

中国鸡皮衣属地衣二新记录种

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摘要: 从形态学、解剖学、化学及地理学角度对藏于中国科学院微生物所菌物标本馆(HMAS-L)和南京师范大学生命科学学院标本室(NNU)的鸡皮衣属地衣标本进一步鉴定, 发现两中国新记录种。

关键词: 半球疣鸡皮衣; 粗体鸡皮衣; 地衣分类学; 中国

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Two new records of the lichen genus *Pertusaria* from China

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Abstract: During the reexamination of the *Pertusaria* specimens preserved in HMAS-L and NNU, 2 species new to China in this genus are added to the Chinese lichen flora in present paper.

Key words: *Pertusaria hemisphaerica*; *P. trachythallina*; lichen taxonomy; China

1 Introduction

The genus *Pertusaria* is characterized by a crustose thallus, hemiangiocarpous apothecia that are often sunken in verrucae; the presence of a true exciple; a hamathecium built of paraphysoids, thick-walled asci; and one-celled, thick-walled, hyaline ascospores. The chemistry of the genus is complex (Archer, 1993).

Modern detailed studies of the genus *Pertusaria* in other parts of the world have been published including monographs from portions of the Old World (Erichsen, 1936), Japan (Oshio, 1968), North America (Dibben, 1980) and Australia

(Archer, 1997).

There was no study on the genus from China before a new *Pertusaria* species was described by Krempelhuber in 1873. So far, 83 *Pertusaria* taxa from China have been reported in some scattered literature (Zahlbruckner, 1928, 1930; Oshio, 1968; Wei, 1991; Yu, 1999; Aptroot & Seaward, 2001). However, material available at that time was limited. During rechecking the specimens studied by some of authors above, 2 *Pertusaria* species are founded new to China.

2 Material and methods

All the specimens examined in the present pa-

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per were deposited in HMAS-L and NNU.

Both the dissecting microscope (ORIENT) and a compound microscope (Olympus) were routinely used for all materials. Thin layer chromatography (TLC, Culberson & Kristinsson, 1970; Culberson, 1972) was used for the identification of the substance. Some terms of morphology and anatomy are used after Dibben (1980).

2.1 *Pertusaria hemisphaerica* (Flörke) Erichsen, Hedwigia 72:85 (1932)

Thallus lightly pale bluish grey to grey, medium to thick; margins (prothallus) definite, distinct, white, zoned; upper surface smooth or uneven to warted, lightly shiny; Isidium absent, but soradia present, granular and concolorous with thallus. Soradia often developing into confluent soralia, ca 0.3 ~ 1.5 mm in diam, markedly convex, scattered to fused.

Apothecia not seen.

Chemistry: Cortex K-, C-, KC-, P-; Medulla & Soralia K-, C + red, KC + red, P-. TLC: lecanoric acid or lecanoric and variolaric acids.

Habitat: Corticolous, rarely saxicolous.

Remarks: *P. hemisphaerica* is characterized by bluish grey thallus, white and zoned prothallus, concolorous soralia, and the chemistry. The species is similar to both *Ochrolechia subviridis* and *Pertusaria lactea*. But *O. subviridis* has dark green to grey-white thallus. When growing on rocks *P. hemisphaerica* resembles *P. lactea* in which both thallus and soralia are white.

Distribution: Europe and China.

Specimens examined: FUJIAN Prov., Wuyishan Mt., Zhumugang, 1 480 m alt., 4 Oct., 1981, Zhiguang Qian, 03084 (NNU). SICHUAN Prov., Emeishan Mt., Jinding, 3 250 m alt., 17 Aug., 1963, Jiding Zhao & Lianwang Xu, 7905 (HMAS-L); Nanping Co., Huanglong, 3 250 m alt., 23 Sept., 2001, Zuntian Zhao & Yumei Jiang, S89 (HMAS-L), S187-① (HMAS-L), S198-1 (HMAS-L). XIZANG, Chayu Co., Chawalong, Geding, 3 100 m alt., 3 Oct., 1982, Jingjun Su, 5091 (HMAS-L); Gongla, 3 800 m alt., 27 Sep.,

1982, Jingjun Su, 5020 (HMAS-L); Zhangmu, 2 680 m alt., 15 May, 1966, Jiangchun Wei *et al.*, 731 (HMAS-L). YUNNAN Prov., Lijiang Co., 20 Oct., 2002, Qiang Ren, 106-3 (HMAS-L).

2.2 *Pertusaria trachythallina* Erichsen, Degel., Ark. för Bot. 30A (1):36 (1940)

= *Pertusaria dealtata* var. *laevigata* Nyl., Flora 63:390 (1880).

= *Pertusaria laevigata* (Nyl.) Arnold, Flora 67:421 (1884).

Thallus grey or yellow grey, very thin to thin, upper surface smooth to tuberculate, continuous, finely fissured or fissured-areolate. Isidia and soradia absent.

Fertile verrucae disk-like, concolorous with thallus, scattered, locally crowded or fused, 0.5 ~ 1.1 mm in diam, frequently 2.0 mm tall and isidia-like. Discs pink and sunken, but generally heavily pruinose, the verrucae margins torn.

Apothecia 1 or 2 ~ 3 per verruca, the centre of the verrucae hyaline to red. Asci 2-spored (rarely 1). Spores uniseriate, ellipsoid or cylindrical, 29 ~ 43 × 74 ~ 106 μm. Spore wall smooth, 2.0 ~ 3.0 μm thick, the end wall trimmed.

Chemistry: Cortex K + yellow, C-, KC-, P-; Medulla K + deep yellow, C-, KC-, P + orange yellow. TLC: thamnolic acid.

Habitat: on the bark of trees.

Remarks: *P. trachythallina* is characterized by the grey, variable and indefinite thallus; the pink center of heavily pruinose verrucae; asci with 2 spores and the chemistry.

Distribution: North America and China.

Specimens examined: HEILONGJIANG Prov., Dailing Co., north of Liangshui Forest, 400 m alt., 7 Oct., 1975, Jiangchun Wei, 2192 (HMAS-L). JILIN Prov., Changbaishan Mt., near Laobaishan Station, 1 200 m alt., 9 Aug., 1977, 2832-② (HMAS-L); Wangqing Co., north of Tulaopodingzi, 11 June, 1996, Jiangchun Wei *et al.*, 257-2 (HMAS-L). YUNNAN, Dali Co., Cangshan Mt., 3 400 m alt., 22 Oct., 2002, Qiang Ren, 185 (HMAS-L).

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