

Typification of *Phaseolus mungo* Linnaeus

Suchandra Dutta

Department of Botany, R. D. & S. H. National College, Bandra (W.), Mumbai- 400050, India

E-mail: dutta.suchandra2015@gmail.com

[Received 27.11.2016; Revised 18.12.2016; Accepted 25.12.2016; Published 31.12.2016]

Abstract

This paper deals with the neotypification of the Linnaean name *Phaseolus mungo* L. of Leguminosae.

Key word: *Phaseolus mungo*, Neotype

The species concept of *Phaseolus mungo* L. was based on a plant growing in Uppsala Garden and described by Linnaeus in his own *Mantissa Plantarum* [101. 1767 and alternatively in *Systema Naturae* (ed. 12) 2: 482. 1767].

Linnaeus (*Mantissa Plantarum* 101. 1767) referred to Plukenet: "*Phaseolus hirsutus flexicaulis, mungo affinis è Maderaspat(Madreas = Chennai), caule tereti. Pluk. Alm. 290. (1696)*". Plukenet (*Almagestum botanicum*, 1696) cited "Mungo" as a noun. (P. 290: <http://bibdigital.rjb.csic.es/ing/Libro.php?Libro=1572>). Once, the Tamil name was "mûngu," ultimately from Sanskrit *mudga*. Tamil's "mungu" became "Mungo" in Plukenet's work, and Linnaeus used the same (<http://www.dictionary.com/browse/mung-bean>). *Phaseolus mungo* L. is an annual plant with stem sub-erect or flexuose, densely clothed with loose deflexed hairs and has its wild relatives in India (Fuller 2007; Somta *et al.* 2015).

As understood from the Linnaean Plant Name Typification project, there is no extant original element for *Phaseolus mungo* and as indicated by Linnaeus in his synonymy, the Plukenet's plate in *Almagestum* (1696), '290' is the page number and not the plate number. Hence, it was concluded that *Phaseolus mungo* L. needs a neotype in the absence of any original elements.

So, for typification purpose, personal communication with the relevant herbaria like K, BM, L, UPS, BGBM, etc. were searched and in order to confirm if any existing actual specimens from which the illustration was drawn (in Pluk. Alm. 290) which might qualify as 'typotype' and it is confirmed that there is no original material existing in any herbaria.

In Willdenow Herbarium (BGBM), there are two specimens from India, collected by Klein (1799), though not seen by Linnaeus (personal communication with Dr. Robert Vought) and in UPS herbarium there are 3 vouchers of *Phaseolus mungo* L. which were collected by Rottler from Coromandel, India. One of these specimens from UPS- THUNB (BOT : V-128829) is now selected here for the purpose of neotypification of *Phaseolus mungo* L.



Figure 1. UPS- THUNB (BOT : V-128829)

Neotypification

Phaseolus mungo L., Mantissa Plantarum 101. 1767; Systema Naturae ed. 12, 2. 482. 1767.

Phaseolus hirsutus flexicaulis, *Mungo affinis e' Maderaspatan, caule tereti* Pluk. Almag. 290. 1696.

The voucher (BOT : V-128829) collected by Rottler from Coromandel, India, deposited in UPS –THUNB Herbarium at Museum of Evolution (Botany), Uppsala University, Sweden agrees the most with the protologue of *Phaseolus mungo* L. and hence designated here as its Neotype.

Acknowledgements

The authors would like to thank Dr. Kanchi N. Gandhi, Senior Nomenclator Registrar, Harvard University for the help on this typification work. Thanks are due to Dr. Hans-Joachim Esser, Curator and Research Scientist, Botanische Stratssammlung, Muenchen; Dr. Mats Hjertson, Curator (vascular plants), Uppsala University, Museum of Evolution, Botany; Dr. Robert Vogt, Curator of the Herbarium Botanischer Garten and Botanisches Museum Berlin-Dahlem, Freie Universität Berlin; Dr. Henry Väre, Senior Curator, Helsinki (H) and Dr. Raneer Prakash, Curator, Flowering Plants Dept. of Life Sciences, The Natural History Museum, UK for their support in searching for the relevant specimens.

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