

亞洲前第三紀的“龍”

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亞洲的面積比歐洲和北美的面積要大得多，但是有關亞洲“龍”化石¹⁾的材料則比較少。然而，到現在為止，我們已知道100屬古生代末期和中生代陸生龍類。這些材料在文獻上和陳列館方面都非常分散，這裏只記屬，不記種。至少還有十屬已發見，不過還未有人進行描述。(原文表1—表12見英文原文，此處從略。)

一. 迷齒類(參看表1)

印度的 *Gonioglyptus* 是 *Prionolobus* 層中一種較小的海生 Trematosaurid。更為嬌小的則是同時代的 *Aphaneramma* (斯底茨堡)。其他相近種類也見於斯底茨堡。斯底茨堡與印度之間曾經有過大陸邊緣水道，這些“海生”迷齒類可能都生活在近岸地區，但是却在岸上生蛋。與之最近的屬是蘇聯的 *Benthosuchus*, *Wetlugasaurus*, *Volgasaurus* 和 *Volgasuchus* 以及斯底茨堡的 *Sassenisaurus*。全椎類的 Brachyopids 則在南非 (*Batrachosuchus*)、澳洲 (*Truchosaurus*)、北美 (*Hadrokhosaurus*, *Taphrosaurus*) 和南美 (*Pelorocephalus*) 有其最有親緣關係的屬。

二. 杯龍類(參看表2)

這一目最早代表是蘇聯二疊紀的 *Nyctiphruetids*。新前棱蜥 (*Neoprocolophon*) 同蘇聯北部三疊紀的 *Leptoropha* 有親緣關係，也同 *Tichvisnkia* 和 *Phaatosaurus* (同地區) 有親緣關係。

三. 龜類(參看表3)

歐洲也有一屬侏羅紀的 *Plesiochelyid*，它與 *Thalassochelydids* 相同，*Baenids* 則起源於北美的侏羅紀。曲頸的 *Dermatemydids* 開始於下白堊紀，它在中國的上白堊紀地層中分佈很廣。龜類在任何地方的白堊紀地層中都分佈很廣，但在中國只有上白堊紀的兩屬。初步挖到的 *Dermochelyid* (在莫斯科) 有很扁平肋骨，長110厘米，寬10厘米，爪長50厘米，其殼的直徑可達3—4米。

四. 獸孔類(參看表4)

二齒獸類在三疊紀時分佈很廣，它的原產地為蘇聯東部和東非，獸頭類也如此。但是在亞洲，獸頭類只有烏魯木齊獸一屬。在上三疊紀時，鼬龍類在世界各地都有分佈。

五. 楯齒龍類(參看表5)

楯齒龍類是哈斯教授在耶魯撒冷發見的，但是並未發表描述其特征的文章，迄今為止楯齒龍僅發現於歐洲。

1) 這裏所謂的“龍”指兩栖類、爬行類的各種化石。

六. 鱗龍類(參看表 6)

日本的 *Metanothosaurus* 被認為和瑞士的 *Paranothosaurus* 相似。另一鱗龍是哈斯在巴勒斯坦發見的,也未發表。在上白堊紀時,蛇頸龍在世界各地都有分佈,但在中國只有一屬。

七. 槽齒類(參看表 7)

八. 蜥臀類(參看表 8)

在亞洲,也和其他大陸一樣,蜥臀類很多;分佈也很廣。虛骨龍類在北美和歐洲似乎特別多。但是各類蜥臀類在亞洲都有很好的代表,並且在白堊紀有廣泛的分佈。在蒙古甚至會發現過龐大的肉食類恐龍,其骨骼裝架於紐約和莫斯科。在莫斯科有一蜥脚類肋骨(採自蒙古),它的頭狀突頸長達 20 厘米。

九. 鳥臀類(參看表 9)

最早的鳥臀類是侏羅紀的三巴龍,但是即使在下白堊紀也只有很少幾屬。很多類屬已在上白堊紀地層中被發見。值得特別注意的是在莫斯科裝架的巨大櫛龍,其高度在五米以上。在同一博物館裏還有個別骨骼代表更大的個體。在年輕的個體上,其頭骨還沒有向後伸出的“鼻角”。鳥臀類分佈地點,西起哈薩克斯坦,南到印度,東到薩哈嶺,北到蒙古。在某些地方曾在發現鸚鵡嘴龍、原角龍和其他鳥臀類的地點找到了鳥臀類的蛋化石。

十. 鱷魚類(參看表 10)

值得提出的是在亞洲發見的鱷魚化石為數很少,在它們之間只有一個原始的屬。

十一. 喙頭類(參看表 11)

在喙頭類方面,曾發現一些保存得很好的小個體的骨架。

十二. 有鱗類(參看表 12)

三台龍的近屬會在南非的下三疊紀地層中發現,另外一個屬 *Tanystropheus* 在歐洲有幾個相近種。蜥蜴類分佈很廣,開始於侏羅紀。(楊鍾健譯)

譯 后 記

1. 許耐教授此文於 1958 夏即收到。自此以後關於各種“龍”化石在中國續有發見和記述,所以上表所列已不完全了。

2. 在許耐教授低等四脚類古生物與系統演化一書中把三台龍當作歸杯龍類,今表仍列入有鱗類,恐此稿係舊稿。

PRE-TERTIARY SAURIANS OF ASIA

FRIEDRICH VON HUENE
(Abstract)

The gigantic Asian continent is much less investigated with respect to saurians than for instance North America or especially the small Europe. Nevertheless we know at

present of about 100 genera of late Paleozoic and Mesozoic age, mainly terrestrial saurians. They are very scattered in the literature and in museums. Here is proposed not to mention the species, but only the genera. At least 10 more genera have been found, but not yet described.

1. Labyrinthodontia

a. Rhachitomi typici: Fam. Trematosauridae:

<i>Gonioglyptus</i> Huxley	Lower Triassic	Chideru, Salt Range
	Middle Triassic	Raniganj, India

b. Neorhachitomi, Fam. Benthosuchidae:

<i>Gondwanosaurus</i> Lydekker	Lowest Triassic	Bijori, Central India
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c. Stereospondyli, Fam. Brachyopidae:

<i>Brachyops</i> Owen	Middle Triassic	Mangli, India
<i>Pachygonia</i> Huxley	Middle Triassic	Panchet, India
<i>Indobrachyops</i> Huene + Sahni	Lower Triassic	Panchet, India

Gonioglyptus is a very slender marine Trematosaurid from the Prionolobus-beds. Only the contemporary *Aphaneramma* from Spitzbergen is still more slender. Other relatives are also from Spitzbergen. There are epicontinental aquatic ways between Spitzbergen and India. These “marine” Labyrinthodonts must have lived near the shore and laid their eggs on land. The nearest relatives of *Gondwanosaurus* were *Benthosuchus*, *Wetlugasaurus*, *Volgasaurus* and *Volgasuchus* in Russia and *Sassenisaurus* in Spitzbergen. The stereospondyl Brachyopids have their nearest relatives in South Africa (*Batrachosuchus*) and in Australia (*Truchosaurus*), also in North America (*Hadrokkosaurus*, *Taphrosaurus*) and South America (*Pelorocephalus*).

2. Procolophonia

Fam. Procolophonidae:

<i>Neoprocolophon</i> Young	Lower Triassic	Shansi, China
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The first representatives of this order are the Nyctiphuretids in the Russian upper Permian. *Neoprocolophon* has good relations with *Leptoropha* in the North-Russian lower Triassic and also with *Tichvisnĳia* and *Phaatosaurus* from there.

3. Testudinata

a. Cryptodira, Fam. Plesiochelyidae:

<i>Plesiochelys</i> Rüttimeyer	Upper Jurassic	Szechuan, China
<i>Tienfuchelys</i> Young & Chow	Upper Jurassic	Szechuan, China

b. Pleurodira, Fam. Thalassemydidae:

<i>Jaxartemys</i> Riabinin	Upper Jurassic	Kuratau, Central Asia
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Fam. Baenidae:

<i>Chengyuchelys</i> Young & Chow	Upper Jurassic	Szechuan, China
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c. Trionychia, Fam. Dermatemydidae:

<i>Heishanemys</i> Bohlin	Upper Cretaceous	Kansu, China
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<i>Lindholmemys</i> Riabinin	Upper Cretaceous	Kysil Kum, Mongolia
<i>Peishanemys</i> Bohlin	Upper Cretaceous	Mongolia
<i>Sinochelys</i> Wiman	Lower Cretaceous	Shantung, China
<i>Tsaotanemys</i> Bohlin	Upper Cretaceous	Kansu, China
<i>Ymenemys</i> Bohlin	Upper Cretaceous	Kansu, China

Fam. Cheloniidae:

<i>Osteopygis</i> Cope	Upper Cretaceous	China
<i>Cinemys</i> Wiman	Lower Cretaceous	Shantung, China

? Fam. Dermochelyidae: Upper Cretaceous Mongolia

One of the Jurassic Plesiochelyid genera is also known from Europe; it is the same with the Thalassochelydids and the Baenids do begin in the Jurassic in North America. The cryptodir Dermatemydids do begin in the lower Cretaceous and are widely distributed in China in the upper Cretaceous. The Chelonids are very numerous in the Cretaceous and Tertiary time everywhere, but in China there are only two upper Cretaceous genera. The eventual Dermochelyid mentioned consists (in Moscow) of quite flat rib-fragments (without natural ends) of 110 cm in length and 10 cm broad and of claws 50 cm long; its shell would have a diameter of 3—4 m.

4. Therapsida**a. Anomodontia:**

<i>Dicynodon</i> Owen	Lower Triassic	Tonkin; and Singkiang, China
<i>Lystrosaurus</i> Cope	Lower Triassic	Singkiang, China
<i>Sinokannemeyeria</i> Young	Upper Triassic	Shansi, China

b. Therocephalia:

<i>Urumchia</i> Young	Upper Permian	Singkiang, China
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c. Ictidosauria:

<i>Bienotherium</i> Young	Upper Triassic	Yünnan, China
<i>Kunminia</i> Young	Upper Triassic	Yünnan, China

Anomodonts in the Triassic time are distributed very far; Eastern Russia and East Africa are the nearest countries, where they are at home. For the Therocephalia the same is to be said. It is almost astonishing that *Urumchia* is the only Asian genus. Ictidosauria in the uppermost Triassic are distributed in all parts of the world.

5. Placodontia

Several	Triassic	Palestina
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They were found by Professor G. Haas in Jerusalem, but have not yet been published. Until now they have been only known from Europe.

6. Sauropterygia**a. Nothosauridae:**

<i>Metanothosaurus</i> Yabe & Shikama	Middle Triassic	Japan
Nothosaurid (undescribed)	Triassic	Palestina

b. Pliosauridae:

<i>Sinopliosaurus</i> Young	Jura-Cretaceous limit	Szechuan, China
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The Japanese *Metanothosaurus* is said to have a relative similarity to the *Paranothosaurus* in Switzerland. Another Nothosaurid has been found by Prof. Haas in Palestina, but not yet described. In the upper Cretaceous time Pliosaurus are known from all seas; however, only a single genus has been found in China.

7. Thecodontia

a. Pseudosuchia:

<i>Platyognathus</i> Young	Upper Triassic	Yunnan, China
<i>Microchampsia</i> Young	Upper Triassic	Yunnan, China
<i>Chasmatosaurus</i> Haughton	Lower Triassic	India China

b. Parasuchia:

<i>Pachysuchus</i> Young	Upper Triassic	Yunnan China
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8. Saurischia

a. Coelurosauria:

<i>Sinocoelurus</i> Young	Upper Jurassic	Szechuan, China
<i>Laevisuchus</i> Huene	Upper Cretaceous	India
<i>Jubbulpuria</i> Huene	Upper Cretaceous	India
<i>Coeluroides</i> Huene	Upper Cretaceous	India
<i>Dryptosauroides</i> Huene	Upper Cretaceous	India
<i>Velociraptor</i> Osborn	Lower Cretaceous	Mongolia
<i>Saurornithoides</i> Osborn	Lower Cretaceous	Mongolia
<i>Labrosaurus</i> Marsh	Upper Jurassic	Szechuan, China
<i>Ornithomimus</i> Marsh	Upper Cretaceous	Mongolia
Ornithomimid genus (Young)	Lower Cretaceous	Shantung, China
<i>Ornithomimoides</i> Huene	Upper Cretaceous	India
<i>Oviraptor</i> Osborn	Lower Cretaceous	Mongolia

b. Pachypodosauria:

<i>Sinosaurus</i> Young	Upper Triassic	Yunnan, China
<i>Szechuanosaurus</i> Young	Upper Jurassic	Szechuan, China
<i>Chienkosaurus</i> Young	Upper Jurassic	Szechuan, China
<i>Indosuchus</i> Huene	Upper Cretaceous	India
<i>Gorgosaurus</i> Lambe	Upper Cretaceous	Mongolia
<i>Tarbosaurus</i> Malejev	Upper Cretaceous	Mongolia
<i>Tyrannosaurus</i> Osborn	Upper Cretaceous	Mongolia
<i>Alectrosaurus</i> Gilmore	Upper Cretaceous	Mongolia
<i>Jeholosauripus</i> Yabe (foot prints)	Lower Jurassic	North-China

c. Prosauropoda

<i>Gyposaurus</i> Broom	Upper Triassic	Yunnan, China
<i>Yunnanosaurus</i> Young	Upper Triassic	Yunnan, China
<i>Lufengosaurus</i> Young	Upper Triassic	Yunnan, China

d. Sauropoda

<i>Helopus</i> Wiman	Lower Cretaceous	Shantung, China
<i>Tienshanosaurus</i> Young	Lower Cretaceous	Singkiang, China
<i>Omeisaurus</i> Young	Lower Cretaceous	Szechuan, China
<i>Mamenchisaurus</i> Young	Upper Jurassic	Szechuan, China
<i>Laplatasaurus</i> Huene	Upper Cretaceous	India

<i>Antarctosaurus</i> Huene	Upper Cretaceous	India
<i>Chiayusaurus</i> Bohlin	Upper Cretaceous	Kansu, China
<i>Asiatosaurus</i> Osborn	Lower Cretaceous	Mongolia
<i>Mongolosaurus</i> Gilmore	Lower Cretaceous	Mongolia
cf. <i>Brachiosaurus</i>	Lower Cretaceous	Mongolia
<i>Kuangyuanpus</i> Young	Upper Jurassic	Szechuan, China
foot prints		

In Asia the Saurischia are as well developed and distributed as in the other continents. Coelurosauria are much more numerous in North America and in western Europe. But most Saurischian lines are very well represented in Asia and are specially numerous in the Cretaceous time. Even the largest rapaceous genera have been found in Mongolia, whose skeletons are mounted in New York and in Moscow. In Moscow there is a long sauropod rib from Mongolia whose capitulum-neck is 20 cm long as is also the case with *Brachiosaurus*.

9. Ornithischia

a. Ornithopoda:

<i>Psittacosaurus</i> Osborn	Lower Cretaceous	Mongolia
<i>Protiguanodon</i> Osborn	Lower Cretaceous	Mongolia
<i>Sanpasaurus</i> Young	Upper Jurassic	Szechuan, China
<i>Tanius</i> Wiman	Upper Cretaceous	Shantung, China
<i>Mandschurosaurus</i> Riabinin	Upper Cretaceous	Amur, Siberia
<i>Saurolophus</i> B. Brown	Upper Cretaceous	Mongolia
<i>Bactrosaurus</i> Gilmore	Upper Cretaceous	Kasakstan; Mongolia
<i>Jaxartosaurus</i> Riabinin	Upper Cretaceous	Kasakstan; Mongolia
<i>Niponosaurus</i> Nagao	Upper Cretaceous	Sachalin

b. Ponderopoda

<i>Protoceratops</i> Granger	Upper Cretaceous	Mongolia
<i>Microceratops</i> Bohlin	Upper Cretaceous	Kansu, China
Ornithischian eggs	Upper Cretaceous	Shantung and Mongolia

c. Thyreophora

<i>Lametasaurus</i> Matley	Upper Cretaceous	India and Mongolia
<i>Peishanosaurus</i> Bohlin	Upper Cretaceous	Kansu, China
<i>Viminicaudus</i> Malejev	Upper Cretaceous	Mongolia
<i>Syrmosaurus</i> Malejev	Upper Cretaceous	Mongolia
<i>Stegosaurides</i> Bohlin	Upper Cretaceous	Kansu, China
<i>Talarurus</i> Malejev	Upper Cretaceous	Mongolia
<i>Sauropites</i> Bohlin	Lower Cretaceous	Kansu, China
<i>Heishanosaurus</i> Bohlin	Upper Cretaceous	Kansu, China
<i>Pinacosaurus</i> Gilmore	Upper Cretaceous	Mongolia
Stegosaurid genus	Upper Cretaceous	Szechuan, China

The existence of the Asian Ornithischians is first demonstrated by the Jurassic *Sanpasaurus*. Also in the lower Cretaceous time there are only a few genera represented; the bulk of them only comes in the upper Cretaceous. Remarkable among them is the gigantic *Saurolophus*; a mounted skeleton of it stands more than 5 m high in the Museum of Moscow. In the same Museum there are even single bones of still larger

individuals; but in the young individuals the skull has not the high backward nasal horns as in the full grown individuals. Ornithischia are distributed in Asia from Kasakstan and India to as far as Sachalin and northern Mongolia. Eggs have been found at places with *Psittacosaurus* and *Protoceratops* and with later Ornithopods.

10. Crocodilia

a. Protosuchia:

Hsisosuchus Young & Chow Upper Jurassic Chungking, China

b. Mesosuchia:

Shamosuchus Mook Lower Cretaceous Mongolia
Chiayusuchus Bohlin Upper Cretaceous Kansu, China

c. Eusuchia:

Stomatosuchid jaw fragment (*Young*) Upper Cretaceous Singkiang, China

Remarkably little has been found of crocodiles, but only a primitive and early genus amongst them.

11. Rhynchocephalia

Monjurosuchus Endo & Shikama Upper Jurassic Jehol, North China

Good skeletons of that small creature have been found.

12. Squamata

a. Prolacertilia:

Santaisaurus Koh Lower Triassic Singkiang, China
Tanystropheus H. v. Meyer Lower Triassic

b. Lacertilia:

Yabeinosaurus Endo & Shikama Jurassic Mongolia
Teilhardosaurus Shikama Upper Jurassic Mongolia
Macrocephalosaurus Gilmore Upper Cretaceous Mongolia
Conodontosaurus Gilmore Upper Cretaceous Mongolia
Telmasaurus Gilmore Upper Cretaceous Mongolia
Isodontosaurus Gilmore Upper Cretaceous Mongolia

Near relatives of *Santaisaurus* occur in South Africa in the lower Triassic. On the other hand *Tanystropheus* is known from western Europe with a number of related forms. Lacertilia are distributed world-wide, beginning in the Jurassic.