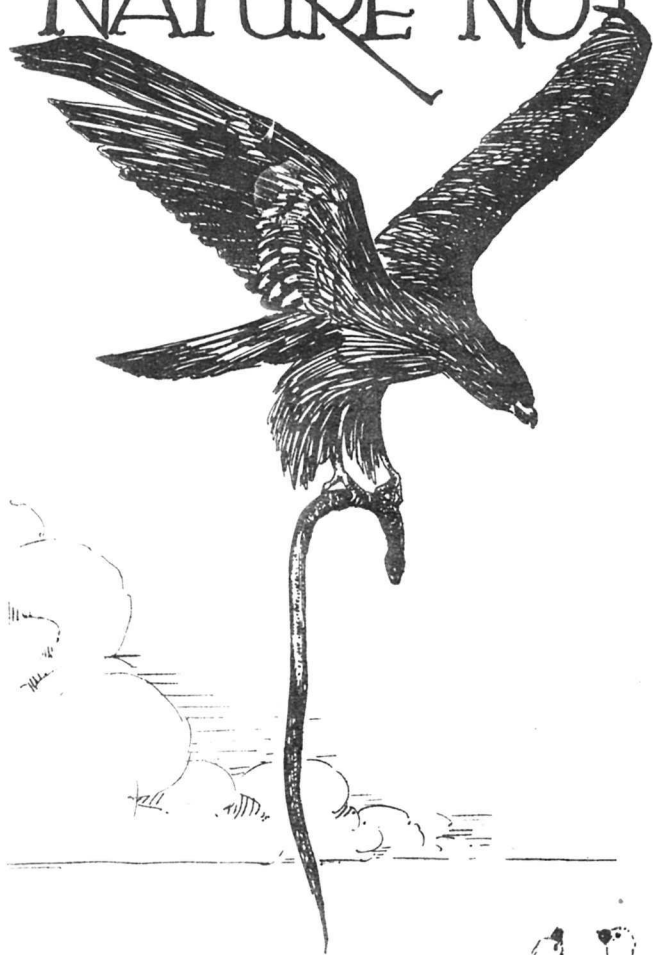


GRAND CANYON NATURE NOTES



VOLUME 8 NUMBER 6
SEPTEMBER, 1933



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GRAND CANYON NATURE NOTES

Volume 8, Number 6,
September 1933

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Grand Canyon Natural
History Association

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M. R. Tillotson,
Superintendent.

Edwin D. McKee,
Park Naturalist

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SOME BIRD NOTES FROM BLY, ARIZONA

By Lyndon L. Hargrave, Field Director,
Museum of Northern Arizona, Flagstaff.

ON June 6, 1932, in company with Mr. Lewis D. Yaeger, I visited the locality of Bly (elevation about 6200 feet) on the Santa Fe branch road between Williams and Grand Canyon, Arizona. This station is about seventeen miles from Williams. The flora is typical of the forest phase of the Upper Sonoran Zone, there being dense woods of pinyon and juniper with open land of grass. In washes are sometimes found thickets of deciduous shrubs.

Most observations of note refer to nesting records of which there are relatively few published from Northern Arizona. Also, these observations differ somewhat from notes on localities of similar flora in the San Francisco Mountains.

Western Red-tailed Hawk (*Buteo b. calurus*). Our main object in visiting this locality was admittedly to band juvenile Red-tails. Mr. Yaeger had reported to me that this species was a common breeder about Bly though not nearly so abundant as at Anita some miles away and somewhat lower. Only two nests of this species were examined, however, as our time was limited. One of these nests still held a young hawk about ready to desert it. Our reception by this interesting bird was most amusing as it arose upon legs still weak and stretched itself, craning its neck so it could get a better view through the juniper boughs. Fortunately the nest was not more than fifteen feet above the ground for the bird bravely launched itself into the air when Mr. Yaeger had almost reached it. The bird was caught as it lighted upon the ground and soon was banded. Both parents circled overhead but remained at a safe distance, never coming within 200 yards.

The other nest, near the top of a pinyon tree, contained three fuzzy balls of down which could hardly raise their heads to stare at the intruder. A cloudy sky and high winds made it almost impossible to take a picture from the precarious perch near the end of bending boughs of brittle wood.

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Golden Eagle (*Aquila c. canadensis*). No adult eagles were seen, although Mr. Yaeger took me to a tall residual pine in which there was a nest. The tree was in Laws Spring wash, only about 150 yards north of the railroad and in clear view of passing trains. On the west side of the wash was the edge of a mesa, only a few rods distant, from which was had a good view of the nest. Earlier in the season, Mr. Yaeger had here successfully photographed a young eagle only a few days old, and had also secured later pictures. It was our intention to again photograph the bird, thus obtaining a good series of pictures illustrating plumage development, after which the eaglet was to be banded. To our sorrow we found that some thoughtless person had recently shot the young bird while it was still on the nest.



The nest, about forty feet up, and on the northeast side of the tree, was built close to the trunk. The body of sticks once supported a cup lined with juniper bark, but when examined, the cup was almost flat. The mass of nesting material was two feet in width and two and one-half feet in thickness. Around the dead bird was refuse, the most recent of which was a half-devoured cottontail. Similar refuse littered the ground beneath the tree. Mr. Yaeger informed me that to his knowledge this was the third year that this nest had been occupied by this species, and it is to be hoped - since we cleaned out the nest - that it will again be used.

Golden Eagle

Pacific Horned owl (*Bubo v. pacificus*). Horned owls were reported to be common in the neighborhood, and a recently abandoned nest in a juniper tree was pointed out to me. In late April Mr. Yaeger secured some excellent photographs of young owls in this nest just before the birds could fly.

Red-shafted Flicker (*Colaptes c. collaris*). Several flickers were seen and one, a female, was observed in a hole in a telephone pole, about the only available wood at that place which was large enough for her nest. In the San Francisco Mountains I have yet to find this bird nesting in the Upper Sonoran Zone.

Say's Phoebe (*Sayornis s. saya*). I was surprised to find a nest containing three eggs under the roof of a shed. In the San Francisco Mountains I have recorded Say's Phoebe only during migrations, though a good part of three summers has been spent there in the Upper Sonoran Zone. The bird was flushed from the nest and later returned, so I presume the eggs were partly incubated.



Say Phoebe

Mountain Bluebird (*Sialia currucoides*). Two nests of this species were found. One was over a window in an abandoned shack where the only possible entrance was through a broken window on the opposite side of a single room. In the nest were three naked young. The other nest, which contained eggs, was in a deep hole in a dead tree. These observations confirm those made by me near Flagstaff where this bird also nests in

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the Upper Sonoran Zone below the summer range of the Chestnut-backed Bluebird (*Sialia m. bairdi*), thus seemingly belying its old name of "Arctic Bluebird".

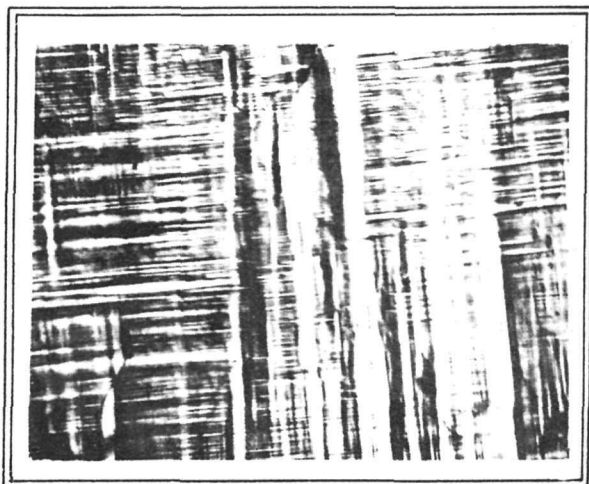
Spurred Towhee (*Pipilo m. montanus*). To find this bird at home, scratching among dead leaves beneath thickets in the washes of the Upper Sonoran Zone was indeed unexpected, as I have rarely observed it in summer in the San Francisco Mountains, and then only in the most favorable localities, principally in the Transition Zone. No nests were found though the time of year and presence of both sexes would seem to indicate they were on their nesting ground.



FELDSPARS OF PHANTOM RANCH AREA.*

By Hugh H. Waesche,
Instructor in Mineralogy,
Virginia Polytechnic Institute, Blacksburg, Va.

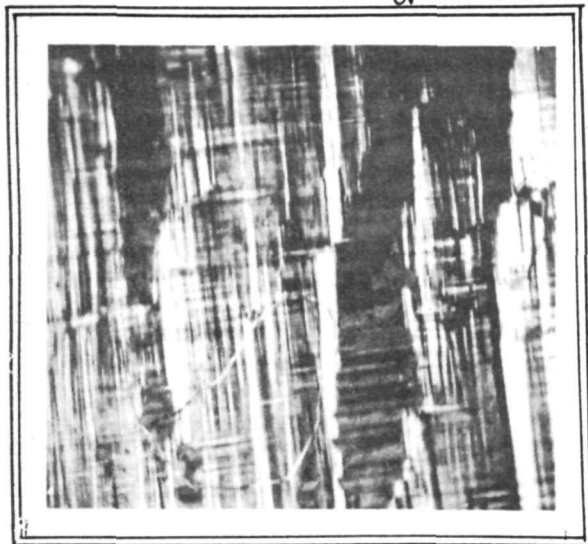
I N the issue of Grand Canyon Nature Notes for March, 1932, there appeared an article by Mr. B. F. Moomaw, Jr., entitled, "Identification of the Common Pink Mineral found near Phantom Ranch". In this article Mr. Moomaw stated that the mineral was orthoclase. His conclusion was based on certain physical properties, notably the specific gravity and index of refraction. Also it was stated that examination with the petrographic microscope showed no polysynthetic twinning on this mineral. The results obtained were again checked, using the same specimen, in January, 1933, and were found to be correct. One point, however, was noticed to have been overlooked. The previous examination with the petrographic microscope had been on granular fragments of the mineral. In the latter examination by the writer, an oriented thin section parallel to the basal cleavage (.001) was made. The fragments used in the first examination may not have been transparent enough or correctly oriented to show twinning, but the thin section used afterwards showed definitely



Microcline X40

Waesche Photo

or



Microcline with Oligoclase

Wassche Photo

would be impossible to distinguish them by the immersion method on unoriented grains. Their specific gravities are identical. Hardness is the same and similar color shades are common. Also crystallographically the minerals appear the same, as microcline, which is triclinic, differs from monoclinic orthoclase only 30 minutes in the interfacial angle between the (b) and (c) faces. Cleavage for each is the same. Composition is the same; hence it is readily understood how either mineral might be mistaken for the other. It is only with the microscope and an oriented thin section that the difference is readily distinguished. The writer himself had called the mineral orthoclase for two successive seasons.

Examination of thin sections made from a number of the Archean rocks found in the vicinity of Phantom Ranch shows that orthoclase is present in the granites only in minor amounts, and that the major part of the pink feldspar is microcline or plagioclase. The microcline predominates in the coarser pegmatites. The plagioclase probably grades from

the characteristic grating type of twinning so well known in microcline. With the microcline were found intergrowths of plagioclase, probably of the variety oligoclase. A microphotograph was made of the sections, and accompanies this statement. The indices of refraction of both orthoclase and microcline are so close that it

albite to andesite with oligoclase being the most plentiful.

* This work was done in the laboratory of the Virginia Polytechnic Institute, Blacksburg, Va.

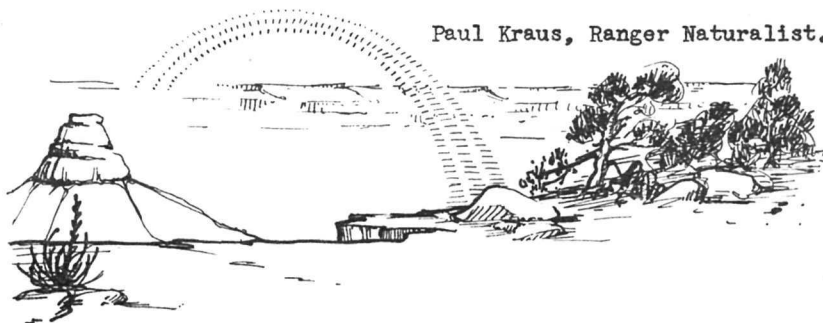
A LUNAR RAINBOW

On the night of July 7, 1933, between 9:50 and 9:53 o'clock, the eastern arch of a rainbow was seen by the light of a full moon directly to the north of the Utah Parks Lodge on the North Rim of the Grand Canyon. The bright moonlight followed a light shower and the sky was patchy with slowly drifting cumulus clouds. The coloring of the rainbow was so distinct that the series - red, orange, yellow, green and violet - could be distinguished clearly while the arch slowly faded from the crest downward.

Rainbows following showers are of fairly common occurrence in the Grand Canyon region. Frequently, great rainbows arching over the Painted Desert, adding more color and beauty to that magic country, are seen from Cape Royal. It is an awe inspiring spectacle to look down in the canyon onto a double, or occasionally a triple rainbow, or a rainbow forming a complete circle, as has been reported occasionally.

There are few who can say they have looked down onto rainbows, but there are fewer who can say that they have seen a rainbow by full moonlight.

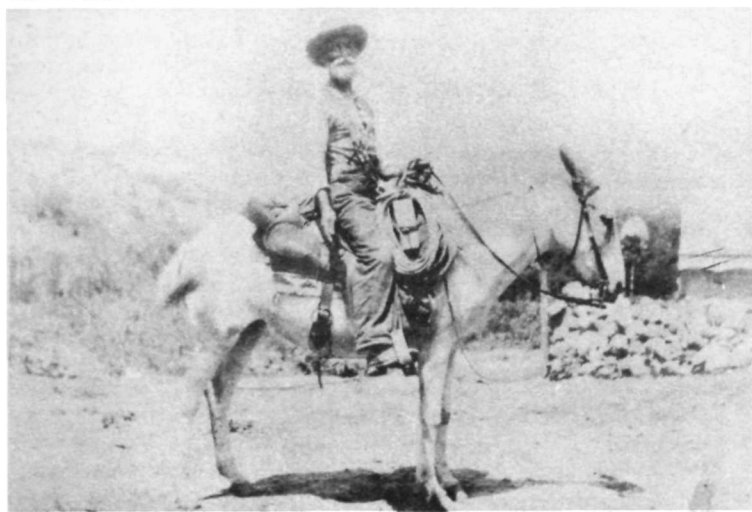
Paul Kraus, Ranger Naturalist.



ON CANYON TRAILS

By Edwin D. McKee, Park Naturalist.
(Part II, Continued from Vol. 8, No. 5.)

THE name "Hermit" which has been given to numerous objects located in the area just west of Grand Canyon Village, was originally suggested by the presence in that region of a pioneer named Louie Boucher.



Louie Boucher—the hermit of Hermit Canyon.

What is probably the most seldom traveled and least known Canyon trail today was built by old Louie sometime between 1889 and 1893. The upper part leads to the charming locality known as Dripping Springs, entering Hermit Basin from the southwest. A continuation of it along the upper west walls of Hermit Canyon, descends into Boucher Canyon farther down, and there Louie established what must have been a rather comfortable, if isolated, camp.

The Boucher trail has been in disuse for so many years that it appeared impossible to obtain any authentic data concerning it until last fall when a visitor to Grand Canyon disclosed his identity as one of the co-workers of old Louie Boucher. To this visitor, a Mr. Edward W. Murphy of New York City, we are indebted for the picture of Louie and also for some other pictures showing the camp at Dripping Springs. Mr. Murphy stated that he had spent several months here about 1890, and with a cow puncher named Johnny Stevens and a man from New York whose name he could not recall, but who "owned a box camera", had helped to build the trail to Dripping Springs. At the time he had no idea what was the purpose of this construction project, except that the men wished to reach the fine camping site at the springs. Old Louie, he said, was a very reticent man and a typical prospector, possessing geology pick, pan and tools for trail making. Louie also owned several burros, a white mule with a bell, and a tent.

In 1911-12 a second trail was constructed down into Hermit Basin and Hermit Canyon. This trail was built by the Santa Fe Railroad, and was for tourist use. It skirted the east side of the Canyon and descended it all the way to the river. In 1919 it was turned over to the National Park Service which maintained it for over twelve years, when it was finally abandoned.

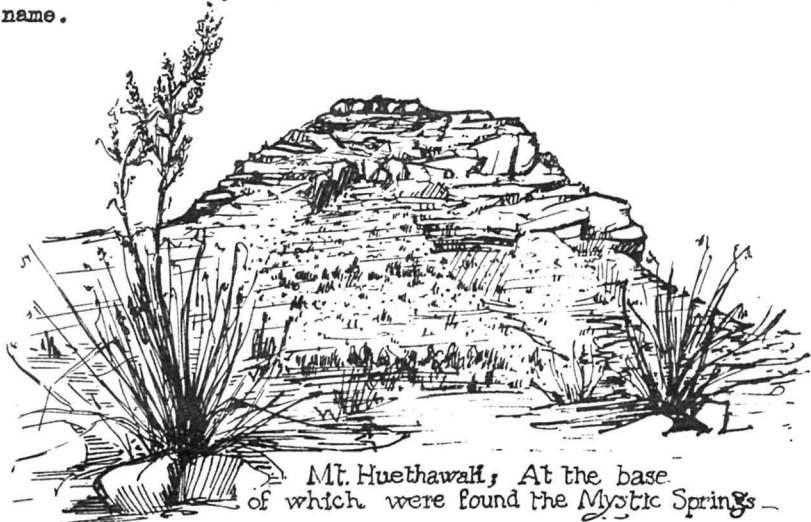
In the extreme western part of Grand Canyon are three other trails of considerable interest. One of these, without name, zig-zags down from Great Thumb Point to the Red Esplanade bench below. It is very rugged, used only by the Havasupai Indians and so far as can be determined was developed by them for hunting and other purposes.

A second Indian trail is the Topocoba which starts near a spring having the same name, and leads to the Indian village of Supai down in Havasu Canyon. This trail approximates and in places follows the scar of an attempted wagon road, the construction of which was unsuccessfully carried on by the Grand Canyon Gold and Platinum Company, an Eastern concern organized in about 1902. Prior to that time the same general route had been used for over fifteen years in connection with the mining of lead and silver ores, and probably

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for many generations before that by the Havasupai Indians.

The old Bass Trail, descending from a place near Havasupai Point down Bass Canyon, thence up Shinumo and White Creeks to the North Rim at Powell Saddle, was largely developed by the famous pioneer W. W. Bass, recently deceased. The section leading from the South Rim to the Red Esplanade shelf below probably started as an Indian trail, for it was used by the Havasupais to Mystic Springs at the base of Mt. Huethawali many years ago. Sometime in the '90s that spring is reported to have disappeared following an earthquake but the route to it was followed by Bass in making his trail to the river in 1895.¹ Information obtained from Mr. Bass before his death indicates that some of the northern part of this trans-canyon route was first developed by a prospector from the North Rim area named White, the man after whom White Creek received its name.



Mt. Huethawali, At the base of which were found the Mystic Springs -

Bass recognized mining claims as a cause for this development but also harbored suspicion that the route was commonly used by a band of horse thieves in reaching their rendezvous. In later years Bass himself developed both copper and asbestos mines in the area, and used his trail to the South Rim in packing out these minerals. He also built up a good tourist

trade, and in 1900 developed a fine fruit orchard and garden plot near the mouth of Shinumo Creek. This place was known as Shinumo Gardens, and was the Phantom Ranch of early days. The north section of the Bass Trail is now commonly called the Shinumo Trail.

One other Grand Canyon trail is found descending from the North Rim in the western area. This trail goes down Tapeats Canyon and is commonly referred to by the romantic name of Thunder River Trail. Concerning its early history and origin the writer has been able to obtain but little information. According to R. E. Laws of Kanab, Utah, the Piute Indians used the upper part down to the Supai sandstone many years ago and left evidence of their occupancy in some of the large caves in that vicinity. In later years this part of the trail was worked and used by the Forest Service and also by cattlemen who wintered their stock above Thunder River. In 1925-6 Ranger Laws and others working for the Forest Service, constructed the lower portion of the trail, down through the Redwall to a spring below. Since then no work has been done and the trail is in very poor shape at present.

It is realized that this sketch of the history and development of Grand Canyon trails is far from being complete. It represents, nevertheless, the results of considerable work in assembling historical data, and is presented in an attempt to permanently record interesting facts which have not before been placed in print and which are in danger of soon becoming lost. If any of the readers are able to contribute further information on any of the Grand Canyon trails, they are urged to do so. The Natural History Association will welcome any assistance in gathering together this material.

1. Information from H. R. Lauzon.



