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吉林黑台的一個泥盆紀海蕾*

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（附1圖版）

海蕾化石在中國是很少見的。1943年計榮森先生所描述的獨山中海蕾（*Mesoblastus tushanensis* Chi）是從貴州南部獨山縣的下石炭紀革老河統中採得的。1950年7月王鈺、楊敬之二先生在吉林省密山縣黑台附近的珍珠後山中泥盆黑台層中又發現一個海蕾的蓂部化石，這一海蕾標本，經筆者鑑定，屬於泥盆海蕾（*Devonoblastus*）的一個新種，因此今將此一新種命名爲黑台泥盆海蕾（*Devonoblastus heitaiensis* sp. nov.）。

泥盆海蕾一屬名原爲 Reimann 於1935年所創立。驟然看來，它在一般的形態上很像五角海蕾（*Pentremites*）和擬五角海蕾（*Pentremitidea*），但這屬具有細長的步帶（Ambulacrum），可以和五角海蕾相區別；同時具有較大的三角板（Deltoids），又可和擬五角海蕾相區別。五角海蕾的步帶中部較寬，兩端較窄，呈花瓣狀；擬五角海蕾的三角板極小，全爲輻板頂端所掩蓋，因此，在蓂的側面看不到三角板。五角海蕾是石炭紀的產物，而擬五角海蕾和泥盆海蕾僅限於泥盆紀。在外形上看來，泥盆海蕾是代表五角海蕾和擬五角海蕾之間的過渡型式。

種的描述

正海蕾目 (Eublastoidea)

五角海蕾科 (Pentremitidae)

泥盆海蕾 (*Devonoblastus*)

黑台泥盆海蕾 (*Devonoblastus heitaiensis*) 新種

這種海蕾僅存在一個蓂，有些部分已經損破，但是蓂各部分的主要構造還很清楚。蓂爲橢圓形，狀似花蕾。中心軸高爲18.5毫米，最大寬度位於中心赤道線之下；最大直徑爲17.5毫米；底端略微突出；頂端平；口部稍微凹入。

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三個底板 (Basals) 都很小，造成蕚部底端的突出部分；輻板 (Radials) 五個，都很大，上部分叉(由於輻板分叉，有人將輻板又稱爲分叉板)，分成了兩個長翼，其長度約爲 9 毫米。輻板的邊緣比較凸出，從蕚的背部(即底端)，可以看到輻板突出的邊緣。輻板表面上具有極其細密而且平行的線紋，這些線紋和輻板的邊緣互相平行。五個三角板或間輻板 (Interradials) 相當大，呈盾形，底邊向上彎成弧形。三角板上沒有任何點綴。五條步帶都很窄狹，兩邊大致平行，呈條帶狀，向上略微有點增寬。步帶的長度約爲 16 毫米，寬度爲 2.6 毫米。尖板(Lancet plates)爲兩行側板(side plates)和兩行外側板 (outer side plates) 所掩蓋。這些側板都很小，向兩邊伸展，作扁平的長方形，有時具有極其細微的小孔。外側板更小，鉗於側板和輻板，或側板和三角板之間。食物溝或步帶中溝很窄；步帶上的橫溝很密，在步帶的一半長度中約有 20 個以上的橫溝。口呈五角形，直徑約爲 2 毫米。口的周圍有五個呼吸孔或排水孔 (Spiracle)，其中四孔爲圓形，大小相等，直徑不及 1 毫米，其餘一孔略大，是肛呼吸孔 (Anal spiracle)，呈橢圓形，表示肛孔和這個呼吸孔的外孔混合爲一。在這孔中的肛孔和呼吸孔之間的隔板未能看到。同樣，每一個呼吸孔中間的隔板也均未看到。水管 (hydrospire) 的構造不明。

比較 這種海蕾在主要的性質上，如蕚的形狀、細長的步帶、具有平行線紋的輻板等等，都和北美紐約州中泥盆紀 Hamilton 層中的 *Devonoblastus leda* (Hall) 的特徵相同，但這一新種的三角板的體積大，形狀特殊，表面上沒有什麼點綴。以這種特殊的三角板，就很容易地和其他泥盆海蕾種族區別開來。

層位及產地 這種海蕾產於吉林省密山縣黑台附近珍珠後山的黑台層中，屬於中泥盆紀後期。

登記號碼 *7257*(正型標本)。

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A DEVONIAN BLASTOID FROM KIRIN

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(with 1 Plate)

Fossil Blastoids are very rarely known in China. Only one species of Blastoidea has been described by Y. S. Chi (1943) as *Mesoblastus tushanensis* Chi from the Lower Carboniferous Kolaoho series of Tushan, southern Kueichou. In July 1950 Messrs Y. Wang and K. C. Yang discovered a Devonian Blastoid from the Heitai formation at the locality of Chenchuhoushan near Heitai of the Mishan district, Kirin, NE China. It is this recently acquired material forwarded the writer for examination by the collectore which forms the subject of the present report. The material is a single specimen of the calyx. The deltoid plates are considerably large in size and the ambulacra are linear in shape. These features characterize the genus *Devonoblastus* Reimann.

The generic name *Devonoblastus* was founded by Irving G. Reimann in 1935. In the general aspect of the calyx, this genus resembles both *Pentremites* Say and *Pentremitidea* d' Orbigny, but differs from the former in the linear ambulacra and from the latter in having larger deltoid plates. *Pentremites* is one of the most common fossils of the Carboniferous, whereas *Pentremitidea* and *Devoblastus* are only confined to the Devonian. Morphologically, *Devonoblastus* represents an intermediate form between *Pentremites* and *Pentremitidea*.

DESCRIPTION OF SPECIES

Order Eublastoidea Bather

Family Pentremitidae d' Orbigny

Genus *Devonoblastus* Reimann

Devonoboblastus heitaiensis sp. nov.

(Pl. I, figs. 1-7)

The calyx is ovate with an axial length of 18.5 mm. The periphery or the greatest width of the calyx lies below the equator. The transversal section of the calyx is stellate with a greatest diameter of 17.5 mm. The base is slightly prot-

ruded and the summit is flat and somewhat concave in the apertural portion.

The three basal plates are large and deeply forked, occupying two thirds of the calyx. They are arched transversally. The limbs of the radials are rather long about 9 mm in length. The ribs of the radials are protuberant and may be seen in the dorsal view of the calyx. The surface of the radials is marked by very fine, equal, thread-like striae, running parallel to the margins of the radial plates. The five deltoid plates are shield-shaped with the basal side arched upward. The surface of the deltoids seems to be smooth without ornamentation.

The five ambulacra are narrow with parallel sides. They are 16 mm in length and 2.6 mm in width, slightly widening upward. The surface of the lancet plates is covered by a double series of the side plates and two rows of the outer side plates. The side plates are small and transversally elongated, while the outer side plates are very small, intervening between the side plates and the radial and deltoid plates. The minute pores may be occasionally seen on the side plates. The food groove or the median ambulacral groove is very narrow. The transversal grooves or furrows are very closely set, numbering more than twenty in the half length of an ambulacrum.

The mouth is pentagonal, about 2 mm in diameter. Around the mouth there are five spiracles. Four of them are rounded and equal in size, less than 1 mm in diameter; and the remainder is oval in form, slightly larger than the others. This larger one is the anal spiracle, indicating the confluence of the posterior spiracle and the anus. The hydrospires are unknown.

Remarks: In the essential characters such as the shape of the calyx, the linear ambulacra and the striated radial plates, this species closely resembles the genotype *Devonoblastus leda* (Hall) from the Middle Devonian Hamilton group of New York, North America, but differs from the latter in the much greater size and more peculiar form of the smooth deltoid plates. The peculiar deltoids of our form can be easily distinguished from the other species of this genus.

Horizon and Locality: This species occurs in the late Middle Devonian Heitai formation at Chenchuhoushan near Heitai of Mishan district, Kirin.

Cat. No. 7257 (holotype).

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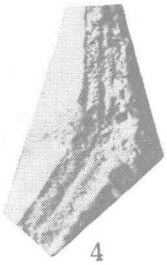

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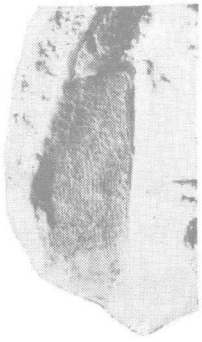

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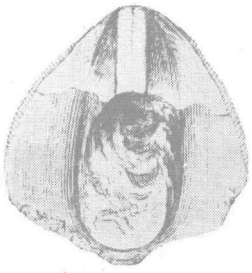

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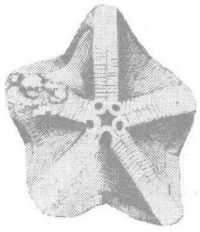

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1—7. *Devonoblastus heitaiensis* sp. nov.

1. 蕾的側面圖，示蕾的形狀和步帶下部損破的情況。原大。
2. 蕾的背面圖。原大。
3. 蕾的腹面圖。原大。
4. 口部及步帶的一部分，放大(×3)，示口、呼吸孔和步帶上側板、外側板的形狀。
5. 蕾的側面的一部分，放大(×3)，示輻板表面的線紋和三角板底邊的形狀。
6. 蕾的側面圖，同圖 1，放大(×2)，示步帶下部的損破情況。
7. 蕾的腹面圖，同圖 3，放大(×2)。

圖 1—5 爲劉雪筠同志攝影；圖 6—7 爲張務聰同志繪製。標本保存在中國科學院古生物研究所。標本號碼：*7257*。