Abstract

Jute mallow is an important African Leafy Vegetable, grown in western Kenya. It is highly nutritious and is a source of income for farmers. However, jute mallow is facing extinction due to replacement by high yielding commercial, exotic vegetables varieties. Unavailability of seeds of appropriate and improved cultivars has also led to underutilization of jute mallow vegetables. One of the ways to address these problems is through genetic enhancement. Genetic enhancement requires the assessment of genetic diversity in an area. This study characterized various morphotypes of jute mallow in Kakamega, Vihiga and Siaya districts of Western Kenya. Morphotypes were identified using various parameters. These parameters were leaf length and width, pod length and width, plant height, length of internodes and number of seeds per pod. Statistical analysis of these parameters was done by analysis of variance (ANOVA) using the Statistical analysis Software (SAS) package. Means were separated using Scheffe's multiple comparison procedure. Cluster analysis of the morphotypes was done using squared Euclidean distances method to find out the relationships between the morphotypes. Eight morphotypes of jute mallow were observed. Complete identification of all the jute mallow morphotypes was not possible due to overlap of the descriptors among the morphotypes. Only 3 morphotypes were identified which were Corchorus trilocularis L., C. tridens L. and C. olitorius L. Data obtained will be useful to breeders and seed production entities in their efforts to come up with high yielding varieties that are well adapted to local ecological conditions.