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Floristic richness in salgala forest reserve, Sri Lanka

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A remarkable feature in floristic diversity seen in Sri Lanka is that, 90% of its endemic species are confined to the rain forests found in the wet zone, having a land area of 15000 Km^2. Study of the floristic richness of the isolated forests found in the wet zone has been identified as a fact of great importance and a needy intervention. Exploration floristic richness of the Salgala Forest Reserve, which is in fact an isolated floristic patch in the wet zone would be of great help to disclose the phytosociological information and the phytogeographical distribution, which were never been explored and made known so far. Salgala forest reserve encompassing an area of 127.8 ha, is located in Kegalle district in Sri Lanka. The absolute location is latitude $7^0\ 6^/\ 48^{//}$ and $7^0\ 7^/\ 84^{//}$ N and longitude $80^0\ 14^/\ 65^{//}$ and $80^0\ 15^/\ 48^{//}$ E. The main objective of the research is to explore the floristic richness of the Salgala forest reserve. There were two specific objectives. i) Identify individual species, families and endemic species in the forest. ii) Identify differences between floristic richness in each elevation.

The forest area was divided into three main zones according to the density of the forest, based on interpretation of a 1:5000 aerial photograph. Vegetation sampling was carried out in three transects within each zone. Located sample size is 10 m X 10 m and the gap between each contiguous samples were 200 m. Nineteen (19) samples were selected maintaining topographic heterogeneity. Over 10cm girth at breast height trees were enumerated.

Total number of 886 tree individuals was enumerated. A total of 29 families, 53 species and 23 endemic species were recorded. Both 221–260 m and 261–300 m elevations claim for highest number of families, each area containing 26(90%) out of a total of 29 families. A fever number of floristic families 17(59%) out of 29 were identified at the elevation of 181–220 m. The highest number of species could be seen within the elevations of 221–260 m and 261–300 m, which were 37(70%) and 39(74%) respectively. Relatively lower number of species was identified at the elevation of 181–220 m. The largest number of endemic species was seen at the elevation of 261– 300 m where 19(83%) out of a total 23 endemic species were recognized.

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