Nomenclatural notes on the genus *Paraphlomis* (Lamiaceae: Lamioideae) from China

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Lectotypes of *Paraphlomis albiflora* (Hemsl.) Hand.-Mazz. and *Paraphlomis gracilis* (Hemsl.) Kudo are designated. The name *Paraphlomis javanica* (Blume) Prain var. *angustifolia* C. Y. Wu & H. W. Li ex C. L. Xiang, E. D. Liu & H. Peng is validated by a type designation.

The genus *Paraphlomis* (Prain) Prain consists of about 24 species, of which 23 species and 7 varieties occur in China (Li and Hedge 1994). During studies of Lamiaceae for regional floras in China (Xiang and Peng 2008, Xiang et al. 2009), we found that there are some nomenclatural problems in genus *Paraphlomis*: no holotypes for *Paraphlomis albiflora* (Hemsl.) Hand.-Mazz. and *Paraphlomis gracilis* (Hemsl.) Kudo do exist since four and two specimens, respectively, are cited as syntypes in the protologues. In addition, *Paraphlomis javanica* var. *angustifolia* and its alleged ‘basionym’ were not validly published because no type specimen was originally designated (Wu 1959, Li 1975). The correct citations are as follows:

**Paraphlomis albiflora** (Hemsl.) Hand.-Mazz. (1939, p. 347)

*Basionym*: *Phlomis albiflora* Hemsl. (1890, p. 304).

*Type*: China. Hubei: Ichang, Patung, Nanto and mountains to the northward, A. Henry 3576 (K!, lectotype designated here, Fig. 1). Other syntypes: A. Henry 720 (K!), A. Henry 1575 (K!), A. Henry 1970 (K!).

Hemsley (1890) published *Phlomis albiflora* based on four gatherings (A. Henry 720, 1575, 1910, 3576) from Nanto and mountains to the north, Patung, Ichang, Hubei, China. No holotype of *Phlomis albiflora* was designated in the protologue, and the four specimens are all syntypes. Handel-Mazzetti (1939) transferred *Phlomis albiflora* to *Paraphlomis*. In the absence of holotype indication, according to Art. 9.9 of the ICN (McNeill et al. 2006), a lectotype may be designated for *Paraphlomis albiflora*. We have checked all four specimens, of which Henry 3576 (K) displays most of the diagnostic characters, and we propose here to designate it as the lectotype in accordance with Art. 9.10 of ICN.

This species is similar to *Paraphlomis foliata* (Dunn.) C. Y. Wu & H. W. Li, but the plants are erect herbs (vs ascending herbs), stems, leaves and calyces are densely villous and pubescent (vs villous only), and the bracteoles are minute, no longer than 2 mm (vs bracteoles linear, 2–5 mm long). It is confined to central China and is known from Hubei and Sichuan. It occurs in wet areas in valley forests or waste areas, at altitudes between 100 and 800 m a.s.l.

**Paraphlomis gracilis** (Hemsl.) Kudo (1929, p. 210)

*Basionym*: *Phlomis gracilis* Hemsl. (1890, p. 305).

*Type*: China. Hubei: Ichang, Nanto and mountains to the northward A. Henry 4111 (K!, lectotype designated here, Fig. 2). Other syntype: A. Henry 720 (K!).

Two specimens (A. Henry 2089, 4111) were cited in the protologue without indication of a holotype. According to Art. 9.9 and 9.10 of the ICN, one duplicate of Henry 4111 (barcode: K000509759) is here designated as the lectotype. This specimen represents a whole plant including roots, leaves and flowers, and is in accordance with the original description.

*Paraphlomis gracilis* is readily distinguished from other Chinese *Paraphlomis* species by having a subulate calyx and a corolla tube conspicuously shorter than the calyx tube.

This species is endemic to China, occurring under the canopy of dense forests or along shady streamside in Guangdong, Guangxi, Guizhou, Hubei, Hunan and Sichuan, at altitudes from 300 to 1400 m a.s.l.
Additional specimens examined

China. Guizhou: expedition to Hunan and Guizhou 2913 (KUN); expedition to Wulingshan 2150 (KUN); T. P. Zhu and Z. F. Liu 1343 (KUN); Hubei: H. J. Li 7365 (HIB); Hunan: expedition to Hunan 0201 (HIB); Sichuan: G. F. Li 62519 (KUN); G. F. Li 65082 (HIB); J. H. Xiong 91854 (HIB); Sichuan Branch, Chinese Academy of Sciences 1526 (HIB).

Paraphlomis javanica (Blume) Prain var. angustifolia C. Y. Wu & H. W. Li ex C. L. Xiang, E. D. Liu & H. Peng var. nov.

Type: China. Sichuan: Emei Xian, Hongchunping, 30 Aug 1939, Z. W. Yao 4920 (holotype: PE!; Fig. 3).

Validating description: under Paraphlomis rugosa (Benth.) Prain var. angustifolia C. Y. Wu (1959, p. 38).

The name Paraphlomis rugosa (Benth.) Prain var. angustifolia C. Y. Wu was not validly published by Wu (1959), because eight specimens were cited in the protologue without any holotype designation. Wu and Li (Li 1975) subsequently transferred this variety to Paraphlomis javanica (Blume) Prain as “P. javanica var. angustifolia (C. Y. Wu) C. Y. Wu & H. W. Li”. Li (1975) indicated that the ‘lectotype’ was collected from Emei, Sichuan Province. Unfortunately, two specimens mentioned in the protologue of Wu (1959) were collected from Emei, i.e. Z. W. Yao 4920 and T. C. Lee 3376, and the type designation was therefore not effective. Since no holotype have been selected hitherto, consequently, the name Paraphlomis javanica var. angustifolia remains not validly published under Art. 37.1 of the ICBN. Li and Hedge (1994) recognized this variety in the updated, English edition of the ‘Flora of China’. However, they left this nomenclatural problem unnoticed. To enable formal use of the name, it is validated here by designation of a holotype. Under Art. 46.2 of the ICBN, the authorship of this name can not be attributed to Wu and Li, who coined the name but did not provide the validating description.

This variety differs from P. javanica var. javanica by having ovate–lanceolate to narrowly lanceolate leaf blades and the calyx acicular, obviously hispidulous. It is known from China (Guangdong, Guangxi, Hunan, Sichuan, Yunnan) to north Vietnam where it occurs in evergreen and mixed forests, at altitudes from 520 to 1500 m a.s.l.

Additional specimens examined

China. Guangdong: G. Q. Ding and L. Yu 6211 (WUK); P. X. Tan 60186 (KUN). Guangxi: S. Q. Chen 15411,
15909 (KUN); Z. R. Xu D3234, DH4325 (KUN); Guizhou: Bijie expedition 1212, 1722 (KUN); expedition to southern Guizhou 3430 (KUN). Yunnan: D. J. Yu 16365 (KUN); G. D. Tao 16244 (HITBC); G. M. Feng 1276, 13570 (KUN); H. T. Tsai 8182, 58763 (KUN); J. Chen 541 (KUN); Q. W. Wang 83025 (WUK); Q. W. Wang 86127 (KUN); S. G. Wu 3842 (KUN); Y. M. Shui 13986, 14055 (KUN). Vietnam: Sapa: China/Vietnam expedition 190, 2420 (KUN).

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References


Hemsley, W. B. 1890. An enumeration of all the plants known from China proper, Formosa, Hainan, Corea, the Luchu Archipelago, and the island of Hongkong, together with their distribution and synonymy. Part IX. – J. Linn. Soc. 26: 237–316.


Figure 3. Photograph of the holotype at (PE) of Paraphlomis javanica var. angustifolia (Z. W. Yao 4920).