

# 东海大陆架爱莉苔虫两新种一新记录\*

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爱莉苔虫 (Genus *Ellisina* Norman, 1903) 隶于外肛动物门唇口目无囊亚目软壁超科片苔虫科 (Hincksinidae)。该属主要特征是: 个虫膜孔型; 卵胞内陷型, 由口盖关闭; 代位鸟头体通常属尖型。它与片苔虫科的片苔虫属 *Hincksisina* Norman 1903 的主要区别在于其鸟头体位于个虫末端, 而与颅苔虫属 *Cranosina* Canu et Bassler, 1933 的主要区别在于其鸟头体颞骨较短且无翼状构造。爱莉苔虫属现有以下八种:

1. *Ellisina leveta* (Hincks, 1882)
2. *Ellisina incrustans* (Waters, 1898)
3. *Ellisina philippinensis* Canu et Bassler, 1929
4. *Ellisina crenulata* Okada, 1929
5. *Ellisina canui* (Sakakura, 1935)
6. *Ellisina sericea* (MacGillivray, 1890)
7. *Ellisina abida* (Hincks, 1880)
8. *Ellisina antarctica* Hastings, 1945

我们在东海大陆架综合调查(1975—1976)底栖生物拖网标本中,发现三种爱莉苔虫,其中凯氏爱莉苔虫 *E. canui* (Sakakura, 1935) 为中国首次纪录,其余两种经研究发现与所有已知种有显著区别,确认为两新种,定名为细肋爱莉苔虫 *Ellisina costigera* sp. nov 和圆颞爱莉苔虫 *Ellisina circulatis* sp. nov. 新种的模式标本保存在中国科学院海洋研究所。

## 1. 细肋爱莉苔虫(新种) *Ellisina costigera* sp. nov. (图 1:a)

**正模标本** 标本号 76BBE014, 1976年8月29日采自东海大陆架 (27°30'N, 126°00'E), 底质为细砂, 水深 135 米, 标本为一死群体, 附于贝壳及辐射粘苔虫 *Colletosia radiata* (Moll) 上。

群体黄白色、单层, 被覆在贝壳等基质上。个虫呈放射排列, 室间有细沟, 在个虫交界处常有三角形凹陷, 有时个虫间距较宽, 个虫间有不规则隆起。多数个虫呈卵圆形, 少数个虫形状不规则, 周缘常显不规则扭曲, 这或许是由附着基凹凸不平所造成的。不同个虫的墙缘厚度变化较大, 通常始端和两侧较宽, 末端较狭。不同个虫的始端裸壁发育程度也差异较大, 有的仅显痕迹, 有的狭长, 狭长的裸壁十分光滑, 中央极隆起。隐壁极发达, 但通常始端和两侧较宽, 末端细狭, 其表面饰有无数射向个虫中心的细肋, 肋面和肋间区都呈颗粒状。这一新种与爱莉苔虫属已知种不同之处在于个虫普遍存在再生现象 (regeneration)。再生个虫的形状与普通个虫相仿, 但其墙缘较薄且十分隆起。有时 (通常在普通个虫的末端) 可见到大小只有普通个虫五分之一的退化个虫 (degeneration zooids), 这些数量很少的微小小虫形状多变, 呈方形、长方形或不规则形, 墙缘较薄, 无裸壁, 隐壁表面的

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细肋极不明显,它们或许是属于特殊的空个虫 (kenozooids)。鸟头体较小,大小相差较大,它们是作为母个虫的侧芽长出的;每一鸟头体始端较狭,末端稍宽,近母个虫一侧中部外凸,相对的一侧中部稍凹,故整个鸟头体略呈肾形。鸟头体隐壁和普通个虫一样,表面饰有细肋。内陷卵胞宽大于长,中央十分隆起,其前表面始端有一新月形膜质窗孔。

虽然现有标本是一死群体,口盖和颞骨等几丁质构造都已丧失,但根据个虫的再生现象、隐壁表面的肋状装饰、鸟头体着生的位置及其特殊形状和卵胞前表面的新月形膜质窗孔都与爱莉苔虫属的所有已知种显著不同,因此确认为一新种。

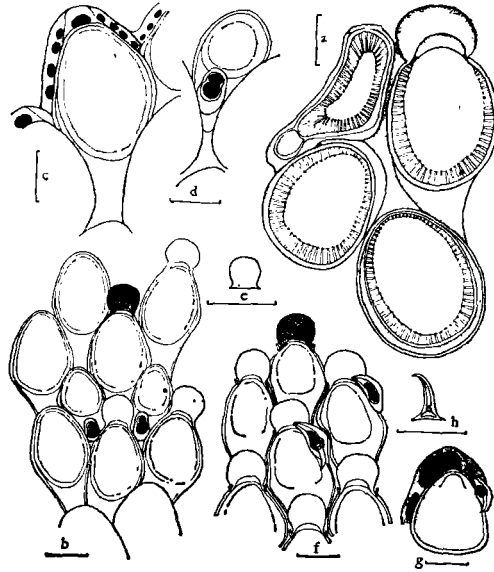


图 1

细肋爱莉苔虫(新种) *Ellisina costigera* sp. nov. a. 示个虫、再生个虫、裸壁、隐壁及其细肋、室间鸟头体、卵胞及其新月形窗孔。圆颞爱莉苔虫(新种) *Ellisina circularis* sp. nov. b. 示个虫、裸壁、隐壁、鸟头体、卵胞; c. 示一个边缘个虫的端孔室和侧孔室; d. 示一鸟头体埋于个虫裸壁内; e. 示鸟头体颞骨。凯氏爱莉苔虫 *E. canui* f. 示个虫、端刺、隐壁、室间鸟头体、卵胞; g. 示一边缘个虫鸟头体、端孔室、侧孔室; h. 示鸟头体颞骨。(均为前面观,比例尺均为 0.2mm)

## 2. 圆颞爱莉苔虫(新种) *Ellisina circularis* sp. nov. (图 1:b-e)

**正模标本** 标本号 75BBE004, 1975 年 10 月 10 日采自东海大陆架 (27°30'N, 125°30'E), 底质为细砂, 水深为 110 米, 2 个群体附着在贝壳上。

群体黄色、单层, 被覆在贝壳上。个虫呈五点星形排列, 室间无沟。个虫细长形, 两侧中部稍膨大, 始端细狭, 末端圆形。墙缘厚, 光滑不隆起。口盖和室口半圆形。始端裸壁发达、光滑。隐壁细狭而光滑。前膜卵圆形, 约占前区四分之三。鸟头体埋于个虫始端裸壁内, 具有鸟头体的个虫始终较小, 约为普通个虫的三分之二。鸟头体小而凸, 与爱莉苔虫属所有已知种不同点即在于本种鸟头体颞骨非尖型, 而呈圆形。绝大多数鸟头体颞骨指向个虫始端, 少数斜向末端。内陷卵胞大而突出, 埋于后续个虫的始端。卵胞前表面十分隆起, 且饰有致密的小颗粒。每一个虫顶壁有一大形的端孔室, 侧壁有 4 个侧孔室, 皆属多孔型。本种卵胞形态与凯氏爱莉苔虫 *Ellisina canui* (Sakakura, 1935) 十分相似, 但后者

个虫呈圆三角形,鸟头体位于个虫之间,颞骨呈三角形,而本新种个虫呈两端较狭、中部稍宽的细长形,鸟头体颞骨呈圆形。

### 3. 凯氏爱莉苔虫 *Ellisina canui* (Sakakura, 1935) (图 1:f—h)

*Amphiblestrum canui* Sakakura 1935:9, pl. 1, fig. 9; Mawatari 1963:7.

*Ellisina canui*, Silén, 1938: 273, text-figs. 39—40; 1942:37, text-figs. 43—46; Mawatari 1952:230, text-figs. a—c; 1971:600, figs. a—b.

群体白色或黄色、单层,被覆在贝壳、珊瑚、海胆壳及其他钙质苔虫上。个虫呈放射状排列,室间有细沟。个虫呈圆三角形,始端很宽,向末端逐渐变狭,末端圆形。通常在个虫末端每侧有一基部无关节的短刺,但不少群体的许多个虫常无刺。墙缘薄而隆起、光滑。口盖和室口皆呈半圆形。前膜圆三角形,占前区绝大部分。始端裸壁不发达。隐壁发达,呈颗粒状,始端很宽,两侧较狭。有一端孔室和两个侧空室,孔室皆大,为多孔型。室间鸟头体位于个虫末端两侧,有时每侧一个,有时仅一侧有鸟头体,间或两侧全无。鸟头体中部较宽,两端细狭而末端翘起,沿个虫侧壁弯曲,延伸成两端较尖的棱形,颞骨呈长三角形,末端有一细尖。内陷卵胞大、球形,前表面十分隆起,饰有细密的小颗粒。

**标本采集地** 28°30'N, 125°00'E, 底质为泥质砂,水深 110 米; 27°30'N, 123°00'E, 底质为砂质泥,水深 91 米; 27°30'N, 124°00'E, 底质为细砂,水深 106 米; 27°30'N, 125°00'E, 底质为细砂,水深 100 米。群体附于贝壳或其他钙质苔虫上。

**地理分布** 日本(东京湾、相模湾、纪伊半岛、能登半岛)。中国系首次纪录。

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## ON THREE SPECIES OF GENUS *ELLISINA* (BRYZOA) FROM THE CONTINENTAL SHELF OF THE EAST CHINA SEA\*

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### ABSTRACT

This paper deals with three species of genus *Ellisina* Norman 1903 (Cheilostomata: Anasca: Malacostegoidea: Hincksinidae), of which *Ellisina canui* (Sakakura, 1935) is recorded for the first time from Chinese Waters, the rest are new to science. The type specimens of the new species are preserved in the Institute of Oceanology, Academia Sinica. The descriptions of the two new species are given below.

#### 1. *Ellisina costigera* sp. nov. (Fig. 1:a)

Colony yellowish-white, unilaminar, encrusting. Zooids oval mostly, arranged radiatively, wider laterally and proximally, and narrower distally. Proximal gymnocysts variable during their growth for different zooids. Cryptocyst well-developed, wider laterally and proximally and narrower distally. On the surfaces of the cryptocysts there are many costae and the surfaces are sculptured with lots of fine granules both on costae and intercostal areas. Interzoecial avicularia ren-shaped, variable in size, growing separately up as lateral bud of the mother zooid. Endozoecial ovicells large, wider than long, their frontal surface convex and having a crescent membranous fenestra. One distal and two lateral pore-plates (multiporous) at each zooid.

This new species is distinct from the known species of genus *Ellisina* in its cryptocyst having rib-like sculptures, in its avicularia which are growing up as lateral buds of the mother zooids and having the form of a ren, and in its ovicells being marked with crescent membranous fenestrae.

#### 2. *Ellisina circulatis* sp. nov. (Fig. 1: b — e)

Colonies yellow, unilaminar, encrusting. Zooids expanded laterally, narrowest proximally, rounded distally. Mural rims thick, smooth, not raised. Proximal gymnocyst well-developed, elongated, smooth. Cryptocyst narrow, smooth. Frontal membrane oval, occupying four thirds of the front. Avicularia small, convex, immersed in the gymnocysts of autozooids, with circular mandibles being usually directed proximally. Endozoecial ovicells large, convex, marked with dense fine granules. One distal and four lateral pore-plates (multiporous) on each zooids.

This new species is somewhat similar to *Ellisina Canui* (Sakakura, 1935) in shape of ovicells. In the latter zooids have the form of a rounded triangulle, avicularia are at the boundaries between autozooids, and have triangular mandible while in this new species zooids are of a elongated shape which is narrower proxi-distally and wider in the middle, avicularia are immersed in the gymnocysts of autozooids and have a rounded mandible.

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