## CORRECTION OF DATE ERRORS IN THE PROTOLOGUES OF EIGHTEEN TAXON NAMES FROM CHINA

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Abstract. Following Article 9.2 of the International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code, 2018), errors in the dates in the protologues of the names of eighteen taxa from China were corrected. They include Aralia plumosa (Araliaceae), Berberis bergmaniae var. acanthophylla (Berberidaceae), Biondia parviurnula (Asclepiadoideae, Apocynaceae), Boottia heterophylla (Hydrocharitacea), Bredia hainanensis (Melastomataceae), Cornus yunnanensis (Cornaceae), Cotoneaster glabrata (Rosaceae), Dendropanax productus (Araliaceae), Dendropanax stellatus (Araliaceae), Hedyotis obliquinervis (Rubiaceae), Hypericum macrosepalum (Clusiaceae), Lonicera flavipes (Caprifoliaceae), Pandanus gressittii (Pandanaceae), Pedicularis membranacea (Scrophulariaceae), Phyllagathis setotheca (Melastomataceae), Phyllagathis xanthotricha (Melastomataceae), Plagiopetalum quadrangulum (Melastomataceae), and Tylophora nana (Asclepiadoideae, Apocynaceae). The holotypes of all eighteen names are at the Harvard University Herbaria.

Keywords: Chinese plants, date citation errors, holotype, protologue

The Harvard University Herbaria include six integrated herbaria: the Herbarium of the Arnold Arboretum (A), Oakes Ames Orchid Herbarium (AMES), Economic Herbarium of Oakes Ames (ECON), Farlow Herbarium (FH), Gray Herbarium (GH), and New England Botanical Club Herbarium (NEBC). The combined collections contain more than 5 million specimens and over 100 thousand type specimens of vascular plants and mosses. Especially included are more than 10,000 type specimens of Chinese plants.

During a review and collation of type specimens of Chinese plants in the Harvard University Herbaria between 2018 and 2021 we discovered errors in the citation of collection dates that need to be corrected according to the International Code of Nomenclature for algae, fungi, and plants (ICN; Turland et al., 2018). This paper provides updates for those citations based on a review of the literature and examination of the digital images (https://kiki.huh. harvard.edu/databases/) of those specimens. Article 9.2 of the ICN states "If a designation of holotype made in the protologue of the name of a taxon is later found to contain errors (e.g. in locality, date, collector, collecting number, herbarium code, specimen identifier, or citation of an illustration), these errors are to be corrected provided that the intent of the original author(s) is not changed" (Turland et al., 2018). We herewith correct errors in the citation of dates in the protologues of eighteen names of taxa from China. The eighteen names subject to this study are arranged alphabetically by genus followed by a brief discussion on the need for correcting the date of collection. It should also be noted that the dates of collection for these specimens are cited correctly in the Harvard University Herbaria's online database of type specimens. Each of the bar codes cite below is an active link to the image it represents.

**1.** Aralia plumosa H. L. Li (Araliaceae), Sargentia 2: 114. 1942. TYPE: CHINA. Sichuan Province: Muli County, alt. 2300 m, 22 July 1937, *T. T. Yu* 7337 (Holotype: A [00068040], image seen).

Li (1942) designated *T. T. Yu* 7337 (A) as the holotype of *Aralia plumosa* and cited the date of collection as 1938 in the protologue. Although the date on the label of the holotype specimen is 1938, we found that label is incomplete. A label on an isotype specimen in the herbarium of the Institute of Botany, Chinese Academy of Sciences (PE) provides complete collection details and gives the date as July 22, 1937 (Fig. 1). The erroneous date of 1938 in the protologue should be corrected to 22 July 1937.

**2.** *Berberis bergmaniae* Schneid. var. *acanthophylla* C. K. Schneid. (Berberidaceae) in Sargent, Pl. Wilson. 1(3): 362. 1913. TYPE: CHINA. Sichuan Province: Wenchuan County, alt. 1525-1830 m, October 1910, *E. H. Wilson 4149* (Holotype: A [00057549], image seen).

Schneider (1913) cited the date of only one gathering, *E. H. Wilson 4149*, as "November 1910" in the protologue. However, we found that the date of collection on the label of the holotype gathering is written as "10/10". The date of collection should therefore be corrected to October 1910.

**3.** *Biondia parviurnula* M. G. Gilbert & P. T. Li (Asclepiadoideae, Apocynaceae), Novon 5: 2. 1995. TYPE: CHINA. Anhui Province: Jinzhai County, alt. 800 m, 16 May 1984, *K. Yao* 8956 (Holotype: A [00273668], image seen).

The gathering *K. Yao* 8956 (A) was designated the holotype of the name *Biondia parviurnula* and the date of collection was cited as "4 Mar. 1984" in the protologue (Gilbert et al., 1995). The date of collection on the label

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Figure 1. Isotype of Aralia plumose H. L. Li (PE).

of the holotype specimen, however, is 16 May 1984. Thus, the date cited in the protologue is obviously erroneous and should be corrected to 16 May 1984.

**4.** *Boottia heterophylla* Merr. & F. P. Metcalf (Hydrocharitaceae), Lingnan Sci. J. 17: 568, 25. 1938. TYPE: CHINA. Hainan Province: Wenchang City, 4–25 August 1932, *H. Fung 20444* (Holotype: GH [00022879], image seen).

H. Fung 20444 (GH) was the only gathering cited in the protologue of the name Boottia heterophylla. The date of collection was cited as "August 3–25, 1932" (Merrill and Metcalf, 1938). We found that the date of collection on the label of the holotype is August 4–25, 1932. Thus, the date of collection cited in the protologue of this name should be corrected to 4–25 August 1932.

**5.** *Bredia hainanensis* Merr. & Chun (Melastomataceae), Sunyatsenia 5: 145. 1940. TYPE: CHINA. Hainan Province: Baoting County, alt. 2100 m, 22 June 1935, *F. C. How* 72967 (Holotype: A [00055336], image seen).

The gathering *F. C. How 72967* was designated as the type of the name *Bredia hainanensis*. The date of collection was cited in the protologue as "June 22 1934" (Merrill and Chun, 1940). However, the date of collection on the label of the holotype specimen is June 22, 1935. The date of collection cited in the protologue should therefore be corrected to 22 June 1935.

**6.** Cornus yunnanensis H. L. Li (Cornaceae), J. Arnold Arbor. 25: 312. 1944. TYPE: CHINA. Yunnan Province: Chungtien (Zhongdian, now Xianggelila), alt. 2000 m, 20 November 1939, K. M. Feng 3410 (Holotype: A [00368049], image seen).

Li (1944b) designated *K. M. Feng 3410* as the holotype of the name *Cornus yunnanensis*, and cited the date of collection as "Nov., 1930.". We found the date on the specimen label to be November 20, 1939. The date of collection cited in the protologue should be corrected to 20 November 1939.

**7.** Cotoneaster glabratus Rehder & E. H. Wilson (Rosaceae) in Sargent, Pl. Wilson. 1(2): 171. 1912. TYPE: CHINA. Sichuan Province: Ebian County, Wa Shan, alt. 1830–2593 m, July 1908, E. H. Wilson 2185 (Holotype: A [00026240], image seen).

E. H. Wilson 2185 (A) was the only gathering cited in the protologue of the name Cotoneaster glabratus. The date of collection of this gathering was cited as "July 1906" (Rehder and Wilson, 1912). However, the date of collection on the label of this specimens is written 7/08. Thus, the date of collection cited in the protologue should be corrected to July 1908.

**8.** *Dendropanax productus* H. L. Li (Araliaceae), Sargentia 2: 44. 1942. TYPE: CHINA. Guangdong Province: Huiyang City, 1-19 October 1935, *W. T. Tsang* 25945 (Holotype: A [00057983], image seen).

The gathering *W. T. Tsang 25945* (A) was designated as the type of the name *Dendropanax productus*, and the date of collection was cited as "Oct. 1–10, 1935" (Li, 1942). However, the date of collection on the type specimen is October 1–19, 1935. The date of collection cited in the protologue should be corrected to 1–19 October 1935.

**9.** Dendropanax stellatus H. L. Li (Araliaceae), Sargentia 2: 42. 1942. TYPE: CHINA. Guangxi Zhuangzu Zizhiqu: Sanjiang County, alt. 300 m, 12 September 1933, A. N. Steward and H. C. Cheo 1054 (Holotype: A [00003481], image seen).

A. N. Steward and H. C. Cheo 1054 (A) was designated the type of the name Dendropanax stellatus. The date of collection was cited as "Sept. 12, 1935" in the protologue (Li, 1942). Upon checking A. N. Steward and H. C. Cheo 1054 we found the date on the field label of the type specimen to be September 12, 1933. Therefore, the date of collection cited in the protologue should be corrected to 12 September 1933.

**10.** Hedyotis obliquinervis Merr. (Rubiaceae), Lingnan Sci. J. 14(1): 56. 1935. TYPE: CHINA. Hainan Province: Ngai (=Sanya city), 28 August 1932, S. K. Lau 452 (Holotype: A [00097081], image seen).

S. K. Lau 452 (A) was the only gathering cited in the protologue of the name *Hedyotis obliquinervis* (Merrill, 1935). Merrill recorded the date of collection of this specimen as "August 8, 1932," but the date of collection on the label of the specimen is August 28, 1932. Thus, the date of collection as cited in the protologue should be corrected to 28 August 1932.

**11.** *Hypericum macrosepalum* Rehder (Hypericaceae) in Sargent, Pl. Wilson. 3: 451. 1917. TYPE: CHINA. Sichuan Province: Tatien Lu [Kangding], alt. 3050 m, 5 July 1909, *E. H. Wilson* 2426 (Holotype: A [00139564], image seen).

Rehder (1917a) cited only one gathering, E. H. Wilson 2426 (A), in the protologue of Hypericum macrosepalum, giving the date of collection as "July 5, 1908.". The date of collection on the specimen, however, is written 5/7/09. Wilson consistently wrote the date with the day first followed by the month and year. The date of collection cited in the protologue should therefore be corrected to 5 July 1909.

**12.** Lonicera flavipes Rehder (Caprifoliaceae) in Sargent, Pl. Wilson. 1: 132. 1911. TYPE: CHINA. Hubei Province: Xingshan County, alt. 2135-2440 m, 5 June 1907, E. H. Wilson 1868 (Holotype: A [00056597], image seen).

Only one gathering, *E. H. Wilson 1868* (A), was cited in the protologue of the name *Lonicera flavipes*. The date of collection was cited as "June 5, 1908" (Rehder, 1911). We found the date of collection on the specimen label to be 5/7/07. As a result, the date of collection cited in the protologue should be corrected to 5 July1907.

**13.** *Pandanus gressittii* B. C. Stone (Pandanaceae), J. Arnold Arbor. 43(3): 348. 1962. TYPE: CHINA. Hainan Province: Liamui, alt. 405 m, 2 August 1935, *J. Linsley Gressitt* 1185 (Holotype: A [00019922], image seen).

Stone (1962) designated *J. Linsley Gressitt 1185* in A as the holotype of *Pandanus gressittii* B. C. Stone and cited the date of collection as "June–July 1935.". However, the date of collection on the field label in the upper left of the sheet is VIII-2-1935. The date of collection cited in the protologue should therefore be corrected to 2 August 1935.

- **14.** *Pedicularis membranacea* H. L. Li (Orobanchaceae), Proc. Acad. Nat. Sci. Philadelphia 101: 168. 1949. TYPE: China. Sichuan Province: Kangding County, alt. 2400 m, 7 August 1939, *C. Y. Chiao 1657* (Holotype: A [00097271], image seen).
- *C. Y. Chiao1657* deposited in A was designated the holotype of *Pedicularis membranacea*, with the date of collection given as "Aug. 7, 1937" (Li, 1949). We found the date of collection on the label of this specimen to be August 7, 1939. Thus, the date of collection cited in the protologue should be corrected to 7 August 1939.
- **15.** *Phyllagathis setotheca* H. L. Li (Melastomataceae), J. Arnold Arbor. 25: 32. 1944. TYPE: CHINA. Guangxi Zhuangzu Zizhiqu: Shangsi County, Shiwan Dashan, 21 July 1937, *H. Y. Liang 69817* (Holotype: A [00055328], image seen).

Li (1944a) designated *H. Y. Liang 69817* (A) as holotype of the name *Phyllagathis setotheca*, and cited the date of collection as "July 21, 1931." However, the date of collection on the field label in the upper left corner of the sheet is July 21, 1937. Thus, the date of collection cited in the protologue should be corrected to 21 July 1937.

**16.** *Phyllagathis xanthotricha* Merr. & Chun (Melastomataceae), Sunyatsenia 5: 149. 1940. TYPE: CHINA. Hainan Province: Po-ting (=Baoting County), alt. 488 m, 31 May 1935, *F. C. How 72690* (Holotype: A [00055325], image seen).

F. C. How 72690 (A) was designated as type of the name *Phyllagathis xanthotricha*, with the date of collection cited as "May 21 1935" (Merrill and Chun, 1940). We examined this gathering and found the date of collection on the field label (in the upper left corner of the sheet) to be May 31, 1935. As a result, the date of collection cited in the protologue should be corrected to 31 May 1935.

- **17.** *Plagiopetalum quadrangulum* Rehder (Melastomataceae) in Sargent, Pl. Wilson. 3: 453. 1917. TYPE: CHINA. Sichuan Province: Hongya County, alt. 610–915 m, 6 September 1908, *E. H. Wilson 3261* (Holotype: A [00073146], image seen).
- E. H. Wilson 3261 is the only gathering cited in the protologue of *Plagiopetalum quadrangulum* (Rehder, 1917b). The date of collection is cited as "June 9, 1908." The date of collection on the field label of this gathering indicates 6/9/08. Thus, the date of collection cited in the protologue should be corrected to 6 September 1908, following Wilson's habit of indicating the day first followed by the month and year.
- **18.** *Tylophora nana* C. K. Schneid. (Asclepiadoideae, Apocynaceae) in Sargent, Pl. Wilson. 3: 351. 1916. TYPE: CHINA. Sichuan Province: Wenchuan County, alt. 1220 m, 31 May 1908, *E. H. Wilson* 2253 (Holotype: A [00076862], image seen).

Schneider (1916) cited only one gathering, *E. H. Wilson* 2253, in the protologue of *Tylophora nana*, and the date of collection as "May 3, 1908." The date of collection given on the label of this gathering is 31/5/08. Therefore, the date of collection in the protologue should be corrected to 31 May 1908.

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