

## MOLLUSCA.

CHITON LAEVE. Page 80. Spain.

According to Linné, this is the same as his *Chiton punctatus*. Professor Pilsbry, to whom I showed Osbeck's description says it is probably the same as *Chiton olivaceus* Speng.

CUNNUS CHINENSIS. Page 247. China.

Osbeck does not state whether this bivalve is a fluviatile or a marine form, which makes his short description valueless. Were it a fresh-water form, the generic name *Corbicula* would be replaced by *Cunnius*. In the English translation this name is misprinted, *Conus*.

## INSECTA.

PHALÆNA FENESTRATA. Page 269. China.

Osbeck proposes this name for the 'Phalæna plumata permaxima Orientalis oculata.' (Petiver, *Gazophylacii*, Pl. 8, f. 7), which, however, was named *Phalæna atlas* by Linné, 1758, Osbeck's name becoming thereby a synonym. The *fenestrata* Osbeck must not be confused with the *Phalæna fenestrata* Fabricius (*Syst. Ent.*, p. 641, 1775).

PAPILIO LINTINGENSIS. Page 148. China.

This name will have to be adopted for the Indo-Chinese variety of *Junonia cenone* Linné, known as var. *hierta* Fabricius. The synonymy should be *Junonia cenone* Linné, 1758, var. *Lintingensis* (Osbeck), 1765 and 1771, = *hierta* Fabricius, 1798.

APIS RUFA. Page 127. Java.

This is not the *Apis rufa* Linné, 1758. The description is, however, too meager to admit of identification of the insect.

## CRUSTACEA.

There are two species described by Osbeck, which appear to have been omitted from synonymy. They are:

CANCER CHINENSIS. Page 151. China.

CANCER ADSCENSIONIS. Page 389. Ascension Isld.

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## THE CARNEGIE MUSEUM PALEONTOLOGICAL EXPEDITIONS OF 1900.

THROUGH the generosity of the founder of this institution, the Department of Paleontology has been able to continue the work begun in the season of 1899 in the Upper Jurassic formations of central Southern Wyoming. Mr. O. A. Peterson has had charge of the work in this region, and the splendid results obtained there are due to his skill and energy and to those of his assistant, Mr. C. W. Gilmore of the Wyoming State University, who joined Mr. Peterson in June and continued with him until the close of the season.

The investigations were confined chiefly to the *Atlantosaurus* beds on Sheep Creek, some twenty-five miles northeast of Medicine Bow, though some attention was also given to the *Baptanodon* beds in the immediate vicinity.

The chief results obtained were a complete pelvis with sacrum and one hind limb and foot of *Diplodocus* in position; one maxilla and a posterior portion of the skull and a number of series of vertebræ from various regions of the vertebral column. Numerous other isolated bones belonging to the same genus were also recovered. All this is most welcome material and will form an important supplement to the *Diplodocus* skeleton collected by the expedition of 1899, which we hope soon to be able to mount as a complete, though composite, skeleton. The fore limb and foot are at present the only important parts missing.

The party was quite fortunate in securing the greater portion of a skeleton of *Brontosaurus*, as well as considerable remains of *Stegosaurus* and a large carnivorous Dinosaur. The *Baptanodon* beds yielded a skull and anterior cervicals and ribs of *Baptanodon*. In all some ninety large cases of Jurassic vertebrates were taken up and packed, and will, it is hoped,

not only add materially to the Museum collections, but also throw additional light on several of the many vexed questions regarding the structure and relationships of the several genera of Dinosauria to which the collections pertain.

In addition to the work carried on in the Jurassic, another field party, under the immediate charge of the writer, operated in the Laramie deposits of Converse County, Wyoming, and in the Tertiary of the same region and in Sioux County, Nebraska.

The early part of the season was devoted to an exploration of the Laramie in the region immediately adjoining that which afforded the writer all the mammals and most of the horned dinosaurs collected by him under the direction of the late Professor Marsh for the U. S. Geological Survey. The success that it was hoped might reward an exploration of these deposits was not entirely realized, though some important material was obtained, including a fairly representative series of Laramie mammals and the other vertebrate remains (fish, lizards, small dinosaurs, etc.) with which they are always found associated. One extremely interesting discovery in this connection consists of a portion of a dental plate with the teeth in position, of *Platacodon nanus*, described as a mammal by the late Professor Marsh. The mammalian nature of these remains has long been doubted, our material showing the teeth firmly ankylosed to the surface of the dental plate demonstrates conclusively the ichthyian nature of these teeth and that *Platacodon* should now be removed from the Mammalia to the Pisces. These remains and others will be figured and fully described by the writer in an article now in course of preparation, which will be published in the Museum *Bulletin* in the near future.

Among the more important dinosaurian remains there is a considerable portion of

the skeleton of *Claosaurus*, with some 25 or 30 vertebræ in position. This specimen is believed to be unique among the known remains of dinosaurs, in that there are preserved in it, in the region of the anterior caudal vertebræ, an impression of the dermis which shows these animals to have been enveloped in life with a covering of small hexagonal plates or scales, something more than one-half inch in diameter. This, I believe, is the first accurate information we have as to the nature of the dermal covering of dinosaurs.

Late in July the Laramie was abandoned and operations were commenced in the Dæmonelix beds of the Upper Tertiary deposits near Harrison, Nebr. These deposits, made famous by Dr. E. H. Barbour of the Nebraska State University, are extremely rich in the remains of these imposing and perplexing fossils. A very complete series of Dæmonelix spirals and rhizomes were collected, as well as important mammalian remains from the same beds, and much valuable evidence secured, bearing directly upon the different species and phylogeny of Dæmonelix and the conditions attending the deposition of the beds in which the remains are found.

After some three or four weeks spent in the Dæmonelix beds, our attention was given to the underlying White River deposits. In these beds we were successful in securing a nearly complete skeleton of *Titanotherium* in splendid condition, besides many other animal remains of hardly less importance.

Of especial interest in connection with these deposits was the discovery in the *Oreodon* beds of a thin layer of limestone, from eight inches to a foot in thickness, containing in great abundance and in a beautiful state of preservation the remains of mollusca. Heretofore molluscan remains have been extremely rare in the White River, and have usually consisted of only imper-

fectly preserved casts. In a neighboring locality in the lower Titanotherium beds a fruit-bearing horizon was discovered in which were found the fossil fruits and silicified woods of the various trees and plants which grew in the Oligocene and Miocene forests of this region. From these fortunate discoveries we shall learn something of the invertebrate and plant life of this region in middle Tertiary times, and be the better able to form an intelligent idea of the physical conditions that prevailed here during the deposition of the clays, sandstones and limestones of the White River series.

In his work in this region the writer was very materially assisted by Mr. W. H. Utterback, and in all some ninety boxes of fossils have been packed by this party alone. Taken as a whole, the field work of the Department of Paleontology of the Carnegie Museum for the season of 1900 may be considered as successful, and the friends of the Museum have every reason to be grateful to its founder for the generosity shown in supplying the needed funds, without which the successful accomplishment of the work would have been impossible. The best thanks of the writer, under whose direction the work has been carried on, are due to Dr. W. J. Holland, the Director of the Museum, and to the President and members of the Museum Board for the very great interest they have shown in the work and their ever-ready aid in facilitating its accomplishment.

J. B. HATCHER.

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*OPENING OF THE ANTHROPOLOGICAL COLLECTIONS IN THE AMERICAN MUSEUM OF NATURAL HISTORY.*

On October 30th the new anthropological collections in the American Museum of Natural History were opened to the public. While three years ago the anthropological material gathered in the Museum was installed in a single hall, its increase has

been so rapid that at the present time the collections occupy five halls of the building, and two more halls are being arranged and will probably be opened in the near future.

The accessions to the anthropological collections of the Museum obtained during the last three years have largely been due to extended scientific research undertaken by the institution. In this respect the methods of the American Museum of Natural History differ considerably from those pursued by a number of other institutions. It has not been the policy of the Museum to accumulate rapidly and indiscriminately more or less valuable specimens collected on trading expeditions or purchased from dealers, but an endeavor has been made to build up representative collections, and to obtain at the same time the fullest and most detailed information in regard to specimens, so that each addition to the exhibit of the Museum can be made thoroughly instructive and will represent a material contribution to science.

In South America Dr. A. F. Bandelier carried on researches on the plateaus of Peru and Bolivia. Dr. Bandelier first went to South America for the Museum under the patronage of Mr. Henry Villard, while during later years the expenses of the expedition were borne by the Museum. The results of his work fill one of the new halls. Setting aside the beautiful fabrics, pottery, and other specimens, the collection abounds in skeletons and crania, which will be of great value in determining the physical characteristics of the ancient Peruvians.

Extensive archeological investigations have been carried on in Mexico. These were in charge of Mr. Marshall H. Saville. The work was liberally supported by the Museum and by the Duke of Loubat, to whose interest the Museum also owes a magnificent collection of reproductions of Central American sculptures. It is believed that in no other museum are the monumental works of the ancient inhabitants of Mexico