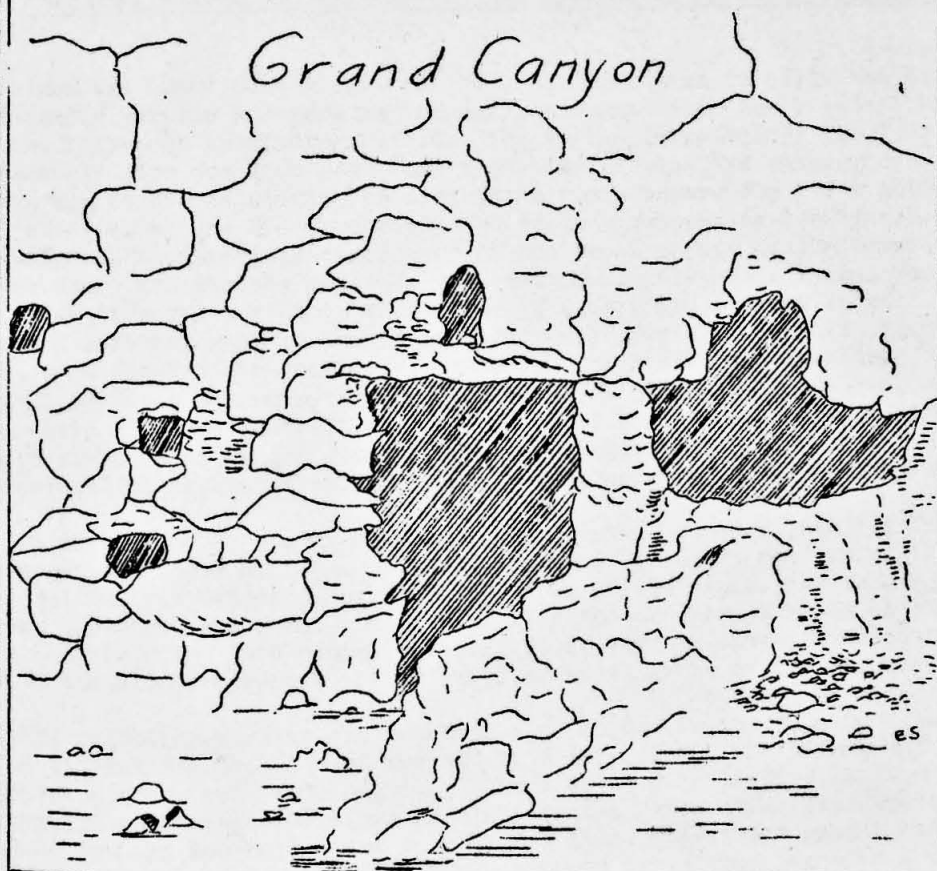


Nature Notes
of
Grand Canyon



Old Indian Fort.

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This bulletin is issued monthly for the purpose of giving information to those interested in the natural history and scientific features of the Grand Canyon National Park. Additional copies of these bulletins may be obtained free of charge by those who can make use of them, by addressing the Superintendent, Grand Canyon National Park, Grand Canyon, Arizona.

L. R. Tillotson, Superintendent. By - G. E. Sturdevant, Park Naturalist.

A RECONNAISSANCE OF THE NORTHEASTERN PART OF GRAND CANYON NATIONAL PARK.

Since the Grand Canyon was created a national park in 1919, the extreme northeastern portion has remained an unknown quantity to the National Park Service. Although prospectors visited the region in search of precious metals in the early days and each year sees thousands of visitors peering over the eastern rim at the beautiful red stratified rocks before the river enters the Granite Gorge, no one has penetrated the region, comprising a half-score of side canyons, to determine and report on the exact nature of the terrain. Whether there are streams suitable for trout, unusual Indian ruins, whether deer drift into the region to winter, or if beaver are present in the permanent streams, whether traces of life may be found in the old Algonkian rocks, or a dozen other questions, could be answered by a patrol into the region. Covering approximately forty-five miles by auto, one hundred and thirty-five miles on foot, five miles by canvas boat, and consuming sixteen days of time, Chief Ranger James P. Brooks, Ranger Arthur L. Brown, and the park naturalist traversed this hitherto little known portion of the park.

We left Grand Canyon by auto Thursday morning November 15th for Navahopi Junction Ranger Station. The road took us through a portion of the beautiful Tusayan National Forest of majestic yellow pines, and through the pinons, junipers, and oaks. Snow had fallen the previous day and as the sun rose higher the road became softer. By leaving an extremely crooked path in the slippery road we at last pulled up in front of the ranger station.

The following morning the supplies were loaded on the mule pack train and we started for the head of the old Ky Tanner trail. Ky Tanner was probably the first pioneer into this region. He had built a trail into the Canyon and carried on mining operations previous to the early eighties. The trail is about one and one-half miles from the station. The chief ranger and the park naturalist preceded the pack train with an ax to chop out whatever branches overhung the trail while Ranger Brown remained behind to assist Jack Ky, the Government packer, with the supplies. On the way we saw a coyote run across the road and disappear among the junipers and pinons. The trail is sadly in need of repairs. It was necessary to do considerable chopping for the first two miles to permit the pack train to pass. After that the trees gradually dropped out - we were below the snow line and entering a

warmer life zone. Deer tracks were numerous and we were fortunate in seeing two large bucks in a draw. They appeared undisturbed by our intrusion for after raising their heads to gaze at us they resumed feeding.

Arriving at the foot of Tanner Trail shortly after noon we established a base camp and lunched. The packer headed his mules up the trail and the chief ranger, Ranger Brown, and the park naturalist journeyed down the river to see the lay of the land. The chief thing of interest was the discovery of two Indian ruins and a metate stone.

Although it was cold enough to form ice in our canteens we slept very comfortably on the sand with arrow wood for a mattress and a blanket and a quilt each. Nothing disturbed our slumbers but we found numerous small tracks around our beds and discovered that some nocturnal visitant had eaten on the boiled ham and roast beef.

With light packs and provisions for a day we followed an old trail down the river. Several ducks occurring in groups up to four were observed on the Colorado. Wild burro and deer tracks were numerous and in all we counted thirteen wild burros - probably the only living relics of prospectors days. Grass was scarce near the river and the burros had made numerous trails containing innumerable zig-zags up the canon side to reach what vegetation existed at the higher levels.

That night we camped near the mouth of Cardenas Creek but like many of the so-called streams of the southwest - it has a name but no water except after a storm. Mesquite and cats claw that grew near the river banks proved to be superior wood for our evening campfire, yet we generally availed ourselves of the large piles of drift lodged among the rocks when the last high water receded. Among other various and sundry woods could be found railroad ties, telephone poles, parts of a fence with the wire still attached, an end gate to a wagon box, fence gates, and beaver-gnawed cottonwood and birch.

After an early breakfast we returned to the base camp. With Ranger Brown carrying a rifle to dispose of any predatory animals encountered, the afternoon was spent in travelling a couple of miles up the river's course. Ranger Brown, who was slightly in the lead was soon to raise his gun and aim at some singular object. To our surprise and probably to the surprise of the animal, we saw him fire two shots at a large plateau wild cat. The cat's hurried strides carried him over a ridge and up a side canyon out of danger.

On the following day we went up the river to the region above Carbon Canyon. Here the Canyon walls narrowed in so close to the river that it was impossible to progress farther. Opposite the mouth of Chuar Creek are a number of old mining claims. Standing frames of tent houses and an old boat showed that active mining operations were once carried on. The sides of one mine tunnel that we entered were heavily incrustated with carbonate of copper and salt. Near the river we saw where a deer had recently crossed at the old Tanner crossing. The sand was still wet along the tracks leading up from the river's edge where the deer had dripped after his icy plunge. A badger and a green-winged teal were noticed lying on the sand where they had lodged after being carried an unknown distance by the river.

Upon the return to camp, Chief Ranger Brooks made some excellent noodle soup. When asked his recipe, he replied, "Well you start with muddy river water." This start was necessary in most of the cooking. If allowed to settle for twelve hours the water becomes quite clear. If one is thirsty the sediment is not bad at all, and it adds to the taste to know that he is partaking of the soils of Wyoming, Colorado, New Mexico, Utah, and Arizona.

While sitting around the campfire we noticed something moving in the bushes nearby. At first we thought it was a ring-tailed cat but we were not kept long in suspense for out walked a little spotted skunk - sometimes known as the hydrophobic skunk. He started under the canvas where our provisions were kept. We yelled at him and he started down a ravine, somewhat hastened in his departure by a stone tossed by the chief ranger. At last the mystery of the numerous tracks and the disappearance of healthy portions of our boiled ham and roast beef was solved. The little spotted skunk apparently has a decidedly short memory concerning the fact that our provisions were not for him for soon after retiring we heard the dishes rattling under the canvas and in spite of our yells he refused to budge. It was necessary to remove the canvas from our food supplies before he finally took the hint to leave. As he started down the ravine Brown fired his rifle and it evidently made such a favorable impression on him that he failed to return again that night.

During the ensuing day two trips were made with supplies up the river to the old Tanner Crossing opposite the mouth of Chuar Creek. Our Canvas boat was assembled preparatory to a trip into the Chuar Creek region the following day.

With a heavy growth of mosquito to our backs to break the wind, a blazing fire of drift wood to the front and with a good mattress of arrow wood, it appeared that we would be most comfortable for the night. About midnight the park naturalist was awakened by something pulling at his hair. He raised up to see a little spotted skunk scampering away. It could not be determined whether the skunk was after nesting material or food. Later in the night the chief ranger was awakened by the little pest walking over his bedding.

After breakfast our canvas boat and supplies for six days were carried to the river's edge in anticipation of our first boat experience on the temperamental Colorado. Although each man was provided with a life preserver no one cared to try them out in the icy water. The chief ranger and the park naturalist tested the boat first. Without any baggage the boat was rowed over and back without mishap. It was even possible to make slight progress against the current in midstream. After that the supplies, and finally Ranger Brown were carried across the river.

The boat and unnecessary supplies were cached and we started up the Chuar Creek. Although Chuar Creek appears on the contour map as an intermittent stream, we found it contained water throughout its course. Near the mouth of the stream we found the tracks of a large mountain lion. Possibly the presence of the mountain lion was the reason the deer had crossed the river two days previously. The water of Chuar Creek is clear and good-tasting and one would need a much longer time to get his "peck of dirt" than by drinking the river water.

Camp was established under some cottonwoods about two and one-half miles up the stream. During the afternoon we explored a short distance above camp.

Presently we came to a small branch stream of the Chuar. Following up the branch a short distance we came to its source seeping from a ledge densely covered with maiden hair ferns. As we mounted a ridge to survey the surrounding country we glanced back and saw the remains of an old camp. After noting the main course of the stream by the growth of cottonwood we returned to examine the old camp - abandoned as we thought by some prospector.

An old ditch led out from the source of the water and finally a trough carried the water in days gone by to the camp. As the trough was V-shaped and lacked riffles it seemed a poor sluice box to catch gold. Among the articles around the camp were several bottles of an old type, a Dutch oven, thirteen kegs, two fifty gallon barrels, a large mash box, a wooden paddle, and a stone fire place. The rock was un-mineralized and it looked more like a distillery than a placer claim. Ranger Brown who had gone on a short distance yelled back that he had solved the mystery. When we arrived he pointed to a cottonwood tree. There we saw an old coffee grinder spiked to a stump of a cottonwood tree. The stump had since sprouted around the base and the branches, one of which was fully seven inches in diameter, had grown completely around the grinder. It was a complete distillery which was probably used by some prospector to combine business with his poor-paying mining operations.

We were undisturbed during the night by nocturnal prowlers and the following morning we took the major portion of our supplies and started up the main flow of Chuar Creek. About two miles up stream we left our packs near a dry wash and continued up Chuar Creek. Old beaver gnawings were numerous but no fresh beaver signs were seen. Occasionally a water ouzel would fly up and minnows would dart to cover as we neared some pool. Ranger Brown picked up a bleached head of a deer containing a fresh set of horns. Two points and four long eye guards were present one each side.

Broken pieces of pottery near the banks of the stream indicated the presence of a former race. Search in the vicinity revealed the existence of thirteen ruins and one well-preserved food cache. The largest ruins were about twenty feet by thirty feet and contained two inner compartments. Near the head of the stream and about a mile above occurred the best ruins found. Here was an Indian fort and five dwellings under a cliff. The Indian fort, made of stone with mud mortar, was in an excellent state of preservation. On one side there was a stone door twenty by twenty-four inches with an opening over the top. On the side facing the stream were seven openings three by four inches. It appeared that the fort evidently commanded a one-time Indian trail from the Kribab down Chuar Creek.

In the afternoon we returned to our pack and supplies. During the evening we heard a ring-tailed cat giving his bird-like call. If one were not familiar with this interesting animal he might readily think the call was made by a bird.

At breakfast the following morning we saw a large buck with a magnificent set of antlers staring at us as he remained practically motionless silhouetted against the sky line. He retained this position for several minutes and finally disappeared over the ridge. After breakfast we studied the contour map and picked out what appeared to be a feasible route to the Kwagunt, the next large canyon to the north.

We broke camp and followed up a dry stream bed to its head. Six deer were seen along the way. They were in excellent condition and seemed curious about our intrusion upon their domain.

The descent into the Kwagunt was difficult but with a long rope we enabled ourselves to get over the bad ledges. In a dry tributary we found a small sheep in the rocks. Fresh deer tracks and several well-worn trails indicated that they came to the place regularly for water. A single deer was seen in the vicinity. In the main stream bed were several holes in the sand where deer had been digging for water. About four miles above the mouth of Kwagunt Creek we found a permanent flow where we established camp. A number of cottonwood trees had been felled by beaver and unknown to themselves they provided us with a bountiful wood supply. In the short time that remained before darkness we looked along the stream and discovered several beaver dams. The upper-most dam showed beautiful workmanship with a mixture of cottonwood and willow branches, leaves, stones and mud. Their food supply of cottonwood branches had been cut into two foot lengths and submerged in the water. A slide and a house were also present.

During the evening we approached the dam and listened while they worked. Although it was too dark to see their movements it was most interesting to hear these animals toiling - these constructive engineers whose forefathers caused James O. Pattie and his father to visit the Grand Canyon in 1826 as the fore runners of beaver trappers. As they pounded away at the dams during the stillness of the night they sounded like a small army at work.

The following morning we crossed the ridge separating the Kwagunt from Nankowap Creek. Once over the ridge we looked down on the the Nankowap Canyon which is the last large valley to the north. From our distant view we could make out a line of cottonwoods along the borders of Nankowap Creek. It was impossible to reach the stream and return before night so we decided to turn back. It started to rain upon our arrival at Kwagunt Creek nearly a mile below camp so Ranger Brown returned to look after our supplies while the chief ranger and the park naturalist followed down the Kwagunt to its mouth. The chief things of interest down to the river were the discovery of a mummified buck deer with ten points on each antler, numerous deer tracks, several beaver tracks, and a view of the Kwagunt Rapids.

When we reached camp Ranger Brown announced the discovery of a "lost city" containing at least twenty-five ruins. He discovered several photographs under a ledge and collected a flint skinning knife, several arrow heads and pieces of pottery. Along each permanent stream within the park one will invariably find traces of a bygone race.

The next day we broke camp and returned to Chuar Creek making the greatest single hike of the trip. Instead of following our old trail back we stayed nearer the Colorado River making it necessary to cross Malgosa, Awatubi, Sixty mile, and Carbon Canyons before reaching our first camp in Chuar Creek. We estimated that we had covered sixteen miles during the day.

The following morning we started back to our base camp at the foot of Tanner trail. Near the mouth of Chuar Creek we discovered a crippled mud hen which was easily captured when it started run into the mesquite bushes. It was released after posing for a picture with the fresh set of deer antlers.

Our boat and surplus supplies were undisturbed and we had no difficulty in making two crossings of the river. Rather than make two trips packing the boat and supplies down to the base camp it seemed a better proposition to

load the supplies in the boat and drift down with the current. It was decided that Ranger Brown walk down and carry the cameras while the chief ranger and the park naturalist manned the boat loaded with our supplies. By unloading the boat and portaging it and the supplies around the dangerous rapids we reached the base camp in safety.

The Unkar region to the south and on the opposite side of the river remained to be explored. It was decided to make a three-day trip into the region. The supplies were loaded into the boat next morning and we drifted down stream a short distance where we crossed and entered the Unkar region. Fresh deer tracks were numerous in spite of a lack of good browse. One lone white burro was encountered. This animal has no doubt lived a lonesome life in the area for a number of years since it was turned loose by some prospector. Like the other side canyons, prospectors had visited this one in the early days as was evidenced by the discovery of their camp sites, and numerous monuments piled up where they had located their claims. Wherever there is a fault in the strata or an outcrop of igneous rock one will inevitably find the monuments piled up where their claims were staked out.

After spending two nights and major portion of three days in the region without making any unusual finds we started back to our base camp. Upon arrival at the latter place the boat was dried and our supplies packed in kayak boxes to be taken out by the pack train at a later date.

We were up before daylight the following morning and well on the way up the long Tanner trail before the shadows of the rising sun came over the Canyon rim. To one who has remained two weeks in the Grand Canyon, cut off from contact with the outside world, and with stone walls towering on all sides nearly a mile above him, the homeward trip is the most pleasureable part of the journey. He views with triumph each formation he leaves beneath him, he enjoys the snow that greets him as he approaches the Canyon rim, and in fact he enjoys the entire homeward trip such as we made to the ranger station and on into the village area.

Although the trip was not entirely fruitful, nevertheless, the north-eastern portion of the Grand Canyon is no longer a mystery - it is a known part of the park.