

GRAND CANYON NATURE NOTES



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Grand Canyon Nature Notes

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History Association

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M. R. Tillotson,
Superintendent.

Edwin D. McKee,
Park Naturalist.

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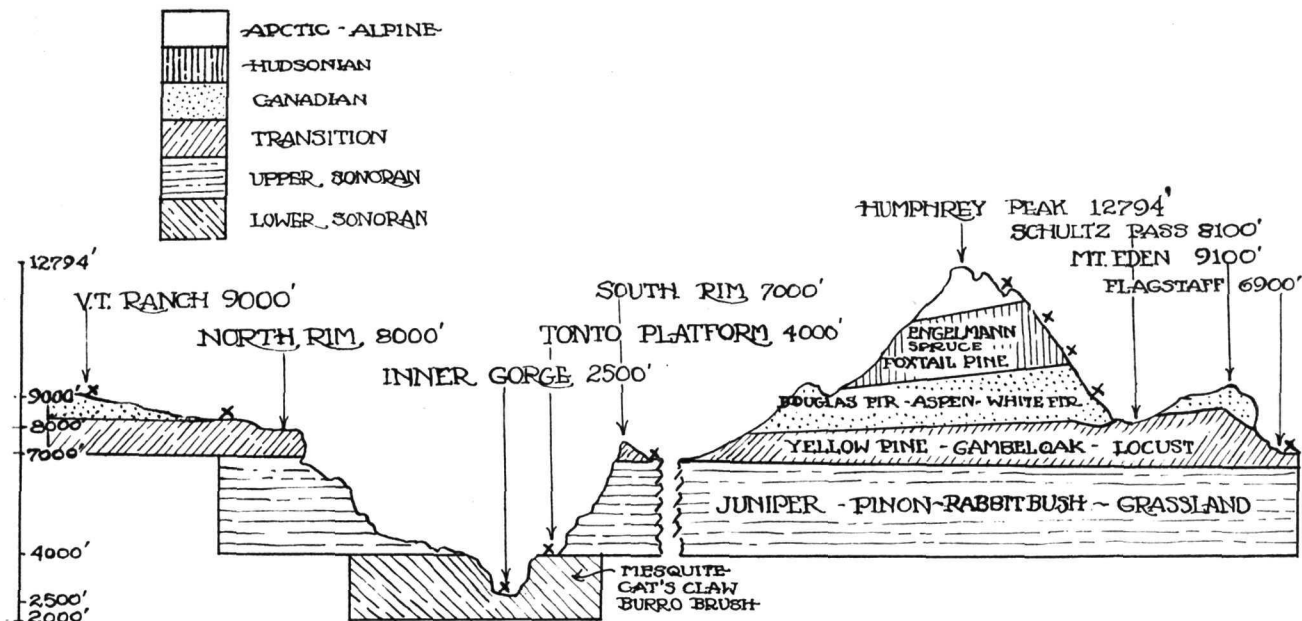
FROM LOW TO HIGH

By Frank E. Lutz,
Curator of Entomology,
American Museum of Natural History.

THE outstanding scientific features of Grand Canyon National Park are admittedly the geologic ones. Nevertheless, animals and plants, the biologic features, of any of our parks are of great interest. This is certainly true at Grand Canyon.

Thanks to the efficient work of Park Naturalist McKee and his staff we have a good record of most of the larger plants and of the backboneed animals in and near the Canyon but the insects are still practically unknown. Small collections of insects have been made from time to time, chiefly on the South Rim, but, in view of the several thousand species that certainly occur there, barely a start has been made. Furthermore, because highly specialized knowledge is needed to identify correctly this wealth of life, relatively little is known concerning the collections already made. Since co-operation is needed for such work the entomological department of the American Museum of Natural History welcomed the opportunity of doing its bit by sending the writer and three volunteer assistants, Messrs. E. L. Bell, David Rockefeller and P. E. Geier for a season's work in the Canyon and on the neighboring San Francisco Peaks. The party spent very little time on the readily accessible Rims.

It is evident to anyone who has been at all observant in regions where there is a great diversity of altitude that animal and plant life change with a change in altitude. As we go up the mountains the fauna and flora become more and more "northern". This has been more carefully worked out for



CROSS SECTION OF GRAND CANYON,
 SAN FRANCISCO MT. REGION
 N.N.E.-S.S.W.

*Localities of collecting
 by American Museum party.

vertical scale
 1000 FT. = .22 IN.

plants, mammals and birds than it has for insects. At any rate, this is one of the interesting biological features at the Canyon where the altitude varies from 2,500 feet along the Colorado River to more than 12,000 feet in the San Francisco Peaks. Accordingly, in spite of the heat and drought at one extreme and of the chilliness and rain at the other, our party paid most attention to these extremes, going from the low to the high.

Through the courtesy of the Park Service we spent sufficient time at three principal stations, the mouth of Bright Angel Creek, Indian Gardens, and Supai, inside the Canyon, to get quite satisfactory samples of the adult insect life at those places and times. So far as we know, ours were the first insect nets to swing at Supai in the wonderfully beautiful and interesting Havasu Canyon some miles west of Bright Angel. Also, with the help of Dr. Harold S. Colton of the Museum of Northern Arizona we established camp at about 9,500 feet altitude on the San Francisco Peaks and worked both ways from there, getting to the summits of the four major peaks and to the bottom of Walnut Canyon with its abundance of Cliff Dweller ruins and its rich animal life.

Our collections are so large and so varied that we shall be a long time in completing the study of them but even they represent only a fraction of what is to be found at other times and places. The Canyon with all of its branches is vast and so are the surrounding mountains. And then there are the fascinating plains which Man calls deserts, chiefly because he finds it difficult to live there in large numbers but which are home to many an insect that has solved the problem Man has not solved. However, we hope that we shall have made at least a small contribution to a better knowledge concerning the biology of the Grand Canyon region and we thank the Museum's friends who have made this contribution possible.



NOTES ON THE BAND-TAILED PIGEON

By Russell Grater, Ranger Naturalist.

THE status of the Band-tailed Pigeon (*Columba fasciata fasciata*) in Grand Canyon has been a constant source of interest among naturalists for the past few years. The sight of an isolated individual or of a small flock has always been regarded as news worth recording.

Just recently numerous reports started coming to the effect that Band-tailed Pigeons were deserting their secluded habitats and were being seen in fairly large flocks in the area of Grand Canyon village. An investigation of these reports proved very conclusively that they were based upon facts. Two or three times the writer observed flocks ranging from twenty to thirty in number, circling over the rim of the canyon near the Village area. It seems evident, however, that only one large flock is being seen, as the numbers reported by various observers are practically identical.

A study of prevailing climatic conditions within the region offers a solution for the continued appearance of the pigeons in the village area. Under normal conditions the month of July would have furnished the birds with an abundance of water in their natural habitats, but this year a very limited amount of rain during July forced them to seek water elsewhere. One individual actually visited the bird bath at the home of Mr. E. W. Fambrough in the village on July 17. A flock numbering from twenty-five to thirty was reported circling over the Hopi House by Ranger Satterwhite on July 20. This flock was also reported the same day by Mr. Anton Albert, gardener at El Tovar Hotel, and by Mr. Cook and Mr. Ruby of the local C.C.C. Camp. Five pigeons were seen by the writer near the corrals bordering the Recreation Field on July 24.

Recent rains during the month of August have evidently solved the water problem for the Band-tails as none have been reported for several days now. A flock of approximately twenty-five was seen near Grandview on August 14, so it seems evident that the birds have once more returned to their normal habitat and resumed their old mode of living.

SOME HABITS OF TWO RAVENS

By Barbara H. McKee.

Darby and Joan, according to an old song, were an affectionate old couple and for that reason Chief Ranger Brooks and Mrs. Brooks thought of them when a devoted pair of ravens began to frequent their bird feeding station. Thus Mr. and Mrs. Raven, large lustrous black birds with wingspreads of over four feet, became Darby and Joan to the inhabitants of Grand Canyon village, and a more affectionate pair of birds hardly could be imagined.

Three years ago in the winter, Darby and Joan first made their appearance at Ranger Brooks' feeding station. They were attracted there by suet which he had distributed in the trees. At first only one of the ravens came in close, but soon it was accompanied by its mate. Of course, no one could tell which bird was the male and which the female, but the bold aggressive one has always been called Darby and the timid one who usually stays in the trees nearby has been designated as Joan. Since that first visit they have been constant visitors the year round except for a short time in the spring when Mr. Brooks feels sure they are mating and attending to domestic duties elsewhere.

This spring Darby was accompanied by a new Joan. Something must have happened to his former mate, for the one with him this year was extremely shy and would not come very near to the feeding station. Darby was forced to take choice bits of food to her.

For two years the birds have brought their broods with them when the young birds were full grown, but one visit has always seemed sufficient for the young birds, and they have never returned.

Very often in the early morning before the people of the village are stirring, Darby and Joan arrive from their home somewhere in the direction of Grand Canyon and announce their arrival with hoarse cawing and many a "G-dunk". In fact, the "G-dunk" seems to be Darby's call to Joan to "come on, it's all right". In addition to this early feeding hour, they come at noon and again at five or six in the evening, as they have learned that at those hours Mr. Brooks has put out fresh food for the birds and squirrels.

Ever since these Ravens have been eating at the feeding station their diet has been greatly varied from the carrion, insects, and the like which usually constitute their food. Of course, they eat quantities of suet and scraps of meat, but they are also very fond of bread, biscuits and even doughnuts. Strange to say, they love pinyon nuts and will scoop up a whole beak full at a time, then proceed to crack them one by one in the tips of their bills and swallow the nuts with apparent great pleasure after dropping the shells.

There is one especially strange habit which Darby has. He washes practically all the food that he eats and that which he takes to Joan who waits nearby in a tree. He always rinses the dirt off the lumps of suet by dropping them in the bird bath before eating them, and he does the same with the bread, biscuits and doughnuts.

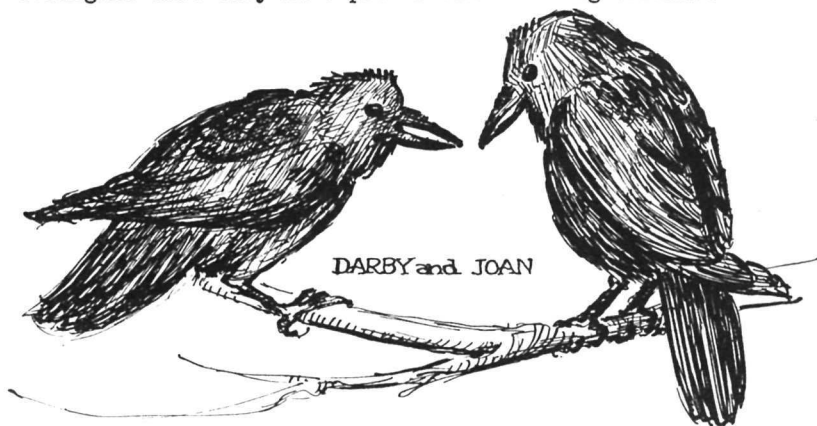
In spite of the fact that Darby has been coming for food for three years he is still very wary. He never walks directly up to the morsel he wants, but goes all around solemn-

ly eyeing it, then snatches the morsel and jumps quickly back as though he feared a hidden trap. Then with hops and a ludicrous walk he takes it to the bird bath to be washed.

Not long ago the two birds were seen feeding bread to their young. Darby had one young one sitting beside him on the branch of a tree, while Joan had another one beside her on the limb above. Each old bird had a slice of bread in one foot and after taking a bite from it would feed that to the young bird nearby.

All the birds and squirrels have learned the time at which Mr. Brooks puts out food and they come for their share. Naturally, there are often little battles over some choice tidbit. The ravens, being so much larger than the other birds who eat there, have no trouble with them, but frequently there are disputes with Abert Squirrels. The squirrels even try to upset the ravens by running under them and between their feet, but a hop is all that is needed to clear a squirrel, so quite often it is the bird that is victorious.

Darby and Joan have greatly endeared themselves to their human watchers, because of their ludicrous manners and humorous antics. They are so awkward on the ground, so graceful in the air, usually so obnoxiously vociferous and yet so intelligent that they have proven entertaining friends.



A CURIOUS COLLECTION

By Russell Grater, Ranger Naturalist

NUMEROUS indeed are the stories told concerning the collecting and trading habits of the Wood Rat or Trade Rat of the West, but seldom does one find such a diversified collection as was unearthed by the writer near Wayside Museum of Archaeology on August 4.

Near the Museum a San Francisco Mountain Wood Rat (*Neotoma mexicana pinetorum*) has painstakingly built himself a home. An investigation of his dwelling revealed the astonishing fact that, in addition to dirt and sticks, it contained:

- 1 Piece of gauze.
- 3 Blue headed pins -- from the Museum.
- 3 Grains of corn -- Hopi variety.
- 2 Burnt matches.
- 3 Different shades of thread.
- 1 Piece of tire tape.
- A quantity of electric light wiring.
- 2 Types of beans (evidently a part of the archaeological display in the museum).
- 1 Piece of tin foil.
- 1 Button.
- 1 Piece of isinglass.
- 1 Cigar wrapper.
- 1 Piece of cellophane.
- 1 Part of a comic strip of newspaper.
- 1 Piece of cloth.
- 1 Small paper box.
- 1 Length of lantern slide binding tape.
- A few pinyon nuts.
- A quantity of juniper berries.



All of these certainly indicate that this individual was an enthusiastic collector of odds and ends. If we miss anything at the Wayside Museum in the near future, we will know where to look for it.



SOME MIGRATING SPARROWS AND RELATED SPECIES

By Russell Grater, Ranger Naturalist.

MIGRATORY season has now arrived, bringing with it some very interesting data concerning certain members of the Sparrow family and closely allied species.

It was during the period of September 10 to 15, 1889 that Dr. Hart C. Merriam shot two Lincoln Sparrows (*Melospiza l. lincolni*) near the Canyon rim, and reported seeing many others. Since then none have been recorded from Grand Canyon until now, almost forty-five years later. On September 9, 1934, a flock numbering about seventy-five was seen near the Post Office on the South Rim. The size of this band indicates without doubt that it was a migratory group. Truly this is an interesting record.

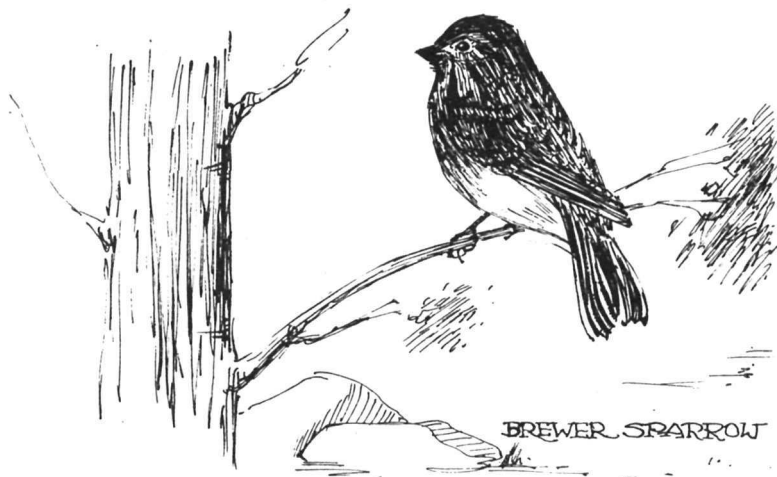
Sharing the spotlight with the Lincoln Sparrow record are those of the White-crowned Sparrow (*Zonotrichia l. leucophrys*) and its closely allied cousin, the Gambel's Sparrow (*Z. l. gambeli*). A male White-crowned Sparrow was collected by Mr. A. E. Borell on the North Rim on September 17. Since then 12 individuals have been banded at Bright Angel Point

station. Gambel's Sparrows have recently been trapped on the South Rim and banded for the first time at Grand Canyon. To date, October 1, bands have been placed on 22 individuals.

Of lesser importance but equally interesting, are records of Brewer Sparrows (*Spizella b. breweri*) arriving on the South Rim. There have been numerous fall migratory records from Grand Canyon, but mostly from the lower parts. These Brewer Sparrows, on the other hand, have been paying daily visits to the Village area for several days during the middle portion of September. An abundance of Green-backed Goldfinches (*Spinus p. hesperophilus*) has been noted associating with these sparrows.

Judging from the records, Green Tailed Towhees (*Oberholseria chlorura*) have never been rare on the South Rim, but this fall they appear to be much more common than before. Thus far a number have been successfully trapped and banded.

For a region thought by many to be largely lacking in bird life, Grand Canyon is producing some very interesting material for the records.



BREWER SPARROW

FIELD OBSERVATIONS.

Bird banding sometimes brings to light very odd events in the lives of individual birds. One of the most unusual ones thus far recorded at Grand Canyon is the case of a Chestnut-backed Bluebird. He was banded at one of the regular banding stations, but was next recorded from Yavapai Station where he flew into a window and was stunned. Recently he was struck by an automobile near Yavapai Station and knocked out, but he again recovered after being given attention. Truly his has been a life beset by accidents.

R. Grater.



A specimen of that trim little lizard with bright blue tail known as a Skink was collected this August from the southwestern corner of Grand Canyon National Park. Since it represents the first of its genus to be found in the park, it was sent to Dr. Edward H. Taylor of the University of Kansas who is an authority on this group of reptiles. According to Dr. Taylor, the Grand Canyon specimen represents "an extremely rare species, at the moment still undescribed". After Dr. Taylor has published his description of this species, reference will be given to it in this journal.

