Ranunculus angustisepalus (Ranunculaceae) is an Oxygraphis and conspecific with O. delavayi

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Abstract

We demonstrate that Ranunculus angustisepalus (Ranunculaceae) described from Bomi in southeastern Xizang (Tibet) is conspecific with Oxygraphis delavayi, a species widely distributed in northern Sichuan, southeastern Xizang, and northwestern Yunnan, China. We therefore place the former in synonymy within the latter. We also reduce Ranumculus subgen. Stenoglossa and R. sect. Stenoglossa, both with R. angustisepalus as their type, to the synonymy of the genus Oxygraphis.

Key words: New synonymy, Ranunculus sect. Stenoglossa, Ranunculus subgen. Stenoglossa, taxonomy, Xizang

Introduction

Ranunculus angustisepalus Wang (1995: 320) (Ranunculaceae) was described on the basis of a single specimen, G. Yao et al. 3294 (NAS; Fig.1), from Bomi, southeastern Xizang (Tibet), China. In the protologue, the author stressed that this species was remarkably distinct in the genus Ranunculus Linnaeus (1753: 548) by having an array of unique characters, such as the narrowly oblong sepals abaxially saccate-appendiculate at base, the presence of an androgynophore, and only four stamens. As a result, he established a new subgenus, R. subgen. Stenoglossa Wang (1995: 320), to accommodate R. angustisepalus, although he soon reduced the subgenus to the sectional rank by proposing a new combination, i.e. R. sect. Stenoglossa Wang in Wang et al. (1995: 387).

In our ongoing taxonomic revision of the Chinese Ranunculus, R. angustisepalus caught our attention because of its unique morphological character combination as given by Wang (1995) and Wang & Gilbert (2001). As shown in Fig. 1, the holotype specimen of R. angustisepalus is rather depauperate, with the flowers seriously destroyed, but we were still struck by the great resemblance between R. angustisepalus and Oxygraphis delavayi Franchet (1886: 374), a species occurring in northern Sichuan, southeastern Xizang, and northwestern Yunnan, China. Fortunately, our survey of the specimens of Ranunculus kept in some of the Chinese herbaria resulted in the discovery of two isotype sheets of R. angustisepalus (Fig. 2). These two sheets had been previously identified correctly as O. delavayi on the determination slips. It is apparent that Wang (1995) did not see these two sheets when he described R. angustisepalus as new based on the holotype sheet at NAS. During our botanical trip in 2016 to Bomi in southeastern Xizang, the type locality of R. angustisepalus, we successfully found O. delavayi. Our careful examination of all the type specimens of R. angustisepalus (Figs. 1 & 2) against those (Fig. 3) and other ample specimens (four from southeastern Xizang and four from northwestern Yunnan are shown respectively in Figs. 4 & 5) of O. delavayi, together with our observations in the field (Fig. 6), has convinced us that the two taxa are conspecific. Their scapes are puberulent apically, the sepals are papery and deciduous, and a linear or ovate bract is often borne below the flowers. It is to be noted that O. delavayi is more or less variable in plant size as well as in leaf size, shape and dentation within and between populations. The variation in leaf size, shape and dentation of O. delavayi is apparent even in the same plant individual (e.g. the right upper one on the isolectotype sheet of this species; Fig. 3B). As shown in Fig. 4D, O. delavayi var. yingchiensis Zheng (1999: 304) is no more than a diminutive form of O. delavayi. The treatment of it as a synonym under O. delavayi by Wang et al. (2001) is correct and thus is accepted herein.
FIGURE 1. Holotype sheet of *Ranunculus angustisepalus* (= *Oxygraphis delavayi*). Inset (left): flower, with the petals and most of the stamens having fallen. Inset (right): fruit (immature).
Taxonomic treatment

**Oxygraphis** Bunge (1836: 46).

Type:—*O. glacialis* (Fischer ex Candolle 1824: 44) Bunge (1836: 46).


**Oxygraphis delavayi** Franchet (1886: 374). Figs. 1–6.

Type:—CHINA. Yunnan: Dali, Cang Shan (= Tsang-chan), alpine meadow at top of the mountain, 20 June 1884, J. M. Delavay 247 (lectotype here designated P-00186236!, isolectotype P-00186237!). Fig. 3.


Type:—CHINA. Xizang: Bomi, 35 km on the way from Bomi to Médog, grassy slope, 3600 m a.s.l., 4 August 1990, G. Yao et al. 3294 (holotype NAS!, isotypes XZE!). Figs. 1 & 2.


Type:—CHINA. Xizang: Nyingchi, alpine meadow, 4500 m a.s.l., 4 July 1997, W. L. Zheng 1085 (holotype XZE!). Fig. 4D.
FIGURE 3. Lectotype sheet (A) and isolectotype sheet (B) of Oxygraphis delavayi.

Notes:—For a full description of Oxygraphis delavayi see Franchet (1886), Liou (1980), and Wang et al. (2001). The flower descriptions given by Wang (1995) and Wang et al. (2001) for Ranunculus angustisepalus, particularly on the presence of an androgynophore and the number of stamens, are not accurate. The so-called androgynophore actually belongs to the exposed part of the receptacle after the falling of the stamens and petals. The stamens should be numerous, with most of them having fallen in the type material.

Among the four species of the genus Oxygraphis, O. delavayi is distinguished by the apically puberulent (vs. glabrous) scapes and papery, deciduous (vs. leathery or subleathery, persistent) sepals (Wang et al. 2001). From the flower colour as well as sepal shape and texture, the illustration of O. delavayi given by Wang (2016) in the Higher Plants of China in Colour should actually be referred to O. endlicheri (Walpers 1842: 33) Bennet & Chandra (1982: 374), a Himalayan species. In China, O. endlicheri is currently known only from southern Xizang (Yadong) (Wang et al. 2001).

Additional specimens examined:—CHINA. Sichuan: Barkam, C.L. Wu 32405 (PE); Dujiangyan, D.Z. Fu & Z.L. Zhao 87-2351 (HX); Maoxian, C. Ho & T.L. Chow 12692 (IBSC, GXMI, LBG, PE, SZ); Pingwu, Mianyang Pref. Exped. 477 (SM); Songpan, H. Smith 3269 (PE). Xizang: Bomi, B.S. Li & S.Z. Cheng 645 (PE), T.S. Ying & D.Y. Hong 1172 (PE); Mainling, B.S. Li & S.Z. Cheng 5465 (PE), C.C. Ni et al. 3011 (PE); Mêdog, S.Z. Cheng & B.S. Li 59 (PE), S.Z. Cheng & B.S. Li 99 (PE), S.Z. Cheng & B.S. Li 116 (PE), S.Z. Cheng & B.S. Li 130 (PE). Yunnan: Binchuan, H.C. Wang 2013 (PE); Dali, G. Forrest 11602 (PE); Déqên, K.M. Feng 5095 (KUN), K.M. Feng 6202 (KUN, PE), K.M. Feng 6619 (KUN, PE), K.M. Feng 6665 (KUN, PE), K.M. Feng 6864 (KUN, PE), PE Hengduan Shan Exped. 3582 (PE), T.T. Yu 8644 (KUN, PE), T.T. Yu 8731 (KUN, PE); Fugong, Gaoligong Shan Biod. Surv. 27132 (PE); Gongshan, K.M. Feng 7768 (KUN), K.M. Feng 7872 (KUN, PE), Gaoligong Shan Biod. Surv. 31347 (PE), Gaoligong Shan Biod. Surv. 31672 (PE), S. Jiang et al. 9323 (KUN, PE), T.T. Yu 19371 (KUN, PE), T.T. Yu 19862 (KUN, PE), T.T. Yu 22260 (KUN, PE), T. T. Yu 22264 (IBSC, KUN, PE), T.T. Yu 22277 (KUN, PE), T.T. Yu 22359 (KUN, PE), T.T. Yu 23193 (KUN, PE); Weixi, K.M. Feng 4272 (KUN, PE), PE Hengduan Shan Exped. 1498 (PE).
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References


