

同足亞綱 *Tuzoia* 在華南的初次發現\*

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在中國已發現的節肢動物門 (Arthropoda) 化石有三葉蟲綱 (Trilobita)、昆蟲綱 (Insecta) 和甲殼綱 (Crustacea)。在華南甲殼綱中已發現的有介形蟲亞綱 (Ostracoda)、古介形蟲亞綱 (Archaeostracoda) 和鰓足亞綱 (Branchiopoda)。其它, 如 *Xenopoda*、蔓足亞綱 (Cirripedia) 以及本文所描述的同足亞綱 (Homopoda) 還未見到正式的報導。至於同足亞綱僅在我國東北煙台附近的中寒武紀地層內發現過, 與三葉蟲 *Dorypyge* 等共生, 經 Resser (1927) 和 Endo 兩氏定名為 *Tuzoia manchuriensis* Resser et Endo, 這代表 *Tuzoia* 在中國的初次發現。

*Tuzoia* 屬 Hymenocarina 目, 為著名的古生物學家 Walcott 教授在 1912 年所創立<sup>[7]</sup>, 其屬型為 *Tuzoia retifera* Walcott\*\*。當前所發現的材料與上述屬型相似, 無疑地也是屬於這一屬的, 這代表同足亞綱在中國南方的初次發現。這個標本是保存在很細緻的黃綠色頁岩內, 相當清楚而完整, 是地質部陳列館胡承志先生和雲南博物館陳廷藩先生等 (1957) 在雲南昆明筇竹寺附近發現的。經項禮文和李善姬兩同志的鑑定, 與其共生的化石有: *Redlichia mansuyi* Resser et Endo, *Redlichia mai* Lu, *Redlichia chinensis* Walcott, *Palaeolenus lantenoisi* Mansuy, *Palaeolenus deprati* Mansuy 等。因此, 才決定其時代為下寒武紀滄浪鋪層的下部, 即盧衍豪教授的 *Palaeolenus* 帶 (盧衍豪, 1941, 76 頁)。

據孫雲鑄、盧衍豪諸教授對於昆明下寒武紀三葉蟲羣的研究, 他們認為海浸系來自南方的印度洋, 因此它們是屬於印度太平洋區生物羣。1956 年霍世誠教授研究雲南等地寒武紀古介形蟲時也證明了這點。當前所描述的材料與加拿大下寒武紀 Eagor 統的 *Tuzoia polleni* Resser 及中寒武紀 Burgess 頁岩的 *Tuzoia retifera* Walcott 相似。從此更進一步地豐富了前人的論點, 也就是說本區寒武紀生物羣除具有濃厚的印度太平洋生物羣的色彩以外, 還帶有東方的特點。

本文描述的標本是由胡承志和陳廷藩兩先生所採; 文稿多蒙孫雲鑄、高振西、盧衍豪和霍世誠諸教授加以指導及審閱; 並承項禮文同志和李善姬同志代為鑑定三葉蟲化

\* 1957 年 8 月 30 日收到。

\*\* 據筆者身邊有限資料的統計, 此屬最少有 11 個種, 其時代均為中、下寒武紀。

石,作者一併在此向他們致謝。

## 新 種 描 述

### 綱 Crustacea

#### 亞綱 Homopoda

#### 目 Hymenocarina

#### 屬 *Tuzoia* Walcott, 1912

#### 種 *Tuzoia sinensis* P'an (新種)

描述: 這一新種的代表目前僅有一塊很完整的右壳。壳小。表面有網狀飾紋,其網孔近背綫和脊骨部分較其它部分細小。為半圓形壳,其前緣狹而較平。除在前緣和後部沒有見到短刺外,在邊緣的中部有明顯的短刺,但近前緣部分較近後部要短而不顯著,此為這個新種的主要特徵。

討論: 當前所描述的新種與北美加拿大中寒武紀 Burgess 頁岩中所發現的 *Tuzoia retifera* Walcott 相比較,在屬型的某些特徵上相似。但其區別為後者壳的下邊緣沒有短而顯著的刺,而且這個新種的壳較加拿大的標本要小得多。

1929年, C. E. Resser 氏曾描述過在我國東北煙台附近的中寒武紀地層中發現的兩塊不甚完整的同足亞綱化石 *Tuzoia manchuriensis* Resser et Endo (Resser, 1929, 9頁), 在其形態上和外表網狀飾紋上很相似 (Resser, 1929, 圖版 3, 圖 2—3)。兩者的主要區別為雲南標本的最前緣部分較東北的標本 *Tuzoia manchuriensis* Resser et Endo 平坦。同時雲南標本邊緣的下部有一些很顯著的短刺,這也是東北的標本所沒有的特徵。

就一般特點和形態來看,這個新種與加拿大下寒武紀 Eager 建造中的種屬 *Tuzoia polleni* Resser 和 *T. nodosa* Resser (Resser, 1929, 圖版 V, 圖 1—4) 的區別在於後兩者有非常顯著的背刺。

這個新種與 *Tuzoia praemorsa* Resser 的區別為後者有很寬的脊刺,並連在一起成為縐形的鑲邊 (Resser, 1929, 圖版 VI, 圖 3)。

共生化石: 見緒論。

地點和時代: 下寒武紀,滄浪舖層下部;雲南昆明筇竹寺附近。

登記號碼: 10002 (正型標本)。標本保存在地質部陳列館(北京)。

後記: 本文送交“古生物學報”後,筆者接盧衍豪教授來信,承蒙告知 *Tuzoia* 在昆明下寒武紀地層中以往曾有發現,但未經正式研究。本文所描述的標本的副模(Counterpart),現保存於雲南昆明博物館。

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## ON THE DISCOVERY OF HOMOPODA FROM SOUTH CHINA

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The material as described in this paper was collected from the Lower Cambrian rocks of Kunming, Yunnan by Mr. C. C. Hu of the Geological Museum of the Ministry of Geology and Mr. T. F. Chen of the Museum of Yunnan in the spring of 1957. Besides the trilobites and the crustacea remains such as ostracoda, archaeostracoda, branchiopoda have been repeatedly announced from various localities in this country, but so far no Homopoda has ever been reported in South China. The present discovery of *Tuzoia sinensis* (sp. nov.) appears to be the first Lower Cambrian Homopoda in this area.

The writer is greatly indebted to Professors Y. C. Sun, C. K. Kao, Y. H. Lu and S. C. Huo for their valuable suggestions, and to Messrs. C. C. Hu and T. F. Chen for the permission of using their collections for this study.

### DESCRIPTION

#### Class Crustacea

#### Subclass Homopoda

#### Order Hymenocarina

#### Genus *Tuzoia* Walcott, 1912

#### *Tuzoia sinensis* P'an (sp. nov.)

Of this species the writer has only one well-preserved right valve. The shell of this genus is small in size. Surface is usually reticulate, meshes on keel and near dorsal line are usually smaller and more crowded

than on the rest of the shell. The lateral portion is semi-oval, narrow and even anteriorly. There are several short spines scattered along the margin, of which the anterior ones are shorter than those in the median portion, while on the extreme anterior and posterior portions spines are rather obscure, or not preserved.

Remarks: The present species is closely related in some respects to *Tuzoia retifera* Walcott of the Middle Cambrian, Burgess shale, near Field, British Columbia, Canada (Walcott, 1912; Resser, 1929). It differs from the latter species in having the lower margin usually marked with several short spines. The shell of our species is comparatively smaller than the Canadian species.

C. E. Resser described two specimens from the Middle Cambrian rocks in two localities, Mount Tang-shih-ling, near Yen-tai colliery and Hou-lien-chai, Liao-tung, N. E. China, under the name *Tuzoia manchuriensis* Resser et Endo. It is quite possible that they represent more than one species (Resser, 1929, p. 9), which bears close similarity both in general form and in meshes (Resser, 1929, Pl. 3, figs. 2—3). The difference between the Yunnan and the Liao-tung specimen as far as we can judge, is that the extreme anterior portion in the former sample is more conspicuously evenly than that of the latter.

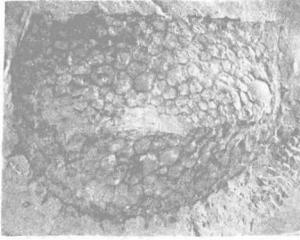
In general appearance, our species is close to *Tuzoia polleni* Resser and *Tuzoia nodosa* Resser from the Lower Cambrian Eager formation of Canada but the latter is distinguished by the very large dorsal spines (Resser, 1929, Pl. 5, figs. 1—4).

The present species differs from the Canadian species *Tuzoia praemorsa* Resser of the Middle Cambrian Burgess shale in having a broad keel spine united to form a wide frill (Resser, 1927, Pl. 6, fig. 3).

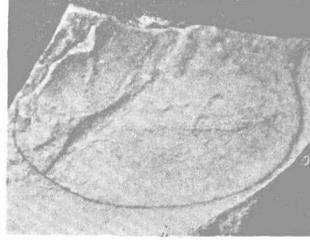
Association, Horizon and Locality: This species is associated with *Redlichia mansuyi* Resser et Endo, *Redlichia mai* Lu, *Redlichia chinensis* Walcott, *Palaeolenus lantenoisi* Mansuy, *Palaeolenus deprati* Mansuy, etc. (determined by Mr. L. V. Hsiang and Miss S. C. Lee); Lower part of Tsanglangpu Formation; Lower Cambrian; Chungchussu, Kunming, Yunnan.

Cat. No. 10002 (holotype).

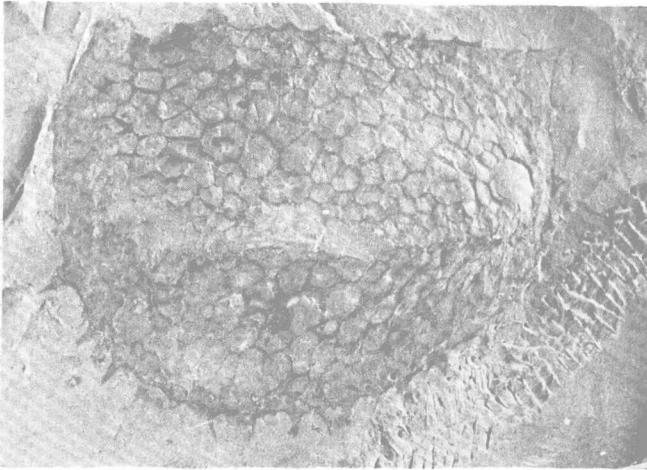
The specimen is now deposited in the Museum of the Ministry of Geology, Peking.



1a, X1



2, X1



1b, X2

### 圖 版 I 說 明

標本現保存北京地質部陳列館。

1. *Tuzoia sinensis* P'an (sp. nov.)

一件很完整的右壳 (A well preserved right valve). 1a,  $\times 1$ ; 1b  $\times 2$ . 正型標本 (Holotype).

2. *Tuzoia manchuriensis* Resser et Endo

不完整的左壳 (Major portion of left valve).

自 Resser, 1929, 圖版 3, 圖 3 (after Resser, 1929, Pl. 3, fig. 3).

以上照片係地質部地質礦產研究所照相室攝。未加任何潤飾。