

# 黑色报春花学名订正

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**摘要:**报春花属(*Primula*)中花黑色之种类极少, 弥足珍贵, 为中国特有, 近年由旅游者传入英国, 深受国外园艺学界重视, 并已开发成商品。对黑花报春进行了深入的分类学研究, 证实其正确学名为 *Primula melanantha* (Franch.) C. M. Hu, 纠正了当前西方园艺学界应用名称的纷乱和错误。

**关键词:** 报春花科; 黑花报春; 中国

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## Taxonomic and Nomenclacural Notes on the Black-flowered Primulas from China

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**Abstract:** The correct name of the black-flowered *Primula* collected from Zhe-dou Shan, Kanding of Sichuan Province is *Primula melanantha* (Franch.) C. M. Hu. Taxonomic and nomenclatural confusion about this species were discussed and clarified.

**Key words:** Primulaceae; Primula; Black-flowered species; China

Flower colour in the genus *Primula* is various, ranging from white, yellow, orange, pink, red, purple to dark violet, but darkened to black is very rare. In 2007, Prof. A. J. Richards collected a specimen of *Primula* with black flowers in Zhe-dou Shan, Kangding of Sichuan Province, China. At first he thought it might be an undescribed new species, but later he took it as *Primula advena* var. *euprepes* (W. W. Smith) A. J. Richards<sup>[1]</sup> which was originally described as *Primula maximowiczii* Regel var. *euprepes* W. W. Smith based on a collection from SW Xizang (Tibet), China. Richards' new combination was made in 1993<sup>[2]</sup>, but it was not validly published

until 2002<sup>[3]</sup> when the basionym was fully cited. So it is obviously an isonym and without any status according to Art. 6.3 Note 2 of ICBN<sup>[4]</sup>, because Hu already transferred *Primula maximowiczii* Regel var. *euprepes* W. W. Smith to *P. advena* as *P. advena* var. *euprepes* (W. W. Smith) Chen & C. M. Hu in 1990<sup>[5]</sup>. However, after comparing his plant from Sichuan (not the type of *P. advena* var. *euprepes*) with *P. advena* var. *advena*, Richards found that there were many differences between them, and proposed the new combination *Primula euprepes* (W. W. Smith) A. J. Richards, raising var. *euprepes* to the species rank<sup>[1]</sup>. According to ICBN<sup>[4]</sup>, A. J. Richards' new

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combination is legitimate, but the problem is that he cited the specimen he collected from Zhe-dou Shan under the new name, and his description is mainly based on the Zhe-dou Shan plant, which represented another species — *P. melanantha* (Franch.) C. M. Hu.

Actually as early as 1892 the French missionary J. A. Soulie already collected the black-flowered *Primula* from Kangding, Zhe-dou Shan or Tche-tochan as he spelled it. In the field notes he clearly recorded “fleurs noir velouté”. The specimen was sent to Paris and it was named by A. R. Franchet as *P. nivadis* Pallas var. *melanantha* Franch.<sup>[6]</sup>, with the epithet “melanantha” referring to the black flower. W. W. Smith and H. R. Fletcher<sup>[7]</sup> were not able to see the type at that time (during the Second World War), and they treated it as a synonym of *P. russeola* Balf. f. & Forrest in their monographic work “The Genus *Primula*: Section Nivales”, but they put a question mark before it. It was not until 1994 that C. M. Hu treated it as a separate species<sup>[8]</sup>.

*Primula melanantha* (Franch.) C. M. Hu is a highly distinctive species. Its resemblance to *P. advena* var. *euprepes* is limited to the flower colour, but they can be easily distinguished by the former's spreading corolla lobes (not strongly reflexed), the pulverulent inflorescence, and by the calyx equalling corolla tube, just as A. J. Richards pointed out when he compared the Zhe-dou Shan plant with *P. advena*.

As the black-flowered *Primula* is highly valued, and it has already become a commodity circulating among gardeners and horticultural amateurs. It is necessary to have the name corrected to prevent further spread of the error.

*Primula melanantha* (Franch.) C. M. Hu, Novon. 4: 104.1994; C. M. Hu & S. Kelso in Z. Y. Wu & P. H. Raven, Fl. China 15: 152. 1996. — *Primula nivadis* Pallas var. *melanantha* Franch., J. Bot. (Morot) 9: 449. 1895; W. W. Smith & H. R. Fletcher, Trans. Roy. Soc. Edinb. 60(2): 602. 1942, pro syn. sub *P. russeola* Balf. f. & Forrest. Type: China. Sichuan: Kangding, Zhe-dou Shan, Soulie 516bis (holo. P).

*Primula euprepes* auct. non (W. W. Smith) A. J. Richards: A. J. Richards, Plantsman n.s. 7(2): 125. 2008, p. p. quoad specim. Zhe-dou Shan et descr.

Herbs perennial. Rhizomes short, thick, densely covered with persistent overlapping ovate-lanceolate scales; scales 2–6 cm. Leaves forming a rosette; petiole broadly winged, much longer than basal scales at anthesis; leaf blade oblanceolate, 5.5–12 cm × 1.5–3 cm, gradually narrowed to base, margin crenate-denticulate, sparsely or scarcely pubescent abaxially, densely pubescent adaxially when young; midvein broad, prominent abaxially; lateral veins slender, inconspicuous. Scapes 25–40 cm, puberulent, ± mealy near apex; umbels simple, many flowered; bracts 7–10 mm, basal bracts triangular, subulate-acuminate. Pedicel 1–3 cm. Flowers heterostylous. Calyx campanulate, 8–9 mm, parted to middle or above; lobes lanceolate, ciliolate, apex acute. Corolla dusky plum purple to black, rarely intense crimson; limb 1–1.3 cm in diam.; lobes oblong to oblong-elliptic, 6–9 mm × 2–4.5 mm, puberulent on both sides, apex obtuse to subacute. Pin flowers: corolla tube 8–9 mm; stamens inserted at basal 3 mm of corolla tube; style slightly exerted from corolla tube. Thrum flowers: corolla tube 1.1–1.2 cm; stamens inserted near apex of corolla tube; style reaching middle of corolla tube. Ovary globose. Capsule unknown. Fl. Jun.

**Distribution:** So far only known from the east flank of Zhe-dou Shan, west of Kangding (ca. 30°04' N, 101°45'E) of Sichuan Province, China. It grows on the grassy mountain slopes at alt. 3500–4200 m, occurring as isolated individuals or in small tufts on rocky edges composed of eroded shale rocks; flowering in June.

**Specimens examined:** China. Sichuan: Kangding Xian (Tatsien-lou), Zhe-dou Shan, Soulie 516bis (holotype P), 2121, 2234 (P); the same locality, in 2007, A. J. Richards s.n. (E).

*Primula advena* var. *euprepes* (W. W. Smith) Chen & C. M. Hu, [Fl. Xizang. 3: 799. 1986, nom. inval.]; Fl. Reip. Pop. Sin. 59(2): 172. 1990; C. M. Hu & S. Kelso in Z. Y. Wu & P. H. Raven, Fl. China 15: 158.1996. — *Primula maximowiczii* Regel var. *euprepes* W. W. Smith, Not. Roy. Bot. Gard. Edinb.

15: 79: 1926. — *Primula advena* var. *euprepes* (W. W. Smith) A. J. Richards, [*Primula*, 184. 1993, nom. invald.], *Primula*, ed. 2, 213. 2002, isonym. — *Primula euprepes* (W. W. Smith) A. J. Richards, *Plantsman* n. s. 7(2): 125. 2008, p. p., specim. Zhedou Shan et descr. excl. Type: Nyima La, S. E. Tibet, F. Kingdon Ward 5817 (holo-BM; iso-E).

Herbs perennial, base with bud scales and withered leaves. Leaves forming a rosette; petiole broadly winged, usually slightly shorter than leaf blade; leaf blade oblanceolate to obovate, 6–15 cm × 2–5 cm, usually efarinose base attenuate, margin dentate to serrate-dentate, apex acute to obtuse. Scapes to 50 cm, scarcely farinose toward apex; umbels 1–3, superimposed, 5–12-flowered; bracts sublinear, 0.5–1.5 cm, margin usually farinose. Pedicel 1–3(–4) cm, efarinose or occasionally farinose. Flowers heterostylous. Calyx green or tinged with purple, tubular-campanulate, 1–1.1 cm, parted to middle; lobes lanceolate, apex acute. Corolla entirely dark chocolate; tube 1.4–1.7 cm; lobes oblong, 7–10 mm × ca. 3 mm, strongly reflexed. Thrum flowers: stamens 1–1.1 cm above base of corolla tube; style ca. 3 mm. Capsule slightly longer than calyx.

**Distribution:** Known only from the type locality: Nyima La (ca. 29°38'N, 94°52'E), SE Xizang (Tibet). It grows in open places in forests, at alt. 3500–4600 m. Flowering: June–July.

**Specimen examined.** China, Xizang: Nyima La, F. Kingdon Ward 5817 (BM, E); the same locality, Ludlow, Sherruff and Taylor 5138 (BM, E).

**Notes.** The variation of flower colour is not uncommon in the species of section *Crystallophlomis* Rupr. subsection *Maximowiczii* (Balf. f.) W. W. Smith & Fletcher, of which *P. advena* belongs

to<sup>[2–3,5,9]</sup>. The dark-purple-flowered *P. tangutica* Duthie and *P. maximowiczii* Regel. each has a yellow-flowered variety, viz *P. tangutica* var. *flavescens* Chen & C. M. Hu, *P. maximowiczii* var. *flaviflorida* D. Z. Lu. Even in *P. advena* itself, its pale yellow flowers may be concolor or sometimes tinged with purple on the corolla tube. *P. advena* var. *euprepes* differs from the type variety only in having uniformly dark purple flowers. It seems to us that this variation is scarcely striking enough to warrant specific status. We thus do not recommend raising all the above mentioned varieties to the species rank.

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