Fire and grazing create different grasslands with distinct grass species composition and functional traits in Central Madagascar Heteropogon contortus Tristachya humbertii Tristachya humbertii Hyparrhenia rufa Hyparrhenia rufa Paspalum scrobiculatum Paspalum scrobiculatum Cynodon dactylon Cynodon dactylon Setaria pumila Setaria pumila Eleusine indica Eleusine indica Eragrostis racemosa Eragrostis racemosa Brachiaria subrostrata Brachiaria subrostrata Panicum umbellatum Panicum umbellatum Axonopus compressus Axonopus compressus Aristida rufescens Aristida rufescens Digitaria longiflora Digitaria longiflora Eragrostis atrovirens Eragrostis atrovirens Sporobolus pyramidalis Sporobolus pyramidalis Intermediate Fire Grazing Stenotaphrum oostachyum Stenotaphrum oostachyum Sporobolus centrifugus Sporobolus centrifugus Eragrostis lateritica Eragrostis lateritica Microchloa kunthii Microchloa kunthii Sporobolus paniculatus Sporobolus paniculatus Schizachyrium exile Schizachyrium exile Digitaria ciliaris Digitaria ciliaris Eragrostis chapelieri Eragrostis chapelieri Eragrostis tenuifolia Eragrostis tenuifolia Brachiaria arrecta Brachiaria arrecta Andropogon trichozygus Andropogon trichozygus Craspedorhachis africana Craspedorhachis africana Schizachyrium brevifolium Schizachyrium brevifolium Panicum cinctum Panicum cinctum Chrysopogon serrulatus Chrysopogon serrulatus Digitaria pseudodiaginalis Digitaria pseudodiaginalis Tristachva isalensis Tristachya isalensis Pennisetum pseudotriticoides Pennisetum pseudotriticoides 0.0 Ctenium concinnum Ctenium concinnum Hyparrhenia newtonii Hyparrhenia newtonii Loudetia filifolia Loudetia filifolia Aristida tenuissima Aristida tenuissima Trachypogon spicatus Trachypogon spicat Urelytrum agropyroides Urelytrum agropy Loudetia simplex Schizachyrium sanguineum

Two distinct grass assemblages with minimum species overlap

0.6

8.0

Two main clusters of grasses with distinct functional traits