

FIELD MUSEUM EXHIBITS WORLD'S ONLY ARTICULATED SKELETON OF ASTRAPOTHERIUM

By ELMER S. RIGGS

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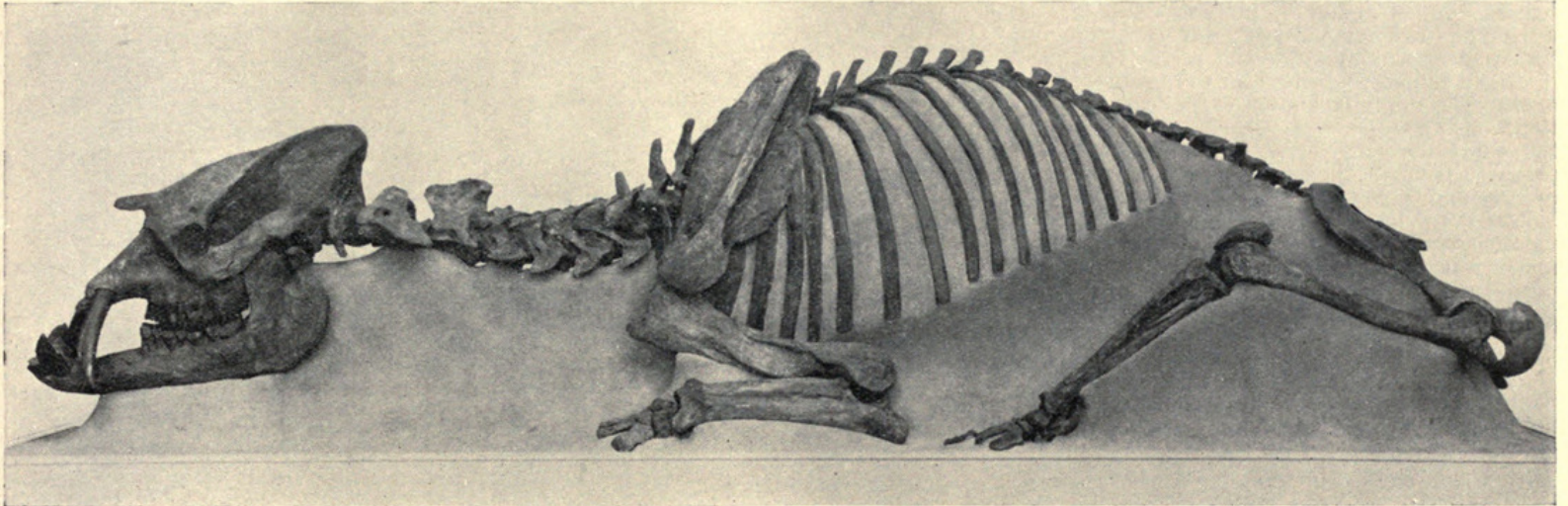
One of the most treasured specimens of South American fossil mammals has been added recently to the collections in Ernest R. Graham Hall (Hall 38). It is a unique skeleton of the strange beast *Astrapotherium magnum*. This is the first articulated skeleton of this animal known, and the first to be placed on exhibition in any museum. Also, it is the first specimen of the entire order, *Astrapotheria*, to become so fully known.

nose and a prehensile upper lip which filled out the open space above the lower jaw and served the animal in grasping its food.

The lower incisor teeth are broad and have rounded, chisel-shaped crowns. The evidence of wear on these teeth shows that they were opposed by some part of the mouth not preserved in the bony structure—probably the prehensile upper lip. The molars are similar to those of certain river rhinoceroses, and adapted to feeding upon fleshy plants. The back of the palate is not

rests upon the ground. The foot is so slender and the bones so weak in proportion to the size of the animal as to indicate that the weight was borne upon a pad which enveloped the entire sole of the foot.

The unusual features in the structure of this animal are receiving detailed scientific study from well-known paleontologists, notably Dr. William Berryman Scott of Princeton University, an eminent authority on South American mammals. His forthcoming publications may be expected to throw much



Astrapotherium Magnum, a Unique and Important Fossil Exhibit

A skeleton of an extinct South American mammal which is of extreme interest to paleontologists, now on view in Ernest R. Graham Hall. In mounting the skeleton it has been posed to represent the position of the animal lying down. *Astrapotherium*, in standing position, was about five feet in height, and nine and one-half feet in length.

From this specimen it becomes possible to establish definitely the relationships of this group of animals to other great orders of extinct South American mammals.

The *Astrapotherium* lived during the Miocene period, about twelve million years ago. The skeleton shows that it stood nearly five feet in height and was nine and one-half feet long. The head was massive, and the mouth was armed with four strong tusks somewhat like those of the wild boar.

The upper tusks, triangular in cross-section, curved downward to meet a shorter pair in the lower jaw. The nasal opening was wide, and opened upward and forward much like that of the modern tapir. Apparently it was surmounted by a large pouchy

bridged over by the bony structures common in animals which feed under water.

The neck of *Astrapotherium* was moderately long for an animal of its stature. The body was rather long and slender with a deep, narrow chest. Twenty-four body vertebrae are present in the skeleton and nineteen pairs of ribs. The forelegs are rather long and strong as is consistent with a deep and well-muscled shoulder. The forefoot had five toes which were enclosed apparently in a fleshy pad like that of the elephant. The hind legs were much more slender than the forelegs and the entire hind quarters were relatively light. The hind foot was of the plantigrade structure in which the entire sole of the foot

light on the systematic position and the relationships of this most bizarre animal.

In general it may be said that *Astrapotherium* was a low-ground or a river-frequenting animal which fed upon fleshy, moist plants such as canes or rushes, much as the modern hippopotamus does. It may have swum in lakes or rivers. The animal was first reported nearly eighty years ago and has since become known from various specimens consisting of teeth, jaws and a considerable number of entire skulls. These specimens have been found most abundantly in formations of Miocene age in southern Argentina. More recently specimens of related animals have been found in Uruguay, Colombia and Venezuela.

FAMILY TREE OF REPTILES

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The genealogy of reptiles is a long one, extending back into the earth's history more than two hundred million years. They reached the peak of their struggle for supremacy long ago, and now, reduced in numbers, only a handful of mostly small and highly specialized types remains.

The actual beginning of the reptile line is a secret that probably never will be known. It must have taken place some time during the Carboniferous Era, or Coal Age, but the fossil record is not very clear. During the Mesozoic Era, or "middle age" in the earth's history, reptiles underwent an extraordinary differentiation. An abundance of fossils shows that they dominated the entire animal world. Grotesque pterodactyls occupied the air before there were any birds; fishlike ichthyosaurs, together with mosasaurs and turtles, inhabited the

ancient waters; while dinosaurs were the predominating land animals. Although some of these animals, such as the well known *Brontosaurus*, reached the size and weight of a railroad locomotive, most of them were small. Indeed, some of the most interesting were no larger than a chicken.

The dramatic rise and fall of the reptile line is in itself a fascinating topic that has attracted many students. From the evolutionary standpoint, however, this is overshadowed by the still more interesting part they have played in the history of vertebrates. Just as the amphibians grade almost imperceptibly into the reptiles in the Carboniferous, so do certain reptilian groups gradually take on the characteristics of mammals and birds at a later time. The famous Karoo beds of South Africa have yielded fossils which, although true reptiles, are more like mammals in nearly every feature of their anatomy. Some of the small dinosaurs, on the other hand, become increasingly birdlike.

It is thus apparent that reptiles stand at one of the great crossroads in the history of life on the earth. Although they themselves represented a distinct advance over their amphibian ancestors, their descendants, birds and mammals, far outstripped them, and even brought about their undoing. Birds and mammals, with their superior intelligence, their warm blood, and their higher organization, rapidly usurped the dominating position so long held by reptiles, and have since reduced them to a few small and relatively unimportant survivors—the crocodilians, lizards, snakes, and the turtles.

An exhibit depicting the central place in vertebrate history held by reptiles has recently been installed in Hall 19, together with skeletons of each of the surviving groups. This exhibit was prepared by Mr. E. N. Gueret and the writer from data recently published by Dr. A. S. Romer. Many of the extinct forms are exhibited in Ernest R. Graham Hall (Hall 38).



Riggs, Elmer S. 1935. "Field Museum Exhibits World's Only Articulated Skeleton of Astrapotherium." *Field Museum news* 6(7), 3-3.

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