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一新矢部龍地點的發見及其在地层上的意義

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矢部龍 (*Yabeinosaurus tenuis*) 的原型標本係遠藤隆次在遼寧義縣的棗茨山附近所發見，並由他和鹿間時夫加以描述。一同發見的還有龜化石，定名爲滿洲龜。他似把時代定爲上侏羅紀，並名所產化石層爲棗茨山層，以別於在凌源縣九佛堂大南溝地點(名曰大南溝層)，其時代定爲下侏羅紀，甚至上三疊紀。上三疊紀之說已由人們對喙頭龍化石的深入研究而被否定，因此其時代應當是侏羅紀。

最近由凌源縣李文博同志送來另一矢部龍標本，經研究與義縣者爲同種，其地點爲凌源縣鴿子洞。此地點與大南溝雖非一地，但在同縣，相距必很近。這可證明在凌源的含魚地層中也有矢部龍，而所謂九佛堂和棗茨山兩層的區分不一定可靠。

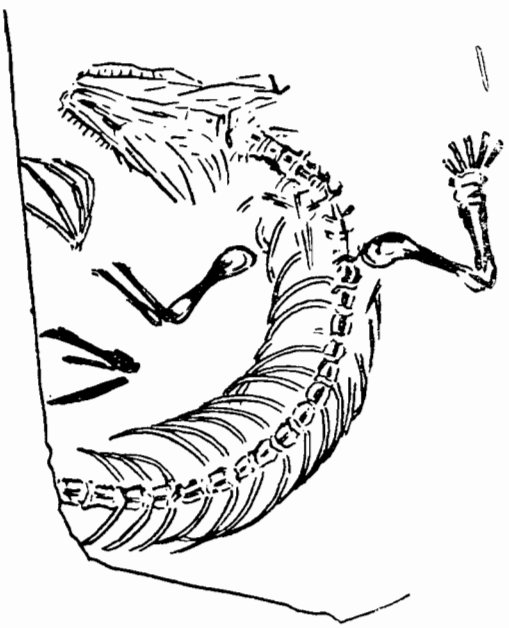

圖 1. 李文博同志發現的細小矢部龍，(*Yabeinosaurus tenuis*) (V. 961)，此係李文博本人描繪的圖，約原大。

Fig. 1. A specimen of *Yabeinosaurus tenuis* discovered by Mr. Li Wen-po, pencil drawing in natural size made by the discoverer. V961.

這一新的矢部龍標本，除尾部未保存外，其他部分十分完整。從大小一直到構造，與原型標本看不出有多大的區別，相反的可以說非常相同。因此，我們定爲和義縣的矢部龍是同屬同種。在分類上可以說意義不大。但從另一方面講，蜥蜴類化石在我國是非常少見的化石。李文博所發見的標本實際上代表我們關於這一屬的唯一標本，因爲原型標本至今沒有發見，可能已在戰爭中遺失了。因此這個標本就成爲新型標本，不但代表着這一目的一個標本，而且也代表了這一屬的唯一標本，所以具有很重要的意義。

但更重要的是地層方面的意義。在過去把無論在山東、遼寧、河北、陝西、甘肅等地含狼翅魚化石(與昆蟲化石共生)的地層，一律都定作白堊紀，這是由葛利普首先加以肯定，後來則爲其他地質學家所廣泛應用。

但是我們對山東萊陽恐龍化石所進行的研究，已肯定了這說法的不正確性。山東的王氏系是上白堊紀，以鴨嘴龍(主要是細小龍和青島龍)爲代表。其下的青山層是下白堊紀，以下白堊紀的標準化石鸚鵡嘴龍爲代表。這樣一來，位於青山層下的含有狼翅魚和昆蟲化石的萊陽層就不可能是白堊紀，至少應是上侏羅紀。

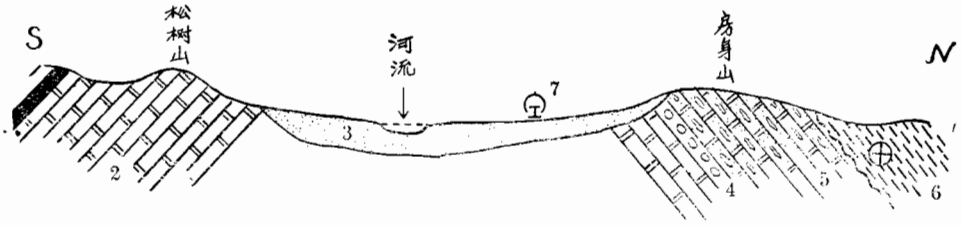

圖 2. 遼寧凌源鵠子洞地質剖面圖(依鍾亦驍略加修改，李文博轉贈)
1—錳礦；2—矽質碳岩；3—冲積層；4—石英岩；5—含螢石、重晶、石英、錳的矽化灰岩；6—棕紅色頁岩，產矢部龍；7—鐵路。

Fig. 2. Geological section of Ketzutung kindly submitted by Mr. Li Wen-po. Data according to Mr. I. H. Chung (slightly mondified).
1. manganese deposit; 2. siliceous limestone; 3. alluvium; 4. quartzite; 5. dolometic limestone; 6. purplish shale and sandstone with *Yabeinosaurus*; 7. railroad.

遼寧西南部和河北北部的含狼翅魚的地層一向也被認爲是白堊紀。但以前日本人在這一地區發見了許多脊椎動物化石，包括魚、龜、喙頭類、蜥蜴以及足印等化石。他們研究的結果表示這一帶陸淵相地層的年代是複雜的，可以從上三疊紀至上侏羅紀。就狼翅魚層來說，共生的化石爲矢部龍，而矢部龍的特性顯出相當原始性質，不可能爲白堊紀的生物，似應爲上侏羅紀。這一次新的觀察完全證實了這個結論。

這一發現說明在這一帶也同在山東一樣，都有含狼翅魚的地層，該地層不屬白堊紀而屬於上侏羅紀。至於究竟有沒有眞正的可歸於白堊紀的狼翅魚層位，還待以後研究來加以確定。

根據劉憲亭最近的觀察，眞正的狼翅魚也和較原始的魚共生，這一點和我們的推斷相符合。看來陝西、甘肅的含狼翅魚化石層的時代，也大有可能向老推一些。

中國中生代陸相地層，以前因爲所得脊椎動物化石很少，地層判定一般根據野外地質觀

察和植物化石(其他化石也研究的少),因此有些地層年代,不是定得較老,就是定得較新。矢部龍所牽涉到的地層問題就是一個很好的例子。不過這個方面的研究,還只是一個開始,關於中國陸相地層進一步的更準確和更詳細的劃分,還有待於今後的努力。

ON A NEW LOCALITY OF *YABEINOSAURUS TENUIS* ENDO AND SHIKAMA

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In 1942, Endo and Shikama described a new lacertilian reptile, *Yabeinosaurus tenuis*, from what they called Tsaotzushan formation appearing on the northwestern slope of the 541 metre hill between Tsaotzushan and Chiukang villages. According to these authors, the fossil in question was found from pale gray to pale green shale of 0.2m thick of that formation and in association with *Manchurochelys manchouensis*, *Lycoptera* sp., *Estheria* sp. and *Ephemeropsis trisetalis*. After a long discussion they considered the Tsaotzushan formation as Upper Cretaceous and the *Monjurosuchus* bearing strata (the Chiufotang formation, also with *Lycoptera*) as Lower Jurassic or even older*. They are not in agreement with the view point that the age of the *Lycoptera*-bearing formations are Lower Cretaceuos in age as previously accepted by regional geologists and are inclined to believe that such formations consist of various horizons ranging from "Keuper" to Purbeckian.

Using our knowledge of palaeontological study recently made in Eastern Shantung, the Pre-Cretaceous age of the *Lycoptera*-bearing beds, the Laiyang Beds, is quite clear, because the *Psittacosaurus*-bearing Chingshan Beds mark the lower Cretaceous, and the *Lycoptera* and insects-bearing Laiyang Series below cannot be older than Cretaceous. In the W. Liaoning, N. Hopei and S. E. Inner Mongolia (the Jehol area), the stratigraphical relationship is not so clear, and the *Lycoptera*-bearing formations are scattered in isolated basins and often in limited thickness. It is of course possible, as suggested by Endo and Shikama, that those basins do not necessarialy represent the same age, but the recent find of *Yabeinosaurus tenuis* in Lingyuan Hsien makes the division of Chiufotang formation and Tsaotzushan formation quite improbable. The type species of *Yabeinosaurus* was found from Tsaotzushan, Ihsien, while the following described new specimen was found from Lingyuan, about 100 Km west of the former locality. Although the Ketzutung locality is different from Tanankou yet it must be in the same basin and closely related to each other. Since the age of *Yabeinosaurus tenuis* is

*Huene has studied the two reptiles from the Chiufotang formation and come to the conclusion that *Monjurosuchus splendens* and *Rhynchosaurus orientalis* are synonymous and the age of them can not be older than Jurassic (Huene, 1942; Young, 1948).

undoubtedly Upper Jurassic, so that both basins can be considered as of the same age, at least from the point of view of reptilian remains.

It is for this reason that the following note of the second specimen of *Yabeinosaurus* is interesting.

DESCRIPTION

Sub-order Lacertilia
Family Gekkonidae
Genus *Yabeinosaurus* Endo and Shikama.
Yabeinosaurus tenuis Endo and Shikama.

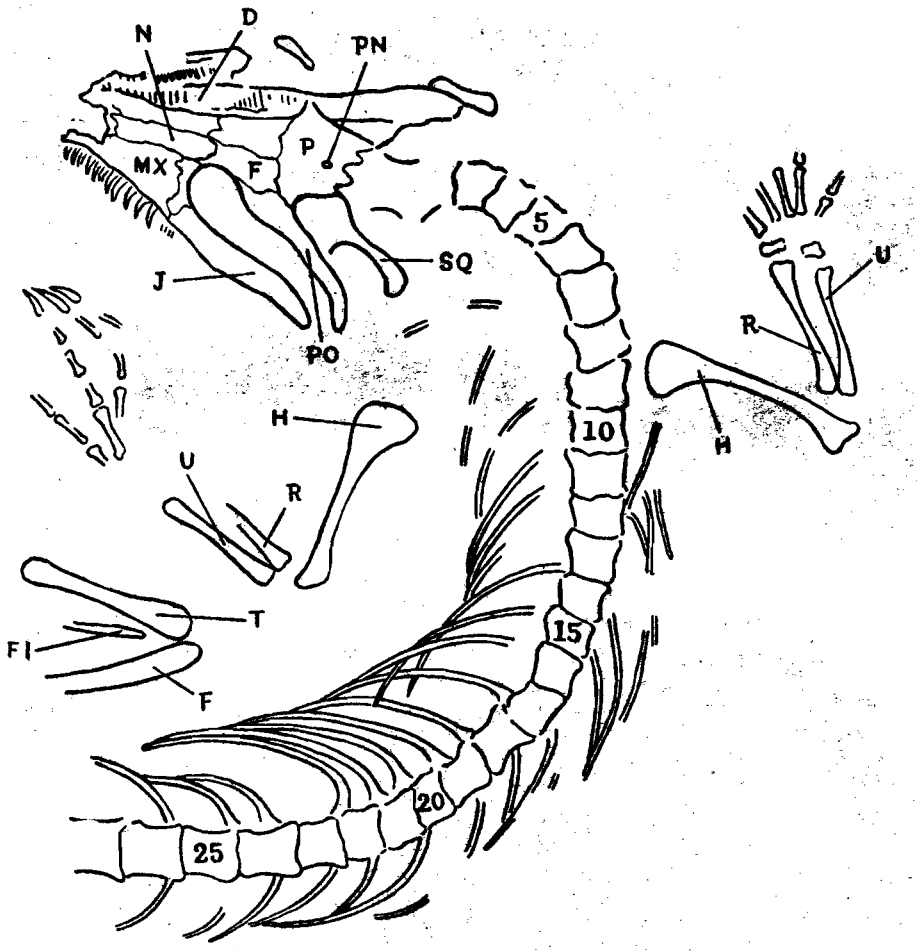
Material: —A specimen with the head, most of pre-sacral vertebrae, ribs, both anterior limbs and most part of the left posterior limb, in dorsal aspect. V961. It was kindly gifted by Mr. Li Wen-po of Pingchuan Hsien in 1957.

Horizon and locality: —Ketzutung, Lingyuan Hsien, Liaoning, along the Chinchou-Chenteh railroad. Age: Upper Jurassic or Lowerest Cretaceous.

Description: —This interesting specimen has been found by an amateur in paleontology, Mr. Li Wen-po. He is a retired soldier from the Liberation Army and works in a mine deposit. He is so deeply interested in vertebrate paleontology that he was able to locate the exact horizon from where the specimen is derived and to make a very accurate pencil drawing of the fossil. Both are reproduced here with slight modification. (Figs. 1 and 2).

Comparing this new specimen with the type described by Endo and Shikama, both are so similar to each other that a detailed description becomes superfluous. The size is excatly identical. The proportion of the skull with the presacral vertebrae, about one third, the relative slenderness of the limbs and the shortness of the neck compared with the rather long dorsal and lumbar region as well as the nature of the ribs etc. are all in agreement with the type of the genus. Upon a careful study of our specimen, some minor differences may be detected, notably the relative shortness and consequently the longer length of the nasal. The orbit is not closed posteriorly too, but the lateral process of the postorbital seems to be closer to the jugal. The suture between the unpaired parietal and the paired frontals is slightly convex anteriorly instead of concave as given by Endo and Shikama. The small foramen parietale is distinct and more posteriorly situated. Such differences may be due either to the less well preservation or to the subjective reconstruction of the original. The type is preserved in ventral view, and obviously can not be used as a ground for distingushing species, at least at present. It is therefore obvious that the new specimen represents the second individual of the same species so far discovered.

The rock bearing the specimen is a purplish fine sandstone while the rock of the type is preserved on a slab of shale with part of *Lycoptera* shown near-by. This may indicate that fossiliferous horizons in various basins are not exactly the same facies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圖版 I　細小矢部龍（*Yabeinosaurus tenuis*）（V961）原大的二倍，簡字說明依一般所採用者

Plate I　*Yabeinosaurus tenuis* showing in twice nat. size. V961. Abbreviations of letters as commonly adopted.

and yet their age is correlated to each other.

Conclusions: From the second specimen of *Yabeinosaurus tenuis* here described we know the first new locality of this interesting lizard. The rareness of the fossil lizards makes the find itself welcome in paleontology besides its primitiveness. It indicates that stratigraphically the sub-division of the two formations of Lingyuan and Ihsien may be superfluous. Basing on the characters of the present fossil and our knowledge of the vertebrate faunae in Eastern Shantung, the *Lycoptera*-bearing formations are mostly, if not all, Pre-Cretaceous in age.

This conclusion is however not contradictory with the view that some older formation may be present in the area along the Chinchou-Chenteh railroad, such as the *Ichelosauripus*-bearing strata south of Chaoyang, a series of rocks conformably underlying the fish beds with *Yabeinosaurus* and Monjurosuchus. It is hoped that the extensive studies of the *Lycoptera*-fauna, a work undertook by Mr. H. T. Liu, will clear the question of the classification of the Mesozoic stratigraphy in this region so much debated recently.

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