

图 版 II 說 明

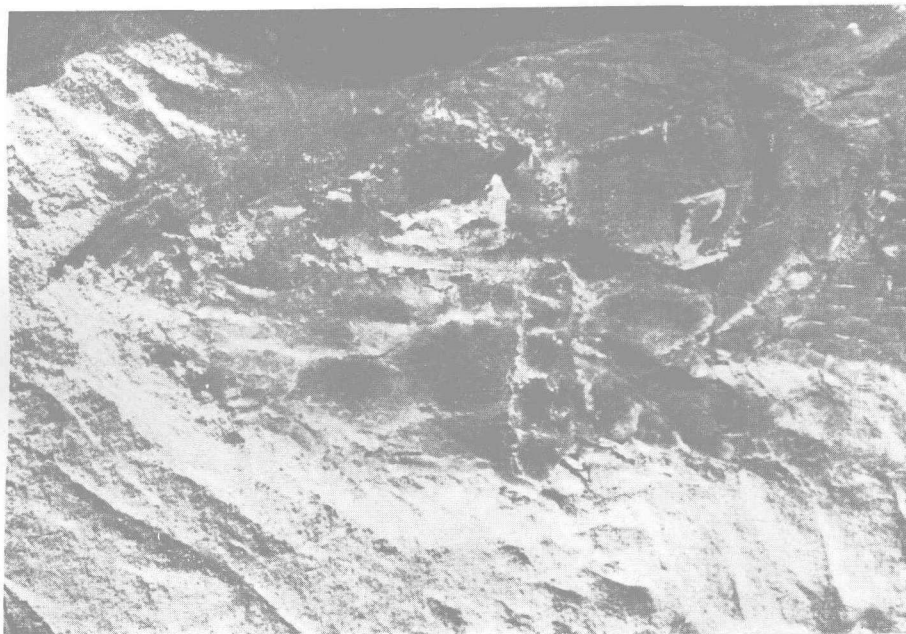
师氏中华弓鳍魚(*Sinamia zdanskyi* Stensiö)

1. 一近乎完整的个体, 示头盖骨及尾鳍形状, ×1, 标本登記号 V. 1106.4.
A nearly complete fish, indicate the skull bones and caudal fin, ×1, Cat. No. V. 1106.4.
2. 一近乎完整个体的右侧視, ×1, 标本登記号 V. 1106.6.
A nearly complete fish in lateral view, ×1, Cat. No. V. 1106.6.

图 版 III 說 明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Stensiö)

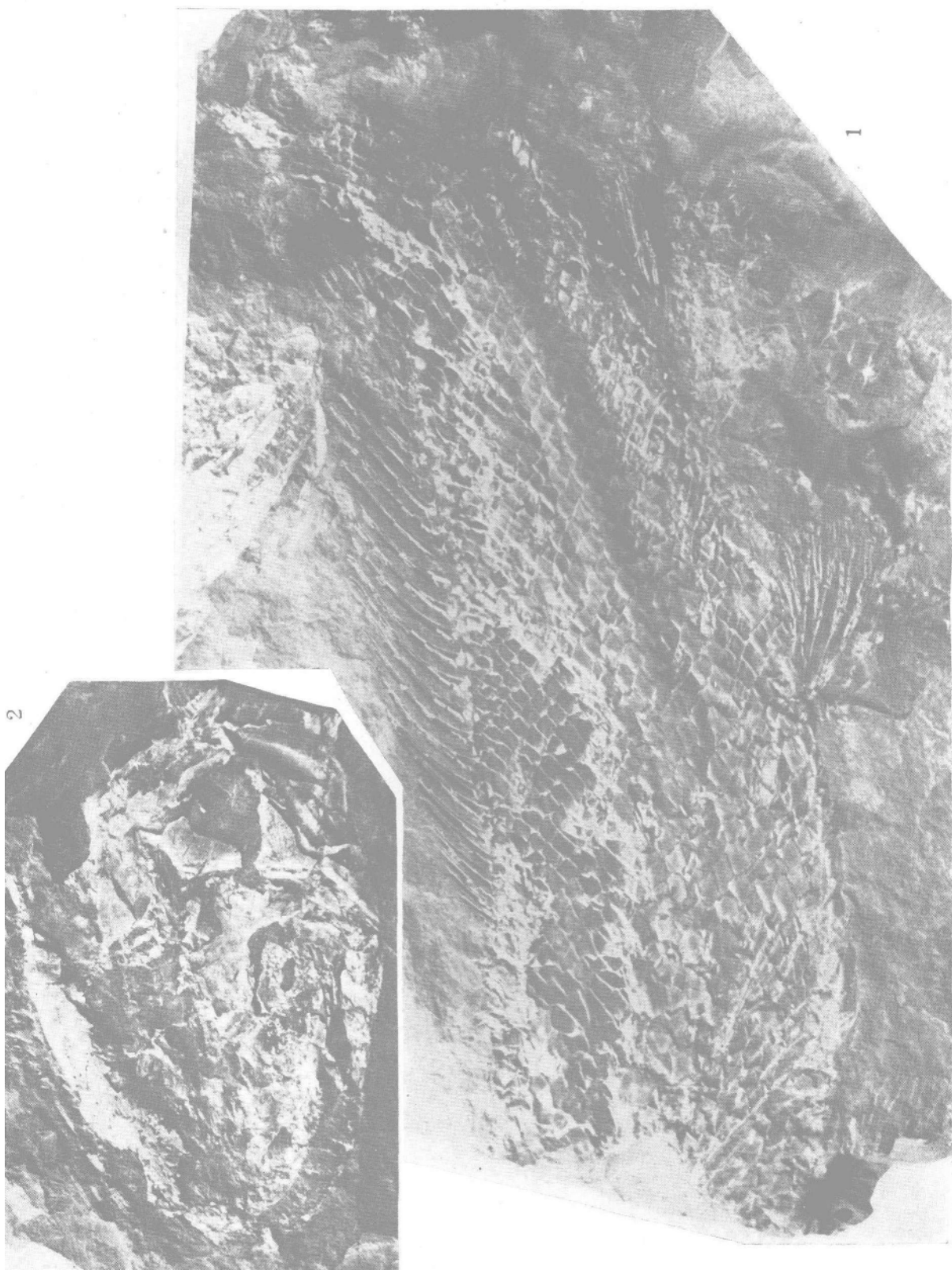
1. 头部,腹面視,示咽喉板及鳃条骨的形状,×2,标本登記号 V. 1106.3.
Head in ventral view, indicate the gular plate and branchiostegal rays. ×1, Cat. No. V. 1106.3.
2. 头部,背面視,示額骨、頂骨及板骨形状,×2,标本登記号 V. 1106.10.
Somewhat dorsi-ventrally compressed head in dorsal view, ×1, Cat. No. V.1106.10.



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图版 IV 说明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Stensiö)

1. 躯干和尾柄,左侧视,示背鳍、臀鳍及腹鳍位置,×1,标本登记号 V. 1107.1.
The trunk and anterior part of the caudal region, left side view, showing the position of the fins, ×1, Cat. No. V.1107.1.
2. 头部,左侧视,×1,标本登记号 V. 1107.2.
Imperfect head seen from the left side. ×1, Cat. No. V. 1107.2.

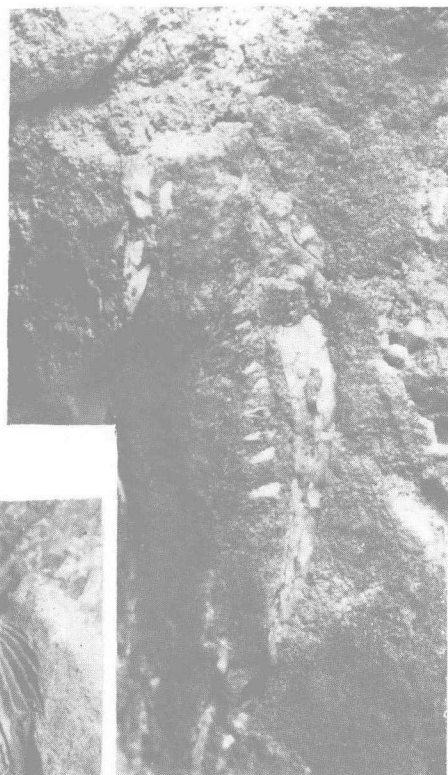
图版 V 说明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Stensiö)

1. 一不完整头骨,背侧视,×1,标本登记号 V. 1108.1.
Compressed imperfect head in dorsal view, ×1, Cat. No. V. 1108.1.
2. 头部及躯干前部,腹侧视,示下颚,副蝶骨及部分脊柱,×1, V. 1108.3.
Head and anterior part of abdominal region in ventral view, ×1, Cat. No. V. 1108.3.
3. 头骨的一部分,右侧视,显示鳃条骨排列关系,×1,标本登记号 V. 1108.4.
Part of head in lateral view, showing the opercular series. ×1, Cat. No. V. 1108.4.
4. 左齿骨的一部分,上着生尖锥形齿,×2,标本登记号 V. 1108.5.
Left dentary, with sharp conical teeth, ×2, Cat. No. V. 1108.5.



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图 版 VI 說 明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Stensiö)

1. 部分躯干及尾部, 右侧视, ×1, 标本登记号 V. 1108.2.

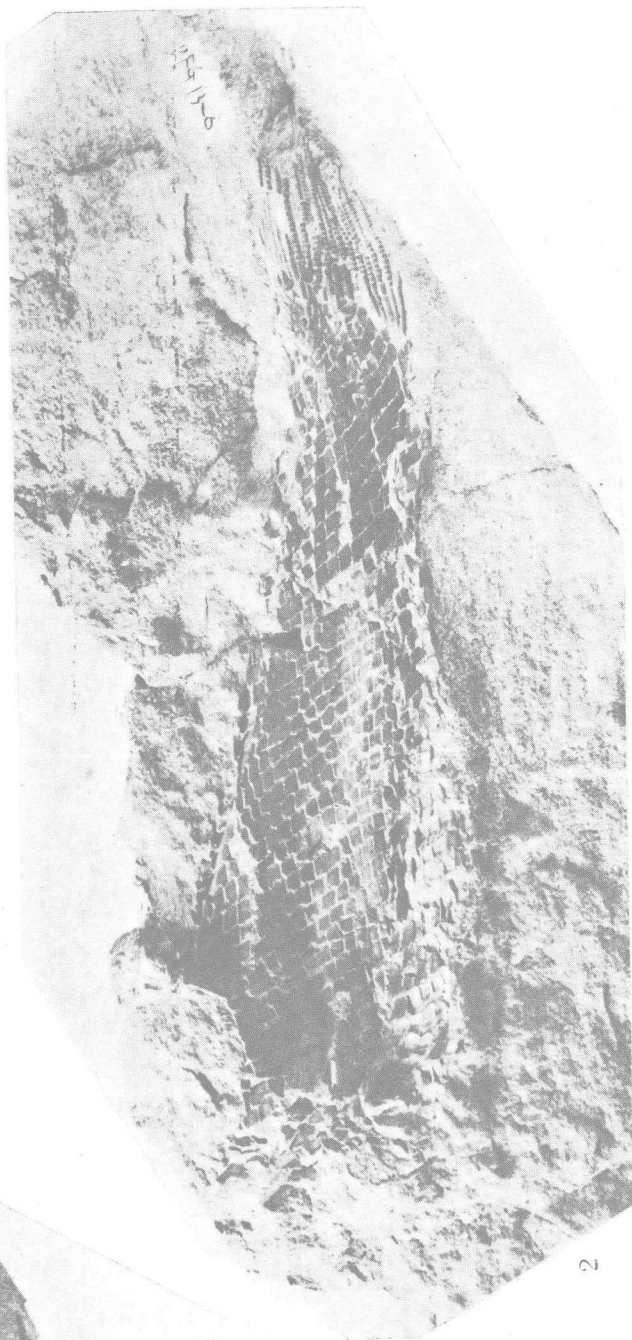
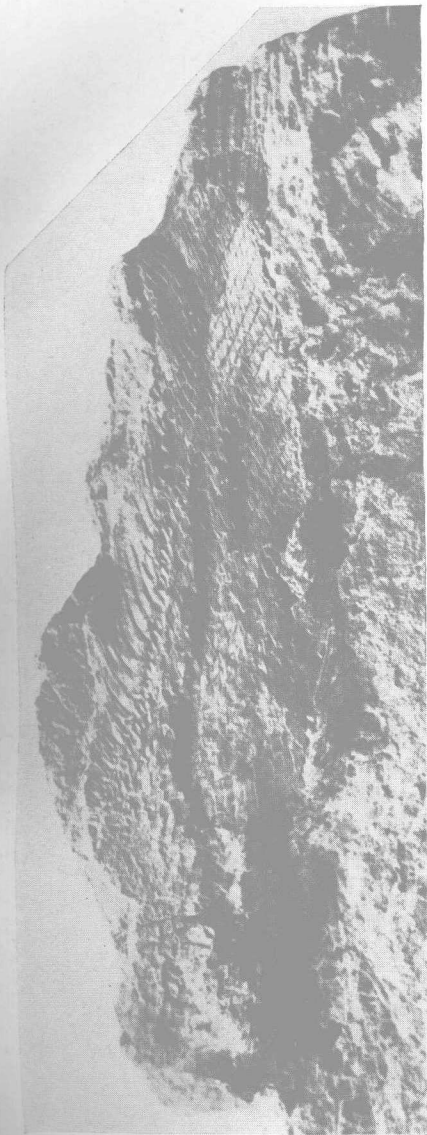
Part of abdominal region and caudal region, right lateral view, ×1, Cat. No. V. 1108.2.

图 版 VII 說 明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Stensib)

1. 头部,背面視,×1,标本登記号 V. 1112.2.
Head in dorsal view, ×1, Cat. No. V. 1112.2.
2. 軀下部,左側視,示鱗列及部分尾鱗,×1,标本登記号 V. 1112.1.
Posterior part of the abdominal region and the caudal region, left side view, ×1, Cat. No. V. 1112.1.
3. 軀下的后部及尾部,左側視,示鱗片及尾鰭諸条,×1,标本登記号 V. 1111.2.
Posterior part of the abdominal region and the caudal region, left side view, ×1, Cat. No. V. 1111.2.

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2





图版 VIII 说明

师氏中华弓鳍鱼(*Sinamia zdanskyi* Steuasiö)

1. 一近于完整的个体,右侧视,×1,标本登记号 V. 1109.3.
A nearly complete fish, right side view, ×1, Cat. No. V. 1109.3.
2. 一不完整个体的背面视及另一个体的头部及躯干前部,左侧视,示各鳃盖骨及匙骨,×1,标本登记号 V. 1109.1, V. 1109.2.
An imperfect fish in dorsal view (V.1109.3) and a fish lacking greater part of caudal region (V. 1109.2), showing the opercular series and cleithum, ×1.

rather than Cretaceous.

Liu (1962) after a detail study on the Lycopterid fishes of Northern China in his monography (in press) which he has revised the classification of these fishes and found out probably three different *Lycoptera* zones can be established and all of them confined to Upper Jurassic in age (see table 2).

In the Mengyin Group some ill preserved *Lycoptera* has been found together with *Sinamia zdanskyi* both by Stensiö and the present authors. The specimen at their disposal is a form with much backward situated dorsal fin, and it can be identified as *Lycoptera woodwardi*. It is a form usually found in zone III of Liu's designation.

At Hatatuho on the western border of the Ordos plateau, *Sinamia zdanskyi* was also found at a stratigraphical position below the *L. woodwardi* zone and above the *L. kansuensis* zone.

From Hotaochuan and Paiyüshan, in the Paoan group, *Sinamia zdanskyi* was found both from Tsinchuan formation and the Hwachih-Huanho formation, which is stratigraphically correlated with the Liupanshan group.

From Showch'ang, Chekiang in the Chicnteh group relics of *Sinamia* also found by Chang together with *Mesoclupea showchangensis*, a form considered to be related to *Thriassops*, which is of Upper Jurassic also.

An interesting form discovered from Hang-chin-chi, Ikechaomeng in the northern Ordos and described by Liu (1961) as *Ikechaoamia orientalis*, which bearing characteristics closely resembling *Sinamia zdanskyi* in its head structure, but with a shortened dorsal fin and different in squamation.

Until now both *Sinamia* and *Lycoptera* have not been found from unquestionable Lower Cretaceous beds, such as the Tsinshan formation (*Psittacosaurus* bed). Therefore judging from the close association of *Sinamia zdanskyi* with *Lycoptera* and *Mesoclupea* there is no evidence to show that the geological age of *Sinamia zdanskyi* should be lower Cretaceous rather than Upper Jurassic.

A table of the main *Lycoptera* and *Sinamia* formations in China is tentatively proposed (table II). This is not an attempt to make any precise correlation, but it is quite interesting to discover that for the first time the widely distributed mesozoic continental beds can be correlated from its fish fauna, and laid down its geological age as Upper Jurassic.

Recent discovery of *Sinamia* from the Ordos plateau, and from Chekiang on the southeastern maritime provinces showing that this fish has a wide geographical distribution during the Upper Jurassic time. These evidences hint that there might existed a water system which facilitated the communication between North China and South China, and also between Shantung at the east and the Ordos plateau on the west.

The constant discovery of *Sinamia* in sandy Rocks from the Mengyin group and Paoan group shows this fish, which with a flat skull roof, flat bottom of the body, slender body build and strong fins, is quite adapted to the swift flow stream water than the fragile *Lycoptera*, which usually found in shaly rocks of lacustrine origin.