



Ethnobotanical survey and propagation of some endangered medicinal plants from south Nandi district of Kenya

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ABSTRACT

Studies were conducted at Maseno University, Kenya to investigate the ethnobotanical and chemical characterization of selected medicinal plants growing in South Nandi District in the year 2004 and 2005. Subsequently, propagation studies were carried out on the identified endangered medicinal plants. Local communities who use medicinal plants were interviewed. Ethnobotanical data on families, plant species, botanical name, local name, part (s) used, popular ethnobotanical medicinal use, forms of preparation and applications of the herbal remedies were collected. Plants were collected, pressed, dried, preserved, mounted and identified through available literature and voucher specimens at the University of Nairobi and National Museum Laboratories. From the surveys carried the endangered plants were determined to be *Asystasia schimperi*, *Carissa edulis* and *Toddalia asiatica*. These were propagated



using stem cuttings subjected to different concentrations of auxin in a polypropagator in a completely randomized design experiment. Results showed that as auxin concentration increased from 100 to 500 ppm; there was increase in rooting and growth in the decreasing order of *Asystasia schimperi*, *Carissa edulis* and *T. asiastica*. The treated cuttings were planted in polythene pots which were placed in a non-mist propagator. The duration of the experiment on propagation was four months and the data taken were number of rooted plants, plant height, and number of leaves. The data on propagation was subjected to analysis of variance and means separated by the Least Significant Difference (LSD = $P \leq 0.05$) test. The results showed that hormone concentration, species and date of sampling of cutting significantly ($P \leq 0.05$) affected the number of leaves, plant height and number of rooted cuttings. *A. schimperi* had the best rooting and subsequent growth followed by *CCarissa edulis* and *Toddalia asiastica* in that order. It is concluded that *Asystasia schimperi* and *C. edulis* can be easily propagated by stem cuttings and hence have good possibility of being introduced to the farmers of South Nandi District.

Key words: Ethnobotanical, endangered, medicinal plants, vegetative propagation, auxin.