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Current ecological status of the two medicinal shrubs, *Erythroxylum monogynum* Roxb. and *Ehretia microphylla* Lam. in Maruthamalai hills of Western Ghats and Bannari hills of Eastern Ghats.

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ABSTRACT:

The perpetuation level of two medicinal shrubs such as *Erythroxylum monogynum* and *Ehretia microphylla* in terms of certain quantitative ecological characters was assessed in dry deciduous forests at Maruthamalai hills of Nilgiri Biosphere Reserve, the Western Ghats and Bannari hills of Eastern Ghats for the year, 2011-2012. The results of the study revealed that the species, *Erythroxylum monogynum* established well in Bannari hills by obtaining higher frequency (100%), density (198/100m^2) and basal cover (9467mm^2/100m^2). The importance value index secured by this species in Bannari hills (1.34) also shows that it perpetuated well in that area. On the other hand, this trend was reverse for the other species, *Ehretia microphylla* which shows well establishment in Maruthamalai hills (Frequency 80%, density 105/100m^2 and basal cover 249mm^2/100m^2) than performed in Bannari hills. However, the level of establishment of these two species with respect to all ecological characters studied was too lower in comparison to that of the respective dominant species in the two study areas. Further, it was determined that the establishment of former species was better in foot hills of both the study areas. The other species, *Ehretia microphylla* exhibited slight increase in density with the increase in altitude from the foot hills to interior forests in both study areas. When community is considered as a whole, the degree of perpetuation is not at appreciable level and may be decreased drastically if the anthropogenic disturbance continuous for their medicinal properties. Hence planting of more individuals of *Erythroxylum monogynum* in the foot hills of Bannari hills (365m above msl) and *Ehretia microphylla* in the interior forests of Maruthamalai hills at the altitude around 800m above msl may increase the population size of these two species and hence to meet the demand.

Keywords:

Erythroxylum monogynum, Ehretia microphylla, Maruthamalai hills, Bannari hills, ecological status.