

四川唐松草属三新种

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摘要 描述了自四川西部发现的毛茛科唐松草属三新种 康定唐松草、细茎唐松草和九龙唐松草 并给出其与近缘种的区别特征。

关键词 毛茛科 唐松草属 新种 四川

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Three new species of *Thalictrum*(Ranunculaceae) from Sichuan Province

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Abstract Three species of the genus *Thalictrum*(Ranunculaceae) , *T. kangdingense* , *T. tenuicaule* and *T. jiulongense* are described as new from western Sichuan Province. The diagnostic differences between them and their allies are given respectively.

Key words Ranunculaceae ;*Thalictrum* new species Sichuan

同事朱相云、张树仁、杨永诸先生带领他们的学生于2018年春至秋季到四川横断山区的康定、泸定和九龙3个县,考察那里丰富、复杂的植物区系,采集了大量植物标本。最近,我在鉴定其中毛茛科植物标本的过程中,发现上述3个县各有一唐松草属新种,下面予以描述。

康定唐松草 图1

Thalictrum kangdingense W. T. Wang , sp. nov. Fig. 1

(Sect. *Leptostigma* B. Boivin)

Ob herbam totam glabram , staminum filamenta tenuiter clavata et carpellorum stylos uncinatos species nova haec est affinis *T. xinningensi* W. T. Wang , a quo foliolis conspicue 3-lobatis , thyrsis minoribus ca. 3.5 cm longis , sepalis anguste obovatis apice acutis , flore staminibus ca. 11 praedito differt. In *T. xinningensi* , foliola indivisa vel inconspicue 3-lobulata , thyrsi majores 6-10 cm longi , sepala anguste

elliptica apice obtusa , et flos staminibus ca. 30 praeditus est.

Herbs perennial , ca , 1.2 m tall , totally glabrous. Stems above branched. Upper cauline leaves 2-3-ternate , shortly petiolate ; blades broadly ovate , 6.0-8.0 cm long , 6.0-10 cm broad ; leaflets petiolulate , papery , broad-rhombic , broad-ovate , ovate or obovate , 1.5-3.0 cm long , 1.2-3.2 cm broad , at base rounded or truncate , 3-lobed , central lobe obtusely 3-lobulate or 3-dentate , lateral lobes broad-ovate , below 1-lobulate or undivided ; nerves adaxially nearly flat , abaxially slightly prominent ; petiolules 0.1-1.8 cm long ; petioles 0.5-2.5 cm long. Thyrses terminal and axillary , ca. 3.5 cm long , 8.0-15-flowered ; peduncles slender , 4.0-11.5 cm long ; lower bracts 3-sect or 3-lobed , 5.0-7.0 mm long , upper bracts undivided , linear or subulate , 0.8-1.5 mm long ; pedicels filiform , 1.5-10 mm long. Flower : Sepals 3 , narrow-obovate , 2.0-2.2

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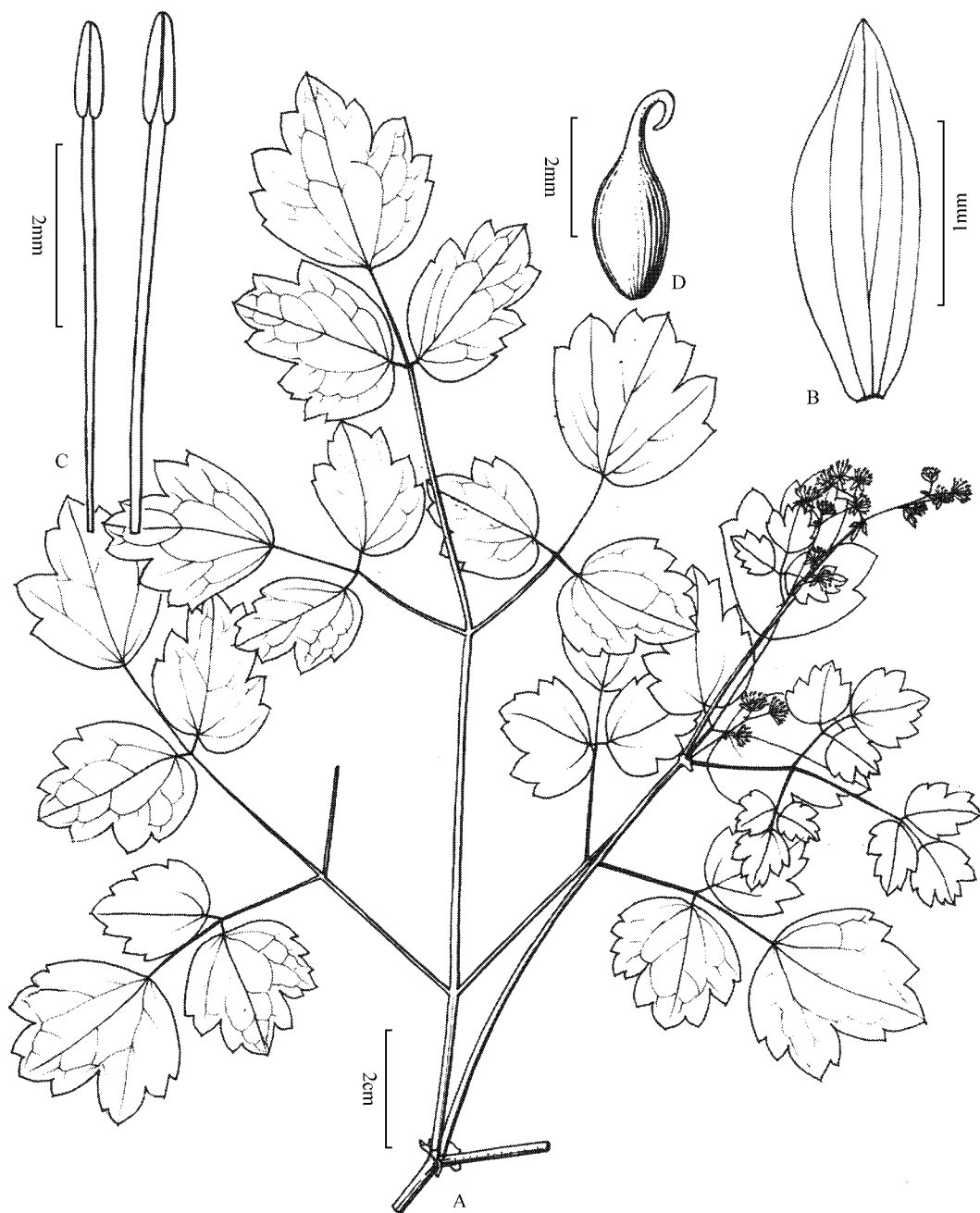


图1 康定唐松草 A. 上部茎生叶和腋生聚伞圆锥花序 B. 萼片 C. 二雄蕊 D. 心皮

Fig.1 *Thalictrum kangdingense* 1. Upper cauline leaf and axillary thyse ; B. Sepal ; C. Two stamens ; D. Carpel (from holotype)

mm long , 1 mm broad , apex shortly acuminate ; each sepal with 3 basal nerves (midrib once dichotomizing , and 2 lateral nerves simple). Stamens ca. 11 ; filaments 4.0 – 4.5 mm long , above oblanceolate-linear , narrower than anther , below filiform ; anthers oblong , 1.0 – 1.2 mm long , 0.5 mm broad , apex obtuse. Carpels 4.0 – 6.0 ; ovaries ellipsoid , ca. 2.5

mm long , 1.2 mm broad ; styles ca. 1.5 mm long , above hooked.

四川 (Sichuan) : 康定县 , 巴王海 (Kangding Xian , Bawanghai) , alt. 3 137 m , 林下 (in forest) , 2018 – 07 – 17 , 朱相云 , 蒋勇 , 祖奎玲 , 张若鹏 (X. Y. Zhu , Y. Jiang , K. L. Zu & R. P. Zhang) GG226 (holotype , PE 02293701) .

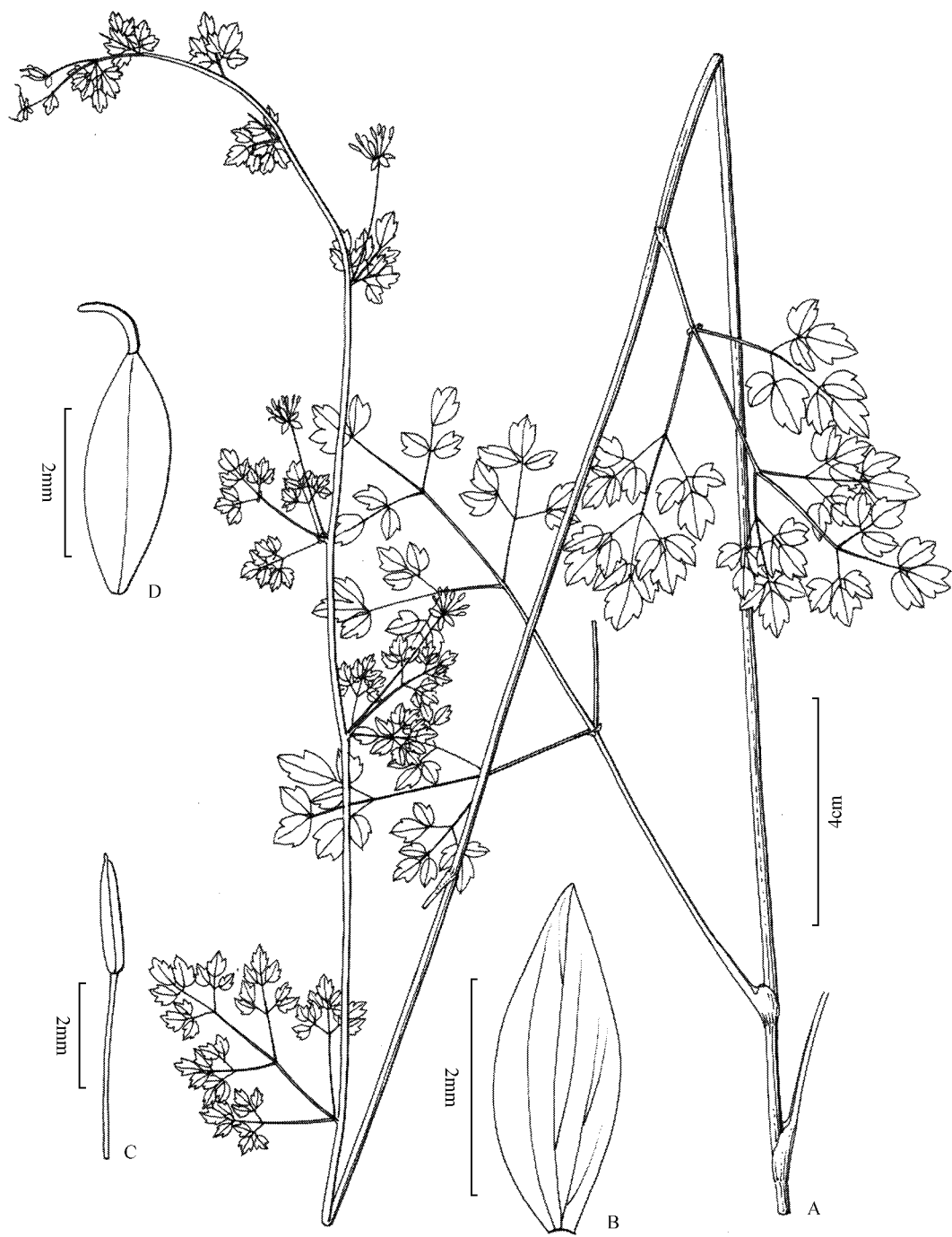


图 2 细茎唐松草 A. 植株全形 B. 萼片 C. 雄蕊 D. 心皮
Fig. 2 *Thalictrum tenuicaule* A. Habit ; B. Sepal ; C. Stamen ; D. Carpel (from holotype)

本种植株全部无毛 雄蕊花丝细棒状 心皮花柱钩状弯曲 因此与具上述形态特征的新宁唐松草(*T. xinningense* W. T. Wang)在亲缘关系上相近 , 与后者的区别在于本种的小叶明显 3 浅裂 聚伞圆锥花序较小 长 3.5 cm 萼片狭倒卵形 顶端急尖 花具约 11 枚雄蕊。在新宁唐松草 小叶不分裂或不明显 3 微裂 聚伞圆锥花序较大 长 6.0 ~ 10

cm 萼片狭椭圆形 顶端钝 花具约 30 枚雄蕊^[1]。
细茎唐松草 图 2
Thalictrum tenuicaule W. T. Wang , sp. nov.
Fig. 2
[Sect. *Rutifolia*(Prantl) W. T. Wang]
Habitu species nova haec est simillima *T. jilon-*

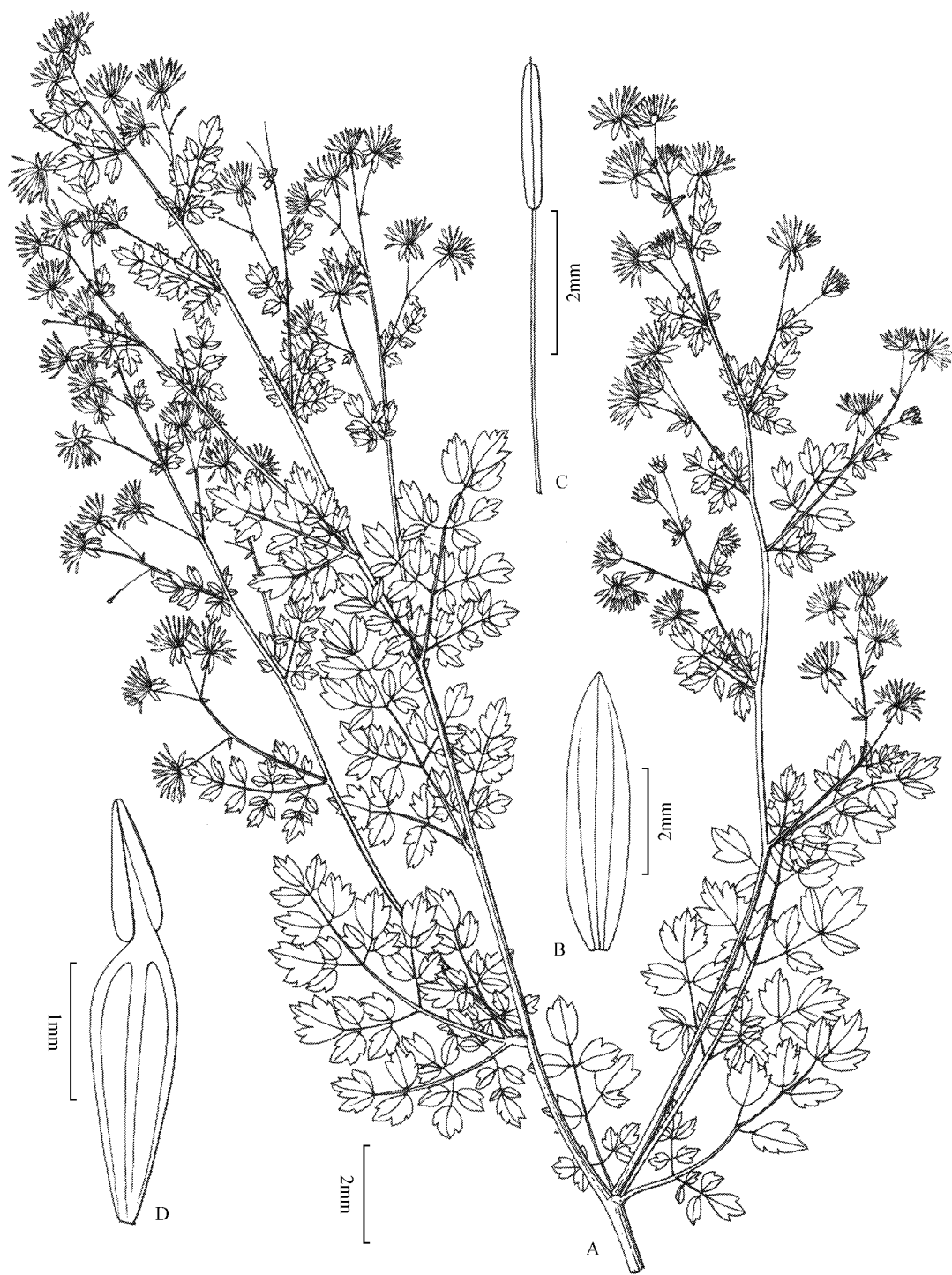


图3 九龙唐松草 A. 开花植株上部 B. 萼片 C. 雄蕊 D. 心皮

Fig.3 *Thalictrum jilongense* A. Upper part of flowering plant ; B. Sepal ; C. Stamen ; D. Carpel (from holotype)

gensi W. T. Wang , a quo monochasiis tantum 2.0 – 4.0-floris , sepali nervis basalibus tribus omnibus semel dichotomo-ramificantibus , antheris apice mucronatis , ovarii utrinque longitudinaliter 1-nervibus , stigmatibus haud alatis distinguitur. In *T. jilongensi* , monochasia 10-flora , sepali nervi basales tres omnes

simplices , antherae apice haud mucronatae , ovaria nervis carentia , stigmata utrinque anguste alata sunt.

Herbs perennial , ca. 65 cm tall , totally glabrous. Stems slender , above base 2 mm across , simple , ca. 4-leaved. Basal leaf 1 , with lowermost cauline leaf 3-ternate and long petiolate ; blades 4.0 –

6.0 cm long, below 5.0 – 7.0 cm broad; leaflets thinly papery, obovate, broad-rhombic or broad-elliptic, 0.6 – 1.2 cm long, 0.5 – 1 cm broad, at base rounded or broadly cuneate, 2.0 – 3.0-lobulate, 2.0 – 3.0-lobed or 2 – 3-dentate, with flat inconspicuous nerves; petiolules 0.5 – 5.0 mm long; petioles 4.0 – 5.5 cm long. Monochasia terminal, 2 – 10 cm long, 2 – 4-flowered; bracts similar to upper cauline leaves, 0.7 – 2 cm long; pedicels filiform, 0.8 – 2.5 cm long. Flower: Sepals 4, greenish-white, elliptic, ca. 3.0 mm long, 1.5 – 2.0 mm broad; each sepal with 3 once dichotomizing basal nerves. Stamens 6 – 9; filaments filiform, ca. 4 mm long; anthers narrow-oblong, ca. 2.2 mm long, 0.4 mm broad, apex mucronate, with mucrones 0.25 – 1.4 mm long. Carpels 2 – 3; ovaries bilaterally compressed, narrow-elliptic, ca. 3 mm long, 1.2 mm broad, longitudinally 1-nerved; styles subulate, ca. 1.2 mm long, abaxially with thin stigmatic tissue.

四川(Sichuan): 泸定县, 海螺沟, 4 号营地 (Luding Xian, Hailuoguo, camp no. 4) alt. 3 715 m, 高山草甸(on alpine meadow), 2018 – 07 – 15, 杨永, 李海文, 杨智, 王宇(Y. Yang, H. W. Li, Z. Yang & Y. Wang) GGS181(holotype, PE, 条形码号 02293705; isotype, PE 02293702)。

本种在体态上与吉隆唐松草(*T. jilongense* W. T. Wang)极为相似, 与后者的区别在于本种的单歧聚散花序只有 2 ~ 4 花, 萼片的 3 条基出脉均 1 回二歧分枝, 花药顶端具小尖头, 子房两侧各有 1 条纵脉, 柱头无翅。在吉隆唐松草, 单歧聚伞花序有 10 花, 萼片的 3 条基出脉均不分枝, 花药顶端不具小尖头, 子房无脉, 柱头两侧各有 1 狭翅^[1]。

九龙唐松草 图 3

Thalictrum jiulongense W. T. Wang, sp. nov.
Fig. 3

(Sect. *Thalictrum*)

Species nova haec est arcte affinis *T. minori* L., a quo sepalis anguste oblongis, stigmatibus longioribus anguste triangularibus 1 mm longis et 0.4 mm latis utrinque anguste alatis praeclare recedit. In *T. minore*, sepala elliptica, et stigmata breviora deltoidea 0.5 mm longa et 0.6 mm lata utrinque late alata sunt.

Herbs perennial, ca. 65 cm tall, totally gla-

brous. Stems above base 5 mm across, above 4-branched, 4-leaved. Central cauline leaves 3 – 4-ternate, shortly petiolate; blades ca. 9 cm long, below 6 cm broad; leaflets chartaceous, broad-rhombic, obovate or obliquely elliptic, 0.5 – 1.2 cm long, 0.4 – 1.2 cm broad, at base usually broadly cuneate, 3-lobed(lobes 1-3-dentate or entire) or 3-dentate, with nerves adaxially slightly impressed and abaxially prominent; petiolules 0.1 – 1.5 cm long; petioles ca. 1 cm long. Thyrses terminal, 10 – 14 cm long, below 5 – 8 cm broad, densely many-flowered; bracts foliaceous; pedicels filiform, 0.6 – 3.0 cm long. Flower: Sepals 4, whitish, narrow-oblong, ca. 5 mm long, 1.5 mm broad, at apex acute; each sepal with 3 simple basal nerves. Stamens ca. 15; filaments filiform, (2 –) 5 – 6 mm long; anthers narrow-oblong, 3.2 – 3.5 mm long, 0.6 – 0.8 mm broad, apex minutely mucronate, with mucrones ca. 0.1 mm long. Carpels ca. 6; ovaries bilaterally compressed, obovate, ca. 2 mm long, 0.7 mm broad, on each side inconspicuously and longitudinally 1-nerved; styles ca. 1 mm long; stigmas narrow-triangular, ca. 1 mm long, on each side with a narrow wing ca. 0.2 mm broad.

四川(Sichuan): 九龙县, 纳布厂, 磨子沟(Jiulong Xian, Nabuchang, Mozigou) alt. 3 836 m, 山坡(on slope) 2018 – 07 – 20, 张树仁, 杨杰, 张薇(S. R. Zhang, J. Yang & W. Zhang) GGS10362(holotype, PE, 条形码号 02293703)。

本种与亚欧唐松草(*T. minus* L.)在亲缘关系上颇为相近, 与后者的区别在于本种的萼片呈狭长圆形, 柱头较长, 呈狭三角形, 长 1.0 mm, 宽 0.4 mm, 在两侧各有 1 条狭翅。在欧亚唐松草, 萼片呈椭圆形, 柱头较短, 呈正三角形, 长 0.5 mm, 宽 0.6 mm, 在两侧各有 1 条宽翅^[1]。

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