

中國古生物誌丙種第八號

楊鍾健著

第三冊

周口店中國猿人地點之小哺乳類化石

中華民國二十三年八月

實業部地質調查所
國立北平研究院地質學研究所 印行

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楊鍾健著

周口店中國猿人地點（即第一地點）之偶蹄類化石，前已由作者研究。其肉食類化石，則由裴文中君研究，均已先後出版（中國古生物誌丙種第八號一二冊）。自二十一年秋季至二十二年春季，作者除其他零星工作外，乃用其大部分時間，從事該地點小哺乳類化石之研究。稿於二十二年六月，即已竣事。但時適因新生代研究室名譽主任步達生先生在美未歸，圖版亦在法訂印未畢，延至二十二年年底，始將印刷手續，辦理完竣。又不幸步達生先生臥病經月，至本年三月十五日竟邇逝世，以致遲至今年九月，始克出版。當作者撰此中文節要時，距步先生逝世已逾五週月，誠不勝其悲感也。

所謂小哺乳類化石者，爲一簡便之稱謂，其中所包含者，有下列四目：

- 1. 食虫類 計有三科 共五種
- 2. 翼手類 計有兩科 共四種
- 3. 齧齒類 計有六科 共三十二種
- 4. 靈長類 僅有獼猴一種（猿人化石除外）

以上所述者，除獼猴一種，有二三標本得自第二及第三地點，齧齒類化石中有竹鼠一種係採自上部硬灰岩中外，餘均採自猿人化石地點。

詳細記載，俱見英文原文，茲僅錄其重要結論于下，藉以知原書之概要焉。

一，化石羣之成分

此次研究之結果，比十七年師丹斯基（古生物誌丙種五號第四冊）所研究者，增加甚多，茲列各種類于下：

食虫類

原始白鱗 (*Scaphochirus primitivus* Zdy.)

中國水鼯 (*Neomys sinensis* Zdy.) (此次研究材料中未見)

步氏水鼯 (*Neomys bohlini* Young (sp. nov.)) 新種

鼯鼯 (*Crocidura* sp.)

韓氏刺蝟 (*Erinaceus olgai* Young (sp. nov.)) 新種

翼手類

洪積統菊頭蝠 (*Rhinolophus pleistocenicus* Young (sp. nov.)) 新種

蝙蝠 (*Myotis* sp.)

巨暮翼蝠 (*Hesperopternus giganteus* Young (sp. nov.)) 新種

油蝠 (*Pipistrellus* sp.)

齧齒類

蒙古喜子鼠 (*Spermophilus mongolicus* M.-E.)

維氏金花鼠 (*Tamias weinani* Young)

低冠翼鼠 (*Pteromys brachyodus* Young (sp. nov.)) 新種

大土撥鼠 (*Arctomys robustus* M.-E.)

複齒土撥鼠 (*Arctomys complicitens* Young (sp. nov.)) 新種

水獭 (*Castor* sp.)

居氏大水獭 (*Trogotherium cf. curieri* Fischer.)

古野鼠 (*Cricetus varians* Zdy.)

野鼠一 (*Cricetulus cf. grisens* M.-E.)

野鼠二 (*Cricetulus cf. obscurus* M.-E.)

西鼠 (*Apodemus sylvaticus* L.)

小鼠 (*Micromys cf. minutus* Pallas)

大鼠 (*Epinys rattus* L.)

卞氏鼠 (*Mus* cf. *musculus* L. var. *biemi* Young (var. nov.)) 新變種

野原鼠 *Gerbillus roborowskii* B.

大耳鼠 *Evotomys rufocinnus* Sundvell

原鼠 *Eothenomys* sp.

山鼠 *Allicola* sp.

似藍氏小耳鼠 (*Microtus brandioides* Young (sp. nov.)) 新種

簡田鼠 (*Microtus epiraticeps* Young (sp. nov.)) 新種

簡牙鼠 *Pitymys simplicidens* Young (sp. nov.) 新種

費鼠 *Phaiomys* sp.

翁氏大田鼠 (*Siphneus weongi* Young (sp. nov.)) 新種

田鼠 *Siphneus* sp.

竹鼠 *Rhizomys* sp.

豪猪 *Hystrix* cf. *subcristata* Swinhoe 新種

翁氏兔 *Lepus* cf. *weongi* Young

兔一 (*Lepus* sp. A)

兔二 (*Lepus* sp. B)

可氏短尾兔 (*Ochotona koslowi* B.)

短尾兔一 (*Ochotona* sp. A.)

短尾兔二 (*Ochotona* sp. B.)

靈長類

碩獼猴 (*Macacus robustus* Young (sp. nov.)) 新種

二，各種多少之比較

上列各種雖有數十種之多，而其存在多少之比例，極爲懸殊。有若干甚多，有若干極少，甚至僅有一或二標本爲其代表。作者曾分各種爲極多，多，少，極少，四組列爲一表，見原文第一百三十一頁，可以參看茲不贅。

三，各化石保存狀態之不同

周口店猿人堆積中化石保存狀況，至不一致之情形，作者在其他地方，已叙及。普通顏色多爲淺黃，以至黃棕色，其化石化程度不甚深。但亦有其他許多化石，顏色差別甚大，有深棕色以至黑色，有淺藍色以至微綠色。其所以如此當由：（一）因堆積中地下水經流位置不同，（二）由文化石層之骨，曾受燃燒或受熱之故。

四，在堆積中之分布

各類化石在堆積中之分布，至爲不同。有時甚多，如在第四層中，鼠類化石聚積甚多。但有許多部分則甚少，大半多散布於堆積中之各部，無清楚上下區別可尋。故由所已研究之各種化石觀察，至今不能明白斷定堆積中極清白之動物羣不同性。

五，演化之跡

周口店猿人地點小動物化石之富，殆爲中國第一，在與周口店關係最切之泥河灣與河套沙相黃土堆積中，小化石均不豐富。至更古如察哈爾張北縣境之上新統堆積中，則小動物化石較多。其各種比較，列于原文第一百三十四頁之表中，不贅。

Series C.

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On the Insectivora, Chiroptera, Rodentia and
Primates other than Sinanthropus from
Locality 1 at Choukoutien

BY

CHUNG-CHIEN YOUNG

Cenozoic Research Laboratory of the National Geological Survey of China

With Plates I-X and 51 Text-figures.



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On the Insectivora, Chiroptera, Rodentia and Primates other than *Sinanthropus* from Locality I at Choukoutien*

BY
C. C. YOUNG

INTRODUCTION

After the completion of the Memoir on the Artiodactyla at Choukoutien, it was the kind suggestion of Dr. W. H. Wong, the director of the Geological Survey of China, Dr. Davidson Black, the honorary director of the Cenozoic Research Laboratory, and Dr. V. K. Ting, the chairman of the board of editors of the *Palæontologia Sinica* that I might work out first the microfauna of the same locality. After a year of investigations I am now in position to present the following paper for the completion of which, I am deeply indebted to the above mentioned help and suggestions.

The material on which my descriptions are based consists of all the collections made in Choukoutien (Locality 1) by the Geological Survey of China since 1927 up to the end of 1932. The specimens belong to the following orders:—

1. *Insectivora*. 3 families, in 5 species.
2. *Chiroptera*. 2 families, in 4 species.
3. *Rodentia*. 6 families, in 32 species.
4. *Primates* (in addition to *Sinanthropus*, not studied here). Only one species of *Macacus*.

For the sake of convenience, the remains of *Macacus* obtained from Localities 2 and 3 are also described here. The other material comes exclusively from the *Sinanthropus*-site.¹

I have discussed below in a special section of this paper, (s.p. 131) the various degree in fossilization, the distribution and the relative abundance or rarity of the different forms recorded here. To what extent the present Memoir revises and extends Zdansky's descriptions (1928) will be obvious in the course of the paper.

Both concerning the geological condition of the site and the historical review of the field work, as well as the provisional and somewhat questionable adoption of the stratigraphical term "Polycene",

* Received for publication 25 Dec., 1933.

1 The specimen referred to *Rhizomys* sp. however, is derived from the travertine capping the hill, a short distance south of the main deposit (Locality 1).

I need only refer to what I have said in the introductory note of my early paper on Artiodactyla from the same locality.¹ Recently, a full memoir on the geology of Choukoutien has been published in a Memoir of the Geological Survey of China (Black, Teilhard, Young and Pei, 1933) in which every detail can be found.

Again, I wish to take this opportunity for expressing my sincere thanks to P. Teilhard de Chardin, the honorary advisor of the Survey for his close collaboration in discussing the various problems met in the course of my work. I also wish to thank P. Licent of the Huangho Peiho Museum, Tientsin; Dr. S. S. Hu and Prof. T. H. Shaw, the Director and the zoologist of the Fan Memorial Biological Institute respectively; Mr. T. C. Chow and Mr. W. C. Pei of the Geological Survey who have either lent me specimens for comparison or helped me both for the preparation and the printing of this Memoir. For the drawings and the photographs I should like here to express my thanks to Mr. S. Y. Wang, Mr. K. H. Hsu, Mr. T. S. Lee and the Photographic Bureau of the Peiping Union Medical College.

Finally, it is my duty to recall here the memory of my dear late teacher, Prof. Max Schlosser, who after having directed my first study in the very zoological group which I am handling once again, has in addition sent me from Europe a small collection of micro-fossils, mostly Insectivora, Chiroptera and Rodentia which I had in constant use during the preparation of this paper. I am also greatly indebted to Prof. Wood Jones for his kind suggestions, concerning the study of the *Macacus*.

Peiping.

June, 1933.

Chung-Chien Young.

1 See also W. C. Pei, The Carnivora of Choukoutien, p. 7 footnote. "Upper Polycene" has to be understood as a synonym of *Lower Pleistocene*.

DESCRIPTION OF SPECIES

Order **INSECTIVORA** Gray

Family **TALPIDÆ** Fischer

Genus **SCAPTOCHIRUS** Milne Edwards

Scaptochirus primitivus Zdansky (= *moschatus* Milne-Edw.?)

Pl. I, Figs. 1-8.

- 1928 *Scaptochirus primitivus* Zdansky, Zdansky, O., Die Säugetiere der Quartärfauna von Choukoutien. Pal. Sin., Ser. C, Vol. V, Fasc. 4, p. 7, Figs. 1-11.
- 1931 *Talpidæ* indet. Pei, W. C., Mammalian Remains from Locality 5 from Choukoutien. Pal. Sin., Ser. C, Vol. VII, Fasc. 2, p. 7.

This new form of *Talpidæ* recognised by Zdansky in Choukoutien has been collected in number during the later excavations. I have at my disposal 19 left and 17 right lower jaws, most of them with incompletely preserved dentition. Of limb bones, there are 40 scapulæ, numerous clavica, 26 left and 21 right humeri, 15 left and 24 right radii, 55 left and 46 right ulnæ, 33 left and 30 right femora, 6 left and 5 right tibiæ and some other long bones, which prove that this interesting small Insectivora represents a fundamental element of the Choukoutien fauna. No trace of skull nor of upper dentition has been recovered.

Lower jaw. Although no lower jaw is completely preserved, every detail of it (with the exception of the symphysis) can be recognised by the comparison of several fragmentary specimens. The jaw is characterised by the peculiar gentle curvature (convexity) of its lower edge and its gradual constriction behind the tooth row, and by the maximum height and thickness below the molars. The foramen mentale is situated immediately before the anterior root of M_1 and is rather large. Along the outer side of the horizontal ramus, there is a shallow, faint, but very distinct, furrow running from the foramen mentale hindwards up to the posterior part of M_2 , or sometimes even up to M_3 . The inner side of the ramus is on the contrary quite smooth. Processus angularis strong, sharply bent downwards and hindwards. Processus condyloideus and processus coronoideus rather pointed and forming each with the other an angle slightly greater than 90 degrees. The ascending ramus starts very steeply, but not so much as in the *Talpa europæa*. I have for comparison.