Plant Species Composition and Diversity at the Aravalli Mountain Range in Haryana, India

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ABSTRACT The assessment of plant biodiversity specifies adaptability of species and other sets of environmental conditions, which are essential for the growth of an ecosystem. During this study, a total of 92 plant species including 15 trees, 9 shrubs and 68 herbs belonging to 34 families and 84 genera were noticed. The quadrates of 10m×10m, 05m×05m and 01m×01m sized were fixed for trees, shrubs and herbs, respectively, inside 15 plots of 50m×50m sized to get density, abundance, relative density, relative frequency and basal area etc. The density and frequency represented the species composition, whereas the importance value index indicated the dominancy of one species over another and besides, Shannon and Simpson's index revealed the species diversity and concentration of dominance, respectively. The *Acacia arabica* amongst trees, *Prosopis juliflora* in shrubs and *Cynodon dactylon* in herbs were found to be the dominant species. Although, the herbs were found dominated over shrubs, followed by trees. The Febaceae amongst trees, Febaceae and Malvaceae among shrubs and Poaceae amid herbs was observed to be the dominant family. This study provides exact information about composition of every plant species at the site, which is essential to make conservational strategies for the preservation and development of plant biodiversity.

Abbreviations Used
• Species density: D • Species richness: SR • Abundance: A •Frequency (%): F •Total Basal Area: TBA • Relative density (%): RD •Relative frequency (%): RF •Relative Basal Area (%): RBA •Importance Value Index: IVI •Species diversity: SD •Concentration of dominance: CD