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Theme: Bioprospecting & Bioresources

Oral Presentations

Composition of nesting habitats of Great hornbills (*Bucerosbicornis*) in the tropical forests of Anamalais, Southern Western Ghats

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Hornbills require high quality tropical evergreen forests to thrive. Anamalai part of Western Ghats recorded the maximum populations of Great Hornbills and highest population is recorded within the evergreen forests of Kerala part. This study aimed to understand the plant community composition of hornbill nesting habitat. The potential forest area suitable for hornbill nesting is about 890 sq. km., 43 % of the total forest area (2027 sq. km) in the Anamalais landscape. A total of 61 hornbill nests have been found in the Vazhachal forest division. The highest extent of evergreen forest 191 sq. kms (30%) is in Vazhahcal, followed by Parambikulam Wildlife sanctuary (18%), Nelliampathy forests (18 %), Malayattur forests (16%), Chalakkudy forests (12 %) and Chimmony forests (0.5 %). 80% of the hornbill nests are found in Sholayar and Vazhachal ranges within Vazhahcal Division. The vegetation analysis of the nesting habitat elucidate 10 different community compositions. This includes heavily degraded vegetation to highly diverse low elevation evergreen at Vazhachal and highly diverse medium elevation evergreen at Sholayar. The species compositions of these are described in detail.

Keywords: Hornbills, Tropical Forest, Low elevation evergreen.

Estimation of Tree Biomass and Carbon Sequestration in Karnatak College Campus, Dharwad, Karnataka

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Karnatak College Campus, Dharwad lies on 741m above sea level, it has a tropical climate. The campus is spread over an area of 57 acres. A total of 102 tree species belonging to 85 genera of 33 families were studied in 68 quadrats in the campus. Tree species such as *Peltophorum pterocarpum*, *Delonix regia*, *Senna siamea*, *Tamarindus indica* and *Pongamia pinnata* are spread throughout the campus. Whereas species such as *Bombax ceiba*, *Butea monosperma*, *Couroupita guianensis*, *Kigelia africana*, *Santalum album*, *Saraca asoca*, *Swietenia mahogany* and *Tabebuia impetiginosa* are also present. In case of *Adansonia digitata* and *Guaiacum officinale* are cultivated plants have representing a single specimen each in the campus or Dharwad city as such. Total number of individuals of all the tree species measured for carbon sequestration and importance value index are 1387 trees. Fabaceae has the highest Importance Value Index followed by Ulmaceae and Meliaceae. *Sennasiamea* is the highest carbon sequestering tree species followed by *Peltophorum pterocarpum*, *Tamarindus indica*, *Delonix regia* and *Holoptelea integrifolia* being the top five highest carbon sinking tree species respectively, and also with maximum tree biomass in the campus. Total carbon sequestered by the trees of Karnatak College Campus is 179.84 tones. Estimation of tree biomass through non - invasive and allometric methods