

直齿藓属一新组一新种*

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摘要 报道真藓科 (Bryaceae) 直齿藓属 (*Orthodontium*) 一新种, 具边直齿藓 *O. bilimbatum* X. J. Li et D. C. Zhang。本种主要特征 (1) 蒴齿双层, 内齿长, 狭线形, 无基膜。(2) 叶边缘明显分化, 具 2~ 3 列狭长细胞, 除近尖部和基部边缘外, 明显两层。(3) 叶细胞明显宽于本属各种 (宽达 18~ 24 μm)。(4) 蒴盖短圆锥形, 无长喙状尖; 本种介于 *Orthodontium* 与 *Orthodontopsis* 两属之间, 根据蒴齿双层之重要特征, 应隶属于前者, 又因其独具以上特征, 故在该属下建立一独立的新组, 即 Section *Bilimbatum*, 本种即为该组模式。原模式存昆明植物研究所隐花植物标本馆。

关键词 直齿藓属, 具边直齿藓

ORTHODONTIUM BILIMBATUM, A NEW SPECIES IN A NEW SECTION BILIMBATUM OF GENUS ORTHODONTIUM FROM NORTHWESTERN YUNNAN, CHINA

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Abstract The genus *Orthodontium* of the family Bryaceae is newly reported from Yunnan, China. The *O. bilimbatum* X. J. Li et D. C. Zhang as a new species, found in the Mt. Meilixueshan, Northwestern Yunnan, China, is described in Latin and illustrated in this paper. It is of main characteristics of (1) the double peristomes being not in well-development, (2) bistratose leaf borders, consisting of 2~ 3 rows of elongate-linear thick-walled cells which occur on all leaf margins except for the apices and proximal bases, (3) the cells in middle of leaf 60~ 100 μm long and 18~ 24 μm wide, (4) opercule short conical without beak on it. The characteristics of the new species are between genera of the *Orthodontium* and *Orthodontopsis*. With double peristomes as an important character of *Orthodontium* on taxonomy, the new taxon should be classified into the genus. In addition, 2, 3 and 4 characters mentioned above are special in this genus, so a new Section *Bilimbatum* is proposed. The species as a holotype of the new section is deposited in Cryptogamic Herbarium, Kunming Institute of Botany, Academia Sinica (HKAS).

Key words *Orthodontium*, *O. bilimbatum*

直齿藓属

Orthodontium Schwaegr., Spec. Musc. Suppl. 2(2): 123. 1826.

植株稀疏或密集丛生, 绿色, 黄绿色至黄褐色, 无或具光泽。茎直立, 单一, 叉状分枝或自基部分枝, 下部

* 国家自然科学基金资助项目 39391800

1995- 09- 18 收稿

具密集假根。叶干时直伸,弯曲或旋扭。湿时伸展,呈龙骨状,多狭长,线形至长圆状披针形,边缘平展,全缘或上部具细齿。中肋在叶尖稍下部消失或贯顶。叶细胞线形,线状六角形至长六角形;雌雄有序同苞或雌雄同株异序。蒴柄细长或较短,黄色。孢蒴直立或近直立,对称,褐色或黄褐色,卵形,卵状梨形或近长圆锥形。台部明显或较短,干时平滑或具皱缩至不规则凹沟。蒴壁细胞薄壁。蒴帽兜形。蒴盖多具斜长喙状尖,稀无。环带缺如。蒴齿两层,外齿细长或宽短,黄褐色或无色透明,平滑或具疣,内齿齿片狭长,等长或稍不整齐,平滑或具疣,基膜低或无,孢子球形。

具边直齿藓 (新拟) 图 1: a~l, 图 2: m~r。

Orthodontium bilimbatum X. J. Li et D. C. Zhang sp. nov.

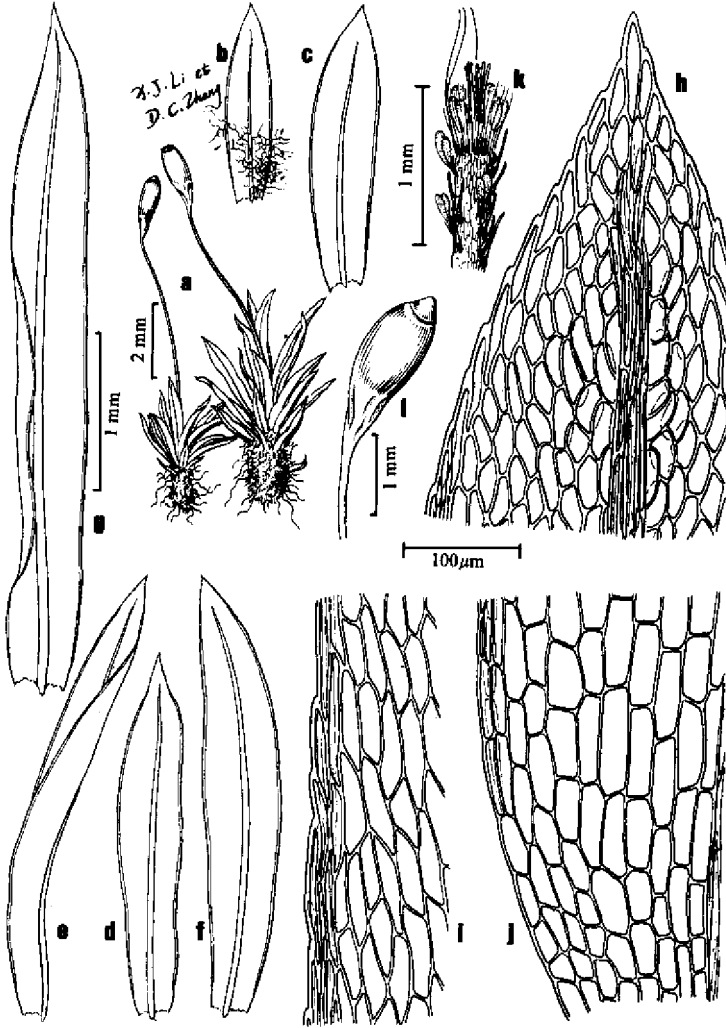


图 1 具边直齿藓 *Orthodontium bilimbatum* X. J. Li et D. C. Zhang

a. 植株; b–g. 叶片; h. 叶尖部细胞; i. 叶中部边缘细胞; j. 叶基部细胞;

k. 雌雄有序同苞及茎生成对精子器及颈卵器; l. 孢子

Planta laxe caespitosa, viridis vel flavovirens, 4~6 mm alta. Caulis erectus, fundo ramosus, inferiore densissime

hyalino-fuscotomemosis, gemma radicalis, fuscula, 2~5 cellulosa. Folia sicca flexuosa vel solum torsiva, humida erecto-patentia, anguste oblongo-lanceolata vel lineata, concava, basi diminuta, apice breviter acuminata, $2.5 \sim 4.5 \times 0.4 \sim 0.6$ mm, supra medium margine crenata, marginibus cellulis sclerenchymatis anguste oblongis mon-usque triseriatis formatis, prarter apicem et infimum, marginibus cellulis bistratis. Costa infra apicem foliivana. Cellulis laminarum elongato-hexagonis. $60 \sim 100 \times 18 \sim 24 \mu\text{m}$; prope apicem minoribus, basi majoribus laxioribus, elongato-rectangulatis, infimis subquadratis. Paroecius, antheridiis geminis vel archegoniis caulinis in axillis foliorum formatis. Seta 5~8 mm alta, flexuosa. Theca suberecta, pyriformis, elongato-ovoidea, membranacea. Operculum conicum, obtusum, annulis nullis. Peristomatium duplex, exterius humile, hyalinum, interius anguste-elongatum, ochraceum, membrana peristomii nulla. Sporae papilloasae.

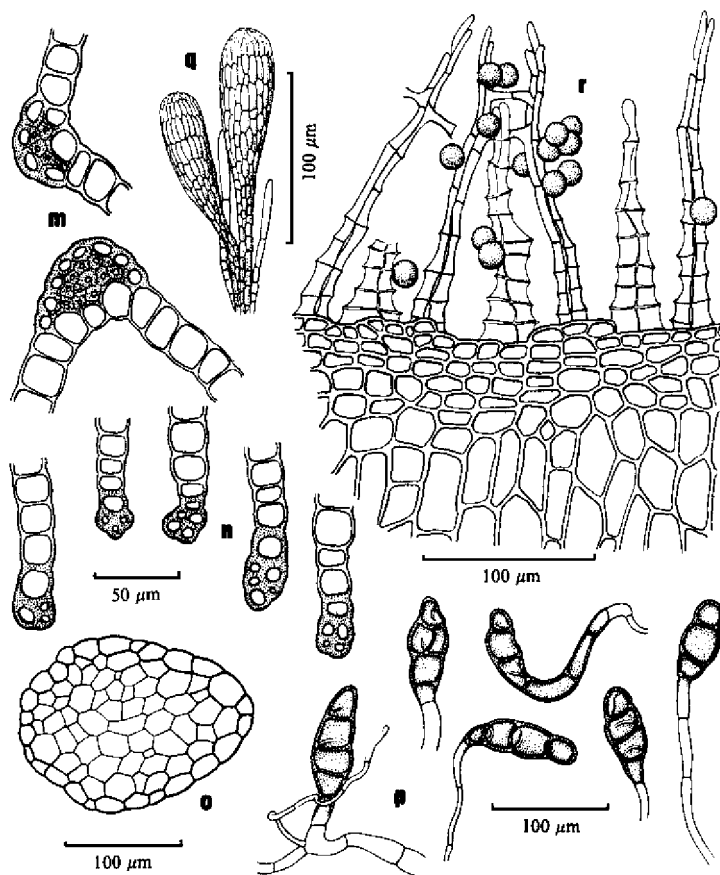


图2 具齿直齿藓 *Orthodontium bilimbatum* X. J. Li et D. C. Zhang

肋部横切面; n. 叶边缘横切面; o. 茎横切面; p. 根生无性芽胞; q. 精子器; r. 蒴齿及孢子

Yunnan Mt: Meilixueshan(云南梅里雪山) Deqin Xian(德钦县) alt. 3400 m, 29 IX 1994, Zhang D. C. (张大成) No. 333; T ianchi(天池) Zhongdian Xian(中甸县) alt. 3750m, 20 IX 1994, Zhang D. C. No. 138. (Typus HKAS:).

植株稀疏丛集。绿色或黄绿色,高4~6 mm。几无光泽。茎易断裂,单一或自基部分枝,下部具密集

无色透明或褐色假根。芽胞根生,淡褐色,由 2~5 细胞组成。叶干时扭曲或旋扭,湿时伸展,呈狭长矩圆状披针形至线形,内凹,基部较狭,顶部短的渐尖,2.5~4.5 mm 长,0.4~0.6 mm 宽,基部叶较小。叶边缘平展,中上部具细圆齿,叶缘明显分化为(1) 2~3 列狭长厚壁细胞,除近尖部和近基部外,边缘分化二层。中肋在叶尖稍下部消失。叶中部细胞长六角形,60~100×18~24 μm ,近尖部细胞较短。叶基细胞明显较大而稍稀疏,呈狭长方形,最下部的近方形。雌雄有序同苞,精子器及颈卵器均生于茎上叶腋,精子器成对着生。蒴柄 5~8 mm 长,上部稍曲折。孢蒴近直立,长梨形或卵圆形,膜质,台部明显,具气孔,干时皱缩。蒴壁细胞薄壁,蒴口稍小于壶部。蒴盖圆锥形,顶部圆钝或不明显的凸起。环带缺如。蒴齿两层,外齿较短,无色透明。内齿节片淡黄褐色,狭长线形,下部具不明显穿孔。早期上部横节相连,无基膜。孢子球形,壁上具疣。

生境 原始林下腐木上。

产地 云南:德钦县,梅里雪山,海拔 3400 m,张大成 333(HKAS) (绘图标本);中甸县,天池,海拔 3750 m,张大成 138(HKAS)。

本属大部分种分布于南半球各地,北半球约有 6 种,我国台湾省已知一种: *O. infractum*,另在近邻地区锡金记录过一种 *O. novae-guineae*; 原该属主要特征为叶狭长线形,边缘无分化,叶中部细胞线形至长六角形。孢蒴近直立,无环带,具双齿层,内齿基膜低矮或缺如,节片狭线形,蒴盖多具斜喙。W. Meijer (1952) 将该属分为两组,即: Section *Stableria* 和 Section *Orthodontium*, 后者又分为两亚组 Subsection *Pelluceus*, 和 Subsection *Linearis*; 两组特征分别为: 前组,叶狭长线形,中肋无厚壁细胞束。孢蒴卵状楔形; 后组,叶线形,线状披针形,具光泽或叶绝对全缘,蒴盖多具斜长喙尖。该属叶细胞多为线形或长六角形,宽不超过 18 μm ,而本种叶缘分化特征明显,叶细胞明显宽及蒴盖圆钝,均不得隶属于本属各组。此外 M. S. Ignatov 和 C. Tan (1992) 报道本科一新属: *Orthodontopsis*, 我们注意到本种与这一新属的 *O. bardunovii* 种的配子体形态特征极其近似,似乎应为该属另一种。但该属无外齿层,仅具非常退化的内齿节片,而本种确具两层蒴齿,经核对并排除本科其它各属特征后,认为本种应介于 *Orthodontium* 与 *Orethodontopsis* 属之间,由于蒴齿这一重要特征,我们确认本种应隶属于前一属无疑,但在该属中,又因配子体独特的形态,与本属其它组有着较大区别,故另建立一新组,即: Section *Bilimbatum*, 本种即为该组模式种,模式标本藏于昆明植物研究所标本室(HKAS: 75997)。

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