

1906 – Cannon discoveries

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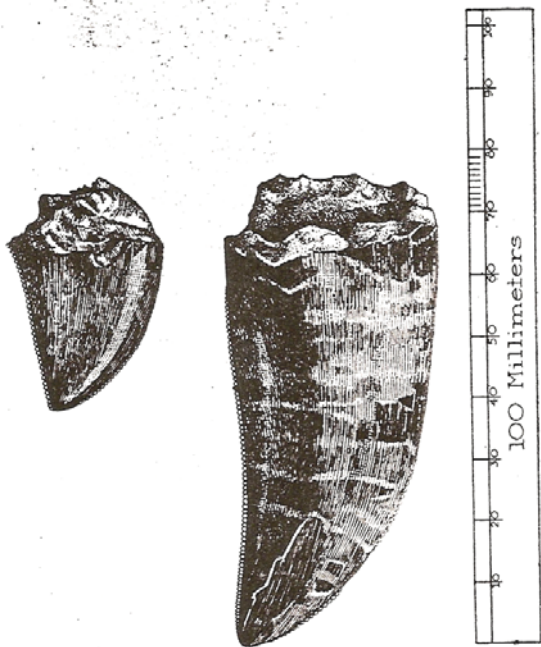
By George L. Cannon

George L. Cannon exhibited a number of enormous bones recently found by Mr. George Coon in excavating for brick clay on the north bank of Green Mountain Creek (Dry Creek) near the intersection of Boulevard F and the Denver and Intermountain railway in North Denver, among which were a femur which had diameters of ten inches at both distal and proximal ends, a nasal horncore and a fine tooth of some theropodous dinosaur. With the exception of the tooth, these bones were portions of one of the species of huge horned dinosaurs for which this neighborhood is noted. The semi-popular account of these animals given by Mr. Cannon being familiar to readers of the standard works on vertebrate paleontology, only the unrecorded notes will be given in the following article:

Our knowledge of the vertebrate life of the Denver formation is principally based on Prof. O.C. Marsh's description of the material in the collection gathered in this vicinity by the late George H. Eldridge and the writer.

In common with all material so far obtained from the Denver beds, these collections consisted largely of fragmentary material which in most cases permitted only generic or ordinal determination. The conditions which in Wyoming and other portions of the West have secured the preservation of the greater portion of the skeletons of so many extinct animals were notably absent near Denver-fluviatile rather than lacustrine conditions prevailing during the deposition of the Denver beds. So instead of the entire skeletons of mired animals, as a rule, but isolated bones, widely dispersed by river currents, can be found and these with difficulty discoverable because of the massive mantle of Pleistocene material which obscures so large a portion of the surface. At the time when Prof. Marsh examined these collections, he was receiving from his field parties in the western states enormous quantities of the most interesting material and had, therefore, but little time or patience to examine the inferior collections from this locality. The writer believes that if these collections could receive a more thorough examination a greater number of species could be credited to the Denver formation than is given in the list at the end of the chapter on vertebrate paleontology in the Monograph on the Denver Coal basin. In addition to a probable increase in the number of chelonian and crocodilian species, Prof. Marsh, in private letters to the writer, spoke of the collection containing the bones of some large carnivorous dinosaur and also, after the publication of this monograph, identified a tooth found at Berkeley Bluffs as belonging to the species not uncommon in the Ceratops beds of Wyoming *Palaeoscinus latus* Marsh.

A plate was exhibited by Mr. Cannon showing two teeth of flesh-eating dinosaurs found in North Denver on the banks of Green Mountain Creek (Dry Creek) which although much larger, bear a marked resemblance to the figures of the teeth of *Megalosaurus Bucklandi*. A similar tooth was found many years ago by Prof. A. Lakes near the southwest end of South Table Mountain at Golden and another was recently found in the ravine on the north side of Berkeley



Teeth of a Carnivorous Dinosaur, Discovered in the Denver Formation by R. W. Bowland.

Bluffs. These teeth probably belonged to a large species of theropod dinosaur like the *Laelaps aquilunguis* Cope which is estimated to have been twenty-four feet long-animals which were probably largely responsible for the extermination of the gigantic, but excessively stupid herbivorous, horned dinosaurs.

Since the publication of the Monograph, the exposures of the Denver beds have received repeated examination by hundreds of students of the State School of Mines and from the Denver High Schools, who were familiar with the appearance and location of fossil bones, but beyond fragmentary specimens of horned dinosaurs such as the find horn cone presented to the East Denver High school by Horace Danforth, Esq., occasional teeth of crocodiles, and isolated scales, but little of value is known to have been secured. Miss

Marian Yerkes, a pupil of the East Denver high School recently obtained at Berkeley Bluffs a specimen of considerable interest-the incisor of a Multituberculate animal resembling the specimen in the National Museum labeled *Priacodon ferox*.

This tooth and a Multituberculate molar, lost before specific determination could be secured, are the only Mammalian remains known to have been found in the Denver beds of this vicinity.

The Pleistocene deposits, mainly the river drift deposits of the ancient Platte river and its tributaries, have yielded additional bones of the three species of elephants that once roamed in this vicinity, discoveries having been recently made at Golden, Morrison, Brighton, and Littleton. A fine tusk and some vertebrae were found in the ravine made by the run-off from Cooper's lake in North Denver. Isolated molars have also been found near the corners of Fourteenth and Lawrence and at Seventeenth and California streets. Some Mastodon teeth are reported to have been secured near Cripple Creek and at Boulder.

In connection with the recent controversy in Science relative to the alleged pebble-swallowing habits of reptiles, for digestive purposes, it may be of interest to recall the fact that similarly highly polished, siliceous pebbles, foreign to the formation in which they were found, were found in intimate connection with the bones of the type specimen of *Atlantosaurus immanis* Marsh and perhaps with the type specimen of what was formerly known as *Apatosaurus ajax* Marsh.

Some fine specimens of the leaves of fan palms, originally eight to ten feet in diameter have just been discovered by the East Denver High school students and presented to the State Museum in the Capitol.

The obligation of vertebrate paleontology to the neighborhood of Denver seems to be in some danger of being obscured by the remarkable discoveries made in recent years near Como and Converse county, Wyoming, and writers, more familiar with the recent than the earlier discoveries, have made statements which should receive correction, e.g., in recent works of F.A.

Lucas occur such statements as “Nearly all the examples of these animals (Stegosaurs) come from Como, Wyoming, the exceptions being two closely related species from England.” “From the Cretaceous rocks of Converse county, Wyoming, have been obtained all the specimens of the great Triceratops so far found.” “With one exception specimens of these animals (Triceratops) have come from Converse county, Wyoming.” Labels bearing similar misstatements appear on the notable specimens in the National Museum which have been exhibited at several international fairs.

Reference to the files of the American Journal of Science and to various writings of Marsh, Cope, and Hatcher will show that the Stegosauria are by no means limited to Como, Wyoming, nor the Certopsidae to Converse county of that state, and, that, without entering into the vexed controversy as to who were the first discoverers of these interesting forms, it is certain that Colorado shared with Wyoming the honor of having been the home of these extraordinary creatures and that members of this society obtained from the immediate vicinity of Denver and its suburb Morrison some of the first specimens of both of these families. In the fourth edition of J.D. Dana’s Manual of Geology and elsewhere the locality of *Ornithomimus velox* Marsh is given as Wyoming, although Prof. Marsh expressly states that it was obtained by the writer in the Denver beds near Green Mountain. The writer was also surprised to find in the National Museum collection a specimen which he presented to the Peabody Museum at Yale with the distinct understanding that it bear the names of the discoveries and the locality from which it was obtained, without any such label. The notoriety of this famous bone of contention variously known as *Bison alticornis*, *Ceratops alticornis* and finally *Triceratops alticornis* makes it desirable that in the present revision of the fossil vertebrate material of the National Museum, these glaring errors may be corrected and that Denver and the members of this society may receive proper credit for their discoveries and that the chronological and distributional value of our local discoveries may not be obscured by the more perfect specimens which have been found in other portions of the West.