

DOI: 10.11931/guihaia.gxzw201404002

王发松,牛苗,黄东海,等. *Dalbergia prazeri* Prain (豆科)之考证[J]. 广西植物, 2016, 36(5):615–618

WANG FS, NIU M, HUANG DH, et al. A revision of *Dalbergia prazeri* Prain (Leguminosae)[J]. Guihaia, 2016, 36(5):615–618

## *Dalbergia prazeri* Prain (豆科)之考证

王发松<sup>1,2</sup>, 牛苗<sup>3,4</sup>, 黄东海<sup>2</sup>, 李世晋<sup>3\*</sup>

(1. 生物资源保护与利用湖北省重点实验室, 湖北恩施 445000; 2. 湖北民族学院 化学与环境工程学院,  
湖北恩施 445000; 3. 中国科学院华南植物园, 广州 510650; 4. 中国科学院大学, 北京 100049)

**摘要:** 在发表 *Dalbergia prazeri* Prain 时 Prain 曾认为其与托叶黄檀 (*D. stipulacea* Roxb.) 近缘, 只是该种小叶背面疏被微柔毛, 花萼被硬毛与托叶黄檀不同, 同时又指出其荚果也与后者不同, 但是并没有解释其不同点。之后 Prain 又将其归并入奥氏黄檀 (*D. oliveri* Gamble ex Prain), 亦未给出相应的理由。经研究 *D. prazeri* Prain 与南岭黄檀 (*D. assamica* Benth.) 为同种, 而被归并入后者。Prain 发表该种时引证 Prazer s.n. 为模式, 但并没有指定主模式。涉及该种的 Prazer s.n. 的标本共有 6 份, 该文将藏于印度国立标本馆加尔各答馆 (CAL), 条形码为 CAL0000012326 (CAL 标本号 131311) 的标本指定为后选模式 (lectotype), 其余分别藏于加尔各答标本馆的 4 份及英国皇家植物园邱园标本馆 (K) 的 1 份为等后选模式 (isolectotype)。

**关键词:** *Dalbergia prazeri*, 黄檀属, 考证, 后选模式

中图分类号: Q949.71 文献标识码: A 文章编号: 1000-3142(2016)05-0615-04

## A revision of *Dalbergia prazeri* Prain (Leguminosae)

WANG Fa-Song<sup>1,2</sup>, NIU Miao<sup>3,4</sup>, HUANG Dong-Hai<sup>2</sup>, LI Shi-Jin<sup>3\*</sup>

(1. Key Laboratory of Biologic Resources Protection and Utilization of Hubei Province, Enshi 445000, China; 2. College of Chemistry and Environmental Engineering, Hubei University for Nationalities, Enshi 445000, China; 3. South China Botanical Garden, Chinese Academy of Sciences, Guangzhou 510650, China; 4. University of Chinese Academy of Sciences, Beijing 100049, China)

**Abstract:** When published by Prain, *Dalbergia prazeri* Prain was reported closely related to *D. stipulacea* Roxb., except for the sparse pubescence on the leaves beneath and the hirsute calyx. He also noted the pods of the two species are totally unlike without any explanation. Thereafter he reduced the name to *D. oliveri* Gamble ex Prain without explanation either. Critical studies revealed that it is conspecific with *D. assamica* Benth. Therefore, *D. prazeri* Prain is reduced to synonym under *D. assamica* Benth. There are 6 sheets of the collections of Prazer cited by Prain. The sheet in the herbarium CAL, with digital code CAL0000012326 (herbarium No. 131311) is selected as lectotype of this name. Of the remaining collections 4 sheets in CAL and 1 sheet in K are selected as isolectotypes.

**Key words:** *Dalbergia prazeri*, *Dalbergia*, revision, lectotype

Prain (1897)依据 Prazer 1888 年采自缅甸北部的一号标本发表了 *Dalbergia prazeri* Prain (图 1: A), 并在 1901 年认可该种 (Prain, 1901), 但 3 年后

他又将其归并入奥氏黄檀 (*D. oliveri* Gamble ex Prain) (图 1: B) (Prain, 1904), 该处理也得到 Thothathri (1987) 的认可。经过仔细检察模式标本

收稿日期: 2014-07-23 修回日期: 2014-10-01

基金项目: 国家自然科学基金 (31070176, 31270248) [Supported by the National Natural Science Foundation of China (31070176, 31270248)].

作者简介: 王发松(1969-), 男, 湖北巴东县人, 博士, 教授, 主要从事药用植物资源与化学研究, (E-mail) zsuwangfasong@aliyun.com。

\* 通讯作者: 李世晋, 博士, 研究员, 主要从事植物分类学研究, (E-mail) lisj@scib.ac.cn.

表 1 *Dalbergia prazeri* Prain 与奥氏黄檀、托叶黄檀及南岭黄檀的特征比较

Table 1 Diagnostic characters claimed for *Dalbergia prazeri* Prain compared with the features of *D. oliveri* Gamble ex Prain, *D. stipulacea* Roxb. and *D. assamica* Benth.

<i>D. prazeri</i>	奥氏黄檀 <i>D. oliveri</i>	托叶黄檀 <i>D. stipulacea</i>	南岭黄檀 <i>D. assamica</i>	
小叶 Leaflet	15~17 片, 长圆状椭圆形, 3.5~4.5×1.7~2.1 cm, 上面无毛, 下面被稀疏短柔毛。 Leaflets 15~17; oblong-elliptic, 3.5~4.5×1.7~2.1 cm; upper surface glabrous; lower surface sparsely pubescent.	(9~)11~13 片, 卵状长圆形至卵状披针形, 急尖至钝, 4~8×1.5~3 cm, 两面无毛。 Leaflets (9~)11~13; ovate-oblong to ovate-lanceolate, 4~8×1.5~3 cm; apex acute to obtuse; glabrous on both surfaces.	15~25 片, 椭圆状长圆形, 2~4.5×0.8~1.7 cm, 先端钝、圆, 基部楔形, 上面无毛, 下面幼时具微柔毛, 老时无毛。 Leaflets 15~25; elliptic-oblong, 2~4.5×0.8~1.7 cm; apex obtuse or rounded; base cuneate; upper surface glabrous; lower surface glabrescent when young and glabrous when mature.	13~17 片, 长圆状椭圆形, 有时近圆形, 3~5.5×1.5~3 cm, 上面被稀疏短柔毛或无毛, 下面疏被帖伏短柔毛。 Leaflets 13~17, oblong-elliptic and rarely suborbicular, 3~5.5×1.5~3 cm; upper surface sparsely pubescent to glabrous; lower surface sparsely appressed pubescent.
荚果 Pod	荚果长圆形至带状, 模式标本 荚果未成熟, 5.5~8.5×1.5~1.8 cm, 顶端急尖, 常具喙状尖, 基部渐狭, 果爿革质, 对种子处具网纹, 网纹延伸至边缘。 Pod oblong to band shaped; the pods on type are not mature; 5.5~8.5×1.5~1.8 cm; apex acute with a tip; base cuneat; coriaceous; veined opposite the seeds; the veins reached the margin of the pods.	果阔舌状、长圆形至带状, 9~14×2.5~4 cm, 顶端急尖至渐尖, 基部渐狭, 果爿革质, 对种子处明显加厚突出, 无网纹, 其余部分常具网纹并延伸至边缘。 Pod broad tongue shaped, oblong to band shaped; 9~14×2.5~4 cm; apex acute to acuminate; base cuneat; coriaceous; considerably thickened and plump and not veined opposite the seeds; always veined on the rest of the pod and the veins reached the margin of the pods.	荚果长圆形, 暗黑色, 6~12×1.8~3.2 cm, 顶端钝, 基部圆形, 果爿革质, 无毛, 对种子处具网纹或加厚, 网纹延伸至边缘。 Pod oblong; darkish; 6~12×1.8~3.2 cm; apex obtuse; base rounded; coriaceous; thickened and veined opposite the seeds; the veins reached the margin of the pods.	荚果长圆形至带状, 4~7.5 (~9)×1.5~2.5 cm, 顶端急尖, 常具喙状尖, 基部渐狭, 果爿革质, 对种子处有不明显的网纹, 网纹延伸至边缘。 Pod oblong to band shaped; 4~7.5 (~9)×1.5~2.5 cm; apex acute; base cuneat; coriaceous; indistinct veined opposite the seeds; the veins reached the margin of the pods.

及相关文献, 作者发现 *D. prazeri* 模式标本并不似奥氏黄檀, 因为奥氏黄檀果实较宽大, 宽 2.5~4 cm, 对种子处无网纹, 小叶两面无毛, 而 *D. prazeri* 并不具备这些特征, 似乎更像南岭黄檀 (*D. assamica* Benth.) (图 1: C)。

Prain 在发表该种时认为其与托叶黄檀 (*D. stipulacea* Roxb.) 近缘(图 1: D), 尤其花部特征难以区分, 不同之处在于小叶背面被稀疏微柔毛, 花萼具硬毛, 并强调二者果实“极为不同”。1901 年在整理亚洲该植物时, 他又增加了一号标本引证, 即采自泰国的 Teysmann 52 标本, 同时强调该种在荚果和小叶特征上分别非常接近奥氏黄檀和托叶黄檀。但是 1904 年他又在其专著中将该种归并于奥氏黄檀, 也没有给出理由(Prain, 1904)。

经仔细核对各相关类群的小叶及荚果的特征(表 1)发现: 在小叶数量、形状、大小、毛被以及荚果的形状、大小、对种子处的网纹等性状上, *D. prazeri* 均在南岭黄檀的变异范围之内, 应当归并于后者。

另外, 涉及 *D. prazeri* 的 Prazer s.n. 标本共有 5 份, Prain 发表该种时亦没有指定其中一份为主模式。本文将藏于印度国立标本馆加尔各答馆(CAL), 条形码为 CAL0000012326 (CAL 标本号 131311) 的标本指定为后选模式(lectotype), 其余分别藏于加尔各答及英国皇家植物园邱园标本馆(K)的 4 份为等后选模式(isolectotype)。分类学处理如下:

南岭黄檀 南岭檀、水相思、黄类树、茶丫藤、秧青、思茅黄檀、紫花黄檀

*Dalbergia assamica* Benth., Pl. Jungh. 2: 256. 1852 & J. Linn. Soc., Bot. 4 (Suppl.): 45. 1860. pro part.; Baker in Hook. f., Fl. Brit. Ind. 2: 235. 1876. pro part.; Prain, J. Asiatic. Soc. Bengal. Pt. 2, Nat. Hist. 66 (2): 449. 1897 & 70 (2): 52. 1901 & Ann. Roy. Bot. Gard. (Calcutta) 10 (1): 89. pl. 71. 1904; T. Chen, Fl. Reip. Pop. Sin. 40: 117. 1994. Niyomdham & Pham, Bull. Mus.

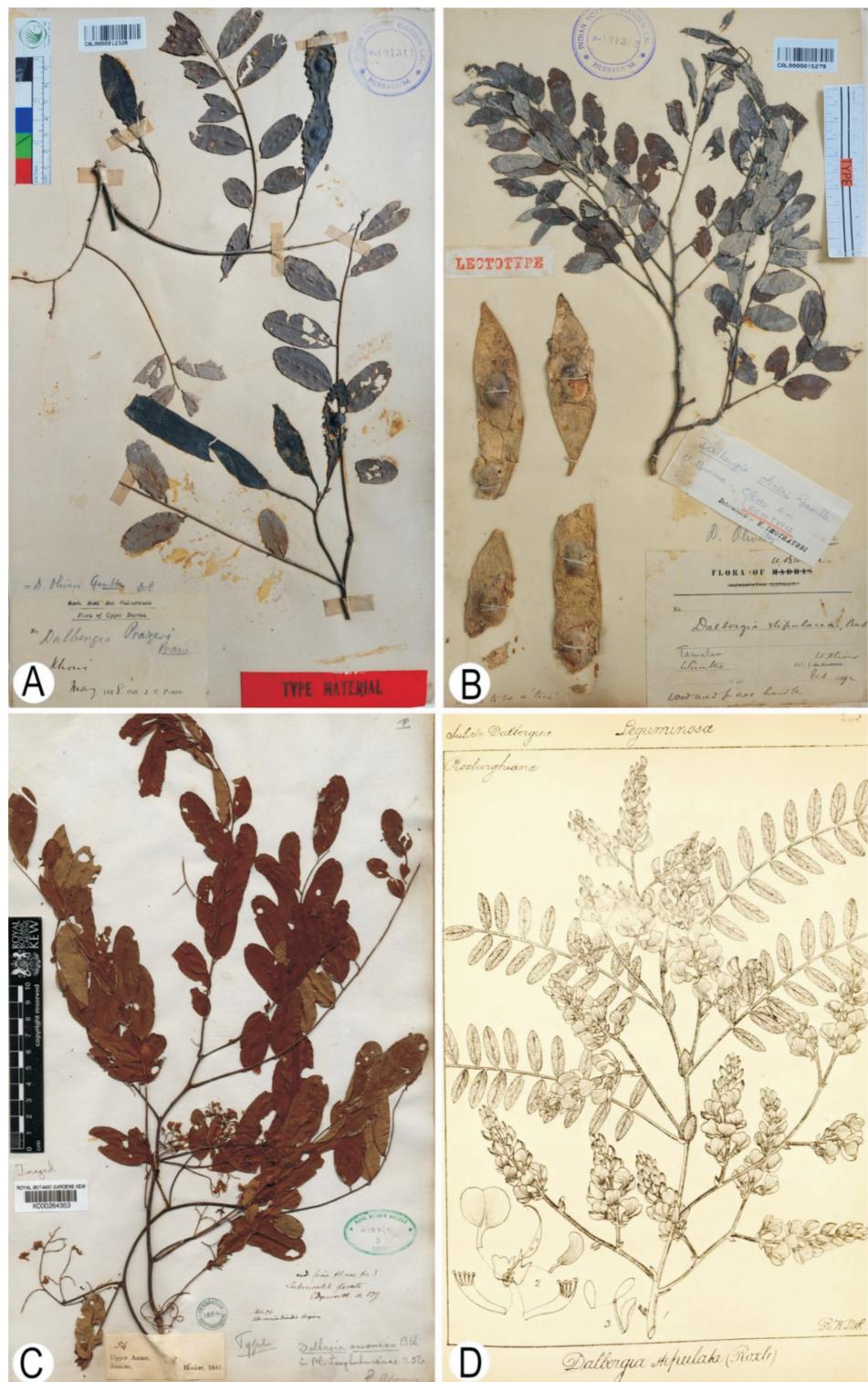


图 1 *Dalbergia prazeri* Prain、奥氏黄檀、托叶黄檀及南岭黄檀的模式 A. *D. prazeri* Prain 的后选模式(CAL); B. *D. oliveri* Gamble ex Prain 的后选模式(CAL); C. *D. assamica* Benth. 的后选模式(K); D. *D. stipulacea* Roxb. 的后选模式(CAL)。

Fig. 1 Types of *Dalbergia prazeri* Prain, *D. oliveri* Gamble ex Prain, *D. stipulacea* Roxb. and *D. assamica* Benth.

A. Lectotype of *D. prazeri* Prain (CAL); B. Lectotype of *D. oliveri* Gamble ex Prain (CAL); C. Lectotype of *D. assamica* Benth. (K); D. Lectotype of *D. stipulacea* Roxb. (CAL).

Natl. Hist. Nat., B, *Adansonia* 18: 138. 1996; Niyomdham et al, *Fl. Camb. Laos Vietn.* 29: 42. 1997; Niyomdham, *Thai. For. Bull. (Bot.)* 30: 126. fig. 1. 2002. — *D. lanceolaria* var. *assamica* (Benth.) Thoth., *Bull. Bot. Surv. India* 25(1-4): 171. 1983 & Tax. Revis. *Dalbergieae Ind.* 144. 1987. Type: India, Assam, *Griffith* 546 (lecto-, K!, designated by Thothathri, 1987).

— *D. balansae* Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 70: 54. 1901 & *Ann. Roy. Bot. Gard. (Calcutta)* 10(1): 90. pl. 72. 1904; T. Chen, *Fl. Reip. Pop. Sin.* 40: 120. 1994. Type: Vietnam, Ha Tay, *Balansa* 2289 (lecto-, P!, designated by Niyomdham & Pham, 1996; isolecto-, K!, P!).

— *D. bhutanica* Thoth., *Bull. Bot. Surv. India* 14: 189. 1972 [1975] & Tax. Revis. *Dalbergieae Ind.* 158. 1987. Type: Bhutan, Engo forest, Narchu valley, *Prain s.n.* (holo-, CAL!; iso-, CAL!, LE).

— *D. hupeana* Hance var. *laccifera* Eberh. & Dubard, *Bull. Mus. Natl. Hist. Nat.* 15: 385. 1909; Gagnep., *Fl. Gen. Indoch.* 2: 498. 1916; P. H. Ho,

*Fl. Ill. Vietnam* 1(2): 1114, f. 3162. 1991. — *D. assamica* Benth. var. *laccifera* (Eberh. & Dubard) Niyomdham, *Bull. Mus. Natl. Hist. Nat., B, Adansonia* 18: 138. 1996; Niyomdham et al, *Fl. Camb. Laos Vietn.* 29: 44. 1997. syn. nov. Type: Vietnam, *Eberhard's s.n.* (holo-, P!).

— *D. prazeri* Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 66: 452. 1897 & 70: 53. 1901. syn. nov. Type: Myanmar, *Prazer s.n.* (CAL0000012326, CAL!, lectotype designated here; isolectotypes, CAL!, K!).

致谢 感谢数家植物标本馆(CAL, K, P)给予查阅标本的方便!

## 参考文献:

- PRAIN D, 1897. Noviceae Indicae XV. Some additional Leguminosae [J]. *J. Asiatic Soc. Bengal Pt 2 Nat. Hist.*, 66: 452.  
 PRAIN D, 1901. The Asiatic species of *Dalbergia* [J]. *J. Asiatic Soc. Bengal Pt 2 Nat. Hist.*, 70: 53.  
 PRAIN D, 1904. The species of *Dalbergia* of South-eastern Asia [J]. *Ann. Roy. Bot. Gard. (Calcutta)*, 10(1): 92.  
 THOTHATHRI K, 1987. Taxonomic revision of the tribe *Dalbergiae* in the Indian Subcontinent [M]. New Delhi: Botanical Survey of India: 134.

(上接第 588 页 Continue from page 588 )

- Food Res Dev, 31(7): 164-166. [马烽, 朱亚玲, 陈明辉, 等, 2010. 金银花中绿原酸提取工艺研究进展 [J]. 食品研究与开发, 31(7): 164-166.]  
 NAGELLA P, MURTHY HN, 2010. Establishment of cell suspension cultures of *Withania somnifera* for the production of withanolide A [J]. *Bioresour Technol*, 101: 6 735-6 739.  
 NATIONAL PHARMACOPOEIA COMMITTEE, 2010. *Pharmacopoeia of the People's Republic of China* [M]. Beijing: Chinese Medicine Science Technology Press. [国家药典委员会, 2010. 中国药典(一部) [M]. 北京: 中国医药科技出版社.]  
 NI FY, LIU L, SONG YL, et al, 2015. Anti-complementary phenolic acids from *Lonicera japonica* [J]. *Chin J Chin Mat Med*, 40(2): 269-274. [倪付勇, 刘露, 宋亚玲, 等, 2015. 金银花中抗补体活性酚酸类成分的研究 [J]. 中国中药杂志, 40(2): 269-274.]  
 RODRIGUEZ DE SOFILLO DV, MH, 2002. Chlorogenic acid modifies plasma and liver concentrations of: cholesterol, triacylglycerol, and minerals in (fa/fa) Zucker rats [J]. *J Nutr Biochem*, 13: 717-726.  
 WANG L, REN X, 2009. Optimization of technology for extraction of chlorogenic acid from *Flos lonicerae* with ethanol [J]. *Bever Ind*, 12(1): 18-20. [王利, 冉旭, 2009. 金银花中绿原酸醇提工艺的研究 [J]. 饮料工业, 12(1): 18-20.]  
 WANG SK, XU YL, PAN M, et al, 2010. Research on the extraction of chlorogenic acid from sweet potato leaf and its antibacterial efficiency [J]. *J Anhui Agric Sci*, 38(1): 5 862-5 863, 5 876. [王世宽, 许艳丽, 潘明, 等, 2010. 甘薯叶中绿原酸的提取及抑菌作用的研究 [J]. 安徽农业科学, 38(1): 5 862-5 863, 5 876.]  
 WANG TZ, LI YM, 2000. *Flos Lonicerae*'s research progress [J]. *West Chin J Pharm Sci*, 15(4): 292-298. [王天志, 李永梅, 2000. 金银花的研究进展 [J]. 华西药学杂志, 15(4): 292-298.]  
 WU L, 2007. Effect of chlorogenic acid on antioxidant activity of *Flos lonicerae* extracts [J]. *J Zhejiang Univ Sci B*, 8: 673-679.  
 XU JW, ZHAO XJ, WANG XY, et al, 2011. Research progress of evaluation, breeding and application on the commonly used Chinese medicinal herbs of honeysuckle [J]. *Sci Technol Innov Her*, 1: 17. [徐建伟, 赵小俊, 王雪艳, 等, 2011. 常用中药材金银花的评价、育种和应用研究进展 [J]. 科技创新导报, 1: 17.]  
 YANG DJ, ZHONG GY, LI LY, et al, 2011. The present situation and market analysis of the extracts from honeysuckle, <http://www.zgcqxs.net/default/comshow-810-23081.shtml>, 5. 29. [杨大坚, 钟国跃, 李隆云, 等, 2011. 金银花提取物的现状及市场分析, <http://www.zgcqxs.net/default/comshow-810-23081.shtml>, 5. 29.]  
 YIN ZP, SHANGGUAN XC, CHEN JG, et al, 2013. Growth and triterpenic acid accumulation of *Cyclocarya paliurus* cell suspension cultures [J]. *Biotechnol Bioproc Eng*, 18: 606-614.  
 YU SL, ZHANG L, SUN L, 2002. *Flos Lonicerae*'s research progress [J]. *Lishizhen Med Mat Med Res*, 13(8): 498-500. [于生兰, 张龙, 孙玲, 2002. 金银花的研究进展 [J]. 时珍国医国药, 13(8): 498-500.]