International Seminar on
Plant Systematics:
Present Status and Future Prospects

ISPS 2024

BOOK OF ABSTRACTS

Department of Botany
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BOTANICAL SURVEY OF INDIA

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15 – 17 FEBRUARY 2024

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Organized by

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Malappuram – 673 635, Kerala, India

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TO1-02

An eco-regional approach for prioritizing and conserving areas of Hornbill nesting habitats in the Southern Western Ghats

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Degradation of the primary tropical moist forests, conversion of forests for non-forest purposes including selection felling of old trees for wood industries, forest fire, hunting and its amplification with climate change are the threat factors for hornbill population. Traditional hunting is found to impact if the population is too small and can be ratified with community involvement in hornbill conservation and monitoring programs. Western Ghats Hornbill Foundation with a participatory process has identified 121 Hornbill nests since 2005 within the Anamalai landscape and these are being monitored. Here, we pooled nesting data also from other published literature, geotagged and superimposed with vegetation maps developed based on standard vegetation classification in the QGIS platform. Most of the nests were restricted to low elevation wet evergreen (34) and medium elevation wet evergreen (34) forests, followed by dense moist deciduous forests (7) and degraded moist deciduous (7) forests. The low elevation rainforests of Vazhachal forest division have the highest nesting density with one nest per 5 km^2. Circular vegetation plots of stratified random sampling, covering 24 nests, 20% of the total, resulted in providing a clear picture of heterogenic nesting habitat composition using Species similarity (Bray-Curtis) clustering. Twelve vegetation compositions ranging from primary low elevation rainforests to highly degraded forests were then obtained. The low elevation evergreen group composition represents the good quality primary forests. The data clustered here with additional spatial information such as extent of primary forests, threat factors, landscape and land use data to prioritise conservation