

Impact of Flood on The Floral Biodiversity of Athirapilly Grama Panchayath

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The 2018 Kerala flood had a massive impact on the floral biodiversity. The present study was focused on the floral biodiversity of Athirapilly Grama Panchayath. The present study revealed 1164 species of flowering (angiosperm) plants. These plants belong to a total of 692 genera, 142 families. Out of the 1164 species of plants listed, 269 of them were endemic. A total 61 Pteridophytes taxa were enumerated from the study area, which include 52 species of true ferns and 10 species of fern allies. Among the total 61 taxa 23 shows Rarity and Endemism. A total of no of 242 algae were enumerated in the region.

Among the total Plants 261 taxa were found affected by the land slide and extreme flood. The most affected plant species are *Diospyros assimilis*, *Drypetes venusta*, *Canarium strictum*, *Actinodaphne malabarica*, *Aglaiia anamalaica*, etc. The impact frequency estimate shows that *Vateria indica*, *Garcinia gummi-gutta*, *Schleichera oleosa*, *Gmelina arborea*, *Xanthophyllum*

arnottianum, *Ochlandra travancorica* etc had the major impact.

Some plants showed maximum resistance to check landslides such as *Bombax ceiba*, *Mesua ferrea*, *Dysoxylum malabaricum*, *Calophyllum polyanthum* etc. The riparian plants are generally resistant to the natural flood. The species such as *Ochlandra scriptoria*, *Barringtonia acutangula*, *Syzygium occidentale*, *Bamboosa bambos*, *Calophyllum calaba*, *Diospyros Montana*, *Gmelina arborea Roxb*, *Grewia tiliifolia*, *Homonoia riparia*, *Hopea parviflora*, *Humboldtia vahliana* etc showed moderate resistance to the torrential flow and resistance to the natural flood.

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