

秦岭苔藓新植物

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秦岭山脉是黄河和长江流域的分水岭，居于汉水、渭河之间，海拔二千米以上，其间苔藓植物比较丰富，现将最近发现的三新种报道如下：

1. 芽胞扭毛藓 新种 图 1

Streblotrichum propaguliferum Li et Zhang, sp. nov.

Planta caespitosa, lutescenti-viridis. Caulis erectus, ad 1—1.2 cm altus, simplex, inferne fusco-radiculosus, sectione rotundus, diametro 0.24—0.26 mm, stela centrali minoribus, reticentrali cellulis multinatuibus minoribus, externe cellulis 3—4 seriatis, hexagonibus, majoribus, tenellis, eis periphericis

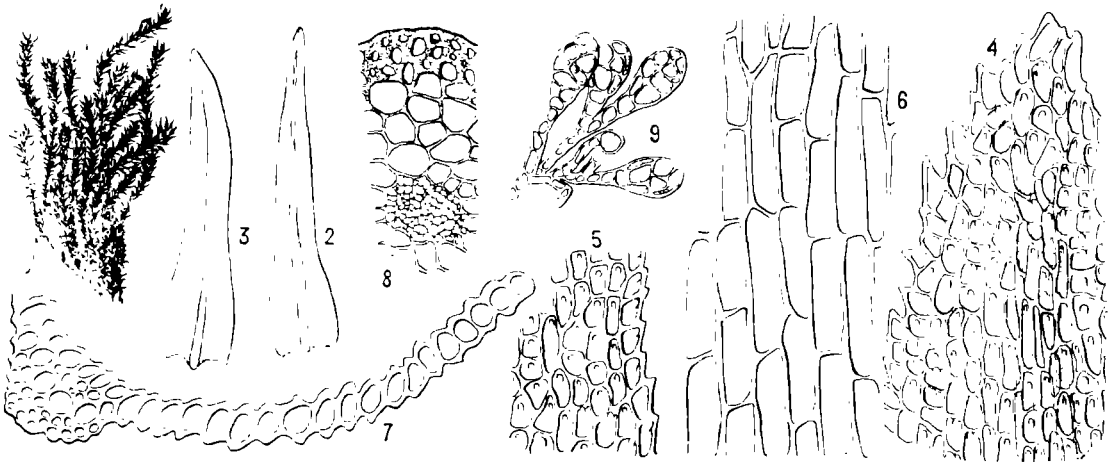


图 1 芽胞扭毛藓 *streblotrichum propaguliferum* Li et Zhang, sp. nov. 1. 植物体 ($\times 1$) ;
2—3、叶片 ($\times 29$) ; 4. 叶尖细胞 ($\times 350$) ; 5. 叶边缘细胞 ($\times 350$) ; 6. 叶基细胞
($\times 350$) ; 7. 叶片横切面 ($\times 350$) ; 8. 茎的横切面 ($\times 165$) ; 9. 芽胞 ($\times 100$) 。
(张大成、刘明军绘)

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3—4 seriatis irregularis brunneibus incrassatis, dense foliosis. Folia sicca crispula, humida erectopatentia, e basi ovato-lanceolata sensim attenuata; marginibus superne irregulariter robusto-serratis; costa crassiuscula, ad apicem folii evanida; cellulis laminalibus rotundato-hexagonibus vel quadratibus, 12 μm longis, ca 10 μm latis, dorso et ventro papillosis, marginalibus superne minoribus incrassatis, obscuro papillato, basilaribus multo majoribus, rectangularis, 30 μm longis, ca 10 μm latis, hyalinis, laevissimis. Gemmae obovatae, ramificans multicellulares, c axillaribus foliorum ornatae.

Shansi: Ha Xian, Shi Jing Cun, Su Yu Gou-Hei Hu Zai Mu. 1600 m. alt., 6 IX 1962 C. P. Wei No 4349. (Typus in Herb. Bor.-Oec. Inst. Bot. et Isotypus in KUN)

植物体丛生, 黄绿色。茎直立, 1—1.2厘米高, 单1, 下部被红褐色假根。茎横切面圆形, 直径约0.24—0.26毫米, 中轴小, 中央为多数小形细胞, 外面具3—4层六角形的大型薄壁细胞, 周边具3—4层不规则的褐色厚壁细胞。叶密生, 叶干燥时卷缩, 潮湿时直立开展, 基部卵披针形, 渐尖; 叶上部边缘具不规则粗齿; 中肋粗壮, 长达叶尖渐消失; 叶片细胞圆六边形或方形, 长12微米, 宽约10微米, 背腹面均具疣, 边缘上部细胞小形, 厚壁, 疣不明显, 基部细胞较大, 长方形, 长30微米, 宽约10微米, 透明, 平滑。叶腋具分枝、由多细胞构成的倒卵形芽胞体。

本种与 *Streblotrichum obtusifolium* (Broth.) Chen 明显相似, 其区别点在于该种叶片细胞两面均具单疣, 且叶腋着生有芽胞体。

陕西: 户县, 石井村, 栗峪沟—黑虎嘴山, 海拔1600米, 魏志平, 6、Ⅴ、1962. 4349. (模式存西北植物研究所, 同模式存中国科学院昆明植物研究所标本室)

2. 被根白齿藓 新种 图2

Leucodon radicalis Zhang, sp. nov.

Planta gracilis, densiusculis, rigidulis, caespitose viridis vel flavo-virescentis. Caulis primarius repens, elongatus usque 1.5—2 cm longus, caulis secundarius 8—12 cm longus, dependens, irregulariter et laxo subpinnatim ramosus, ramis ca 1—1.2 cm longis, apice attenuatis vel obtusis, apice in ramulos saepe caespitosibus et pseudo-radicosibus, sectione ellipticus, diametro 0.13—0.18 mm, stula centrali tenuis, reticentrali cellulis 5—6 minor, hyalinis, 8 μm longis, ca 6 μm latis, externe 2—3 seriatis cellulis hexagonibus, majoribus, diametro ca. 13—16(—20) μm , cellulis periphericis 2—3 seriatis minoribus incrassatis. Folia sat dense conferta, sicca adpressa, humida erecto-patentia, valde concava, 4—6 profunde plicata, ovato-lanceolata, apice breviter acuminata vel acuta; marginibus integerrimis vel apice minute serrulatis; costa nullo; cellulis laminalibus laevis, incrassatis, angustis-rhomboidis, apicalibus 28 μm longis et 4 μm latis, mediis ca 22 μm longis et ca 4 μm latis, margine supero ca 12 μm longis et 4 μm latis, cellulis marginalibus lateribus rotundato-quadratis vel tran-

sverse rectangulis, diametro ca 6—8 μm . Folia basi et lamina multo-pseudo-radiculosa.

Shansi: Xi-Tai-Bai Mts, Shi Ta Zi, 2500 m. alt. Wei Zhi-ping, 30 VIII 1963. 6132 (Typus in Herb. Bor.-Occ. Inst. Bot. et Isotypus in KUN)



图2 被根白齿藓 *Leucodon vadicalis* Zhang, sp. nov. 1. 植物体 ($\times 7$); 2. 枝的一段 ($\times 5$); 3—5. 叶片 ($\times 21$); 6. 叶尖细胞 ($\times 164$); 7. 叶基细胞 ($\times 164$); 8. 茎的横切面 ($\times 135$)。 (张大成、刘明军绘)

植物体纤细, 丛集, 稍硬, 绿色或黄绿色。主茎匍匐, 长1.5—2厘米, 支茎长约8—12厘米, 悬垂, 不规则分枝或近于羽状分枝, 分枝约1—1.2厘米长, 尖端渐尖或钝尖, 在分枝顶端常具丛簇的褐色假根。茎横切面为椭圆形, 直径为0.13—0.18毫米, 中轴细弱, 中央有5—6个小形、无色透明的细胞, 长8微米, 宽约6微米, 外面具2—3层六角形大形细胞, 直径约13—16—20微米, 周边具2—3层小形厚壁细胞。叶密集, 干燥时紧贴, 渐湿时直立开展, 内凹, 具4—6条深纵褶, 卵状披针形, 具短尖或渐尖; 叶边全缘或仅尖端具细齿; 无中肋; 叶细胞平滑, 厚壁, 狭菱形, 叶尖细胞长28微米, 宽4微米, 中部细胞长约22微米, 宽约4微米, 叶上部边缘细胞长约12微米, 宽4微米, 叶缘角部细胞为圆方形或横矩形, 直径约6—8微米。叶基和叶片上具多数褐色假根。

该种外形和叶形与小白齿藓 *L. pendulus* Lindb. 相近似, 但本种在于叶片和分枝上具褐色假根, 叶片细胞较短, 胞壁较厚, 中轴有分化而与小白齿藓有所区别。

陕西: 西太白山, 石垭子林下湿润石壁上, 海拔2,500米, 30Ⅷ、1963, 魏志平6132 (模式存西北植物所, 同模式存中国科学院昆明植物研究所)

3. 秦岭耳叶苔 新种 图3

Frullania (Trachycolea) chinlingensis Li et Zhang, sp. nov.

Planta mediocris, brunneo-rufescenti, ca. 0.8—1 cm longa, substratum adpressa. Caulis ca 0.14—0.16 mm in diametro, irregulatiter 1—2 pinnatim ramosis. Folia caulina incubo-imbricata, late-oblonga, 0.56 mm longa, 0.68 mm lata, apice rotundatim obtuso in basi dorsali rotundatim appendiculata, margine integerrimo, cellulis fere mamilla dorsali, lobulo galeiforme, paralleli

ad caulem. Styli lanceolati, ad 4—6 cellulas lati, 4—10 cellulas longi. Amphigastria transverse inserta, obcuneata ad obvatam, lata et longa ca 26 mm, 1/3 bifida, siun angustato, acuto ad obtusum, lobis amphigastrii triangularibus, apicibus acutis ad obtusos.

Dioica. Inflorescentia feminea in ramo terminalis bracteis, 3—4 jugis; lobus bractee oblongus, apice acuto vel rotundato, lobulo anguste triangulato, acuto; bracteola intima in situ oblonga, semi-bifida, lobis triangulatis, acutis; Perinathin magna, obovata, valde inflata, tricarinata, rostrato brevissime, grosso-papillosis; capsula ovata, brevissime pedicellata; Sporae 28 X 45 μ m in diametro, rotundatae, atrovirides, papillosae. Elateres brunneo-rufescentes, laxe unispiribus. Androecia desunt.

Shansi: Thai-pei Mts, Pin An Zi, 2740 m. alt. 22 VII 1963. Wei Zhi-ping 5360, 5361 (Typus in Herb. Bor.-Occ. Inst. Bot. et Isotypus in KUN); Xi Tai Bai Mts. Ying Zi Zui, In cortice et ligno Betulae, in sylvis Abietis. alt. 3200 m. alt. 14 IX 1963. Wei Zhi-ping 6426.

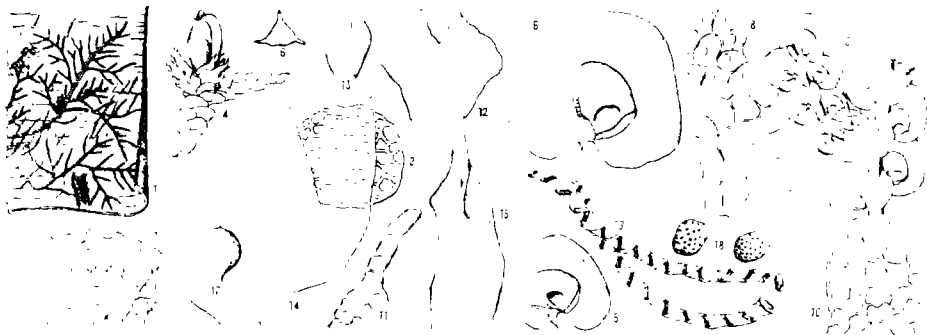


图3 秦岭耳叶苔 *Frullaria Chinlingensis* Li et Zhang, sp. nov. 1.植物体着生树皮上的生态($\times 1.5$); 2.茎的横切面($\times 180$); 3.植物体一段(腹面观)($\times 28$); 4.具雌苞的植物体($\times 6$); 5—6.茎叶($\times 40$); 7.茎叶背瓣边缘细胞($\times 200$); 8.茎叶背瓣中部细胞($\times 200$); 9.茎叶背瓣基部细胞($\times 200$); 10.腹瓣细胞($\times 200$); 11.腹瓣副体($\times 200$); 12—13.腹叶($\times 40$); 14.雌苞叶($\times 40$); 15.内雌苞叶($\times 40$); 16.萌萼横切面观($\times 6$); 17.孢蒴($\times 10$); 18.孢子($\times 136$); 19.弹丝($\times 136$)。(张大成绘)

植物体中等大小,红褐色,长约0.8—1厘米,紧贴于基质上。茎横切面为圆形,直径约0.14—0.16毫米。细胞皆为厚壁,不规则1—2回羽状分枝。叶3列,侧叶与腹叶异形,复瓦状蔽前式排列。茎侧叶阔椭圆形,长0.56毫米,宽0.68毫米,先端圆钝,向腹面卷曲,背边基部具圆形附属物;叶边全缘;叶尖和叶中部细胞直径约20微米,厚壁,三角体小,背面具单个粗圆疣,基部细胞不规则六角形,直径约42微米,厚壁,平滑无疣;腹瓣盆形,长稍大于宽,长0.22毫米,宽约0.18毫米,顶部圆形,口部

宽阔, 与茎近于平行, 细胞平滑无疣; 腹瓣副体披针形, 4—6 细胞宽, 4—10 细胞长。腹叶横向着生, 倒楔形—倒卵形, 长宽各 0.26 毫米, 宽为茎直径 1.86—1.625 倍, 1/3 两裂, 裂片三角形, 尖端渐尖或钝尖; 细胞为强厚壁。

雌雄异株。雌苞着生侧枝或主枝顶端, 2/3 露出于苞叶之外, 苞叶 3—4 对, 苞叶裂片长椭圆形, 具长尖或圆钝, 细胞背面具单个粗圆疣, 腹瓣与苞叶裂片近于等长, 呈狭三角形或披针形, 渐尖, 细胞平滑无疣。内雌苞叶长椭圆形, 约 1/2 开裂, 裂片狭三角形, 渐尖。蒴萼大, 倒卵形, 具 3 个脊 (两个在侧边, 一个在腹面), 有短喙, 具粗疣。孢蒴卵圆形, 具短柄。孢子直径约 28×40 微米, 暗绿色, 卵圆形, 具疣。弹丝红褐色, 具一条疏松的螺旋纹。雄苞未见。

这个种由于腹瓣呈盔形和蒴萼上有粗疣而标志出它应属于兜瓣亚属 (*Trachycolea*)。

本种最主要的特征:

- (1) 蒴萼上具粗疣或粗糙, 具三个脊 (2 个在侧边, 1 个在腹面), 有短喙。
- (2) 侧叶背瓣细胞背面具疣, 而腹瓣细胞平滑无疣。
- (3) 腹瓣副体披针形。
- (4) 腹叶宽为茎 1.86—1.625 倍, 细胞为强厚壁。
- (5) 雌苞着生于侧枝或主枝顶端。

陕西: 太白山羊安寺林下红桦树皮上, 海拔 2740 米, 魏志平, 5360, 5361 (模式标本存西北植物研究所, 同模式存中国科学院昆明植物研究所标本室); 西太白山鹦嘴子冷杉林下桦木树皮上, 海拔 3200。魏志平, 14, IX、1963. 6426.

SOME NEW TAXA OF BRYOPHYTES FROM CHINLING MOUNTAINS

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Abstract

The present paper deals with 3 new species of Bryophytes which were collected from Chinling Mountains (Qin-Ling), China. These new taxa are:

1. *Streblotrichum propaquiliferum* Li et Zhang, sp. nov.

The species is closely related to *Streblotrichum obtusifolium* (Broth.) Chen, but may be distinguished from the latter by its single papillose at both sides of leaf cells and gemmae occur on axillary leaves.

2. *Leucodon radicalis* Zhang, sp. nov.

Seems to be close to *Leucodon pendulus* Lindb. From the former, it is separated by brown rhizoids occurring on branches and sometimes old leaves. Lvs. cell shorter with thickened walls. Stem 0.10—0.18 mm diameter, it is differentiated from 5—6 smaller hyaline cells in center.

3. *Frullania* (Trachycolea) *chinlingensis* Li et Zhang, sp. nov.

The species is distinguished by the following features: (1) The distinct mammillae densely cover the perianth, clearly tricerinate and its beak is short; (2) Stem leaves cells usually have papillae in dorsal and smooth in ventral surface; (3) The stylus lanceolate; (4) Stem underleaves wider than stem, the cells with thickened walls; (5) The female inflorescences, such are all on the terminal branches rarely also on the terminal of stem.

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