Vol. I, No. 2 VERTEBRATA PALASIATICA June, 1957

REMARKS ON *PLACOSAURUS* (OR *GLYPTOSAURUS*) OF CHINA

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Among the fossils (mainly mammals) collected from the Upper Eocene of Yuanchu Basin by the writer and the others of the Laboratory of Vertebrate Paleontology is a piece of frontal bone which evidently is quite similar to the one described by Gilmore (1943) as "*Glyptosaurus* near *nodosus* Marsh" found in the Shara Murun Eocene of Inner Mongolia. Fragmentary pieces of osteodermal scutes of the like nature occur also in the Changsintien beds of Peking. These seem to indicate that *Placosaurus* or *Glyptosaurus* like anguoid lizards were probably of rather wide distribution in China.

DESCRIPTION OF THE MIENCHI SPECIMEN

Locality: Jentsen, on the south bank of Huangho, Mienchi, Honan Province.

The single specimen (V 868) found in the Yuanchu Basin includes a right frontal, the proximal part of the left one, and part of the parietals, all covered with osteodermal scutes. A small dorsal (?) vertebra with strongly procoelous centrum is also referable to the same form.

The right frontal is essentially complete. It is quite thick, coossified with the left one and covered with more than ten dermal scutes which are subrounded, hexagonal, or pentagonal in outline. The scutes are all similarly ornamented with numerous minute papillae arranged more or less in concentric rows. The latter character is more distinct on the peripheral portion of each scutes and resembles closely to that in the frontal osteoderms of American form *Glyptosaurus rugosus* Marsh as well as to that in *Placosaurus rugosus* Gervais from European Eocene.

The length of the frontal is about 22 mm and its anterior width about 6 mm, and probably twice as wide at the posterior. Average diameters for the frontal osteodermal scutes varies from about three to four millimeters.

In comparison with the other known forms, the Yuanchu specimens is comparable with "*Glyptosaurus* near *nodosus*" of Gilmore in size but appears to be decidely different in the way of arrangement and more numerous in number of the papillate ornamentation. In this respect our specimen is closer to *Glyptosaurus rugosus* Marsh.

Fig. 1. *Placosaurus nodosus* Gervais. Right frontal. × 2.
(右額骨及其覆蓋的膜骨片，約爲原大 2 倍).

On the other hand our specimen is hardly distinguishable from that of "*Placosaurus rugosus* Gervais" from the lower Ludian of Euzet described by Deperet (1917). Therefore, I have referred the Yuanchu specimen to this species.

Remarks on Taxonomy of the Species

The taxonomic status of the genera *Glyptosaurus* and *Placosaurus* seem to be still quite in confusion, chiefly due probably to the mostly fragmentary nature of the materials available for systematic study. Recent authorities on this subject such as Gilmore (1928, 1943), Peyer and Kuhn-Schnyder (1955) and von Huene (1956) seem to be in fair agreement that the two are most probably synomymous. However, the last named author in his recently published treatise has inserted the generic name *Glyptosaurus* and its occurrence in the Upper Eocene of Mongolia (Inner Mongolia) both under the Family Placosauridae (as a synomym of *Placosaurus*) and the Family Helodermatidae (as a distinct genus) without explanation.

In view of the above-mentioned existing confusion regarding the taxonomic position of these genera the present writer would tentatively arrange the two known Chinese forms as following:

Placosaurus cf. *nodosus* (Marsh)—from Upper Eocene Shara Murun of Inner Mongolia.
Placosaurus rugosus Gervais—from Upper Eocene of Yuanchu Basin, Honan.

The possibility that the Chinese forms are specifically distinct from the European and American species had been suggested by Gilmore (1943). This is especially true for the Mongolian specimen, because, in addition to their long distance of geographical separation, they are of different stratigraphical occurrence, too. The American form is from the middle Bridgerian, while the Chinese form are from the Upper Eocene. In this regard the Yuanchu species is closer to its European equivalent.

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中國的 *Placosaurus* 屬蜥蜴化石

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Placosaurus 類的蜥蜴化石曾在內蒙上始新統沙拉木倫層發現過，經 Gilmore 研究後定爲 "*Glyptosaurus* near *nodosus*"。與這相近的膜骨片也曾在長辛店層內發現。

最近在河南灣池始新世哺乳類採集品中又發現一塊這類蜥蜴的骨片。標本爲一塊右額骨及隣近的部分，上面附有十餘片膜骨片。後者爲圓形、五角形、或六角形小片，上有疣狀小突起，隱約地成同心圓狀排列，在每個小片的邊部的這種排列情形特別清楚。根據這些性質觀察，和歐洲上始新統中的 *Placosaurus nodosus* Gervais 極相像，甚至沒有顯明的區別。

內蒙古的標本經 Gilmore (1943) 定爲屬於 *Glyptosaurus* 屬。

根據現在一般古生物學家的意見，北美的 *Glyptosaurus* 和歐洲的 *Placosaurus* 爲同一屬。因此，其確當的定名應爲 *Placosaurus* cf. *nodusus* (Marsh)。

中國這兩種 *Placosaurus* 的化石可能與北美及歐洲的不是屬於同一種的。因兩方面地理上相隔很遠，層位也不全相當（特別是內蒙的一種）。但目前以材料太少，所以還不能明確地分別出來。