



Second-Step Lectotypification of Bauhinia Khasiana Baker (Leguminosae: Caesalpinioideae)

Author: Bandyopadhyay, Subir

Source: Candollea, 68(1) : 99-103

Published By: The Conservatory and Botanical Garden of the City of Geneva (CJBG)

URL: <https://doi.org/10.15553/c2013v681a14>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Second-step lectotypification of *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae)

Subir Bandyopadhyay

Abstract

BANDYOPADHYAY, S. (2013). Second-step lectotypification of *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae). *Candollea* 68: 99-103. In English, English and French abstracts.

A specimen at K is designated here as the second-step lectotype of the name *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae).

Key-words

LEGUMINOSAE – *Bauhinia* – Second-step lectotypification

Résumé

BANDYOPADHYAY, S. (2013). Seconde étape de la lectotypification du nom de *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae). *Candollea* 68: 99-103. En anglais, résumé anglais et français.

Un spécimen de K est désigné comme lectotype de seconde étape pour le nom de *Bauhinia khasiana* Baker (Leguminosae: Caesalpinioideae).

Address of the author: Central National Herbarium, Botanical Survey of India, P. O. Botanic Garden, Howrah-711103, West Bengal, India.

Email: subirbandyopadhyay@yahoo.com

Submitted on April 19, 2012. Accepted on January 8, 2013.

Edited by P. Bungener

ISSN: 0373-2967 – Online ISSN: 2235-3658 – *Candollea* 68(1): 99-103 (2013)

© CONSERVATOIRE ET JARDIN BOTANIQUES DE GENÈVE 2013

BAKER (1878: 281) in the protologue of *Bauhinia khasiana* Baker (*Leguminosae: Caesalpinioideae*) cited “Khasia hills, alt. 1-3000 ft., *Hook. fil. & Thomson*” along with the morphological description.

From STAFLEU & COWAN (1976: 104), it is known that Baker’s types are mainly at K and WELT.

There is no specimen of *Bauhinia* L. in Baker’s collection at WELT. However, parts of the Baker’s collection are yet to be sorted. The Baker’s herbarium at WELT consists of material collected by Baker and others in the 1840’s to 1860’s, primarily from Britain and Europe (NEW ZEALAND NATIONAL HERBARIUM NETWORK, 2012). So probably material from Khasia, India is not present in the unsorted part.

There are two relevant sheets at K. Details of these collections at K and some other herbaria are given in Table 1.

THOTHATHRI (1965: 131) under *Phanera khasiana* (Baker) Thoth. cited a list of specimens examined and included in it “Khasia Hills, 1000 m. – *Hook.f. & Thomson* s.n. (isotype in CAL)”. He also annotated this specimen with leaves and immature inflorescence, having barcode number [CAL0000011245], as “Isotypus (*Bauhinia khasiana* Baker)” in 1965.

LARSEN & LARSEN (1980: 189) cited “Type: *Hooker f. & Thomson* s.n., Inde (Khasia), K”. It is to be noted that they labeled the specimens at NHN-L, P and S as isotype (Table 1). However, none of the sheets at K has been annotated as type by Kai Larsen & Supee S. Larsen, although the determinavit slips attached by them in 1977 bear the name *B. khasiana* Baker subsp. *khasiana* in the handwriting of S. S. Larsen.

ZHANG & ZHU (2006) cited “Type: India. Mt. Khasia: *Hooker & Thomson* s.n. (holotype, K!; isotype, U!)”. They have, however, not given a clue in their publication so that one can find out the holotype examined by them at K. No other specimen at K has been also annotated by them accordingly. Dr. Nicolien Sol (*pers. comm.*), however, informed that there is no such specimen at U.

The choice of LARSEN & LARSEN (1980: 189) at K, made before 1st January 2001, has to be accepted as effective lectotypification. It supersedes the CAL specimen cited as “isotype” by THOTHATHRI (1965: 131) because this latter considers the CAL specimen as an isotype, i.e. a duplicate of the type. It must be kept in mind that Baker was Keeper at Kew, and that the Kew collections were, *prima facie*, the material on which Baker based the description.

As there is no evidence that Baker used only one specimen for describing the species, the type citation by LARSEN & LARSEN (1980) has to be accepted as the first-step lectotype as it cannot be ascertained which of the specimens at K was selected by them as lectotype. Thus a second-step lectotype has to be designated following MCNEILL & al. (2006, Art. 9.15).

Bauhinia khasiana Baker in Hook. f., Fl. Brit. India 2: 281. 1878.

Lectotypus (first-step, designated by LARSEN & LARSEN, 1980): “Hab. Khasia. Regio trop. Alt. 1-3000 ped”, *J. D. Hooker & T. Thomson* s.n. (K [K000496925, K000496926], [photo]!).

Lectotypus (second-step, here designated): “Hab. Khasia. Regio trop. Alt. 1-3000 ped”, *J. D. Hooker & T. Thomson* s.n. (K [K000496926], [photo]!; iso-: BM [BM001010600] [photo]!, CAL [CAL0000011245]!, MH [MH65851]!, NHN-L [L0018741] [photo]!, P [P030134-6] [photo]!, S [S-G-896] [photo]!) (Fig. 1).

In the protologue of *B. khasiana* (BAKER, 1878) the species has been stated to be “ecirrhose”. This is, however, not correct. Although the collections of *J. D. Hooker & T. Thomson* s.n. at K are definitely “ecirrhose”, this species is actually a liana with tendrils. However a relevant collection of *J. D. Hooker & T. Thomson* s.n. at S has tendril in it.

Acknowledgements

The author is thankful to the Director, Botanical Survey of India and Additional Director, Central National Herbarium, BSI for the facilities, to Dr. Anthony E. Orchard, Centre for Plant Biodiversity Research, Canberra, Australia & Dr. K. N. Gandhi, Harvard University for their suggestions on typification of this name, to the Director, Royal Botanic Gardens, Kew for providing literature, Dr. V. P. Prasad, former IBLO, RBG, Kew for sending the images of the specimens at K, Dr. V. Sampath Kumar, IBLO, RBG, Kew for helping me to have the images of the bar coded specimens at K, to Dr. Leon Perrie, Curator of Botany, WELT for the information on type specimen, Dr. Rob Huxley and Dr. John Hunnux for sending image of the specimen at BM, to Dr. M. K. Pathak for helping me to submit a request through “colhelper” for the type of *B. khasiana* at P, to Dr. Edwinstaël Ramanantsoa, Muséum National d’Histoire Naturelle Herbiere National de Paris for providing the images of the specimens at P and to Dr. Nicolien Sol, for providing the image of the specimen at NHN-L.

Table 1. – Details of herbaria collections of *Bauhinia khasiana* Baker (collections J. D. Hooker & T. Thomson s.n. from Khasia hills).

Herbaria	Barcode/Herbarium number	Data recorded on the original label	Annotations added on the herbarium sheet
BM	[BM001010600]	<i>Phanera rufa</i> Bth, Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Bauhinia khasiana</i> Baker, det. Kai Larsen & Supee S. Larsen, 1979
CAL	[CAL0000011245]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n. [it is written " <i>Bauhinia khasiana</i> Baker" on the sheet by crossing out the name " <i>rufa</i> " with a pen]	<i>Phanera khasiana</i> (Baker) Thoth. Isotypus (<i>Bauhinia khasiana</i> Baker). Determinavit K. Thothathri, 1965. <i>Bauhinia khasiana</i> Baker. Duplicate of the type in K. Det. Subir Bandyopadhyay, 12.8.1994
K	[K000496925]	Note: The herbarium label is: " <i>Phanera rufa</i> Bth, Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n." and has been pasted close to the left hand side bottom corner near the flowering specimen. Initially the name <i>B. Hookeri</i> Baker was written near this specimen. Then someone has written <i>khasiana</i> by crossing out <i>Hookeri</i> with a pencil. On a piece of paper, affixed on the left hand side top corner near the specimen only with two leaves, it is written as <i>Bauhinia</i> , Scanden(?), Chura(?), 2000 ft, Nov.(?), 15/50. The sheet bears the stamp 'HERBARIUM HOOKERIANUM 1867'	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977
K	[K000496926]	Note: The herbarium label is: " <i>Phanera rufa</i> Bth, Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n." and has been found to be pasted on the left hand side top corner near a flowering specimen. On a piece of paper, affixed on the left hand side margin of the sheet at bottom corner near another flowering specimen, it is written as 1685, <i>Phanera</i> , <i>Bauhinia</i> , fl. [illegible] turning red, Scandent (?), [illegible], July 13/50. Initially the name <i>B. Hookeri</i> Baker was written near this specimen. Then someone has written " <i>khasiana</i> Fl. Ind II 281" by crossing out <i>Hookeri</i> with a pencil. The sheet bears the stamp 'HERBARIUM HOOKERIANUM 1867'	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977
MH	[MH65851]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , isolectotype. Det. Subir Bandyopadhyay, 24.1.2011
NHN-L	[L0018741]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Phanera rufa</i> Bth., det. H. C. D. de Wit, July 1951. <i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977, isotype [Another label of red colour affixed by herb L shows it to be an isotype]
P	[P030134]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977, isotype
P	[P030135]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977, isotype
P	[P030136]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n.	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 1977, isotype
S	[S-G-896]	<i>Phanera rufa</i> Bth., Khasia, 1-3000 ped, J. D. Hooker & T. Thomson s.n. [it is written " <i>B. rufa</i> R. Grah." on the sheet]	<i>Bauhinia khasiana</i> Baker subsp. <i>khasiana</i> , det. Kai Larsen & Supee S. Larsen, 197_ [sic], isotype

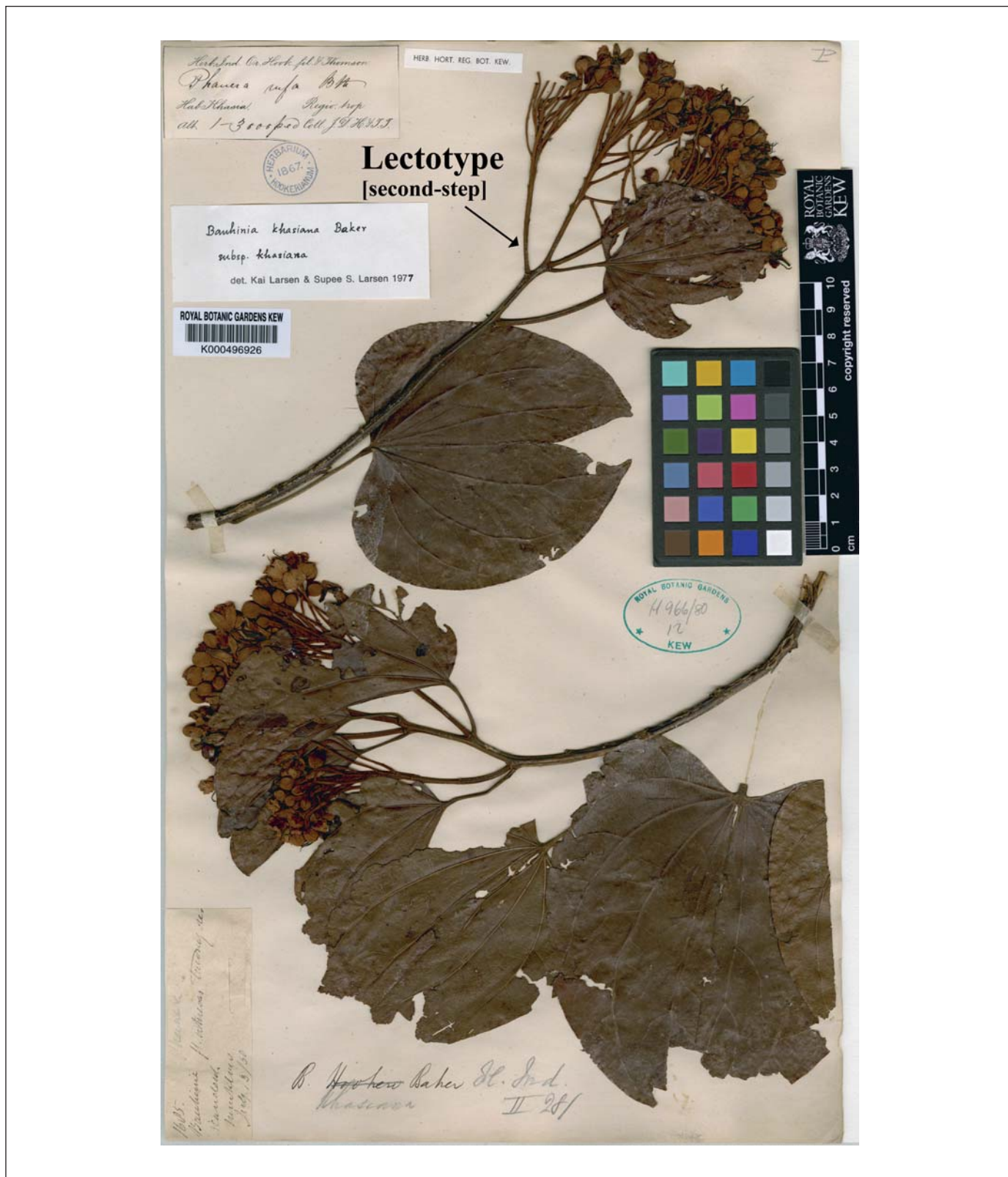


Fig. 1. – Lectotype (second-step) of *Bauhinia khasiana* Baker (designated by an arrow).

[J. D. Hooker & T. Thomson s.n., K] © The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with permission]

References

- BAKER, J. G. (1878). *Bauhinia*. In: HOOKER, J. D., *Fl. Brit. India* 2: 275-285. London.
- LARSEN, K. & S. S. LARSEN (1980). *Bauhinia*. In: AUBRÉVILLE, A. & J.-F. LEROY (ed.), *Fl. Cambodge Laos Viêtnam* 18: 146-210. Paris.
- MCNEILL, J., F. R. BARRIE, H. M. BURDET, V. DEMOULIN, D. L. HAWKSWORTH, K. MARHOLD, D. H. NICOLSON, J. PRADO, P. C. SILVA, J. E. SKOG, J. H. WIERSEMA & N. J. TURLAND (2006). International Code of botanical nomenclature (Vienna Code). Adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005. *Regnum Veg.* 146.
- NEW ZEALAND NATIONAL HERBARIUM NETWORK (2012). Herbarium details: Museum of New Zealand Te Papa Tongarewa Herbarium (WELT) [www.nzherbaria.org.nz/herb_details.asp?NZHerb_ID=9].
- STAFLEU, F. A. & R. S. COWAN (1976). *Taxonomic literature* 1. Bohn, Scheltema & Holkema.
- THOTHATHRI, K. (1965). Studies in Leguminosae 5. Taxonomic and nomenclatural notes on the Indo-Burmese species of *Bauhinia* Linn. *Bull. Bot. Soc. Bengal* 19: 130-134.
- ZHANG, D.-X. & G.-H. ZHU (2006). The identity of *Bauhinia claviflora* and of *B. dioscoreifolia* (Leguminosae). *Acta Phytotax. Sin.* 44: 651-653.