A new species of genus *Pseudoclathrus* from Yunnan, China

Wei Zhou and Keqin Zhang*

Laboratory for Conservation and Utilization of Bio-resource, Yunnan University, Kunming, Yunnan, 650091, PR China


*Pseudoclathrus yunnanensis* sp. nov. found on the ground in Xiaobailong forest in the suburbs of Kunming, Yunnan province, China is described, illustrated and compared with similar taxa. A key to species of *Pseudoclathrus* is provided.

**Key words:** Basidiomycete, *Pseudoclathrus yunnanensis*, systematics, taxonomy.

**Introduction**

The genus *Pseudoclathrus* was established to accommodate *P. cylindrosporus* B. Liu & Y.S. Bau (Liu, 1980). Three species are presently included in the genus (Zhou and Zhang, 1991). *Pseudoclathrus* is characterized by stipitate basidiocarps, a receptacle formed by erect ramifications (arms or laciniae) of equal diam., united at their apices and cylindrical basidiospores (Liu, 1984).

During a survey of macro-fungi in Yunnan Province, China, an interesting basidiomycete was collected from Xiaobailong forest in the suburbs of Kunming city. After a study of the fungus and a literature survey (Dring, 1980; Liu and Bau, 1980; Liu, 1984; Zhou and Zhang, 1987, 1991; Kirk et al., 2001), we believe this fungus to be hitherto undescribed. We describe the fungus as a new species and compare it with the other species of *Pseudoclathrus*, i.e. *P. cylindrosporus*, *P. leigongshanensis* W. Zhou & K.Q. Zhang and *P. anshunensis* W. Zhou & K.Q. Zhang.

*Pseudoclathrus yunnanensis* W. Zhou & K.Q. Zhang, sp. nov. (Figs. 1-4)

*Fructificatio* 12-15 cm alta; *Receptaculum* e sex vel septem brnchiis arcuatis vitiiformibus constns, 8-10 cm longum, 0,5-0,8 cm crassus; insulcus exterior longitudinalis in branchio apice connecco, roseus. *Gleba* foetida, fulva. *Stipes* occultus, spongiosus, carneus, cavus, 2,5-3,5 cm longus, 2-2,5 cm crassus. *Volva* vaginiformis, cinereus, 3-4 cm longum, 3-3,5 cm crssus. *Sporae* cylindricae, leavae, hylineae, 2,8-4,5 (3,67) × 1,4-2,2 (1,7) μm.

* Corresponding author: Keqin Zhang; e-mail: kqzhang1@yahoo.com.cn
Habitat ad terram in sylvis, Mt. Xiaobailong City Kunming, Provincia Yunnan, Sinica, alt. 1900m. 20 XII 2003. K.Q. Zhang et al. Z720 (Typus).

Etymology: referring to yunnanensis, name of the province, southwest of China, indicating that the species was first collected from Yunnan.

Sporocarps 12-15 cm high. Unexpanded basidiocarps ovoid or subglobose, smoky-grey, 3-4 cm long, 3-3.5 cm in diam. Stipe hidden in the volva, 2.5-3.5 cm long, 2-2.5 cm diam., cylindrical, hollow, pink, spongy in texture. Receptacle consists of 6-7 arms in equal diam., 8-10 cm long, 0.7-1.1 cm wide, 0.5-0.7 cm thick, rose-red. A longitudinal furrow does not appear on the outside of each arm. Upper terminals of arms are united and never separated and the arms are thin and cyclindrical. Gleba confined to the inner side of the arms, olive brown and foetid. Basidiospores elliptical to cyclindrical, smooth, hyaline, 2.8-4.5 (3.67) × 1.4-2.2 (1.7) µm.

Habitat: Growing solitary on the ground in summer.


Notes: The new species most closely resembles Pseudoclathrus leigongshanensis (Zhou and Zhang, 1987) since it has similar sized basidiospores (3.9-4.6 × 1.7-2.6 µm vs. 2.8-4.5 × 1.4-2.2 µm) and a similar number of arms. The size of sporocarps, the shape of arms united at the apex and the colour of the receptacle are, however, different. In Pseudoclathrus leigongshanensis sporocarps are larger (18-20 cm high), the receptacle is cinnamon, arms are banded and united at the apex in a larger square (5 × 3 cm²) and stipe is exposed in the volva. In Pseudoclathrus yunnanensis sporocarps are comparatively smaller (12-15 cm high), the receptacle is rose red, arms are thin and cylindrical, and united at the apex without forming a large larger square, while the stipe is hidden in the volva. Pseudoclathrus yunnanensis is also comparable to Pseudoclathrus cylindrosporus Liu & Bau and Pseudoclathrus anshunensis W. Zhou & K.Q. Zhang (Liu and Bau, 1980; Zhou and Zhang, 1991), but can be distinguished by the different shape, colour and number of arms (6 prismic arms, orange-yellow in Pseudoclathrus cylindrosporus; 4 cylindrical arms, orange-yellow in Pseudoclathrus anshunensis and 6-7 thin cylindrical arms, rose-red in Pseudoclathrus yunnanensis).

Key to species of Pseudoclathrus

1. Arms prismic, with longitudinal furrows on the outside, gleba forming on two sides of the arms .......................................................... P. cylindrosporus
2. Arms cylindrical, without longitudinal furrow on outside, gleba forming on the inner side of the arms ..........................................................
2. Receptacle orange-yellow, composed of 4 cylindrical arms, basidiospores 2.5-4 × 1.2-1.8 .................................................................P. anshunensis
2. Receptacle cinnamon or rose-red, composed of 6-7 arms ........................................3
3. Receptacle cinnamon, composed of 6 banded arms, which unit at the apex in a large square. Stipe exposed in the volva. Basidiospores 3.9-4.6 × 1.7-2.6 µm.................................P. leigongshanensis
3. Receptacle rose-red, composed of 6-7 thin cylindrical arms, which do not unit at the apex as a large square. Stipe hidden in the volva, basidiospores 2.8-4.5(3.67) × 1.4-2.2(1.7) µm .................................................................P. yunnanensis

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References


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