

西沙群岛筒柱螺属(后鳃类)一新种*

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1975年5、6月,中国科学院海洋研究所在我国西沙群岛进行海洋生物资源调查时,在金银岛东北面获得2个有贝壳的后鳃类软体动物,经鉴定属于一个非常少见的属筒柱螺(*Cylindrobulla* Fischer, 1856)。这属动物通常和其他小型无脊椎动物共同生活在以砂、石为基地的厥藻类间,被称为“厥藻类小区系”动物(*Caulerpa microfauna*)。

至今,这个属已发现的种类仅有11种,而在我国尚未发现过。这11种的名称如下:

- C. beani* Fischer, 1865 (印度西部)。
- C. fragilis* (Jefferys, 1856) (意大利、西班牙)。
- C. fischeri* Adams and Angas, 1864 (澳大利亚南部)。
- C. souveriei* (Montrouzier, 1874) (新喀里多尼亚)。
- C. sculpta* Nevili, 1869 (斯里兰卡)。
- C. pusilla* Nevill, 1869 (斯里兰卡)。
- C. turtoni* Bartsch, 1915 (非洲南部)。
- C. systremma* Melvill, 1918 (阿曼湾)。
- C. japonica* Hamatani, 1969 (日本)。
- C. ulla* Marcus and Marcus, 1970 (巴西)。
- C. californica* Hamatani, 1971 (美国)。

本文发表的这个新种是该属在世界上的第12种。

西沙筒柱螺(新种) *Cylindrobulla xishaensis* sp. nov. (图 1:1—4)

正模标本 标本号: M05852, 壳长4.5毫米, 壳宽2.6毫米。1975年5月27日, 庄启谦采于西沙群岛金银岛。

副模标本 标本号: M05853, 壳长4.8毫米, 壳宽2.8毫米。1975年5月27日, 庄启谦采于西沙群岛金银岛。被解剖作为齿舌和贝壳的研究。

正模和副模标本均保存在中国科学院海洋研究所(青岛)。

动物生活扩展时长达6毫米。整个身体可完全收缩入贝壳内。头部有一个稍大的头楯头楯的背部有一个深的中央沟, 把头部分为两个侧部: 特别是在后部两侧更为明显, 而在前端两侧几乎彼此相接触。在头楯和足之间的两侧边有一对眼点。在头部和贝壳之间有一个颈部。足较小, 前、后端圆形。伸展出贝壳的整个身体表面淡白色, 透过贝壳可见橙色的内脏囊。

贝壳右旋, 圆柱形, 薄而柔软, 但稍脆、透明、淡白色。壳口为一狭窄的裂缝, 几乎与贝壳同长, 它的前端圆, 在壳长约1/2处扩展形成一个宽大的开口, 向后又很狭窄直至后端,

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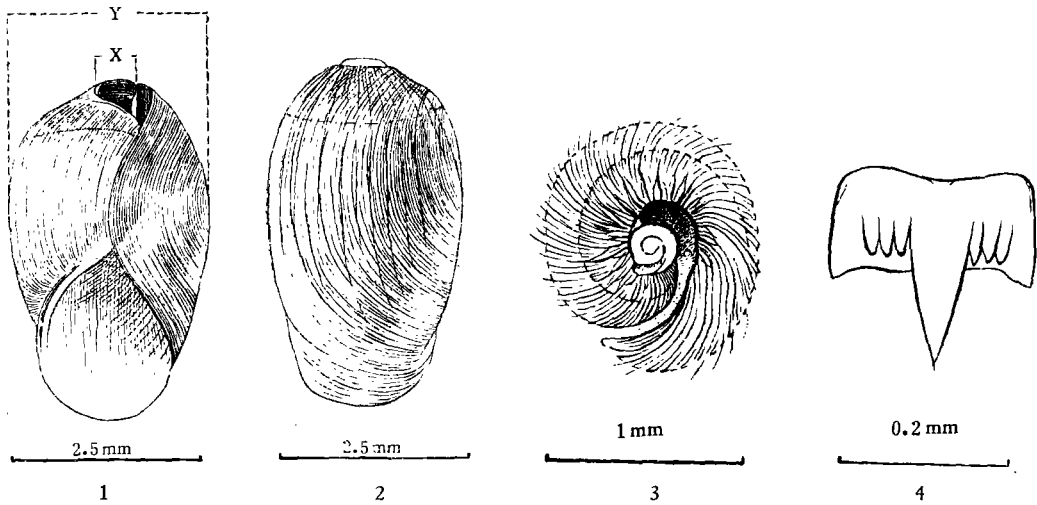


图1 西沙筒柱螺 *Cyliindrobulla xishaensis* sp. nov.

1. 贝壳腹面观； 2. 贝壳背面观； 3. 贝壳螺旋部上面观； 4. 齿舌的单个齿。

外唇形成一个弯弓形，如同 *C. sculpta* Nevill, 1869。在壳顶沿螺旋部的缝合线有一个狭窄的缝合裂缝，其末端闭合。壳顶小，有一个升起的冠。螺旋部完全凹入顶脐。螺旋部从缝合裂缝的外边和由冠所代表的相反边之间(X)与贝壳的最宽度(Y)之比率为 1:3.5。贝壳表面有纵行的条纹。体螺层表面有许多放射条纹，在轴的一端的条纹多分支。(图 1:1—3)

齿舌单列，如同这层的代表种 *C. beau* Fischer, 1856，有 80 个齿，背腹边几乎相等，中央齿尖两侧有 2—3 个小锯齿。最老的齿脱落。(图 1:4)

这个新种的贝壳的一般形状和日本产的 *C. japonica* Hamatani, 1969 极相似，但后者明显地不同于前者其差别在于下列各点：冠不明显；壳的前端开口斜截断形，约在壳长的 1/3 处扩展形成一个大开口；外唇直；(X)和(Y)之比率为 1:2.5。体螺层表面仅有几条放射条纹。

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A NEW SPECIES OF *CYLINDROBULLA* (OPISTHOBRANCHIA) OF THE XISHA ISLANDS, GUANGDONG PROVINCE, CHINA*

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ABSTRACT

In May, 1975, the Institute of Oceanology, Academia Sinica carried out a marine biological-survey in the inter-tidal zone of the Xisha Islands, Guangdong Province, China. Among the many specimens collected there were two specimens of shell-bearing Opisthobranchia from the "Caulerpa microfauna" at Jinyindao, here described as a new species belonging to the rare Genus *Cylindrobulla* Fischer, 1856.

While this species is for the first time recorded from China, up to eleven species have been described from various parts of the world.

Description of the new species

Cylindrobulla xishaensis sp. nov. (Text-figs. 1—4.)

Holotype No. M05852. 4.5 mm in length, 2.6 mm in breadth. Collected by Zhuang Qisqian from the "Caulerpa microfauna" in Jinyindao Xisha Islands, on May, 27, 1975

Paratype No. M05853. 4.8 mm in length 2.8 mm in breadth, was collected together with holotype, was dissected for the study of radular teeth and shell.

Specimens deposited in the Institute of Oceanology, Academia Sinica.

The holotype is 6 mm in length in its living extended state. The whole body can be retracted completely into the shell. Head-shield is rather large, having a deep median furrow on the dorsal, which divides the head into two lateral parts, being more pronounced posteriorly and, nearly touching each other anteriorly. The paired eyes are invisible at the lateral sides between the shield and foot. Between the head-

* Contribution No. 418 from the Institute of Oceanology, Academia Sinica.

shield and shell is a neck. Foot is rather small, rounded on both the anterior and posterior ends. The entire surface of the body stretched out of the shell is whitish, the visceral sac, which may be seen through the shell is orange.

Shell is dextral, cylindrical, thin and flexible but rather fragile, transparent and whitish. The aperture is a narrow slit and is about as long as the shell. It is rounded in front, and at about $1/2$ the length of the shell, it expands to form a large opening, becoming very narrow towards the posterior. The outer lip is arched, as in *C. sculpta* Nevill, 1869. At the top, along the suture of the spire is a narrow suture slit, which is closed at the end. The top of the spire is small, with a raised crest. The spire is completely sunken into the apical umbilicus. The ratio of the diameter of the spire between the outer margin of the sutural slit and opposite suture line represented by the crest (X), to the maximal breadth of the shell (Y) is 1:3.5. The shell surface is longitudinally striated. The surface of the body whorl is radially striated, the striae being branched at their axial ends.

Radula is uniserial, as in *C. beavi* Fischer, 1856, having 80 teeth, with dorsal and ventral limb of nearly equal size. Central cusp flanked by 2—3 denticles. Oldest teeth shed, not retained.

The present new species is closely allied to *C. japonica* Hamatani, 1969 in the general form of the shell, but the latter very distinctly differs from the former in the following aspects: The crest is inconspicuous. The aperture of the shell is obliquely truncated in front and at about $1/3$ the length of the shell is expands to form a large opening. The outer lip is straight. The ratio of the diameter of the (X) to (Y) is 1:2.5. There are only a few striae on the surface of the body whorl.