



## Reproductive Phenology and Productivity Pattern of *Moghania* in Sal Forest of Gorakhpur, India

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**Abstract:** The congeneric species of genus *Moghania* [*M. chappar* (Benth.) Kuntze, *M. bracteata* (Roxb.) L., *M. lineata* (L.) Ktze. and *M. prostrata* Roxb.] are the common understorey associates of sal forest of Gorakhpur Forest Division, India. The main objective of the paper is to determine the phenological pattern and productivity of different congeneric species of *Moghania* facing different level of disturbance. The flowering peak is closely follows the fruiting peak. In general, peak of fruit maturation did not coincide significantly for any two species. The result shows that peak bloom of species other than *M. prostrata* overlapped to a considerable degree. Total number of seeds per plant was highest for *M. chappar*. Number of seeds and their germination was comparatively greater in experimental pot condition than in field –condition. The total as well as above ground biomass of conspecific species of *Moghania* differ significantly ( $P < 0.01$ ) among the species as evident from ANOVA test. The two species, *M. chappar* and *M. bracteata* can provide good understorey cover even in presence of considerable disturbance and thus supports the flora and fauna of the disturbed forests. A deeper understanding of reproductive phenology and productivity pattern on long term study at species level is very essential for the maintenance of ecosystem attributes in disturbed sal forest.

**Keywords:** Phenology, Flowering, Fruiting, Disturbance, Productivity, *Moghania*, Sal forest

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