

## ECO-BIOLOGY AND REGENERATION POTENTIAL OF WOODY PERENNIALS OF RIVERLINE VEGETATION FROM DEOPRAYAG TO RISHIKESH

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Germplasm survey of the study area revealed the presence of *Aegle marmelos*, *Albizia procera*, *acacia catechu*, *adina cardifolia*, *Albizia julibrissin*, *Alstonia scholaris*, *Bauhinia purpuria*, *Bauhinia racemosa*, *Bombax ceiba*, *Bridelia retusa*, *Cassia fistula*, *Celtis australis*, *Cordia wallichii*, *Cordia vestita*, *Casearia tomentosa*, *Carearia elliptica*, *Dalbergiasissoo*, *Diospyros montana*, *Drypetes roxburghii*, *Emblica officinalis*, *Erythrinaglabresces*, *Ehretia laevis*, *ficus bengalensis*, *Ficus glomenata*, *Ficus roxburghii*, *Ficus religiosa*, *Ficus racemosa*, *Gmelina arborea*, *Grewia oppositifolia*, *Holarrhena antidysenterica*, *Holoptelea integrifolia*, *Ladgerstroemia parviflora*, *Melia azadirachta*, *Mitragyna parviflora*, *Myrsine semiserrata*, *Moringa oleoifera*, *Mallotus philipinensis*, *Miliusa velutina*, *Melia azadirachta*, *Naringi ceremulata*, *Ougeinia ougeinensis*, *Pinus roxburghii*, *shorea robusta*, *Spondias pinnata*, *syzygium cumini*, *Sapium insigne*, *Schleichera oleosa*, *terminalia alata*, *Terminalia belerica*, *toon ciliata*, *trema politoria* and *Xylosma longifolium* while the shrubs species growing therein were *Adjatpda vasoca*, *Aerva sanguinolenta*, *Bambusa nutans*, *Boehmeria platyphylla*, *callicarpa macrophylla*, *Calotropis procera*, *carissa opaca*, *celebrookia oppositifolia*, *Citrus medica*, *Desmodium conicinnum*, *Desmodium latifolium*, *Euphorbia royleana*, *Helicteres isora*, *Hypericum oblongifolium*, *Indigofera pulchella*, *Jasminum arborescens*, *Lantana camara*, *Leea aspera*, *Lepidogathis incurva*, *Malvesrtrum coromandelianum*, *Mimosa himalayana*, *Murraya koengii*, *Perilepta auriculata*, *Plumbago zeylanica*, *Pteracanthus angustifrons*, *Pupalia lappacea*, *Rhus parviflora*, *ricinus communis*, *Rumex hastatus*, *Sida acuta*, *Solanum erianthum*, *solanum incanum*, *Solanum pseudo-copsicum*, *Woodfordia fruticosa*, *Xerophis spinosa*, *Zizyphus oxyphylla* and *Zizyphus xylopyra* on which phytosociological and phenological experiments were carried out while experiments pertaining to architectural modelling were achieved only on tree species of the area. Ecological analyses included the recording of frequency, density and abundance of each species followed by the computation of A/F ratio, Total Basal Cover (TBC), Importance Value Index (IVI) and similarity and diversity indices of the species growing at each study centers. Likewise, qualitative and quantitative details of flowering, fruiting and seed development, sexuality of individual flowers/plants/species growing in the community along with leaf longevity, leaf growth rate and length of growing periods were worked out. Data accumulated are under analysis for preparation of final report. During seed germination studies, the seeds of *Acacia catechu*, *Adina cardifolia*, *Bauhinia racemosa*, *Cassia fistula*, *Dalbergia sissoo*, *Holoptelea integrifolia*, *Lagestromia parviflra* and *Shorea robusta* were utilised. the seedlings thus produced were utilized during the eco-development/plantation demonstration camps organized time to time in the adjacent villages of the project area.