



# A Report on Gregarious flowering of *Bambusa bambos* Voss in Forest Research Institute, Dehradun

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## Manuscript details:

Received: 16.08.2022  
Accepted: 16.11.2022  
Published: 31.12.2022

## Cite this article as:

Chandra A, Verma PK, Baig S and Nithani HB (2022) A Report on Gregarious flowering of *Bambusa bambos* Voss in Forest Research Institute, Dehradun, *Int. J. of Life Sciences*, 10 (4): 366-368.

Available online on <http://www.ijlsci.in>

ISSN: 2320-964X (Online)

ISSN: 2320-7817 (Print)



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## ABSTRACT

*Bambusa bambos* Voss (Thorny Bamboo) is large and densely clumped bamboo species. Recently, gregarious flowering was occurred in occurred in Forest Research Institute, Dehradun. Flowering of bamboo is a unique and a very complex phenomenon. Information on incident of flowering in bamboo is important for understanding pattern, thereby developing model for prediction of bamboo flowering.

**Keywords:** Bamboo flowering, Gregarious, Sporadic, Prediction

## INTRODUCTION

Flowering in bamboo is a unusual phenomenon which may be gregarious or sporadic. Flowering is synchronous in all same seed sources clumps in large area, it is referred as gregarious whereas when flowering occurs in scattered clumps, it is known as sporadic. Most of the Asiatic bamboo species have very long flowering cycle. The period between succeeding flowering reveals a significant variations among various bamboo species. In *Schizostachyum elegantissimum*, flowering cycle is 3 years whereas in *Phyllostachys bambusoides* it may be as long as 120 years (Seethalakshmi and Kumar, 1998).

*Bambusa bambos* Voss native of Southeast Asia is a very dense tufted bamboo species. It is also known as 'Thorny Bamboo' and is often used for construction purposes. Nodes contain a central dominant branch with one or two lateral branches which are often spine-like. Thorny lower branches are long and wiry, and usually bent towards the ground. The upper leafy branches produce a fan like plume and bearing small spines. The update nomenclature of the species is given hereunder:

*Bamusa bambos* (L.) Voss in Vilmorin, Blumengartneri 1: 1189. 1896; McClure, Blumea Suppl. 3:95.1946; Nicolson st al., Regnum Vegetable 119:306.1988; Bennet and Gaur, Thirty Seven Bamboos Growing in





**Fig.1. Flowering of *Bambusa bambos* in Forest Research Institute, Dehradun**



India 19.1990; Tiwari, Monogr. Bamboo 33:1992; *Arundo bambos* L. Sp. Pl. 81. 1773; *Bambusa arundinacea* Retz, Observ. 5:24.1789; Roxb., Pl. Corom. 1: 56, t79. 1796; *Bambusa arundinarea* (Retz.) Willd., Sp. Pl. 2:245. 1799; Munro, Trans, Linn. Soc. London 26: 103. 1868; Gamble, Ann. Roy. Bot. Gard. Calcutta 7: 51. 1896; Hook. F., Fl.Brit. India 7: 395. 1897.; *Bambusa arundinacea* var. *gigantea* Bahadur in Ind. J. For.4: 283.1981; *Bambusa bambos* var. *bambos* forma *gigantea* (Bahadur) Jain and Biswas in Ind. Journal of For. 26 (4); 433. 2003; *Bambusa bambos* var. *spinosa* (Roxb. Ex Buch.-Ham.) Jain and Biswas in Ind. J. For. 26 (4): 433. 2003.

Different flowering cycles 30-34, 30-45 and 44-49 years of the species have been reported by authors. Different flowering cycles have been suggested by various workers viz. 30 years (Gamble, 1896), 30-32 years Gupta (1928), 30-34 years (Blatter, 1929), 30-32 years Janzen (1976), 45 years (Gadgil and Prasad, 1984), 30 years (Gaur, 1987), 45 years (Dransfield and Widjaja, 1995), 45-52 years (Banik, 2000), 45-48 years (Tripathi and Vasu, 2010) and 50 years (Nair and Rajesh, 2010).

In Uttarakhand, gregarious flowering have been observed in 1832, 1836, 1881, 1882, , and 1971-72. Bennet and Gaur (1990) observed the flowering 1984 in the Bambusteam of Forest Research Institute, Dehradun. Naithani and Sanwal (2017) reported gregarious flowering in 2016 in Uttarakhand and Uttar Pradesh. Recently during 2022 gregarious flowering occurred in Teak Experimental area near old Northern Forest Rangers College Pavellion adjacent to the Chakrata Road of the Forest Research Institute, Dehradun. Profuse flowering was observed in all the clumps (Fig.1.).

Prediction of flowering in bamboo is need of the hour for timely harvesting green biomass and its utilization. Flowering phenomenon is complex process and various workers have reported and predicted the flowering cycle. However, still forecasting of flowering in bamboo remains one the biggest challenges for the researchers. Reporting of flowering of different bamboo species will be useful for consolidating the records which will pave the way for understanding of flowering pattern and prediction of flowering in near future.

## Acknowledgement

Authors are thankful to the Director, Forest Research Institute, Dehradun for support and encouragement. Authors are grateful to National Project Director, AICRP-Bamboo for providing facilities and constant support for the study.

**Conflict of Interest:** None of the authors have any conflicts of interest to disclose. All the authors approved the final version of the manuscript.

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