

西藏原生动物肉足虫一新种和 两新亚种的描述*

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中国科学院青藏综合科学考察队于1966、1973—1976年在西藏全境采集了大量的水生生物标本,作者从中共观察到原生动物458种,其中肉足虫170种,纤毛虫288种。关于西藏原生动物的分类区系、地理分布、生态特点等已另有报道^[1-3]。本文仅对匣壳虫属 *Centropyxis* 中一新种、二新亚种进行描述。

匣壳虫是西藏高原优势属之一,共观察到28种。Deflandre (1929)^[4]有匣壳虫属的专文,其后 Décloitre (1978)^[4]又有自 Deflandre 1929年以来至1974年底为止的全世界有关匣壳虫种类的专著。现在在西藏看到的匣壳虫新种和新亚种描述如下:

1. 三角匣壳虫 (新种) *Centropyxis triangularis* Shen, sp. nov. (图版 I: 1a—b)

壳前缘: 7—9微米;壳长: 72—84微米;壳宽: 86—105微米;壳口宽: 31—49微米;壳口高: 23—29微米。

壳十分扁平,腹面观略呈钝角等腰三角形,其底长为边长的 $1\frac{1}{2}$ — $1\frac{1}{4}$ 倍,腰边微呈弧形。壳口呈扁椭圆形,位于前端,前缘较窄。因壳十分扁薄,难于翻成侧面。壳表面覆盖许多细小的砂粒,几乎布满整个壳面,间有少量大石砾。壳呈灰色,不发黑。本新种是在藏北地区班戈县色哇区的一个碳酸盐型的盐水湖——其香错的绿色淤泥滩上采到的。采集时间1976年5月31日,气温13℃,水温19℃,pH 11.0,海拔4660米。标本中有许多泥砂及大量硅藻,标本编号为 Tb-76-2001,制片编号为 S_A60。其后1976年6月1日在其香错畔索布查温泉上部小沟中亦采到。采集时的气温16℃,水温30℃,pH 7.0,海拔4660米,标本编号为 Tb-76-2005。本种因其壳呈十分扁平的钝角三角形,颇为特殊,故名三角匣壳虫。从两种水体的 pH 值相差甚大表明本种的适应性是较强的。

2. 拟三角旋匣壳虫 (新亚种) *Centropyxis aerophila paratriangularis* Shen, ssp. nov. (图版 I: 2a—f)

壳前缘: 6—8微米;壳长: 77—80微米;壳宽: 71—82微米;壳高: 46—52微米;壳口宽: 32—38微米;壳口高: 30—31微米。

腹面观壳略似三角形,但底边不如上述三角匣壳虫(新种)平直,略呈弧形(图 2a),有时微呈弧突(图 2c, 2e)。壳口圆或宽椭圆形,位于腹面前方,前缘较狭。侧面观和旋匣壳虫 *Centropyxis aerophila aerophila* 一样,前缘十分扁平,背腹鼓起很高,但其高度至多接近壳的宽度(图 2b, 2d, 2f)。壳表面覆盖许多小石砾,有的个体还混杂少许甚至很多硅藻空

* 标本是由我所曹文宣、陈宜瑜、陈嘉佑、何添福和吕昌年等同志先后采集到的,作者表示衷心的感谢。
本刊编辑部收到稿件日期: 1980年3月5日。

壳。壳呈黄棕色以至红棕色。它和上述的三角匣壳虫比较,虽腹观时均呈三角状,但侧观完全不同。前者极为平薄,后者壳背隆起很高。从壳的侧观和壳口的形状比较,本亚种应隶属于旋匣壳虫,国外有上下平截的四角旋匣壳虫 *Centropyxis aerophila quadrangularis* Decloitre 的报道,故本亚种名为拟三角旋匣壳虫。本亚种 1976 年 7 月 22 日发现于藏北地区申札县盐水湖——伊布茶卡西面的隆马尔温泉的草上附着的绿褐色、黄色丝状物中,数量很多,同时也看到有少数旋匣壳虫。采集时的气温 20°C,水温 25—35°C, pH 7.0。海拔 4850 米。标本编号为 Tb-76-2041,制片编号为 S_A68, S_A69, S_A70。

3. 扁平网匣壳虫 (新亚种) *Centropyxis cassis compressa* Shen, ssp. nov.
(图版 I: 3a—b)

壳前缘: 10—14 微米; 壳长: 78—92 微米; 壳宽: 58—67 微米; 壳高: 24—28 微米; 壳口宽: 28—34 微米, 壳口高: 17—21 微米。

腹观时壳呈椭圆形,两侧较为平直(图 3a)。壳口半圆形,前缘弧曲,后缘平直。口前缘有一排排列整齐的较大砂粒,这是与网匣壳虫一致的特征。它和网匣壳虫不同之处是侧观时十分扁平,没有腹肚状鼓起,壳高还不到壳宽的三分之一(图 3b),而网匣壳虫壳高为壳宽的五分之三。此外个体也比网匣壳虫略大些(壳长 64—88 微米,壳宽 50—72 微米),故认为是网匣壳虫的一个新亚种。网匣壳虫在西藏分布很广,遍及全藏,本亚种只在昌都地区类乌齐县的一个小浅水池中采到。采集时间 1976 年 8 月 17 日,气温 17°C,水温 12°C, pH 7.0, 海拔高度 3800 米,标本编号为 Tb-76-088。

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DESCRIPTIONS OF ONE NEW SPECIES AND TWO NEW SUBSPECIES OF SARCODINA OF THE XIZANG PLATEAU

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ABSTRACT

The material is chiefly based upon the hydrobiological collections made by the members of the Comprehensive Scientific Expedition to the Qinghai-Xizang Plateau, Chinese Academy of Sciences in 1966, 1973—1976. Among them, 458 species of Protozoa representing 170 species of Sarcodina and 288 species of Ciliata have been identified. This article consists of only a few brief descriptions of one new species

and two new subspecies of the genus *Centropyxis*.

1. *Centropyxis triangularis* Shen, sp. nov. (Pl. I, 1a, 1b)

Height of frontal border of test:	7—9 μ
Length of test:	72—84 μ
Width of test:	86—105 μ
Width of aperture:	31—49 μ
Height of aperture:	23—29 μ

Test nearly isosceles as a blunt triangle in ventral view, the length of its bottom $1\frac{1}{6}$ — $1\frac{1}{4}$ times longer than each side, which is slightly curved. Aperture oblate elliptical near the anterior end, so the frontal border of the rim is somewhat narrow. The test is so thin and flat that it can not be viewed laterally. The whole surface of test is almost covered with fine sand granules, and mixed with a small number of coarser quartz-grains. Grey in colour, but not black. The new species was collected from northern Xizang on the green ooze of the saline lake Qixingcuo, on May 31, 1976, water temperature 19°C pH 11.0, altitude above sea level 4660 M., Cat. no. of sample Tb-76-2001, Cat. no. of preserved slide S_A60. And it was also found in June 1976 from a shallow channel of hot spring which is not far away from Lake Qixingcuo, with water temperature of 30°C, pH 7.0, and altitude a. s. l. 4660 M.

2. *Centropyxis aerophila para triangularis* Shen, ssp. nov. (Pl. I, 2a—f)

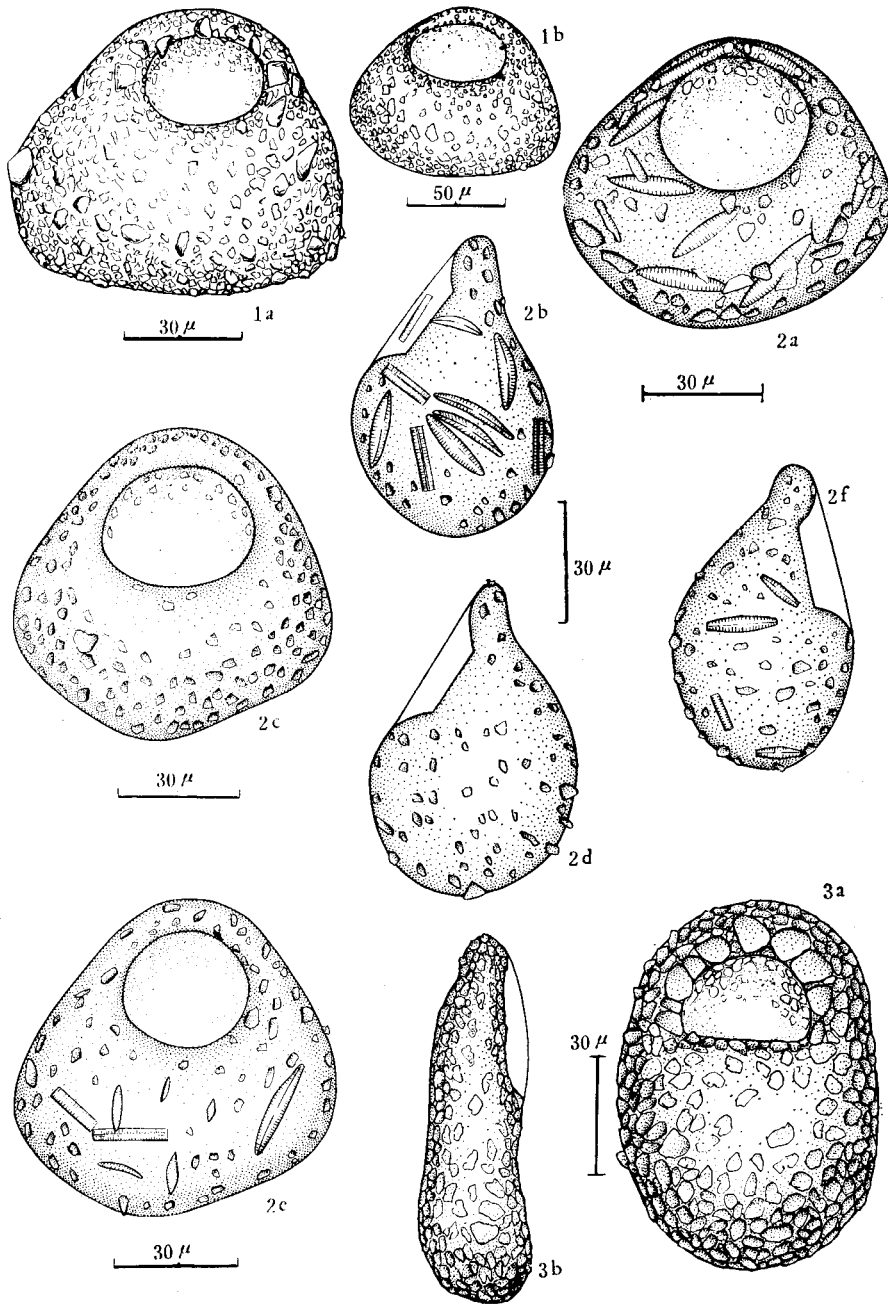
Height of frontal border of test:	6—8 μ
Length of test:	77—80 μ
Width of test:	71—82 μ
Height of test:	46—52 μ
Width of aperture:	32—38 μ
Height of aperture:	30—31 μ

The outline of the test is nearly triangular in ventral view, the bottom curved slightly (Fig. 2a), sometimes arched (Fig. 2c, 2e). Aperture spherical or broad elliptical, eccentric. Frontal border of test is narrow. When in lateral view, like that of *Centropyxis aerophila aerophila*, the frontal border is much compressed, the dorsal test greatly arched, but the height of test is only equivalent to the width. The surface of test is covered with numerous fine sand granules, sometimes with mixture of diatom frustules. Yellowish- or reddish-brown in colour. Although this new subspecies resembles the preceding new species, *Centropyxis triangularis*, in appearance, the dorsal test of the former is greatly arched, while that of the latter is very thin and compressed. Since the characters of dorsal test and aperture resemble very closely to *Centropyxis aerophila*, the latter may be considered as a new subspecies of *C. aerophila*. This new subspecies was found abundant in hot spring Longmaer, not far away from the saline lake Yibuchaka in northern Xizang, on July 22, 1976, with water temperature of 25—35°C, pH 7.0, altitude a.s.l. 4850 M., Cat. no. of sample Tb-76-2041, Cat. no. of preserved slides S_A68, 69, 70.

3. *Centropyxis cassis compressa* Shen, ssp. nov. (Pl. I, 3a, b)

Height of frontal border of test:	10—14 μ
Length of test:	78—92 μ
Width of test:	58—67 μ
Height of test:	24—28 μ
Width of aperture:	28—34 μ
Height of aperture:	17—21 μ

Test elliptical in ventral view, with nearly parallel sides. Aperture semi-circular, curved anteriorly and flattened at the floor. Around the frontal border of aperture is arranged a row of coarse sands of uniform size. All the above mentioned characteristics are the same as *Centeropyxis cassis*, but when compared with it in lateral view, the test of the new subspecies is greatly compressed and without paunch-like enlargement, which can be easily used as a distinctive feature. Besides, the height of test is less than one-third of the width for the new subspecies, while the height of test is three-fifth of the width for *Centropyxis cassis*. Specimens were collected from Changdu region in a shallow pool, on August 17, 1976, water temperature 12°C, pH 7.0, altitude a.s.l. 3800 m, cat. No. of sample Tb-76-088.



1. 三角匣壳虫(新种) *Centropyxis triangularis* Shen, sp. nov.

a, b 为不同个体的腹观。

2. 拟三角旋匣壳虫(新亚种) *Centropyxis aerophila paratriangularis* Shen, ssp. nov.

a. 腹观; b. 侧观; (a, b 为同一个体), c-f. 另外个体的腹观和侧观; (c, d 和 e, f 为各自的同一个体)

3. 扁平网匣壳虫(新亚种) *Centropyxis cassis compressa* Shen, ssp. nov.

a. 腹观; b. 侧观; (a, b 为同一个体)。