

## Role of Hornbills in Seed Dispersal And Regeneration of Evergreen Forest Trees

Krishnaraj T.R and K H Amitha Bachan

Research & PG Department of Botany, M.E.S. Asmabi College, P. Vemballur, Kodungallur, Thrissur.

This study aimed to understand the composition of Hornbill nesting habitat, the regeneration rate of Threatened, Endemic and Hornbill dispersed trees in the nesting habitat and also the impact of flood and landslide in 2018 on Great and Malabar Pied Hornbill nesting, nesting trees and nesting habitat. The data collection was done during the month of February to April 2018. Radial plots of 10.5 m radius (346 meter square, 0.034 ha) were taken at each selected nest site to understand the composition of the nesting habitat. The circular plot is further divided in to eight radial transects (T1-T4) and four marginal transects (T5-T8). The transect facing towards the nesting hole is considered as the transect number one (T1). The GPS data of Hornbill nest site in the area recorded by Hornbill foundation since 2005 were (Bachan 2006, Bachan *et al.* 2011 and 2019) superimposed to understand the Impact of Flood 2018/landslide. Detailed phytosociologic sampling of six nesting locations revealed

occurrence of nearly 17 wet evergreen forests trees in the nesting composition and among the regenerated ones many 7 are endemic trees including IUCN threatened species. The regeneration data indicate high regeneration rate for *Aglaia barberi*, *Beilschmiedia bourdillonii*, *Reinwardiodendron anamalaiense*, *Litsea floribunda*, *Dysoxylum malabaricum*, *Knema attenuate* etc. About 18.75 % Hornbill nests were affected with the last Kerala Flood 2018, of which maximum was at Sholayar range Vazhachal range. The transect one T1 showed significant high rate of Shanon Diversity in the regenerated saplings of endemic and threatened species in comparison with other transects confirming the role of Hornbills seed dispersal of important trees of Western Ghats.

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