Abstract: Potentials for Drug Discovery in the Horn of Africa: An Ethnobotanical Approach to Study of Medicinal Plants in Sheka Zone, Southern Nations, Nationalities and Peoples Regional State, Ethiopia

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A study on ethnobotany of medicinal plants was conducted in Sheka Zone, Ethiopia. The objective was to document and analyze the floristic composition and the associated ethnobotanical knowledge on medicinal plants. The study applied a combination of standard plant taxonomic, plant ecological and ethnobotanical methods. Ninety five plots of 30 m x 30 m for trees, 10 m x 10 m for shrubs and 5 m x 5 m for herbs were used to collect vegetation data. Four hundred fourteen (384 randomly sampled general and 30 purposively sampled key) informants were involved in the ethnobotanical data collection with application of semi-structured interviews and discussion with informants. Data were analyzed using R Statistical Software version 3.2.3 and analytical methods of ethnobotany. A total of 266 medicinal plants were recorded. Eight plant community types were identified. In addition to climatic (rainfall and temperature) variability, five environmental factors including altitude (r^2=0.722, p=0.001), slope (r^2=0.236, p=0.001), aspect (r^2=0.207, p=0.001), grazing (r^2=0.075, p=0.036), and disturbance (r^2=0.066, p=0.047) had significant contributions in determining plant community types. The medicinal plants are distributed within the eight plant communities constituting 46% to 72% of their species composition. These medicinal plants are used to treat 204 (77%) human, 10 (4%) livestock and 52 (19%) human and livestock ailments. There is significant (α= 0.05) positive correlation between respondents' average distance from health centers and medicinal plant use citation frequencies. Chemical profiling of potentially effective medicinal plants all against health problems such as Jaundice is needed and will be used as an input for the preparation of local as well as national medicinal plant monographs for future use in drug research and development.

***Key words**: Cluster analysis, diversity, ethnobotany, medicinal plants*

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