Genetic Diversity among Desmodium Gangeticum (L.) DL Accessions a Desmodin Synthesising Ethno-Medicinal Plant with SSR and Internal Transcribed Spacer Region for Species Conservation

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***Abstract*-In the present study simple sequence repeat (SSR) and intertranscribed spacer markers markers were used in *Desmodium gangeticum* to find out the genetic diversity analysis for the biodiversity conservation of the *Species* as the plant is being used in medicinal preparations as well as have many industrial applications. The study was aimed to find out the relationships among different accessions. We find intrapopulation mean genetic value of (1.835) and Shannon (0.641) among the accessions. in AMOVA analysis, we noticed small variation accessions as (*P* = 1).The dendrogram generated through distance matrix using the SIMQUAL-Dice Coefficient module of NTSYSpc ver matches to some extent with the PCA graph. In the barcode ITS marker analysis the UPGMA shows the accessions clustered into two groups. Blast results showed maximum E-value in DG2 accession. In conclusion the above based markers can be used for the population conservation and authentication of the above medicinally important plant.**

***Keywords: Desmodium gangeticum* , SSR , intertranscribed spacer, PCA, Dendogram.**

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