

## RESEARCH RESULTS

<b>2007 Paul Massey. BSc.</b>	<b>The influence of different management techniques upon grass heterogeneity within Eastern Africa.</b>
Aims/Objectives.	<ul style="list-style-type: none"> <li>• To investigate the differences in the grass species assemblages between areas subject to different management techniques.</li> <li>• To record the diversity and percentage cover of species from the Graminae family in designated sample plots.</li> <li>• To investigate whether the grass species assemblages and biomass change in boma areas as a function of time since abandonment.</li> <li>• To investigate whether the period of occupancy has any effect on grass species regeneration based on their assemblages and biomass.</li> </ul>
Results	<ul style="list-style-type: none"> <li>• <i>C. dactylon</i> was common in all boma sites and increased significantly according to the time since abandonment of the boma.</li> <li>• All boma sites examined with the exception of one recently abandoned boma site showed evidence of shoot branching in <i>C. dactylon</i>.</li> <li>• The highest shoot branching index was observed in the most recently abandoned boma sites.</li> <li>• The lowest shoot branching index was observed in the longest abandoned sites irrespective of the period of occupation.</li> <li>• Interestingly the largest inflorescence index of <i>C. dactylon</i> was found in the burnt plots. Within the boma sites the long abandoned areas were observed to have the largest inflorescence indices (See Fig.1 in write up).</li> <li>• Boma areas that had only been occupied for the shortest time periods showed more grass spp heterogeneity compared to those bomas that had been occupied for long periods of time.</li> <li>• Bomas with the longer occupational times had the most homogenous grass spp composition.</li> <li>• As expected those bomas that had been abandoned for the shortest time period had the largest areas of bare ground out of all the sample plots.</li> <li>• <i>Dactyloctenium aegyptium</i> was found only in one plot and that was in a short time occupied, recently abandoned boma site.</li> <li>• Mean height and biomass increased from SOSA – LOSA – LOLA.</li> </ul>
Management Implications.	<ul style="list-style-type: none"> <li>• From the shooting indices for <i>C. dactylon</i> it is apparent that the species is colonising all recently abandoned boma sites.</li> <li>• The sites which had been occupied for the shortest periods showed the most heterogeneity in terms of grass species. It is fair to postulate that this is linked to reduced grazing intensity.</li> <li>• The sites with the longest occupational period showed the highest branching indices; this may be an indication that the temporary bomas have lower nutrient conditions than the long term occupied site.</li> <li>• It is apparent that the time of occupation for a boma site has an effect on the flora found within the former boma site. Both in terms of species composition and growth factors of <i>C. dactylon</i>.</li> <li>• Given the short time since the abandonment of the temporary bomas it is impossible to predict whether they have been in place long enough to establish long-term <i>C. dactylon</i> grazing lawns.</li> </ul>
Future Recommendations.	<ul style="list-style-type: none"> <li>• To replicate the above study on the same boma sites to determine if the temporary bomas are effective in creating a positive feedback cycle between herbivores and <i>C. dactylon</i>.</li> </ul>