank Grape Parthenccissus vitaceae - Virginia Creeper Grossulariaceae Ribes cereum - Gurrant Ribes leptanthum - Goberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Poison Ivy Rhus trilobata - Skunk Bush Caprifoliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry	Mirabilis multiflora	•••	
Vicla blanda - White sweet Violet Viola nephrophylla - Purple violet Vitaceae Vitis vulpina - River Bank Grape Parthenccissus vitaceae - Virginia Creeper Grossulariaceae Ribes cereum - Gurrant Ribes leptanthum - Goberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Poison Ivy Rhus trilobata - Skunk Bush Caprifoliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry			
Vitaceae Vitis vulpina Parthenccissus vitaceae Ribes cereum Ribes leptanthum Anacardiaceae Rhus cismontana Rhus Rydbergii Rhus trilcbata Caprifcliaceae Sambucus canadensis Sambucus melanccarpa Cquilegia elegantula Clematis ligusticifolia Thalictrum Fendleri Pulsatilla hersutissima - Purple violet Vitaceae River Bank Grape - Currant Gcosseberry Anacardiaceae - Sumac - Poison Ivy - Skunk Bush Caprifcliaceae - Elderberry - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine - Wirgin's bower - Meadow Rue - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Eearberry		Violaceae	
Vitaceae Vitis vulpina - River Bank Grape Parthenccissus vitaceae - Virginia Creeper Grcssulariaceae Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Eearberry		-	
Vitis vulpina - River Bank Grape Parthenceissus vitaceae - Virginia Creeper Gressulariaceae Ribes cereum - Gurrant Ribes leptanthum - Geoseberry Anacardiaceae Rhus cismentana - Sumac Rhus Rydbergii - Peisen Ivy Rhus trilebata - Skunk Bush Caprifeliaceae Sambucus canadensis - Elderberry Sambucus melancearpa - Elderterry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bewer Thalietrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flewer Ericaceae Arctostaphylos uva-ursi - Eearberry	Viola nephrophylla	-	Purple violet
Parthencelssus vitaceae - Virginia Creeper Gressulariaceae Ribes cereum - Currant Ribes leptanthum - Geoseberry Anacardiaceae Rhus cismentana - Sumae Rhus Rydbergii - Peisen Ivy Rhus trilebata - Skunk Eush Caprifeliaceae Sambucus canadensis - Elderberry Sambucus melanecarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifelia - Virgin's bewer Thalietrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flewer Arctostaphyles uva-ursi - Bearberry		Vitaceae	
Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Eearberry		~	River Bank Grape
Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry	Parthenocissus vitaceae	-	Virginia Creeper
Ribes cereum - Currant Ribes leptanthum - Gcoseberry Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry		Checaniania	2000
Anacardiaceae Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry	Ribes cereum	(ACSSULATIA)	
Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry		_	·· ·· ·
Rhus cismontana - Sumac Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry	de about 1		
Rhus Rydbergii - Pciscn Ivy Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry	70	Anacardiaceae	
Rhus trilcbata - Skunk Bush Caprifcliaceae Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Bearberry		-	
Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Arctostaphylos uva-ursi - Eearberry		-	T
Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry	Rhus trilcoata	-	Skunk Bush
Sambucus canadensis - Elderberry Sambucus melanocarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry		Caprifoliace	eae
Sambucus melanccarpa - Elderberry Ranunculaceae Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry	Sambucus canadensis	_	
Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry	Sambucus melanocarpa	~	-
Cquilegia elegantula - Red Columbine Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry		Donner	
Clematis ligusticifolia - Virgin's bower Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry	Couilegia elegantula	ranuncutaces	
Thalictrum Fendleri - Meadow Rue Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry		_	
Pulsatilla hersutissima - Pasque Flower Ericaceae Arctostaphylos uva-ursi - Bearberry			
Ericaceae Arctostaphylos uva-ursi - Bearberry		_	
Arctostaphylos uva-ursi - Bearberry			-
	Amaha shawa 2	Ericaceae	
SCUTHWESTERN MONUMENTS 234 SUPPLEMENT FOR SEPTEMBER, 1935	Arctostaphylos uva-ursi	-	Bearberry
	SCUTHWESTERN MONUMENTS	2 34	SUPPLEMENT FOR SEPTEMBER, 1935

BANDELIER FLORA LIST (CCNT.)

Crchidaceae

Corallerhiza multiflora

Coral roct

Composite

Taraxacum cfficinale

Dandelicn

---- James Fulton.

(I copied this from Jim's longhand, and part of it I couldn't read. Therefore: maybe some mispellings.)

BANDELIER BIRD LIST

The birds that were seen in the canyon this month were as follows:

Mourning Dove - Zenaidura macroura carolinensis (2)

Red-shafted flicker - Selasphorus platycercus (1)

Rocky Mt. Black Headed Crosbeak - Hedymeles melanocephalus

papago (1)

Sharp-shinned Hawk - Accipiter velox (Wilson)(1)

Broad-tailed Hummingbird - Selasphorus platycercus (1)

Long-crested Jay - Gyanocitta stelleri diademata. (Many)

Pygmy Nuthatch - Sitta pygmaea pygmaea (1)

Woodhouse Jay - Aphelocoma californica woodhousei (Many)

Rocky Mt. Nuthatch - Sitta carolinensis nelsoni (4)

American Raven - Corvus corax sinuatus (4 ?. May be more)

Western Robin - Turdus migratorius propinquus (3)

Rocky Mt. Hairy Woodpecker - Iryobates villosus monticola

Anthony (2)

Rock Wren - Salpinctes obsoletus obsoletus (3)
Canyon Wren - Catherpes mexicanus conspersus Ridgway (1)

These are all included in Adrey Borell's list of birds seen here August 5-12. There is also a huge flock of small birds in the cotton-woods of the camp ground which I have been unable to identify. They move constantly and have a remarkable ability to get on the other side of leaves and branches from the observer. They look somewhat like a Canyon Towhee, but that is admittedly a wild guess.

The large total of birds banded since I started, is one, a Long-crested Jay.

In the Detached Section were seen the other day about six large flocks of Pinon Jays, more than I have ever seen in such a small area. Does that indicate a good pinon crop for this fall? There were also two Red-shafted Flickers and some Rocky Mountain Nut-hatches.

-- Betty Jackson

WALNUT CANYON BIRD LIST

By Russell Grater, Wildlife Technician

- 1. Viclet Green Swallow.
- 2. Red-shafted Flicker.
- 3. Red-backed Junco.
- 4. Long-crested Jay.
- 5. Broad-tailed Hummingbird.
- 6. Rocky Mountain Nuthatch.
- 7. Pygmy Nuthatch.
- 8. Chestnut-backed Bluebird.
- 9. Common Rock Wren.
- 101 Canyon Wren.
- ll. Ash-throated Flycatcher.
- 12. Traill (?) Flycatcher.
- 13. Woodhcuse's Jay.
- 14. Rufous-backed Hummingbird.
- 15. Western Red-tailed Hawk.
- 16. Golden Hagle.
- 17. Mcuntain Chickadee.
- 18. Green-backed Goldfinch.
- 19. Black-throated Gray Warbler.
- 20. Spurred Towhee.
- 21. Western Chipping Sparrow.
- 22. Western Robin.
- 23. Western Tanager.
- 24. Lewis Woodpecker.
- 25. Mearn's Woodpecker.
- 26. Rocky Mountain Woodpecker.
- 27. Cassin's Vireo.
- 28. Pinyon Jay.
- 29. Mourning Dove.

List of birds observed at Sunset Crater National Monument on August 16.

- 1. Long-crested Jay.
- 2. Pinyon Jay.
- 3. Traill (?) Flycatcher.
- 4. Pygmy Nuthatch.
- 5. Rocky Mountain Ruthatch.
- 6. Common Rock Wren.
- 7. Canyon Wren.
- 8. Rufous-backed Hummingbird.
- 9. Broad-tailed Hummingbird.
- 10. Common House Finch.
- ll. Mourning Dove.
- 12. Chestnut-backed Bluebird.

IMPRESSIONS OF A "TEMP"

By J. W. Hendron

The "Boss" has asked me to write a sketch of my first impression of Frijoles Canyon, but I can't decide whether to write it in the form of a human interest story as would concern the general run of tourists or as an archeological sketch so I think I will include a little of both.

I made my first visit to the Rito ten or twelve years ago, having lived in New Mexico the greater part of my life. That visit created within me the desire to return at a later date and that was not until June, 1934, shortly after Earl Jackson took over the duties as Custodian. I shall never forget that incident as long as I live.

It so happened that the car I drove carried a California license plate and upon arriving at Frijoles Earl immediately began to inquire if we had enjoyed cur trip. The logical answer was "Yes" and so we were asked if we intended to visit the ruins. Again the answer was "Yes" and so Earl proceeded to tell us something of New Mexico. The young lady who accompanied me shoved an elbot in my ribs which almost made me burst out laughing. At any rate, we didn't want a guide and perhaps Mr. Jackson was glad of it.

The Ranger station at that time was situated across the river from the hotel almost a quarter of a mile up the canyon from the present Ranger station, and so upon arriving at Frijoles in July, 1935, I was very much twisted around. I was amazed at all the improvements upon the Monument since my previous visit. My first impression was, "Gee, but this is a swell place," and after having been here for more than two months I still think it is a swell place.

My first day on duty consisted of roaming around the Monument gathering up what little knowledge I could by observation and so I spent the whole day just wandering around, going in the caves, picking up potsherds, and discussing things of an archeological nature with Earl. On the second day I began escorting tourist parties through the ruins and this proved most interesting. Each time that I have made the rounds of Frijoles canyon, I have tried to notice something different that might help to interest the people with whom I came in contact with.

Placing myself in the position of a visitor either from the west or from the east I am able to understand the reason why the Rito fascinates them. Bandelier is a delightful place, its scenic beauty enchants the visitor, the quiet and solitude seems to help them to be natural, and the primitive culture which existed here many years ago is almost inconceivable to them. All in all, everyone I have come in contact with has been more than pleased with their short visit and some have returned with their friends in order that they too might

"IMPRESSIONS OF A TEMPCRARY RANGER" (CONT.)

enjoy and experience the atmosphere and environment of the canyon.

I have never found a place, during all of my travels over New Mexico, that has interested me more than Bandelier; perhaps I am fascinated by it in the same manner as the visitors are and even after having been away from it for a few days I have a desire to return.

It has been more than a pleasure working with the Park Service these few summer months, and I will always cherish it as an experience never to be forgetten.

ADOBE STABILIZATION

Extract from letter of Chief Engineer Kittredge to Director Cammerer:

Last Friday, September 7, Research Engineer Martius, Architect Nickel, and I reviewed experiments in adobe brick which have been under way in both the laboratories of the National Park Service at Stanford and those of the Bitumuls Corporation in San Francisco.

The Riturals Corporation have been carrying on experiments in the stabilization of adobe by the use of Bitumuls asphalt. We wrote you regarding this matter recently and told you of the hopefulness that the Bitumuls people had found something which would sufficiently stabilize new adobe brick being used in new adobe houses in the national monuments of the Southwest which would make it unnecessary to use any exotic plaster coat such as the Portland cement concrete coat used on the adobe houses of Casa Grande.

The experiments in the use of these stabilized brick have been carried on jointly by the Bitumuls people and the National Park Service, but the Eitumuls people are the designers and were the prime movers in the experiments for the stabilized emulsified asphalt adobe brick.

The experiments indicate that the brick are all that we and they had hoped for, except possibly in the matter of coloring. The brick, both stabilized and unstabilized, were placed under exactly identical conditions. At the end of eight days, all being subjected to continuous capillary attraction as well as moist atmosphere, the stabilized brick showed practically no absorption, while the unstabilized brick were completely saturated under the various severe conditions at the end of the first day.

It is believed that in the brown scils there will be practically no discoloration. In the light soils they will be made slightly browner by the use of the stabilization material.

The use of Bitumuls in no way changes the method of workmanship of

EXTRACT FROM LETTER OF CHIEF ENGINEER TO DIRECTOR (CONT.)

the materials involved excepting the addition of a small percentage by weight of the quantity of the adobe. This quantity of Bitumuls to be added varies from a minimum of 6% to 15% of the material passing a 200 mesh screen. Practically, under ordinary adobe conditions, this would amount to only between 3% and 10% of the weight of the entire adobe in asphalt. Thus it will be seen that the cost of the structure is increased very little by the introduction of this material.

We realize that adobe buildings have stood for many years without stabilization. The ancient ruins of course have collapsed until the collapsed material buries the lower portion of the building. buildings which have been buried but now excavated are fast deteriorating under rain and wind erosion. Buildings which have been constructed during the last half century in many instances are standing well but require external maintenance and plastering to keep them in good repair. Recognizing these complications and deterioration under weather, the Park Service in some of its buildings, as at Casa Grande, have tried to overcome them by plastering the adobe external walls with concrete laid on chicken wire mesh. We fear, however, that the difference in rate of expansion between the adobe and the concrete under varying weather conditions will eventually separate the two materials and thus cause the cracking and spalling off of the concrete, Although there has been no spalling so far as I know to date, it is too seen to know the extent of the danger involved in this process.

It seems, however, that the need for a concrete plaster coat has been done away with by the use of the stabilized brick and that we now are able to build adobe walls which will not have an artificial plaster which will crack off, and walls which will be more in keeping with the local surroundings in some of the monuments.

We think the Bitumuls Corporation are to be congratulated upon their working out of this stabilization process and believe that it will have a very material bearing upon construction in the Southwest, generally.

Mr. Nickel is going into the architectural features of these brick and their use in the National Park Service, and doubtless will give his reactions.

MORE CACTUS LABELS

Headquarters is in receipt of an additional 450 cactus labels made of aluminum painted an earth-tan color. These may be ordered from Headquarters. We now have a rather complete set of cactus labels as well as enough metal standards to affix all botanical labels issued in the past.

MORE CACTUS LABELS (CONT.)

The following are the new species labels received:

Opuntia	parishii	Lemairecereus thurberi
77	spinosior	Coryphantha arizonica
11	ramosissima	Ferocactus lecontei
₩.,	stanlyi	<pre>johnsonii</pre>
12	fulgida	" covillei
Echinoma	astus intertextus	Rathbunia alamosensis
. 17	erectocentrus	Sclerocactus whipplei

240

Peniocereus greggii
