## Short Communication

# Flowering Cycles of *Bambusa burmanica*, *B. cacharensis* and *B. jaintiana*

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#### Key words : Bamboo, Bambusa burmanica, B. cacharensis, B. jaintiana, flowering

The exact flowering cycles (from seed to seed) of bamboos are known for few species. Most of the past reports on bamboo flowering cycles are based on speculation and estimation (Hasan 1973, Banik 1991). The flowering cycles for many species of bamboo from India, Bangladesh and Myanmar were reported (Cavendish 1905, Blatter 1930, Bor 1941, Hasan 1973, Bahadur 1980, Naithani 1990, Banik 1991, Alam 1995). This paper presents the estimated flowering cycles of *Bambusa burmanica* Gamble, *B. cacharensis* Majumdar and *B. jaintiana* Majumdar based on past records and recent flowering (Table 1).

### Bambusa burmanica Gamble

The first flowering record for *B. burmanica* is 1890. Then the recurrences of its flowering in northeast India and Bangladesh were reported between 1983-89 (Table 1). The interval between these two flowering periods ranges from 94 to 100 years. The flowering cycle for most of the bamboo species from Myanmar and northeast India is 45 years (Gadgil and Prasad 1984, Campbell 1985). It seems that this species might had flowered during 1930s which had been missed. Considering the flowering periodicity of bamboos from this region it may be estimated that flowering cycle of *B*. *burmanica* is  $45 \pm 5$  years.

### Bambusa cacharensis Majumdar

Brandis (1906) reported that "betua" (treated under *B. polymorpha*, but presently confirmed as *B. cacharensis*) flowered in Sylhet in December 1889. In March 1984 it flowered again in Sylhet. The interval between these two flowering phases is about 94 years. An in termediate flowering cycle might have been missed. Speculating an intermediate flowering, the cycle may be estimated as  $45 \pm 5$  years (Table 1).

#### Bambusa jaintiana Majumdar

The first flowering record for *B. jaintiana* from Chen Hills, Burma (Myanmar) is 1903. It was also collected in flowering condition from North Cachar Hills, India in 1915 (Table 1). Recently it has been collected in flowering condition from Bangladesh between 1978 - 86. The interval between these flowering phases ranges from 63 to 83 years. Speculating an intermediate flowering, the cycle is estimated as  $35 \pm 5$  years (Table 1).

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	intering cycles.			
Species	Locality	Flowering month, year	Estimated flowering cycle (yrs)	References
Bambusa burmanica	Katha district, Burma (Myanmar)	1890	45 <u>+</u> 5	Gamble (1896)
112 may 12 years	North Cachar Hills, India	August 1986		Biswas (1993)
		November 1988		Biswas (1993)
	Chittagong and Chittagong Hill Tracts, Bangladesh	April 1983		Bangladesh Forest Research Institute, Chittagong (BFRI) Herbarium collection number, M. K. Alam 4603;
		April 1986		BFRI Hb. No. M. K. Alam 5618;
		May 1989		BFRI Hb. No. M. K. Alam 6257
Bambusa cacharensis	Sylhet	December 1889	45 <u>+</u> 5	Brandis (1906) (treated under <i>B. polymorha</i> by local name 'Betua')
	Sylhet	March 1984		BFRI Hb. No. M. K. Alam 5019.
Bambusa jaintiana	Chen Hills, Burma	1903	35 <u>+</u> 5	Majumdar (1989)
	North Cachar Hills, India	1915		Majumdar (1989)
	Chittagong, Bangladesh	July 1978		BFRI Hb. No. M. K. Alam 3/3
	Gazipur, Bangladesh	February 1982		BFRI Hb. No. M. K. Alam 4238
		April 1986		BFRI Hb. No. M. K. Alam 5585

Table 1.	Flowering dates of Bambusa burmanica, B	cacharensis and B. jaintiana	with localities and
	estimated flowering cycles.		

#### References

Alam, M. K. 1995. Systematic Studies in the Bambusoideae of Bangladesh. Ph. D. Thesis, Dept. of Botany, University of Dhaka. 397 pp. (unpublished).

Bahadur, K. N. 1980. A note on the flowering of Bambusa nutans. Indian Forester 106 (4): 314-316.

- Banik, R. L. 1991. Biology and Propagation of Bamboos of Bangladesh. Ph. D. Thesis, Dept. of Botany, University of Dhaka. 321 pp. (unpublished).
- Biswas, Sas 1993. On the occurrence of *Bambusa burmanica* Gamble in India. *Indian Journal of Forestry* 16 (1): 75-76.
- Blatter, E. 1930. The flowering of Bamboo-Part III. Journal of Bombay Natural History Society 33: 447-451.

Bor, N. L. 1941. Thyrsostachys oliveri Gamble. Indian Forest Records (New Series), Botany 2(2): 221-225.

Brandis, D. 1906. Indian Trees. Periodical Experts Book Agency, Delhi. 669 pp. (reprinted 1978).

- Campbell, J. J. N. 1985. Bamboo flowering pattern : a global view with special reference to Asia. Journal of American Bamboo Society 6 (1-4) : 17-35.
- Cavendish, F. H. 1905. Flowering of Dendrocalamus hamiltonii in Assam. Indian Forester 31: 479.
- Gadgil, M. and Prasad, S. N. 1984. Ecological determinants of life history evolution of two Indian bamboo species. *Biotropica* 16 : 161-172.

Gamble, J. S. 1896. The Bambuseae of British India. Annals of Royal Botanic Garden, Calcutta 7: 133.

Hasan, S. M. 1973. Seedling behaviour of Bangladesh bamboos. Bano Biggyan Patrika 5(2): 21-36.

Majumdar, R. B. 1989. Bambusoideae In: Karthikeyan, S.; Jain, S. K.; Nayar, M. and Sanjappa, M. (eds.). Florae Indicae Enumeratio - Monocotyledonae. Botanical Survey of India. pp. 274-283.

Naithani, H. B. 1990. Notes on the flowering of Thyrsostachys regia. Indian Forester 116 (4): 327-328.

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