Pseudobartsia glandulosa, a new combination to replace Pseudobartsia yunnanensis (Orobanchaceae)

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Pseudobartsia Hong (1979: 406) was established during the preparation of the Chinese edition of Flora Republicae Popularis Sinicae. This genus only contains one species, Pseudobartsia yunnanensis Hong (1979: 406), which is endemic to Yunnan (Hong et al. 1998). Based on comparisons of type specimens, Tao (1993) found that Pseudobartsia yunnanensis can not be distinguished from Phtheirospermum glandulosum (Bentham 1846: 555) Hooker (1884: 304), which was originally only recorded from the Western Himalayas. Therefore, Pseudobartsia was treated as a synonym of Phtheirospermum Bunge ex Fischer & Meyer (1835: 35), and Pseudobartsia yunnanensis was regarded as a synonym of Phtheirospermum glandulosum in a full revision of Phtheirospermum by Tao (1996).

However, recent phylogenetic analyses (Dong et al. 2013; McNeal et al. 2013) and morphological evidence, i.e. pollen morphology (Lu et al. 2007) and seed characters (Dong et al. 2013), support Pseudobartsia as an independent genus. Because the name Euphrasia glandulosa Bentham (1846: 555) as priority over Pseudobartsia yunnanensis, we propose the new combination Pseudobartsia glandulosa (Bentham) W.B.Yu & D.Z.Li to replace the latter in the genus Pseudobartsia.

Pseudobartsia glandulosa (Bentham) W.B.Yu & D.Z.Li, comb. nov.

Basionym:—Euphrasia glandulosa Bentham (1846: 555).
Type:—INDIA. Uttar Pradesh: Shiv li, ca 1829 m, September 1840, Edgeworth 37 (lectotype K barcode K000951256!, here designated; image available at http://www.kew.org/herbcatimg/654943.jpg).

Homotypic synonym:—Phtheirospermum glandulosum (Bentham) Hooker (1884: 304).
Heterotypic synonym:—Pseudobartsia yunnanensis Hong (1979: 406). Type:—CHINA. Yunnan: Songming, Longtanying, ca. 2300 m, 9 October 1940, Ying-Bo Zhang 0004 (holotype KUN No. 0735310!, isotype KUN No. 0735309!) (Fig. 1).

Bentham (1846) mentioned the provenance and collector for the type of Euphrasia glandulosa in the protologue. After checking the potential type material conserved at the herbarium of the Royal Botanical Garden, Kew (K), we found that the herbarium sheet K000951256 is part of the original material. Therefore, that sheet is here designated as the lectotype.

Pseudobartsia glandulosa is a critically endangered species in China, only two gatherings, Ying-Bo Zhang 0004 (Fig. 1) and Qi-Wu Wang 8477 (collected in 9 October 1940 in Yanshan of Southeastern Yunnan). We visited the type locality Longtanying of Songming on 8 October in 2007, but failed to locate any individual.