

NEW SPECIES OF FOSSIL PROBOSCIDEA FROM SOUTH CHINA

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Three new species of fossil Proboscida, two trilophodonts and one stegolophodont, are preliminarily described in the present note. The species described are:

(1) *Trilophodon yangziensis* sp. nov.

This was sent for study by the Department of Culture of the District Government of Wushan, Szechuan. The specimen was collected from a cave in the mountains not far from the Yangzi (=Yangtse) River.

(2) *Trilophodon guangxiensis* sp. nov.

This species represented also by a single upper molar was collected by Mr. C. C. Hu of the Geological Museum, Ministry of Geology from Chongzuo, Guangxi (=Kwangsi) Province in a limestone cave.

(3) *Stegolophodon hueihensis* sp. nov.

This was collected by an archaeological party of the Nanking Historical Museum in 1953 during the construction of the Hueihe (Huei River) Project at Hsiachaohwan, Sihong District, Northern Kiangsu. It was the same locality that yields the fossil of *Trogontherium sinensis* Young and *Paleoloxodon* sp. etc. The stratigraphy and the mammalian fossils have been reported by Young and Chow (1955, Acta Paleontologica Sinica vol. III, no. 1.)

DESCRIPTION OF NEW SPECIES

Trilophodon yangziensis sp. nov.

Type: A third upper molar. (M^3 , dex.) (V. 2399)

Diagnosis: A trilophodont of medium size; molar teeth moderately hypsodont, bunolophodont; pretrite and posttrite normal to the longest axis of the tooth; upper third molar with five lophs, the last or fifth one low and less developed than the preceding ones, pretrite consists of two stout conical cusps, posttrite with 3 cusps compressed together, accessory conulets behind pretrite cusps, cingulum weakly developed, distinct only on the external side of the valleys.

Measurements: Length of M^3 , 162 mm.; width of protoloph, 65, height of the pretrite of protoloph, 53; width of the last loph, 43, height of the same, 38.

Comparison: In comparison with the known species of this genus found in China the new species is evidently more progressive than *T. wimani* described by Hopwood (1935). The latter has more bunodont molars with simpler cusps and four lophs on the last tooth. It is also more progressive than *T. connexus* Hopwood in having more tectiform lophs and larger tylon. The size of the new species is also larger. In comparison with the various Indian forms the present species seems to be closer to *T. macrognathus* (Chiji beds), but is more primitive than the Chinji species.

The age of the fossil is unknown, but it is more probable early Pliocene as is judged by the evolutionary stage reached by this form.

***Trilophodon guangxiensis* sp. nov.**

Type: A third upper molar broken posteriorly at the fifth loph. (M^3 , sin) Geological Museum Vm. 487.

Diagnosis: Very close to *T. yangxiensis*, but with slightly more progressive molars, teeth somewhat more hypsodont; the fifth loph of M^3 fully developed and most probably with a sixth loph or tylon; cingulum indistinct or entirely absent on all sides.

Measurements: Estimated length of M^3 over 160 mm. width of protoloph, 71; width of the fifth loph, 60 (I), height of pretrite, 52.

Remarks: This species is evidently very close to and is most probably a direct descent of the preceding one. The differences are for the most part a matter of degree. The tooth from Guangxi has the cingulum reduced to minimum. The geological age of this species is most probably also younger, that is middle Pliocene or still younger based on our knowledge of the mammalian faunas of that province in general.

***Stegolophodon hueiheensis* sp. nov.**

Materials: A fairly complete mandible with roots and basal parts of the crown on both sides; two upper third molars, one of which has the three lophs complete at the posterior, two fragments of an upper tusk. All belongs to the same individual. V 2400.1-3.

Geological age: Early (or Middle?) Pleistocene.

Diagnosis: A large stegolophodont primitive in dentition. Molar teeth brachyodont, with four crests and a small tylon on the last tooth; upper tusk well developed, with a thin and narrow enamel band, lower tusk much reduced. Mandibular rami robust, sub-circular in section and horizontally protrude and narrows anteriorly from both sides to form a beak-like extension, symphyseal part of mandible long and coalesced.

Measurements in mm.:

Length of low jaw from alveolar border of lower tusk to posterior of M_3	486
Symphyseal length	170
Height of symphysis, posterior	120
Diameter of lower tusk (max.)	34
Length, M_3 (estimated)	200
Width, M_3	105
Length, M_3	171
Width, M_3 (3rd crest)	96
Same (4th)	78
Same (5th)	50
Height (preserved part, 3rd crest)	38

Remarks: The stegolophodont from northern Kiangsu in spite of its large size is comparative primitive in structure.

Though much reduced it still retains the lower tusks which are comparatively well developed for this group. The molars of which only the last ones are known, are very low crowned and with five crests of which the last one is not fully developed, and the crests are composed of but few (six or less) low rounded conical cusps and separated by

a distinct median sulcus on the first three lophs. The enamel of molar are thick (8.5 mm.) and rugose. As far as the available parts of comparison are concerned the new species is closer to *S. sublatidens* Schlesinger of Austria in the number of ridge crests, but the latter seems to be more primitive than our specimen for its last crest is still less developed and consists only of four "cusps" or conulets. The median sulci are also stronger in the Austrian form. Another specimen which affords a closer comparison is the one described by Matsumoto (1926), it resembles ours in general but is much smaller. All the Indian and Burmese species are evidently more progressive than our specimen except *S. cauleyi* Lydekker which though more primitive in certain respects has more complex molar structure.

图 版 說 明

- 图版 I *Trilophodon yangziensis* sp. nov. (揚子江三稜齿象)
第三右上臼齿(V2399);頂面(左)及側面視, $\times 1$ 。
- 图版 II *Trilophodon guangxiensis* sp. nov. (广西三稜齿象)
第三左上臼齿(Vm487);頂面(左)及外側面視, $\times 1$ 。
- 图版 III *Stegolophodon hueiheensis* sp. nov. (淮河古剑齿象)
第三上臼齿頂面(上)及外側面(中);右上門齿末端部,上外側視(下图),注意釉質层条帶, $\times 1/2$ 。
- 图版 IV *Stegolophodon hueiheensis* sp. nov. (淮河古剑齿象)
下頰頂視(左), $\times 1/5$;上門齿內側面視(左上), $\times 1/2$;下頰左外視, $\times 1/5$ 。

(照相摄制人:王哲夫)

Explanation of the Plates and Textfigures

- Pl. I *Trilophodon yangziensis* sp. nov.
Third upper molar (V2399); crown and external views. $\times 1$.
- Pl. II *Trilophodon guangxiensis* sp. nov.
Third upper molar (Vm 487); crown and external views. $\times 1$.
- Pl. III *Stegolophodon hueiheensis* sp. nov.
Third upper molar (V 2400.3) crown and external views; anterior segment of upper tusk (V 2400.2), dorso-external view. $\times 1/2$.
- Pl. IV *Stegolophodon hueiheensis* sp. nov.
Mandible (V 2400.1), dorsal and left side views. $\times 1/5$; upper tusk, internal view. $\times 1/2$.