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新疆大头龙的首次发現

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1964 年本所在新疆的考察队，于吐鲁番桃树园子发现了一些大头龙化石。这些化石虽然比较破碎，但也保存一些可供鉴定的特性。一共有四个标本，全是地面采的，但相距不远，可能属于一个个体。在新疆甚至整个西北讲，这是第一次关于大头龙的发现，很有意义，特在本文加以叙述。照野外观察，这些化石是和肯氏兽一类的化石共生的，这可以帮助说明含化石层位的年代。

标 本 記 述

科　大头龙科 Capitosauridae Watson 1919

属　耳曲龙属 *Parotosaurus* Jaekel

吐鲁番耳曲龙 *P. turfanensis* 新种

正型标本：一头骨前端和一部分右上颚骨，另有两块也为头骨部分，似属于同一个体。野外编号 64033—9，标本编号 V. 3230。

层位与地点：下三迭统上部（肯氏兽层）新疆吐鲁番桃树园子。

特征：比非洲南部荷氏大头龙小一半还多，因而是中等大小的。头骨前缘钝圆。鼻孔和上颚间凹陷都很靠边缘。头上前端的横沟也很靠边缘，并且很直和两端的眼上沟前端约成直角。后者也很直，和头骨中轴平行。在前一对大牙前端每边大约有 9—10 个牙齿。所有牙都很尖有直稜。大牙内后侧有锄骨齿也很大。

描述：标本中保存最好的是头骨前部分。前端作钝圆状。在上视两侧前部，外鼻孔前部清楚可见，位置较靠两边和前边。骨上的雕纹相当的粗，至少有两个骨化中心。靠前缘的横沟很直，和眼上沟前端成直角的接触，后者也前后伸很直和头骨中轴大致平行。

在腹侧颚骨间的中凹陷已破，但轮廓还可看出。也很靠前缘。在大牙前，大约有九到十个牙齿。多数牙已破，就保存者看很尖，具有粗稜条。两大牙的尖端也已破，且少有移位。在两牙的内后还可看见几个发育较好的锄骨齿。在大牙前的横宽为 81 毫米。

另外一标本，为右上颚骨的一部分。可能代表内鼻孔后到颧骨前不远一部分。其在头骨上相对位置，在图 1 与图 2 上表示。骨的上面和侧面，也具有粗的雕饰。上部作微凹状。眼下沟也有部分，在上面和侧面可见，但泪骨交接处不大清楚。颚骨的腹侧大部为倒了的牙齿所盖。外列一共约有十三个牙。内列的牙大部损坏，仅露空隙。在颚骨前端断裂处以后不远在靠内侧似有另一大牙和其后一凹入窝，为接受下颚相当大牙之用。这些事实说明这个颚骨很靠近内鼻孔。

其他两个骨都很破碎，难作准确鉴定。厚的一块，可能为颚一部分，也有牙的痕迹，可能为左侧。除牙的痕迹外也似有内侧大牙的存在，但都难确定。另外一块平而较薄，可能

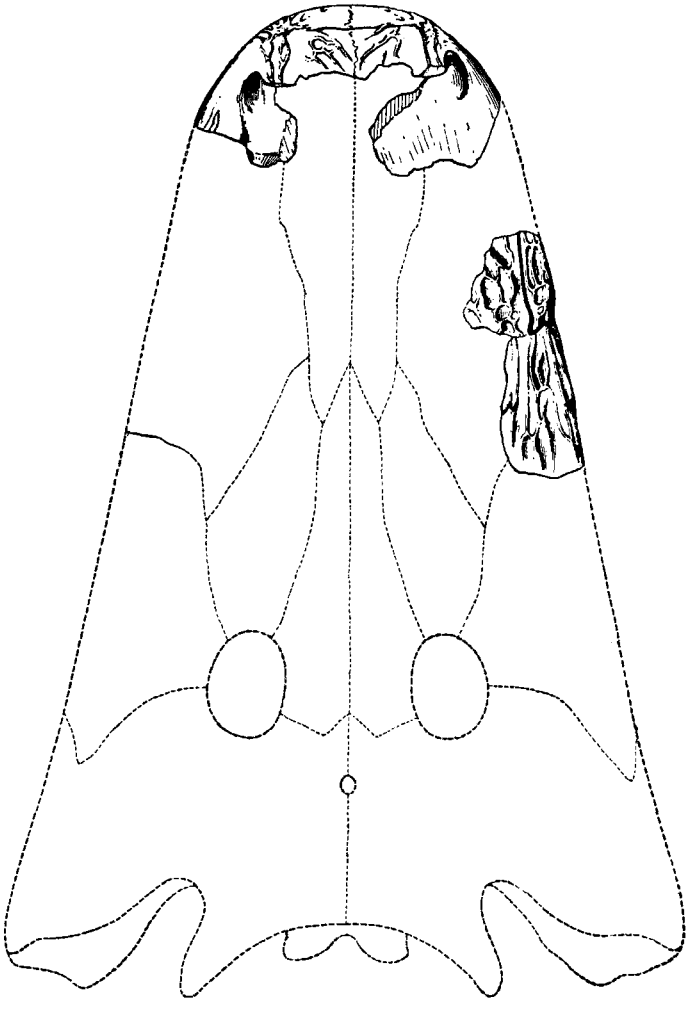

图 1　吐鲁番耳曲龙，头前部与右上颚的背视，摆成相对位置，二分之一原大。

Fig. 1. *Parotosaurus turfanensis*, new species. Part of the snout and the right upper jaw adjusted in relative position in dorsal aspect, 1/2 nat. size.

为头顶部分。两个的颜色和雕饰和以上两标本完全相同，极可能为同一个体。

討　　論

由上边所述的一些性质表示，这些标本无疑属于大头龙类。虽然沒有头后部保存，用以说明耳部到底是开口或不开口，但极可能属于耳曲龙属，此可由共生的化石说明，共生化石有肯氏兽为上下三迭统的标准化石，因而这几个化石也可能是同一时代的。和非洲南部的犬齿兽层相当。

由于上述一些头骨上的性质我们建议立一新种名曰吐鲁番耳曲龙。

耳曲龙是下三迭统分布很广的一属，但在我国还是首次发现。这一常见的属的发现和水龙兽、大嘴龙(加斯马吐龙)等一样，进一步有利于我国三迭纪地层和非洲南部以及其他地方的对比。

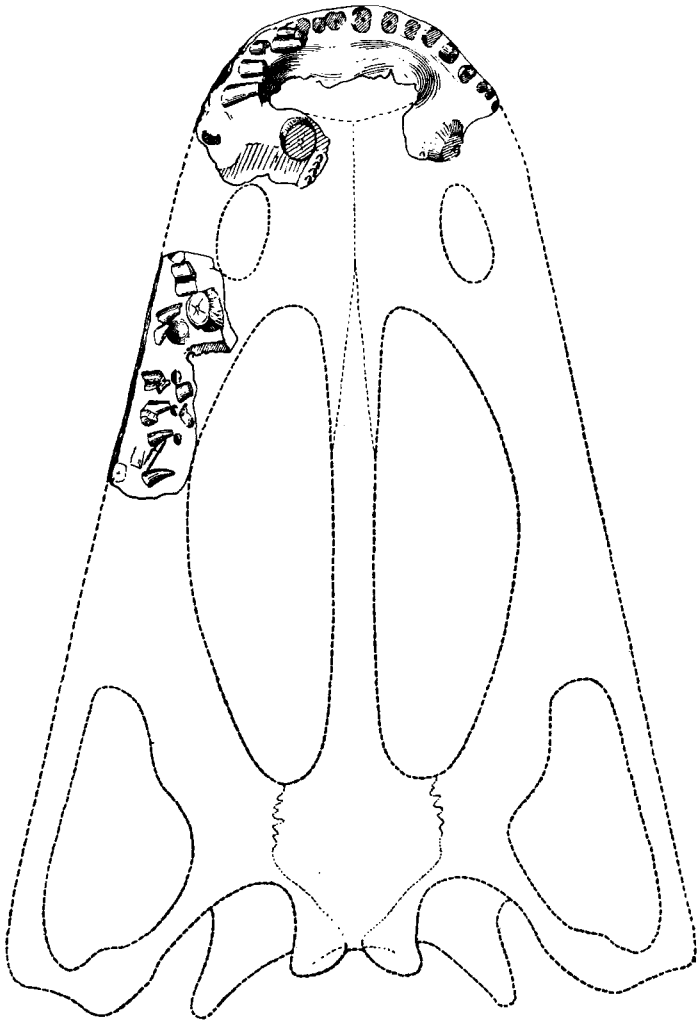

图2 吐鲁番耳曲龙，同上标本之腹视，二分之一原大。

Fig. 2. *Parotosaurus turfanensis*, new species. The same specimens as fig. 1 in ventral view. 1/2 nat. size.

在山西和大量假鳄类、肯氏兽一起，也找到一些破碎的大头龙化石。但由于山西化石很破碎，和由于两地沒有保存同一部分的标本，因而进一步对比还有困难。但是从一般大小和骨上纹饰来看，两者之间不无共同之处，如不属同一种，也可能属于相近的属或种，此只有待未来新材料加以确定了。

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ON THE FIRST DISCOVERY OF CAPITOSAURID FROM SINKIANG

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During the field expedition to Sinkiang of the Institute of Vertebrate Paleontology and Paleoanthropology some fragments of capitosaurid have been collected from Taoshuyuantze, Turfan, Sinkiang. In spite of their fragmentary state of preservation they display some interesting characteristics which are capable for determination. All the four pieces were found near by and belong most probably to the same individual. This is actually the first record of the interesting group found in Sinkiang and will be described in the following lines. They are said to be found with *Kannemeyeria*-like forms (to be described latter) and thus suggesting an upper part of Lower Triassic in age.

DESCRIPTION

Family Capitosauridae Watson 1919

Genus *Parotosaurus* Jaekel

Parotosaurus turfanensis, new species

Type: Anterior part of a skull and part of a right upper jaw. Two fragments are referred to the same individual. Field number 64033—9; Cat. No. V. 3230.

Horizon and locality: Upper part of Lower Triassic from Taoshuyuantze, Turfan, Sinkiang.

Diagnosis: Size moderate, about half smaller than "*Capitosaurus*" *haughtoni*. Anterior end of the snout obtusely rounded. Nasal openings and apertura intermaxillaris lie very marginal. Commissura anterior transversally straight and forming right angle at each end with the anterior part of the canalis supraorbitalis which directs straight posteriorly. About 9 teeth in front of the anterior large tusk. All teeth sharply pointed and striated. Vomer teeth well developed and large.

Description: The best part of the specimens at my disposal is represented by the anterior part of the snout. In dorsal view, the anterior end is obtusely rounded. In both sides the anterior part of the nasal openings can be traced and they are located rather marginal. The ornamentation of the surface is coarse with two centers of ossification clearly observable. The commissura anterior is very distinct and transversally straight. It makes a right angle connection with the anterior part of the canalis supraorbitalis which directs also straight posteriorly.

In ventral view the central part of the apertura intermaxillaris is broken but its

anterior border can be seen rather clearly. It lies also rather marginal. There are about 9 to 10 teeth in front of the large tusk. Most of the teeth are broken. The preserved part shows that they are coarsely striated. The two tusks are somewhat displaced and their tips are broken. At the inner and posterior part of the tusks some vomer teeth can be observed. They are large. Breadth of the skull at the level before the tusks is 81 mm.

The second piece is represented by the part of the right maxillary. It represents probably the part just behind the choane. Its relative position is tentatively given in figs. 1 and 2. On the upper and the lateral side the surface is also coarsely ornamented. The dorsal side is weakly concave and the part of the canalis infraorbitalis can be seen both on the dorsal side and on the lateral side, but the exact outline of the flexura lacrymal is rather obscure. In ventral side the whole part is covered by the displaced lateral row of the maxillary teeth, about 13 in number. The teeth of the median row are largely broken and some of the sockets can be seen. Shortly behind the anterior breakage at the median part is trace of the posterior tusk and the depression, immediately behind it, for the reception of the lower tusk is clearly observable. These facts show that the position of the present specimen must be situated very close to the anterior nare opening (Choane). Preserved length of the specimen, 65 mm; thickness at lateral border, 15 mm.

The other two pieces are too poorly preserved for a closer determination. The thicker one may represent the part of the teeth bearing maxilla, probably the left side. Some faint traces of the teeth and the tusk may be present but not sure. The other piece is a thin and flat bone and may represent the part of the skull roof. The color and the surface structure of both are the same as the specimens noted above so that there is very little doubt that they belong to the same individual.

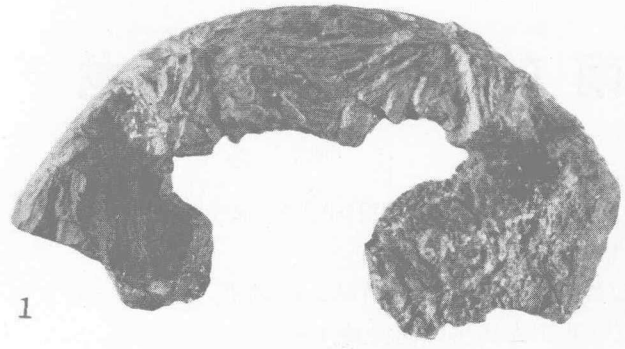
DISCUSSION

All the detectable features of the better preserved specimens show clearly that we have to deal with a capitosaurid. Although no posterior part of the skull is preserved in order to show whether the otic part is closed or not, it seems safe to regard the present form as belonging to *Parotosaurus* as indicated by the age of its associated fossils. According to the field observation our form was found together with remains of *Kannemeyeria*-like form. It suggests strongly that the age of the fossil bearing rocks is Lower Triassic comparable with the *Cynognathus*-zone of S. Africa.

In view of many special features of the snout and the maxilla as given in the preceding diagnosis we propose to name it *Parotosaurus turfanensis* sp. nov.

Parotosaurus is a widely distributed genus (Watson, 1962). It is interesting to record this genus from China. It gives one more fact to coorelate the Chinese Triassic vertebrate fauna not only with those of S. Africa but also other part of the world.

Remains of capitosaurids are also found in the upper part of Lower Triassic Beds of Shansi together with rich specimens of pseudosuchians and kannemeyerians (Huene, 1958 and Young, 1963). But these are all very fragmentary in preservation and no snout part is known so that a close comparison is not possible. However, the size and the general ornamentation of skull fragments seem to indicate that the capitosaurids of Shansi and Sinkiang are closely related, if not specifically identical with each other.



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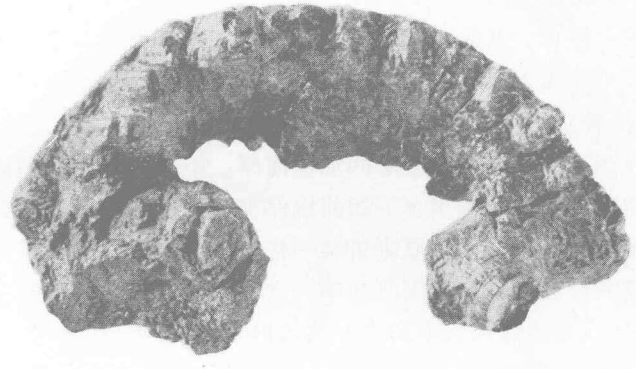
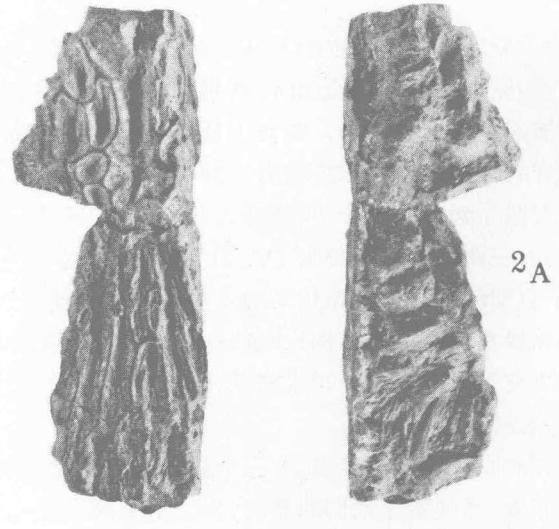


1A



2

2A

1．头前部背视和腹视，×1
2．右上颚两面视，×1