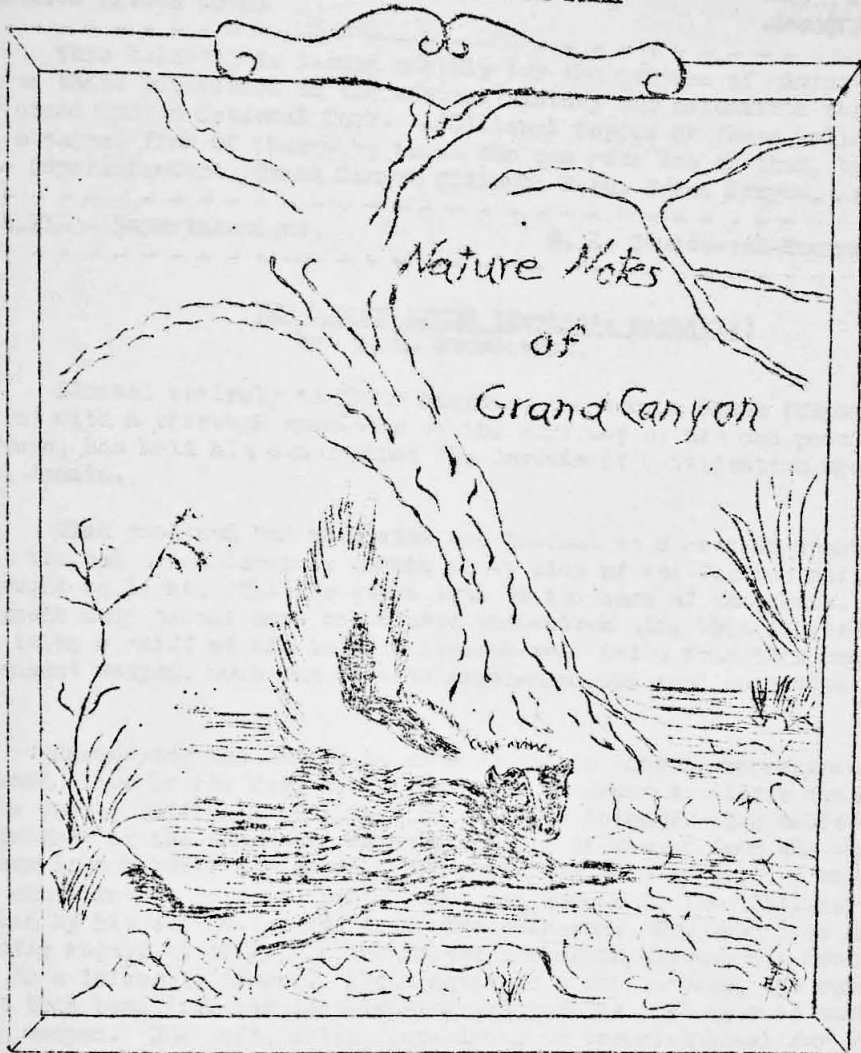


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This bulletin is issued monthly for the purpose of giving information to those interested in the natural history and scientific features of the Grand Canyon National Park. Additional copies of these bulletins may be obtained free of charge by those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

J. R. EAKIN - Superintendent.

G. E. Sturdevant-Ranger Naturalist.

THE COMMON SKUNK (*Mephitis mephitis*)

By- G. E. Sturdevant.

Limited entirely to North America, the common skunk (*Mephitis mephitis*) with a thorough knowledge of the efficacy of his own peculiar means of defense, has held his own against the inroads of civilization upon his natural domain.

When good and bad qualities are present in a certain species of animal, the bad are noticeably on the heavy side of the fulcrum until the good are brought to light. This is quite true in the case of the skunk. The nearest a great many people have acquainted themselves with this odoriferous animal is by a sniff of the tainted atmosphere. Aside from this brandishing ever-present weapon, much can be said concerning the good qualities of the animal.

Resembling the badger to some extent in general appearance and the lengthened claws of the fore-feet, the skunk is found to differ decidedly from the weasel family (*Mustelidae*) to which it belongs. The habits, teeth, and hind-feet of the skunk are also noticeably different from the weasel. The skunk is not built for speed. His ponderous body appears to weigh heavily on the small feet. In fact "haste" does not appear in his dictionary as is evidenced by his slow movements even when cornered. Why should he hurry? Apparently cognizant of knowing no master the skunk pursues his desultory course in a leisurely manner. About equal to a cat in size, one could hardly suspect this beautiful harmless-looking creature as possessor of such a nauseating weapon. The soft, silky, jet-black, or brownish-black fur with one or more white streaks along the back might cause many an uninitiated person to covet the animal for a pet. When caught young, skunks often make amusing pets. A party of pioneers making a pilgrimage to the west captured a young skunk under the impression that it was a cat. The skunk enjoyed domestication and occupied the place on the hearth; hunted mice, and shared all privileges normally accorded a house cat. The skunk had an insatiable appetite for cream. One day the pioneers caught the skunk in the act of licking the dasher

of the churn. Thinking that their "cat" should be taught better manners, they proceeded to cuff it. Since the skunk depends for defense on a fetid odor ejected with considerable force, he remonstrated in his usual manner which resulted in his untimely death. This liquid is not shaken from the tail in the form of spray. Those who have experienced it at close range describe it as "being a blue-yellow streak of liquid fire discharged with great force and causing temporary blindness." The fetid odor prevents this otherwise likeable creature from ostracizing the dog and cat as man's bosom friends.

The skunk presents a curious combination of industry and indolence. When making his nocturnal prowls for food he spares no effort to provide himself with the necessities of life. Patiently he works turning over innumerable small rocks to see if some cricket or other edible insect is not hidden beneath. Crickets and roaches, however, do not always completely satisfy the skunk. Occasionally he craves a more luxurious standard and bends his efforts toward chicken coops much to the wrath of poultry owners.

Marked as an industrious being of the animal kingdom when hunting for food, the same cannot be said concerning the construction of the home. If the skunk would busy himself in building a home to the extent that he does in making the home snug there could be no reflection concerning his industriousness. Although loathing to dig his own hole, Mr. Skunk sees apparently no reason why he should go without one. He is quite adept at appropriating some burrowing animal's quarters or by making his home under some residence. When the home is once selected the skunk is not sloven in making it comfortable. Regardless of the size of the apartment, dry leaves and grass are carried in until the home is made small enough to meet the needs of the one or more individuals occupying it.

The skunk is a gregarious being. Up to seventeen members have been known to occupy a single den. Hidden behind a thick layer of fat and dense coat of fur, the skunk is ready for his winter's quarters.

The mating season takes place early in March. The latter part of April or the fore part of May marks an important advent in the home life of the prolific skunk. At this time four to ten of the future odoriferous members appear in the nest.

The aversion of the skunk to building his own home at the Grand Canyon has caused mutual alarm and consternation on the part of the canyon residents and manager of the Bright Angel cottages. This confiscation by the skunk of the unused space beneath the floor has not been welcomed. Although the presence of skunks marks an absence of mice, the lesser of two evils is preferable. Often a habitation beneath a residence may be used for considerable time without the presence of the skunks being known. Even where considerable numbers of this species exist, one would not suspect their presence unless some member happens to be molested and leaves his "trade-mark" in the form of a slow-vanishing, despicable odor. With the increased boldness of the skunk at the Grand Canyon during the past two years,

it has been found advisable to close all passages beneath the buildings.

Although the skunk has cowed practically all living beings into adopting a "hands off" policy, man still stands out as an unrelenting foe. The lucrative trade in skunk hides can presage but a gloomy future for the skunk. In spite of increasing inroads made on their ranks, skunks are still relatively common in the western hemisphere in North America.



The skunk is one of the easiest animals to trap. Holding no ill-regards for a trap he would as soon step into it as to avoid it. He has failed apparently to develop any sagaciousness since man commenced reaping a revenue from his hide. Unless injured one might not suspect the skunk, even when caught, of being guilty of dealing out a blinding gas contrary to the rules of modern warfare.

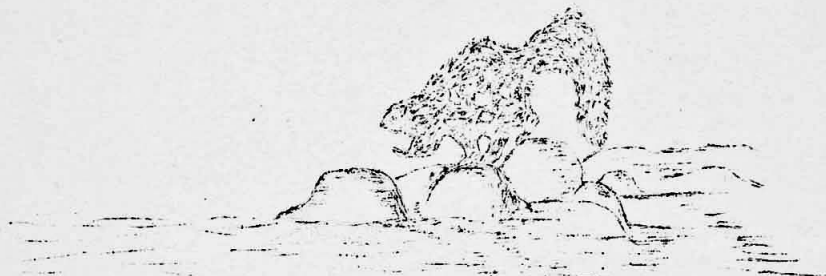
Thousands of skunks are trapped for their fur each year. Lampson's report for the year 1911 showed the sale of 1,310,185 skunk hides. According to their report "this year was not particularly good for skunks, either." American women now regard this hide as an indispensable article when made into a fur garment.

Aside from the value of the fur there is considerable demand for skunk oil. There is a strong belief among many people that oil rendered from the fat of this animal has great medicinal values. Numerous sufferers from rheumatism place explicit hopes of obtaining relief from their affliction through the use of this "divine willow rod". However, the greatest value of the skunk is the service rendered to ranchers by ridding their fields of mice and other destructive rodents.

Attempts have been made at different times to foster a skunk farming industry contemporaneously with silver fox farming. Although this industry has been nursed along for a number of years, more failure than success has marked its limited growth.

The chief contributing factor in having skunks placed on the black-list in this section of the country is the danger of hydrophobia from their bite. Numerous stories have been circulated concerning the hazards one runs

in sleeping on the ground. The Little Spotted Skunk (*Spilogale putorius*) has been the principal offender in gaining such an ill-repute. In fact this skunk is known colloquially as the hydrophobia skunk. In reality, however, it is blood-poisoning rather than hydrophobia that results from the bite. The skunk feeds on carrion to some extent and its teeth, defiled with the remains of its last meal, inject some of the putrescent material into the wound caused by its bite. Although there are numerous members of both species within and around the canyon, there is no record of anyone having been bitten by these denizens in the vicinity.



Fossil Fish

The park office is in receipt of a new and most interesting fossil in the form of an imprint of the ribs and backbone of a fish beautifully portrayed on a small slab of rock.

Ranger A. L. Brown discovered this important specimen in the Kaibab limestone near the Bright Angel Ranger Station on the north rim of the Grand Canyon. Since this is the only fossil record of a fish from this formation its importance has a fivefold value. It adds to the incomplete fauna from this formation and may be instrumental in correlating the Kaibab limestone with the Permian limestone of some other locality.

Plaster casts of this fossil have been taken and forwarded to the National Museum and Geological Survey in hopes of determining the exact species of the specimen.

AUTUMN

The assertion that autumn is the most beautiful season of the year is amply justified in the minds of those visiting the Grand Canyon.

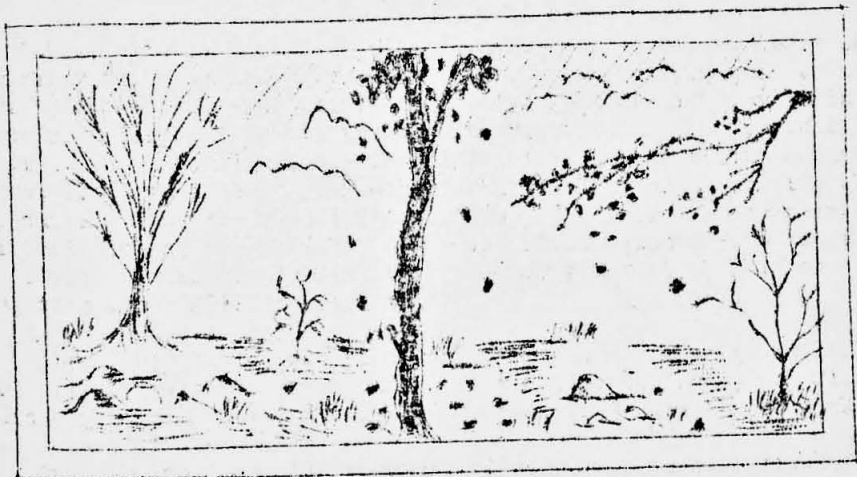
The deciduous trees and shrubs are taking on their autumnal garb of scarlet and golden-brown. The animals are preparing for the more rigorous weather ahead. Skunks totter around on their small feet because of the thick

layer of fat they carry around at this season. The beautiful Abert squirrels put in tireless days sending pine nuts to the ground and running to their coohes with pine cones. The provident Painted Chipmunk is busy laying in sufficient supplies to last him throughout the winter. Beaver, that have been leading a nomadic life since the high waters in the spring washed out their dams, are back in Bright Angel and Phantom Canyons rebuilding their dams and cutting down their winter's wood supply. Deer are appearing in their winter's coats, and polished horns in anticipation of the courting season. These animals are leaving their summer range at the higher elevations and going to a lower altitude for winter.

Birds, especially the pinon jays, congregate for informal chats. Minature pile drivers are heard among the pines as the Pygmy and Slender Bill nuthatches appear pounding innumerable food supplies beneath the bark.

Even the captive gila monster, although a representative of the fauna of the southern part of the state, is casting aside his old coat and gradually revealing a much brighter one as in anticipation of the change of climate or to be in vogue with the season changes.

Everything in fact changes including the ever-greens. The western yellow pine - stately monarchs of this region- take on a deeper green so as to be more contrasting to the white blanket that will soon be upon this region.



PUBLICATIONS RECEIVED FOR REFERENCE LIBRARY

The Park Service at the Grand Canyon is indebted to Dr. John C. Merriam, President of the Carnegie Institution of Washington, and Dr. David White, Senior Geologist of the Geological Survey, for publications received relating to the geology, geological fauna, and present flora of this and adjacent regions. These men on their visits to the Grand Canyon during the past summer saw the inadequate reference material on these subjects which have such an important bearing on this region.

Seven publications have been received: (1) "The Permo-Carboniferous Red Beds of North America and their Vertebrate Fauna," (2) "The Environment of Vertebrate Life in the Late Paleozoic in North America," (3) "Revision of the Amphibia and Pisces of the Permian of North America", (4) "Permo-Carboniferous Vertebrates from New Mexico", (5) "Distribution and Movements of Desert Plants", (6) "Geology and Coal Resources of the Axial and Monument Butte Quadrangles Moffat County, Colorado," and (7) "Geology of the Navajo Country"; the first five of the publications are from the Carnegie Institution of Washington and the last two from the U. S. Geological Survey.

These publications are to be numbered, card-indexed, and placed on the reference shelf. They will be of inestimable value not only to members of the Park Service but also to visiting scientists and other persons taking more than a superficial interest in this region.