opinion of paleontologists that the study of tracks "leads nowhere," and "are so blind." To a true paleophilist fossil footprints are notes from the life of the animals of the past and give us some clue, not otherwise obtainable, of their daily life. The evidence is slight, it is true, but none the less the study of footprints aids us in our understanding of paleobiology, which we could not otherwise have.

Feeling thus as I do about the study of footprints, it was a source of delight to find here on the Pacific Coast other paleophilists who felt the same about the matter, and they possessed a collection of fossil footprints from the Red Beds of Texas, which I suggested would be well worth studying. The collection was then placed at my disposal. The tracks all represent small animals of types which are unknown from skeletal material. Williston saw some of the tracks in 1909 and suggested they might represent salamanders. During the twenty years which have elapsed since Williston published his short note, small collections of these objects have accumulated in several museums, and the time seems propitious to gain an insight into the small animals of the famed Texas Red Beds, by a study and description of this assemblage of new materials. The several hundred tracks represent a variety of animals, all of which are new to science.

We shall accept it as a well established matter that the usual rules of taxonomy apply to ichnological objects. This is a commonly accepted opinion of paleontologists and needs no defense. There are several new species, of different genera, represented in the present assemblage which it is planned to define as well as may be and place the matter where it can be at the disposal of other workers. The majority of the tracks measure under 15 mm. in length, the imprints looking amazingly like the foot-structure of the Microsauria whose anatomy I so delighted to study ten years and more ago. In addition to the vertebrate impressions, and making the study more fascinating still, are the trails of invertebrates and weather indications.

It has been more than a century since Pliny Moody pointed out to his friends the footprints of *Noah's Raven* on the red slab which formed a doorstep to his home in Massachusetts, and it is my purpose to regard this study of the Ichnology of Texas as a centennial celebration of man's study of the trails of his predecessors. It is my hope to see and study all materials of this nature and I hope that those who read this note and know of footprint assemblages from Texas will be so courteous as to let me know.

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DISCOVERY OF FOSSIL TRACKS ON THE NORTH RIM OF THE GRAND CANYON

FOSSIL tracks of quadrupedal animals were first discovered in the rocks of the Grand Canyon of the Colorado in 1915, but the abundance of their occurrence and their great variety of kind has only recently been made known.[1] During the past three years investigations carried on by the senior author show the presence of no less than 28 genera and 36 species of fossil ichnites. These represent three distinct faunas that named in descending order occur in the Coconino (Permian), Hermit (Permian) and Supai (Pennsylvanian?) formations. All of the specimens on which the above-mentioned determinations are based were obtained entirely from the south side of the canyon, and it is, therefore, of interest to find that fossil footprints also occur on the north side. Mr. Sturdevant, with the assistance of Mr. Charles Nash, made a special search for tracks on the north rim and on December 9, 1927, and was rewarded by finding well-preserved footprints in both the Coconino and Supai formations.

When collections have been made, it will be a matter of added interest to learn whether the tracks occur in the same horizons and also whether the same genera and species are to be found on both sides of the canyon, which are separated by a distance in an air line of fourteen or more miles.

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A CORM ROT OF GLADIOLUS CAUSED BY A PENICILLIUM

THE diseased corms have reddish brown lesions, firm but not hard, sunken, usually irregular in size and shape and without definite margins. The dark brown, moderately porous rot invades the corm tissues rather rapidly at temperatures between 12 and 23° C., eventually destroying the corm. At temperatures above 20° C. there is but scanty development of the blue-green conidia. Numerous sclerotia appear both on the surface and in the interior of the attacked corms.

The pathogenicity of the fungus has been proved by inoculation experiments and the connection of the sclerotia with the Penicillium has been definitely established.

[1] Gilmore, C. W., *Smith. Miscel. Coll.*, Vol. 77, No. 9 1926, pp. 1–41, 12 plates; *Smith. Miscel. Coll.*, Vol. 80, No. 3, 1927, pp. 1–78, 21 plates; *Smith. Miscel. Coll.*, Vol. 8, No. 8, 1928, pp. 1–16, 5 plates.