

湖南堇菜科一新种——宝山堇菜^{*}

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摘 要: 发现湖南堇菜科一新种——宝山堇菜, 模式存中山大学植物标本室 (No. 2003-3-30-Bao)。

关键词: 堇菜属; 宝山堇菜; 中国湖南

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Viola baoshanensis Shu, Liu et Lan, sp. nov. Fig. 1

Herbae perennes, acaules, 5~10 cm altae, dense pubescentes. Rhizoma erectum, 4~8 mm crassum, nodis densis, radicibus majoribus pluribus, longioribus, radicibus fibrac albis. Rhizoma breve, interdum rhizomatibus transversis. Folia basalia, rosulata; laminae ovato triangulares, 2~4 cm longae, 1.5~2.5 cm latae, apice acuminatae, basi cordatae, mague crenatae, dense ciliatae, apice denti glandulis fuscis tubris; laminae utrinque pubescentes, ad venas villosae. Petioli laminis longiores, plerumque 3~5 cm longi, anguste alati, dense pubescentes. Stipulae virides, lanceolatae, circiter 10 mm longae, margine laxe fimbriatae, cum petiolis connatae $1\frac{1}{2}$ ad $1\frac{1}{2}$. Flores purpurei, pedicelli cum scapis circiter 5~10 cm longi, foliis aequilongi vel multo altiores, angulati, dense pubescens albi, prope medium bracteatis 2, alternis (suboppositis), angusti lanceolatis, 0.7~1 cm longis, dense pubescentibus; sepala latilanceolata circiter 5~8 mm longa, 2~3 mm lata, subtus dense pubescentia, margine ciliat, apice acuminata vel obtusi mucronata, basi appendicibus brevioribus, extremitate orbicularibus vel triangularibus, circiter 1~2 mm longis; petala oblongo obovata, 1~1.8 cm longa, apice excisa vel integra, dense velutina; petala infera saepe acalcaralata, interdum tubuloso—calcaralata circiter 3 mm longa, circiter 1.5~2 mm crassa, recta, glabra; antherae circiter 2 mm longae, apice connectivi appendicibus triangularibus obsitac, antheris aequilongis, stamina inferiora 2, calcaribus brevioribus tecta; ovaria glabra; styli basi graciles, sursum apicem crassi clavati, stigmata retusa, apice

breviter rostrata, rostra foraminibus latis obsita. Fructus longiglobi, stylis persistentibus; semina fusca, circiter 1 mm longa.

Similis *V. oligocarpa* Chang, a qua plantis tota dense pubescentibus, petalis saepe non calcaribus, pedicellis foliis superioribus, stipulis lanceolatis differt.

Hunan (湖南): Guiyang (桂阳), Baoshan (宝山), alt. 100~150 m, March 20, 2003, Liu Wei No. 2003-3-30-Bao (Holotypus, SYS)

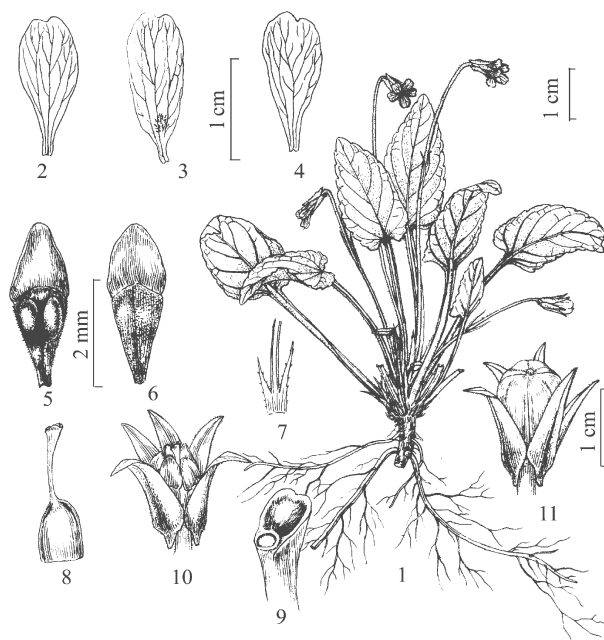


图1 宝山堇菜

Fig 1 *Viola baoshanensis* Shu, Liu et Lan

1. 植株; 2. 上瓣; 3. 侧瓣; 4. 下瓣; 5, 6. 示雄蕊的腹面和背面; 7. 托叶; 8. 雌蕊; 9. 柱头放大; 10. 花移去花瓣, 示萼片与子房; 11. 果

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宝山堇菜, 新种 (图 1)。
多年生草本, 无地上茎, 高 5~10 cm, 全株密被短毛。根状茎垂直, 粗 4~8 mm, 密生结节, 具数条长的主根, 生白色须根。根茎缩短, 间或有横走的根茎。叶多枚, 均基生, 莲座状; 叶片三角状卵形, 长 2~4 cm, 宽 1.5~2.5 cm, 先端渐尖, 基部心形, 边缘钝锯齿及密生缘毛, 锯齿顶端有暗红色腺点; 叶片两面被短毛, 沿叶脉密被长柔毛。叶柄长于叶片, 通常长 3~5 cm, 具狭翅, 密被短毛。托叶淡绿色, 披针形, 长约 10 mm, 边缘疏生流苏, 与叶柄合生 $1/3 \sim 1/2$ 。花紫色, 具长梗, 花梗连花茎长约 5~10 cm, 与叶等长或远高出叶, 有棱, 密被白色柔毛, 近中部两个互生 (近对生) 的苞片, 狭披针形, 长 0.7~1 cm, 密生短柔毛; 萼片阔披针形, 长约 5~8 mm, 宽 2~3 mm, 背部被短毛, 边缘具缘毛, 先端渐尖或具短钝尖头, 基部附属物短, 末端圆或三角形, 长约 1~2 mm; 花瓣长圆状倒卵形, 长 1~1.8 cm, 顶端缺刻或全缘,

侧方花瓣里面近底部密生短毛; 下方花瓣多无距, 偶有管状距, 长约 3 mm, 粗约 1.5~2 mm, 直伸, 无毛; 花药长约 2 mm, 药隔顶端附属物三角形, 与花药近等长, 下方两枚雄蕊的距较短; 子房无毛, 花柱基部细, 向上渐粗呈棍棒状, 柱头微凹, 前方具短喙, 喙具较宽的柱头孔。果实长球形, 花柱宿存; 种子褐色, 长约 1 mm。

本种与分蘖堇菜 (*V. oligocaps* Chang) 近似, 但前者全株密被短毛, 花瓣多无距, 花梗高于叶, 托叶披针形等易区别。

湖南, 桂阳, 宝山, 海拔 400~650 m, 2003 年 3 月 30 日, 刘威, No. 2003-3-30 Bao (模式, 存中山大学植物标本室)。

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Viola baoshanensis Shu, Liu et Lan,
A New Species of *Violaceae* from Hunan Province, China

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Abstract: One new species, *Viola baoshanensis* Shu, Liu et Lan (*Violaceae*) is here described. The voucher specimen (No. 2003-3-30-Bao) is deposited at Herbarium of Sunyatsen University (SYS).

Key words: *Viola*, *V. baoshanensis* Shu, Liu et Lan; Hunan; China

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Thermoluminescence of CaSO₄ Doped with Eu and Mn Impurities

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Abstract: The phosphors CaSO₄: Eu and CaSO₄: Eu, Mn were prepared and their glow curves and 3D thermoluminescence spectra of the phosphors were measured. It is found that adjusting annealing temperature can change the ratio of concentrations between Eu²⁺ and Eu³⁺ ions in the sample. When Eu and Mn are co doped into the sample, the intensity of Eu²⁺ glow peak is enhanced. It indicates that there is the energy transfer between Mn and Eu²⁺ ions.

Key words: thermoluminescence; emission spectra; CaSO₄: Eu, Mn