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罂粟科绿绒蒿属三新种

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摘要: 该文描述了罂粟科绿绒蒿属三新种。(1)自四川西北部发现的二新种:肋蕊绿绒蒿,此种可能与拉萨绿绒蒿近缘,区别特征为此种叶片较狭,全缘,子房具4条纵肋;狭瓣绿绒蒿,此种可能与川西绿绒蒿近缘,区别特征为此种叶片较小,无毛,花瓣呈条状倒披针形。(2)自青海南部发现的一新种:短丝绿绒蒿,此种可能隶属于琴叶绿绒蒿亚属、滇西绿绒蒿组、滇西绿绒蒿系,与此系其他种的区别在于此种的披针状条形花瓣和较少、较短的雄蕊(花丝长1~5 mm)以及无花柱的雌蕊和被具短毛的硬毛子房。

关键词: 罂粟科, 绿绒蒿属, 新种, 四川, 青海

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Three new species of *Meconopsis* (Papaveraceae)

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Abstract: Three new species of the genus *Meconopsis* (Papaveraceae) from China are described in this paper. (1) Two species are described as new from northwest Sichuan Province, China. Of them *M. pleurogyna* is probably related to *M. lhasaensis* Grey-wilson, differing in its narrower, entire leaf blades and longitudinally 4-ribbed ovary; *M. angustipetala* is probably related to *M. henrici* Bur. & Franch., differing in its smaller, glabrous leaf blades, and peculiar linear-ob-lanceolate petals. (2) One species *M. brachynema*, is described as new from southern Qinghai Province, China. It probably belongs to subgen. *Cunmminsia*, sect. *Impeditae*, ser. *Impeditae*, and from the other species of ser. *Impeditae* differs in its lanceolate-linear petals, fewer and shorter stamens (with filaments only 1-5 mm long), non-styled pistil, and ovary with stiff, barbellate hairs.

Key words: Papaveraceae, *Meconopsis*, new species, Sichuan, Qinghai

自2015年12月初起我开始鉴定一批绿绒蒿属未定名的标本,这时我从植物研究所图书馆借到刚购入的一本由英国植物学家 Grey-Wilson 于

2014年编写出版的绿绒蒿属专著(Grey-Wilson, 2014)。此书收载绿绒蒿属植物79种,将其等划分为4亚属、10组、13系,制定出此属的一新分类

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系统。同时,我在此书中将原置于绿绒蒿属特产我国的 *Meconopsis chelidonifolia* Bur. & Franch. 和 *M. oliveriana* Franch. Ex Prain 二种从此属转移到另一属 *Cathcartia* Hook. f. ex Hook. 中。此书收录了我国此属植物 58 种,比 2008 年出版的 *Flora of China* (Zhang & Grey-Wilson, 2008) 中的绿绒蒿属志(收录 43 种)增加了 15 种。我在鉴定工作过程中发现了采自四川西北部此属植物的 2 号标本代表了 2 个新种;自青海南部发现的罂粟科绿绒蒿属 1 个新种。现在本文中予以发表。

肋蕊绿绒蒿 图 1

Meconopsis pleurogyna W. T. Wang, sp. nov.

Fig. 1

[Subgen. *Cumminsia* (Prain) Grey-Wilson sect. *Racemosae* C. Y. Wu & H. Chuang].

Ob scapos et sepala setis tenuibus potius debilibus oblecta, flores vadoce crateriformes 5-7-petalatos et staminum filamenta filiformia species nova haec est fortasse affinis *Meconopsis lhasaensi* Grey-Wilson, a qua foliorum laminis angustioribus anguste oblongis vel anguste ovatis margine indivisis nec undulatis nec crispatis, floribus omnibus singulariter scaposi haud in racemos dispositis, petalis saturate caeruleo-purpureis, ovaris conspicue longitudinaliterque 4-costatis plerumque glabris raro sparse setulosis praeclare differt. In *M. lhasaensi*, foliorum laminae latiores longe ellipticae margine undulatae et crispatae interdum lobulatae, flores in racemos dispositi et singulariter scaposi, petala dilute caerulea, et ovaria dense setulosa haud longitudinaliterque costata sunt.

Small monocarpic herbs. Taproots dauciform, ca. 12 cm long, near apex 0.6-1 cm in diam. Leaves 9-12, all basal; blades membranous or thin-papery, narrow-oblong, narrow-ovate, or spatulate, 1.8-4.2 × 0.7-1.2 cm, 3-nerved, apex slightly obtuse or slightly acute, base attenuate into short or long linear petioles, margin entire; surfaces adaxially near margin densely appressed-hispid, abaxially sparsely appressed-hispid, or subglabrous; petioles flattened, 1-3 cm long, glabrous or subglabrous. Scapes 2-9, 7-14 cm tall,

1.2-2.5 mm in diam., on apex 1-flowered, from base to apex covered with dense, retrorse, yellowish, thin and rather weak bristles 1-3 mm long. Flowers solitary and terminal on scapes, lateral-facing, shallowly bowl-shaped, 4-5 cm in diam. Flower buds subglobose ca. 1 cm in diam., near apex and base with bristles 0.8-2 mm long. Sepal caduceous unknown. Petals 5-7, deep-blue-purple (from the collector), narrow-obovate, 1.8-2.4 × 0.9-1.5 cm, glabrous, apex rounded, entire or few-lobulate. Stamens numerous, glabrous; filaments purple, filiform, 5-9 mm long; anthers yellowish, broadly oblong or subquadrate, 1-1.5 mm long. Pistil slightly shorter than stamens; ovary compressed, whitish, oblong-ovate, 4.5-6 × 2.5-3 mm, conspicuously longitudinally 4-ribbed, glabrous, rarely with a few short bristles 0.4-2 mm long; style 2.5-3 mm long, glabrous; stigma 1.5 mm long, with 4 dark-brown lobes.

四川(**Sichuan**): 马尔康县, 梦笔山(Maerkang Xian, Mengbi Shan), alt. 4 150 m, 稀疏灌丛草甸; 草本, 花冠蓝紫色, 花瓣顶端浅裂(on alpine meadow with sparse bushes; herbs, with blue-purple corollas and petals irregularly lobulate at apex), 1983-06-29, 汤宗孝(Z. X. Tang) 1201 (**holotype** and isotypes, PE)。

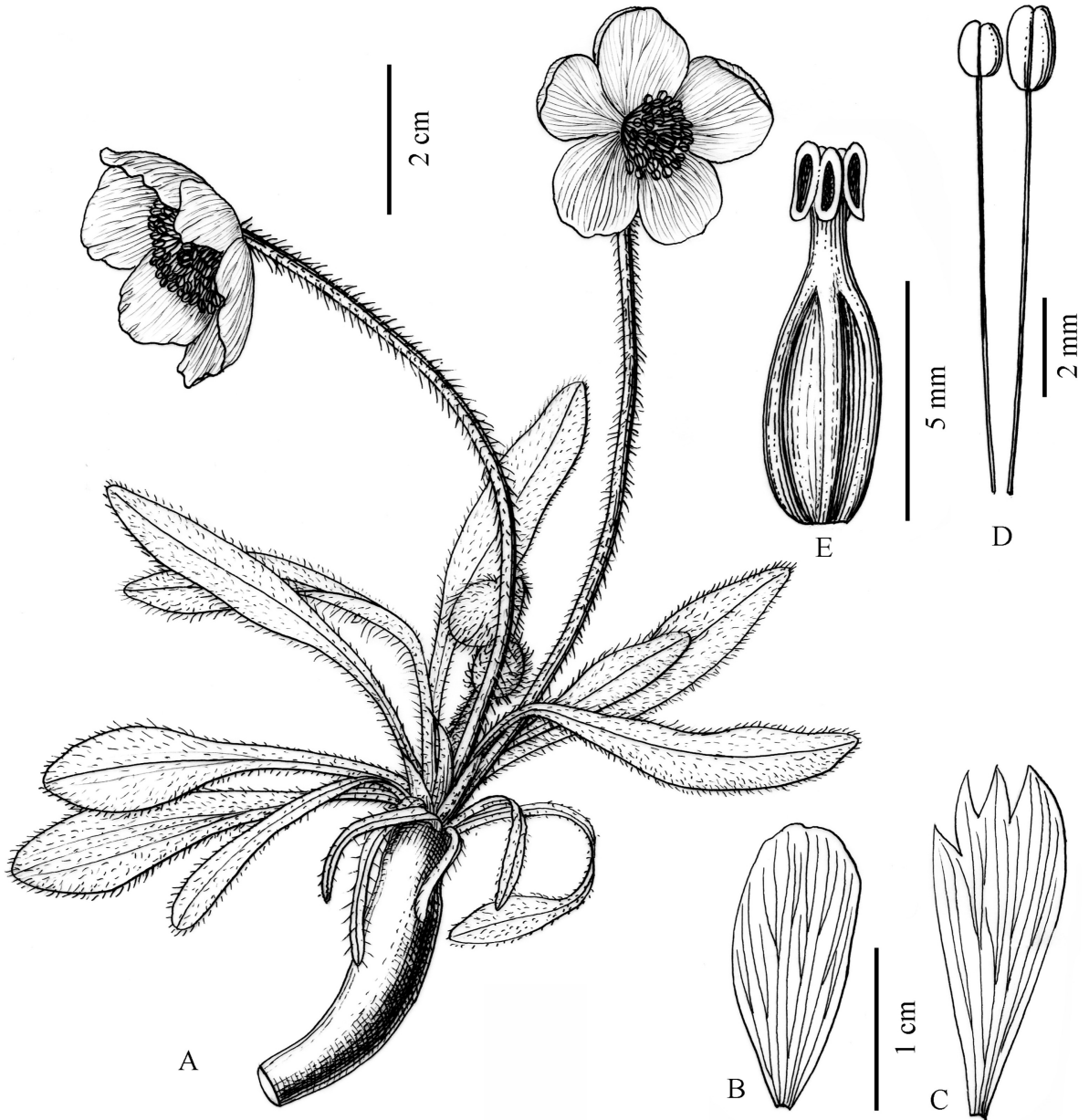
本种的花萼和萼片均被纤细、颇弱的刺毛, 花浅碗状, 具 5~7 枚花瓣, 雄蕊花丝丝形, 因此与也具有上述形态特征的拉萨绿绒蒿(*Meconopsis lhasaensis* Grey-Wilson) 相似, 可能有相近亲缘关系。与后者的区别: 本种叶片较狭, 呈狭长圆形或狭卵形, 边缘不分裂, 不呈波状和皱波状, 所有花均单生花萼顶端, 不组成总状花序, 花瓣深蓝紫色, 子房具明显 4 条纵肋, 无毛, 稀具少数短刺毛。而拉萨绿绒蒿叶片较宽, 呈长椭圆形, 边缘波状和皱波状, 有时具小裂片, 花组成总状花序, 同时单生花萼顶端, 花瓣淡蓝色, 子房密被短刺毛, 不具纵肋(Grey-Wilson, 2014)。

狭瓣绿绒蒿 图 2

Meconopsis angustipetala W. T. Wang, sp. nov.

Fig. 2

[Subgen. *Cumminsia* (Prain) Grey-Wilson sect. *Impeditae* Grey-Wilson ser. *Hernicanae* C. Y. Wu & H.



注：A. 植株全形；B. 全缘的花瓣；C. 顶端微裂的花瓣；D. 二雄蕊；E. 雌蕊。（A, B, D 和 E 来自模式标本；C 来自等模式标本）

Note: A. Habit; B. Petal with entire margin; C. Petal with apex lobulate; D. Two stamens;

E. Pistil. (A, B, D and E from holotype; C from isotype)

图 1 肋蕊绿绒蒿

Fig. 1 *Meconopsis pleurogyna*

Chuang].

Ob foliorum laminas lanceolatas margine integras, flores omnes singulariter scaposos, staminum filamenta supra filiformia inferne linearia species nova haec est fortasse affinis *Meconopsis henrici* Bur. & Franch., a qua foliorum laminis minoribus usque ad 3.8 cm longis

et 7 mm latis glabris, petalis peculiaribus in forma intra generem *Meconopsem* lineari-oblongeolatis tantum 5–8 mm latis statim distinguitur. In *M. henrici*, foliorum laminae majores usque ad 14.5 cm longae et 2.3 cm latae utrinque setosae, et petala ovata vel obovata 1.4–2.6 cm lata sunt.



注: A. 植株全形; B. 雄蕊; C. 雌蕊。(来自模式标本)

Note: A. Habit; B. Stamen; C. Pistil. (From holotype)

图2 狭瓣绿绒蒿

Fig. 2 *Meconopsis angustipetala*

Small noncarpic herb. Root subterete (?), at apex ca. 4 mm in diam. Leaves ca. 10, all basal, glabrous;

blades papery, lanceolate-linear or lanceolate, rarely narrow-ovate, $1.8-3.8 \times 0.5-0.7$ cm, apex slightly obtuse,

base attenuate into linear petiole, margin entire; petioles flattened, linear, $3.4-4 \times 0.1-0.2$ mm. Scapes ca. 4 per plant, up to 12 cm tall in flower, to 19 cm tall in fruit, near base 1.5–3 mm in diam., above sparsely hirsute (hairs 1–2.5 mm long), below glabrous, on apex 1-flowered. Flower slightly pendulous, ca. 4.2 cm in diam. Sepals 2, broadly elliptic, ca. 1.8 cm long, abaxially very sparsely appressed-hispid (hairs ca. 0.5 mm long). Petals 6, when drying dark-blue, linear-oblongate, $2.1-2.5 \times 0.5-0.8$ cm, glabrous, apex truncate-rounded. Stamens numerous, glabrous; filaments 8–11 mm long, above the middle deep blue, filiform, below the middle whitish, narrow-linear and longitudinally 1-nerved; anthers yellowish, broadly oblong, 1–1.2 mm long. Pistil as long as stamens; ovary ovoid, ca. 5×3.5 mm, sparsely appressed-fulvous-hirsute (hairs 1–2 mm long); style 5 mm long, glabrous; stigma broadly ovoid, ca. 2–2 mm.

四川(Sichuan): 康定县, 沙德乡, 贡嘎寺后山(Kangding Xian, Shade Xiang, in the mountain behind Gongga Temple), alt. 4 700 m, 1982-07-31, collector unknown, PE no. 1306833 (**holotype**, PE).

本种的叶片披针形, 边缘全缘, 花全部单生花葶上, 雄蕊花丝上部呈丝形, 下部呈条形, 因此可能与也具上述形态特征的川西绿绒蒿(*Meconopsis henrici* Bur. & Franch.)有亲缘关系, 与后者的区别在于本种的叶片较小, 长 3.8 cm, 宽 7 mm, 无毛, 花瓣的形状在绿绒蒿属中较独特, 呈条状倒披针形, 宽 5~8 mm。在川西绿绒蒿, 叶片较大, 长 14.5 cm, 宽 2.3 cm, 在两面均被刺毛, 花瓣呈卵形或倒卵形, 宽 1.4~2.6 cm (Grey-Wilson, 2014)。

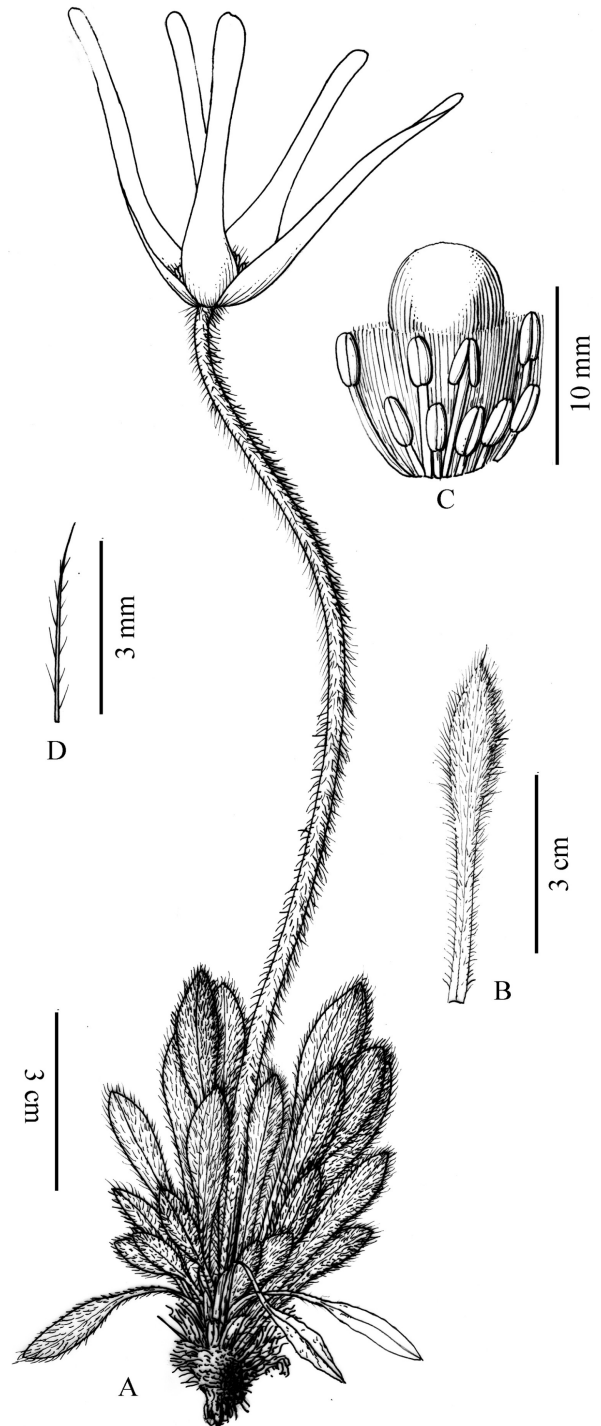
短丝绿绒蒿 图 3

Meconopsis brachynema W. T. Wang, sp. nov.

Fig. 3.

[Subgen. *Cummisia* (Prain) Grey-Wilson sect. *Impeditae* Grey-wilson ser. *Impeditae*].

Ob plantas monocarpicas, folia omnia basalia pilis simplicibus haud barbellatis tecta, foliorum rosulas parvas non sempervirentes, flores solitarios e apicibus scaporum basaliu pilis simplicibus haud barbellatis tectorum nascentes, et staminum filamenta linearia



注: A. 植株全形; B. 叶; C. 雄蕊群和雌蕊;

D. 子房具短毛的毛。(来自模式标本)

Note: A. Habit; B. Leaf; C. Androecium and pistil;

D. Barbellate hair of ovary. (From holotype)

图 3 短丝绿绒蒿

Fig. 3 *Meconopsis brachynema*

species nova haec ad subgen. *Commisiam*, sect. *Impeditas*, ser. *Impeditas* pertinet. In ser. *Impeditis*, ea petalis lanceolato-linearibus 4–7 mm latis, staminibus paucioribus minoribus, filamentis multum brevioribus 1–5 mm tantum longis, pistillo stylo carente, et ovario pilis rigidis barbellatis tecto valde insignis est, et cum his characteribus a speciebus ceteris ser. *Impeditarum* praecclare differt. In speciebus ceteris hujus seriei, petala obovata, ovata, suborbicularia vel elliptica 1.2–3.6 cm lata, stamina numerosa pistillo longiora vel eo aequilonga, filamenta 4–10 mm longa, pistillum stylo praeditum, et ovarium setis haud barbellatis tectum est.

Small monocarpic herb. Root unseen. Leaves numerous, all basal; blades thinly papery, narrow-ovate, narrow-obovate or oblanceolate, 1.5–3.5 × 0.8–1 cm, apex acute, base attenuate into linear petiole, margin entire; surfaces adaxially and abaxially densely appressed-hirsute, with hairs simple, whitish, 2–4 mm long; midrib adaxially flat, abaxially prominent; petioles flattened, linear, 1.5–3.5 cm long, below broadened, adaxially and abaxially appressed-hirsute. Scape solitary, ca. 19 cm tall, 2 mm in diam., densely and retrorsely hirsute, with hairs simple, yellowish, 2–4.5 mm long. Flower solitary and terminal on scape apex, upwards facing, ca. 8 cm in diam. Sepals caducous, unseen. Petals 5, red-purple (according to the field notes of holotype), thinly membranous, lanceolate-linear, at base broadened, ca. 5 cm long, at base ca. 7 mm broad, and above the middle 4–7 mm broad, apex truncate-rounded. Stamens ca. 20, 3–7 mm long, glabrous; filaments whitish, linear or oblong, 1–5 mm long; anthers oblong, 1.8–2.4 × 0.8–1.1 mm. Pistill slightly longer than the longest stamens; ovary depressed-globose, ca. 6×7 mm, densely appressed-hirsute, with hairs antrorse, yellowish, barbellate, 1.5–2 mm long; style absent; stigma slightly smaller than the ovary, in dried state dark-blue, subglobose, ca. 5.5 mm in diam., smooth, glabrous.

青海 (Qinghai): 玉树县, 上巴塘, 熊羌沟 (Yushu Xian, Shangbatang, Xiongqiang Valley), alt. 4 700 m, 高山草甸 (on alpine meadow), 花红紫色 (fls. red-purple), 1964–06–20, 采集人名字不详 (collector's name unknown) 116 (**holotype**, PE)。

本种为一次结果小草本植物, 叶多数全部基生, 被无短毛的毛, 叶丛小, 不常绿, 花单生于基生花葶 (被无短毛的毛) 的顶端, 雄蕊花丝条形; 根据这些特征, 按照 Grey-Wilson 的绿绒蒿属分类系统, 本种当隶属于琴叶绿绒蒿亚属、滇西绿绒蒿组、滇西绿绒蒿系 [subgen. *Cummisia* (Prain) Grey-Wilson, sect. *Impeditae* Grey-Wilson, ser. *Impeditae*]。在 ser. *Impeditae* 中的本种与此系的其他种的区别在于本种的花瓣呈披针状条形、宽 4~7 mm, 雄蕊数目较少 (约 20), 花丝较短小、长 1~5 mm, 雌蕊无花柱, 子房被具短毛的硬毛 (barbellate hairs)。在 ser. *Impeditae* 中的其他种, 花瓣呈倒卵形、卵形、近圆形或椭圆形, 宽 1.2~3.6 cm, 雄蕊比雌蕊长或等长, 花丝长 4~10 mm, 雌蕊具花柱, 子房被无短毛的刚毛 (bristles) (Grey-Wilson, 2014)。

在 2016 年 3 月期间, 当我在 PE 观察绿绒蒿属已定名标本的过程中, 发现本种的 holotype 在 1977 年被误定为 *Meconopsis napaulensis* DC., 根据 Grey-Wilson 于 2014 年所编写出版的绿绒蒿属专著, *M. napaulensis* 为尼泊尔特产, 在中国不产, 其叶基生并茎生, 羽状全裂或羽状深裂, 与茎均被具短毛的硬毛, 花组成圆锥花序, 每朵花具 4 片黄色呈倒卵形的花瓣, 与本种大不相同。

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