

伞螺属(后鳃类)一新种*

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1962年4月在中国科学院海洋研究所、南海海洋研究所联合组织的海南岛珊瑚礁调查期间,作者在海南岛陵水新村的潮间带中区,获得一个大形的有壳后鳃类软体动物,经鉴定属于分布在热带、亚热带海域的一个少见的属——伞螺属(*Umbraculum* Schumacher, 1817),并且是一个新种。

该属已记载的共有16种,其中某些种仅根据贝壳的形状及颜色不同而建立,随着研究工作的进展,这些种有些已被合并,有些种已被转入另一属 *Tylodina* Rafinesque, 1819。至今,这个属中已被承认的有以下5种:

1. *Umbraculum umbraculum* (Lightfoot, 1786) (= *Umbraculum sinicum* Gmelin, 1790)。是环热带分布种。分布在太平洋:夏威夷,波里尼西亚,日本本州以南太平洋沿岸,东海及南海我国近海,澳大利亚的新南威尔士,新西兰沿岸。印度洋:非洲东岸,马达加斯加岛,毛里求斯岛沿岸,印度东岸。大西洋:百慕大。

2. *U. mediterraneum* (Lamarck, 1819) 分布在地中海地区:意大利的西西里岛,亚得里亚海,西班牙。

3. *U. pictum* (A. Adams, 1854) 分布在澳大利亚地区。

4. *U. ovalis* (Carpenter, 1856) 分布在巴拿马地区:加利福尼亚南部,圣卢喀斯角到巴拿马。

5. *U. plicatulum* (Martens, 1881) 分布在大西洋地区:佛罗里达,古巴,哥伦比亚,加勒比海,巴西。

在我国, Gmelin, 1790, 在 *Syst. Nat.* ed. 13. 曾报告产于东海的一个种,定名为 *Patella sinica*, 作者^[2]在海南岛陵水新村也采到这个种,并鉴定为中华伞螺 *Umbraculum sinicum* (Gmelin, 1790) 即是这个属的模式种。

本文发表的这个新种为伞螺属在世界上的第6种。

美丽伞螺 (新种) *Umbraculum pulchrum* sp. nov. (图1—3)

正模标本 标本号 MO5940。生活时体长77毫米、宽54毫米、高29毫米。保存标本体长63毫米、宽50毫米、高31毫米。贝壳长40.8毫米、宽32毫米、高4.9毫米(包括角质膜)。1962年4月2日采于海南岛陵水新村的潮间带中区。

标本保存在中国科学院海洋研究所。

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体呈亮黄色,外套淡黄色,嗅角基部深褐色,体侧白-黄色。鳃轴深褐色,鳃末端的两侧壁黑色,足底橙黄色。

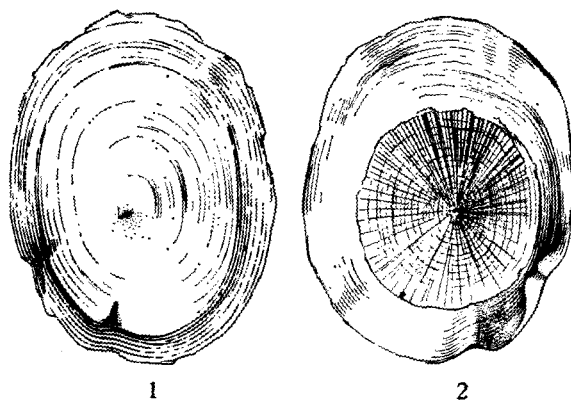


图1 美丽伞螺 *Umbraculum pulchrum* sp. nov.

1. 贝壳之背面观×1; 2. 贝壳之腹面观×1。

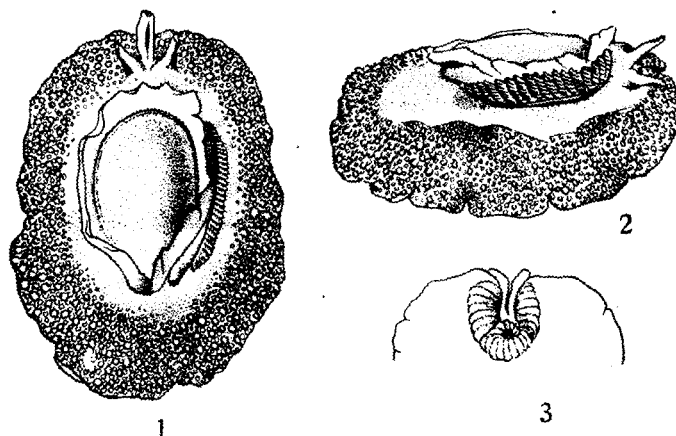


图2 美丽伞螺 *Umbraculum pulchrum* sp. nov.

1. 除去贝壳之背面观×1/2; 2. 除去贝壳之侧面观×1/2; 3. 腹面前半部×1/2。

贝壳小、卵圆形、扁平、呈板状。壳长40.5毫米,宽31.8毫米、高4.9毫米,仅掩盖内脏囊、鳃和嗅角基部。生长线清楚。原壳为圆锥形突起,顶部向后弯曲,位于背中部的稍左后方。腹面覆盖有黄色壳皮。螺轴肌痕完整,白色。在肌痕里边有小颗粒状的放射线,位于中心的颗粒较大。

外套薄而光滑,边缘锯齿状,在外套和体前端有一个大的深褐色的前外套腺。螺轴肌痕呈一个围绕内脏囊的圆环形。

嗅角大,彼此分开,顶端狭,中侧部膨胀,有一纵裂沟。

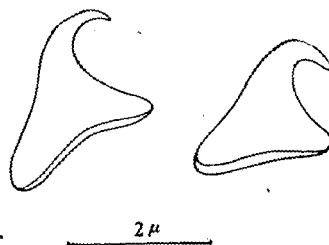


图3' 美丽伞螺 *Umbraculum pulchrum* sp. nov. 齿舌之侧齿

眼黑色,位于两嗅角之间的基部前端。

鳃呈长羽状,全长 44 毫米,位于外套下面,起源于左前端,横过前中部裂缝到身体的右边。鳃轴两边各有 24 个羽状鳃列,每个羽状鳃列有 10—11 对小羽状鳃。鳃除末端游离外,附着于体壁上。

肛门开口于一个短的圆锥形突起的末端,位于鳃的上后方。

足大而厚,在前端中线上有一个深凹,其边缘具有褶皱,后端较低平而圆,上部表面散布有大小不等的圆锥形小突起。足底光滑。

齿舌特大,每列的半侧约有 300 个齿,是该属已报道的种类中数目最多的,也是软体动物中数目最多的。其基本形状如同属的特征,呈针叶形,淡黄色,基部宽,向顶部强弯曲,齿尖狭长,呈枪刺状,光滑。

齿舌公式: $110 \times \infty \cdot 0 \cdot \infty$ 。

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A NEW SPECIES OF THE GENUS *UMBRACULUM* (OPISTHOBRANCHIA) FROM CHINA*

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ABSTRACT

In April, 1962, the Institute of Oceanology, Academia Sinica and the South China Sea Institute of Oceanology, Academia Sinica carried out a biological survey of the coral reefs in the Hainan Island, Guangdong province, China. One of the specimens collected from the mid-tidal zone by the writer was a shell-bearing opisthobranch. A careful examination reveals that it is a new species belonging to the rare genus *Umbraculum* Schumacher, 1817, occurring in tropical and subtropical regions.

This is the second species of the Genus *Umbraculum* recorded from China. So far, there are five other species of this genus described from various parts of the world.

Description of the new species

Umbraculum pulchrum sp. nov. (Text-figs. 1—3)

Holotype No. MO5940. The living specimen is 77 mm long, 54 mm broad and 29 mm high. In its preserved state it measures 63 mm long, 50 mm broad and 31 mm high. The shell is $40.8 \times 32 \times 4.9$ mm in length, breadth and height (inclusive of the periostracum). It was collected from Lingshui county, Xineun, Hainan Island; April 2, 1962.

Depository Institute of Oceanology, Academia Sinica.

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The whole animal is brilliant yellow. Mantle yellowish. Basal parts of the body pale yellow. Gill rhachis chocolate-brown. Lateral ends of the gill black. Sole orange-yellow.

Shell small, oval, flattened, patelliform, 40.5 mm long, 31.8 mm broad and 4.9 mm high, covers only the visceral humps, the gill and the basal parts of the rhinophores. The growth-lines are distinct. The protoconch conically elevated, apex curved backward, situated slightly to the posterior left of the center. Ventrally covered with yellow epidermis. Columella muscle scars complete, white and with small granules radially striated inside the muscle scars; granules at the center of larger sizes.

Mantle thin, smooth, with dentate edges. In front of the mantle and the body is a larger chocolate-brown pre-mantle gland. The columella muscle scars form a complete ring around the visceral hump.

Rhinophores large and distinct from each other, with narrow tip, mid-lateral portion inflated, shallow, with a longitudinal slit.

Eyes black and situated in front of the base between two rhinophores.

Oral tentacle large, latero-ventral slit extends forward over the anterior foot.

Gill is elongate, plumiform, 44 mm in length, located below the mantle, originating from the anterior left side, crossing the mid-slit to the right side of the body. Each side of the gill rhachis with 24 pinnae, each of which has 10—11 pairs of minute pinnae. The gill is attached for its length except for the end which is free.

Anus open at the top of a short conical protrusion located at the upper posterior part of the gill.

Foot large, thickened and deeply notched along the front mid-line. Its edge folded. The tail is flat and broadly rounded behind. The upper surface of the foot densely scattered with conical papilla of varying sizes. Sole smooth.

Radula especially large for this genus. There are about 300 teeth in a half-row, the largest number of teeth ever reported for the species of this genus. The general form is that of the genus. Colour, pale yellow. Basis broad, strongly recurved toward their apices: the cusps elongate, lanceolate and smooth. Radula formula: $110 \times \infty \cdot 0 \cdot \infty$.