

EVOLUTION

Two Ancient Reptilian Skulls Represent Link With Mammals

Most Important Evolutionary Links Ever Discovered, Noted London Paleontologist Says of Karroo Fossils

TWO FOSSIL skulls, almost midway between reptiles and mammals, in the Bloemfontein Museum, South Africa, represent one of the most important evolutionary links that have ever been discovered. This is the opinion of Dr. D. M. S. Watson, professor of zoology in the University of London, now visiting the American Museum of Natural History, New York.

The specimens belong to an extinct order of mammal-like reptiles found almost exclusively in the famous fossil-bearing Karroo formations of South Africa. The skulls are about the size of those of a large rat and are estimated to be around 150,000,000 years old. Technically they are reptiles but actually they are so close to mammals that scientists are almost willing to admit that they are that rarest of paleontological treasures, a real missing link.

Only a very general description of the fossils has been published but this has been sufficient to enable zoologists to recognize their significance as standing nearly on the midline between two great classes of animals. They have been put in a whole suborder by themselves and pending further description are known as Ictidosauria A and B.

"The importance of these fossils in

the history of evolution," said Dr. Watson, "can hardly be overestimated. The fragments of the skeleton that have been found show some resemblance to that of one of the egg-laying mammals of Australia. The publication of further details is a matter of greatest interest not only to the research workers in this field but to students. For, as soon as careful measurements and drawings are available, some account of these specimens should occupy an important place in text books and courses on evolution."

The Karroo formations, in some places 20,000 feet thick, cover over half of the area of the British Dominion of South Africa and give a practically unbroken fossil record during a period of about 60,000,000 years.

The Ictidosaurians come from the topmost and consequently the most recent layer. The order of reptiles to which they belong and which are peculiarly characteristic of the Karroo beds, branched out into many families of strange and misshapen creatures. Long before the dinosaurs rose to their prime, however, the nearest relatives of the Ictidosaurians began to assume a shape not unlike that of a rather large-headed dog or wolf.

BEE BEHAVIOR

an address by

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Wednesday, May 16, at 3:30 p.m., Eastern Standard Time, over Stations of the Columbia Broadcasting System. Each week a prominent scientist speaks over the Columbia System under the auspices of Science Service.



For example, the typical reptilian jaw is made up of several bones but in mammals there is only one. In these creatures the bone in the front of the jaw became large and shaped like that of mammals while the remaining bones stayed small. In the two Ictidosaurians the bones at the back of the jaw, now very tiny, are the only reptilian trait left in the skull. In man himself some of these bones from the back of the reptilian jaw still survive in the hammer, anvil and stirrup bones of the middle ear cavity.

The whole group of mammal-like reptiles, which are extremely important in the study of evolution, are not well represented in the museum and university collections of the world, Dr. Watson pointed out. The largest number are found in the Cape Town, the British and the American Museums. There are two small collections in Germany and one in Chicago. Dr. Watson has an extensive private collection.

During his stay in the United States Dr. Watson is studying primitive American ancestors of the mammal-like reptiles of Africa that are found in very early geologic formations in Texas.

Science News Letter, May 12, 1934

ASTRONOMY

Large White Spot Seen On Jupiter

A LARGE white spot on the planet Jupiter was sighted on April 29 by Prof J. J. Nassau of the Warner and Swasey Observatory, Cleveland. It is an outstanding mark on the south equatorial belt and it is 20,000 by 2,000 miles in size. Probably a gigantic storm or disturbance in the planet's atmosphere caused the spot.

Science News Letter, May 12, 1934

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