

Linkages Between Changes in Land Use, Land Degradation
and Biodiversity in S.W. Uganda

Part 2: Appendices

The Land Use Change, Impacts and Dynamics Project
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APPENDIX 1. Plant records from the study areas compared to the list for Lake Mburo National Park (MUIENR 2002). Life forms (column LF) indicates single-stemmed trees (T), multi-stemmed shrubs (S) and herbs (H). Many of the herb species in cultivated areas are either crops (C) or weeds (W). Only those which were not recorded in LMNP - i.e., ones not local to the area - are indicated as weeds, with the exception of *Bidens pilosa* and the small shrub *Solanum incanum* which occur along park tracks.

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mburo area			Rubaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Abildgaardia ovata</i>	H		1							1	
<i>Abutilon grandiflora</i>	S		1								
<i>Abutilon mauritanium</i>	S		1			1					
<i>Acacia albida</i>	T		1								
<i>Acacia gerrardii</i>	T		1				1				
<i>Acacia hockii</i>	T		1				1				
<i>Acacia kirkii</i>	T			1							
<i>Acacia polycantha</i>	T						1				
<i>Acacia sieberiana</i>	T		1				1				
<i>Acalypha benguelensis</i>	S		1								
<i>Acalypha bipartita</i>	S		1				1				
<i>Acalypha crenata</i>	H		1								
<i>Acalypha neptunica</i>	S		1								
<i>Achyranthes aspera</i>	H		1	1			1	1	1	1	
<i>Acroceras zizanioides</i>	H			1							
<i>Aeolanthus repens</i>	H									1	
<i>Aerva lanata</i>	H		1				1				
<i>Aerva leucantha</i>	H		1								
<i>Aeschynomene abyssinica</i>	H		1								
<i>Aframomum angustifolium</i>	H		1								
<i>Ageratum conyzoides</i>	H		1			1	1		1		1
<i>Albizia adianthifolia</i>	T						1				
<i>Albizia coriaria</i>	T		1								
<i>Albizia gummifera</i>	T		1								
<i>Albizia zygia</i>	T		1								
<i>Alchornea cordifolia</i>	T			1							
<i>Allophylus abyssinicus</i>	S		1	1			1				
<i>Allophylus pseudopaniculatus</i>	S		1								
<i>Alternanthera sessilis</i>	H		1								
<i>Alysicarpus glumaceus</i>	H		1		1						
<i>Amaranthus dubius</i>	H	C									1
<i>Amaranthus graecizans</i>	H	C							1		
<i>Amaranthus hybridus</i>	H	C							1		
<i>Ammocharis tinneana</i>	H		1								
<i>Ananas sativa</i>	H	C									1
<i>Andropogon canaliculatus</i>	H		1		1						
<i>Andropogon schirensis</i>	H		1				1			1	

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mburo area			Rubaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Aningeria altissima</i>	T		1								
<i>Anthericum cameroni</i>	H		1								
<i>Anthericum subpetiolatum</i>	H		1								
<i>Apodytes dimidiata</i>	T		1								
<i>Arachis hypogea</i>	H	C								1	
<i>Argomuelleria macrophylla</i>	T		1								
<i>Aristida adoensis</i>	H		1							1	
<i>Asparagus africanus</i>	H		1				1	1			
<i>Asparagus falcatus</i>	H		1								
<i>Aspilia africana</i>	H		1							1	
<i>Asplenium abyssinica</i>	H		1								
<i>Asystasia gangetica</i>	H		1	1		1	1			1	
<i>Asystasia schimperi</i>	H		1							1	1
<i>Balanites aegyptiaca</i>	T		1								
<i>Baphia multiflora</i>	T		1								
<i>Barkheya spekeana</i>	H									1	
<i>Barleria dentata</i>	H										
<i>Belonophora glomerata</i>	T		1								
<i>Bidens grantii</i>	H	W	1				1			1	
<i>Bidens pilosa</i>	H	W	1			1	1		1		1
<i>Biophytum petersiana</i>	H				1	1				1	
<i>Blepharis linarifolia</i>	H									1	
<i>Bosqueia phoberos</i>	T		1								
<i>Boswellia neglecta</i>	T		1								
<i>Bothriochloa bladhii</i>	H		1								
<i>Bothriochloa insculpta</i>	H		1				1				
<i>Brachiaria brizantha</i>	H		1					1		1	
<i>Brachiaria comata</i>	H		1								1
<i>Brachiaria decumbens</i>	H		1				1	1		1	1
<i>Brachiaria jubata</i>	H		1		1						
<i>Brachiaria platynota</i>	H									1	
<i>Brachiaria scalaris</i>	H		1								
<i>Bulbostylis boeckleriana</i>	H		1					1			
<i>Caesalpinia decapetala</i>	S		1	1							
<i>Canthium lactescens</i>	S		1								
<i>Canthium vulgare</i>	S		1								
<i>Capparis erythrocarpos</i>	S		1								
<i>Capparis fascicularis</i>	S		1								
<i>Capparis sepiaria</i>	S		1								
<i>Capparis tomentosa</i>	S		1				1				
<i>Carica papaya</i>	T	C							1		1
<i>Carissa edulis</i>	S		1				1				
<i>Casearia battiscombei</i>	T		1								
<i>Cassia bicapsularis</i>	S		1								

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				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Cassia hildebrandtii</i>	H		1								
<i>Cassia mimosoides</i>	H		1		1			1		1	
<i>Celosia trigyna</i>	H					1					1
<i>Centella asiatica</i>	H				1						
<i>Ceratophyllum demersum</i>	H		1								
<i>Chaetacme aristata</i>	S		1								
<i>Chloris gayana</i>	H		1				1			1	
<i>Chloris pycnothrix</i>	H		1								
<i>Chloris virgata</i>	H		1				1	1			
<i>Cissampelos mucronata</i>	H		1	1			1				
<i>Cissus quadrangularis</i>	H		1	1							
<i>Clausena anisata</i>	T		1	1							
<i>Clerodendrum rotundifolium</i>	S		1								
<i>Clutia abyssinica</i>	H						1				
<i>Coccinia grandis</i>	H		1								
<i>Coffea canephora</i>	S	C				1					
<i>Coffea eugenioides</i>	S		1								
<i>Coleus comosus</i>	H		1				1				
<i>Combretum molle</i>	T		1								
<i>Combretum paniculatum</i>	T		1								
<i>Commelina africana</i>	H		1			1	1	1		1	1
<i>Commelina arrecta</i>	H		1				1		1		
<i>Commelina benghalensis</i>	H		1			1				1	1
<i>Commelina latifolia</i>	H								1	1	
<i>Commelina reptans</i>	H		1		1						
<i>Commicarpus plumbagineus</i>	H		1								
<i>Commiphora africana</i>	T		1								
<i>Conyza floribunda</i>	H		1		1	1	1				1
<i>Cordia africana</i>	T		1								
<i>Crabbea velutina</i>	H		1				1			1	
<i>Craibia brownii</i>	T		1								
<i>Crassocephalum bojeri</i>	H		1								
<i>Crassocephalum crepidioides</i>	H		1		1	1			1		1
<i>Crassocephalum gracile</i>	H		1								
<i>Craterostigma hirsutum</i>	H		1				1				
<i>Crotalaria cephalotes</i>	H		1								
<i>Crotalaria incana</i>	H		1			1					
<i>Crotalaria lanceolata</i>	H		1								
<i>Crotalaria linearifolia</i>	H										1
<i>Crotalaria spinosa</i>	H		1								
<i>Croton macrostachyus</i>	T		1								
<i>Ctenium somalense</i>	H		1					1			
<i>Cyanotis caespitosa</i>	H		1							1	
<i>Cyanotis foecunda</i>	H		1				1			1	

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mbuho area			Rubale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Cyathula prostrata</i>	H		1								
<i>Cyathula uncinulata</i>	H			1							
<i>Cynium tubulosum</i>	H		1							1	
<i>Cymbopogon nardus</i>	H		1				1				
<i>Cynodon dactylon</i>	H		1	1			1			1	1
<i>Cynodon nlemfuensis</i>	H		1								
<i>Cyperus articulata</i>	H		1				1				
<i>Cyperus aureo-stramineus</i>	H		1					1			
<i>Cyperus brevifolius ssp brevifolius</i>	H				1						
<i>Cyperus dives</i>	H		1								
<i>Cyperus papyrus</i>	H		1								
<i>Cyperus rotundus</i>	H		1			1					
<i>Cyperus teneriffae</i>	H		1								
<i>Cyphostemma adenocaulis</i>	H		1						1		
<i>Cyphostemma bambuseti</i>	H		1						1		
<i>Cyphostemma cyphopetalum</i>	H		1					1			
<i>Cyphostemma orondo</i>	H	W									1
<i>Desmodium canum</i>	H				1						
<i>Desmodium triflorum</i>	H		1							1	
<i>Desmodium velutinum</i>	H									1	
<i>Dichrostachys cinerea</i>	T		1				1				
<i>Dicliptera laxata</i>	H		1								
<i>Dicoma anomala</i>	H		1								
<i>Dichondra repens</i>	H		1								
<i>Dicrocephala integrifolia</i>	H					1					
<i>Digitaria abyssinica</i>	H		1		1	1	1				1
<i>Digitaria diagonalis</i>	H		1		1						
<i>Digitaria longiflora</i>	H		1		1					1	
<i>Digitaria ternata</i>	H		1				1	1		1	1
<i>Digitaria velutina</i>	H		1			1			1	1	1
<i>Dodonaea angustifolia</i>	S		1								
<i>Dombeya burgessiae</i>	T		1				1				
<i>Dovyalis abyssinica</i>	T		1								
<i>Dovyalis macrocalyx</i>	T		1								
<i>Dovyalis engleri</i>	T		1								
<i>Drimys indica</i>	H		1								
<i>Drypetes gerrardii</i>	T		1								
<i>Dyschoriste radicans</i>	H		1	1			1	1		1	
<i>Echinochloa colona</i>	H		1								
<i>Echinoncloa pyramidalis</i>	H		1								
<i>Elephantopus scaber</i>	H				1					1	
<i>Eleusine africana</i>	H						1				1
<i>Eleusine indica</i>	H		1								1
<i>Enhydra flaccuans</i>	H		1								

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mbuo area			Rubaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Eragrostis aspera</i>	H	W				1					1
<i>Eragrostis exasperata</i>	H		1								
<i>Eragrostis heteromera</i>	H		1								
<i>Eragrostis kiwuensis</i>	H		1								
<i>Eragrostis mildbraedii</i>	H				1						
<i>Eragrostis olivacea</i>	H				1						
<i>Eragrostis racemosa</i>	H						1	1		1	
<i>Eragrostis tenuifolia</i>	H		1				1			1	
<i>Eriosema chrysadenium</i>	H									1	
<i>Eriosema laurentii</i>	H		1								
<i>Eriosema shireense</i>	H		1							1	
<i>Erlangea marginata</i>	H		1				1				
<i>Erlangea tomentosa</i>	H	W				1					
<i>Erucastrum arabicum</i>	H		1					1	1		
<i>Erythrina abyssinica</i>	T		1	1							
<i>Erythrococca bongensis</i>	H		1				1				
<i>Erythrococca fischeri</i>	H		1								
<i>Euclea divinorum</i>	S		1				1				
<i>Eugenia capensis</i>	T		1								
<i>Euphorbia candelabrum</i>	T		1				1				
<i>Euphorbia glomerifera</i>	H								1		
<i>Euphorbia heterophylla</i>	H	W				1					1
<i>Euphorbia hirta</i>	H	W				1			1		
<i>Euphorbia inaequilatera</i>	H		1				1	1	1		
<i>Euphorbia prostrata</i>	H	W							1		
<i>Evolvulus alsinoides</i>	H		1								
<i>Exothea abyssinica</i>	H				1					1	
<i>Falkia obonga</i>	H		1								
<i>Ficus natalensis</i>	T	C				1					
<i>Ficua trichopoda</i>	T			1							
<i>Fimbristylis complanata</i>	H		1		1						
<i>Flacourtia indica</i>	T		1								
<i>Flueggea virosa</i>	S		1	1			1		1		
<i>Galinsoga parviflora</i>	H		1			1			1		1
<i>Gardenia jovis-tonantis</i>	S						1				
<i>Gardenia ternifolia</i>	T		1								
<i>Glycine wightii</i>	H		1								
<i>Glypheae brevis</i>	T		1								
<i>Gnaphalium declinatum</i>	H		1								
<i>Grewia mollis</i>	S		1				1				
<i>Grewia similis</i>	S		1				1				
<i>Gynura scandens</i>	H			1		1					
<i>Harpachne schimperii</i>	H									1	
<i>Harrisonia abyssinica</i>	T		1								

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mburo area			Rubaaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Helichrysum gerberifolium</i>	H		1		1			1			
<i>Heteropogon contortus</i>	H		1								
<i>Hewettia sublobata</i>	H		1								
<i>Hibiscus aponuera</i>	H		1				1	1			
<i>Hibiscus cannabinus</i>	S		1								
<i>Hibiscus diversifolius</i>	S		1								
<i>Hibiscus fuscus</i>	H		1				1				
<i>Hoslundia opposita</i>	S		1								
<i>Hydnora abyssinica</i>	H		1								
<i>Hygrophila auriculata</i>	H		1		1		1			1	
<i>Hyparrhenia bracteata</i>	H		1		1						
<i>Hyparrhenia diplandra</i>	H				1						
<i>Hyparrhenia filipendula</i>	H		1		1			1		1	1
<i>Hyparrhenia rufa</i>	H		1		1		1				
<i>Hyperthelia disoluta</i>	H									1	
<i>Hypoestes verticillaris</i>	H		1								
<i>Hypoxis angustifolia</i>	H		1								
<i>Hypoxis obtusa</i>	H		1								
<i>Imperata cylindrica</i>	H		1			1					
<i>Indigofera arrecta</i>	H		1			1					1
<i>Indigofera atriceps</i>	H		1							1	1
<i>Indigofera circinella</i>	H		1							1	
<i>Indigofera spicata</i>	H		1		1		1	1		1	
<i>Indigofera spinosa</i>	H		1								
<i>Ipomoea batatas</i>	H										1
<i>Ipomoea cairica</i>	H			1		1					
<i>Jasminum eminii</i>	S		1								
<i>Jasminum pauciflorum</i>	S		1								
<i>Justicia diclipteroides</i>	H									1	
<i>Justicia exigua</i>	H		1								
<i>Justicia flava</i>	H		1				1			1	
<i>Justicia uncinulata</i>	H		1							1	
<i>Klainedoxa gabonensis</i>	S			1							
<i>Kyllinga alba</i>	H		1		1		1			1	
<i>Kyllinga nemoralis</i>	H				1						
<i>Lactuca capensis</i>	H	W							1		1
<i>Laggera alata</i>	H		1			1				1	
<i>Lannea fulva</i>	T		1								
<i>Lannea schweinfurthii</i>	T		1								
<i>Lantana camara</i>	S		1	1							
<i>Lantana trifolia</i>	S		1			1	1	1			
<i>Leersia hexandra</i>	H		1								
<i>Leonotis nepetifolia</i>	H					1	1				
<i>Leptochloa rupestris</i>	H		1								

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				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Leucas martinicensis</i>	H		1	1			1	1			1
<i>Lippia abyssinica</i>	S		1								
<i>Lippia javanica</i>	S		1								
<i>Loudetia kagerensis</i>	H		1		1		1	1			
<i>Loudetia simplex</i>	H		1							1	
<i>Ludwigia stolonifera</i>	H		1								
<i>Lycopersicon esculenta</i>	H	C									1
<i>Maerua subcordata</i>	S		1								
<i>Mangifera indica</i>	T	C									1
<i>Manihot esculenta</i>	S	C				1					1
<i>Mariscus cyperoides</i>	H		1			1					1
<i>Markhamia lutea</i>	T		1			1					
<i>Maytenus heterophylla</i>	S		1				1				
<i>Maytenus senegalensis</i>	S		1				1				
<i>Maytenus undata</i>	S		1								
<i>Melananthera scandens</i>	H		1								
<i>Melhania ovata</i>	H		1								
<i>Melinis repens</i>	H	W				1					1
<i>Microchloa kunthii</i>	H		1							1	
<i>Microglossa angolensis</i>	S		1	1		1					
<i>Mimosa pigra</i>	H		1								
<i>Momordica foetida</i>	H			1							
<i>Monechma subsessile</i>	H		1				1	1			
<i>Monodora myristica</i>	T		1								
<i>Monothecium glandulosum</i>	H		1								
<i>Mukia maderaspatana</i>	H		1								
<i>Murdania simplex</i>	H				1						
<i>Musa paradisiaca</i>	T	C				1			1		1
<i>Newtonia buchananii</i>	T		1								
<i>Ocimum basilicum</i>	H		1								
<i>Ocimum suave</i>	S		1	1			1				
<i>Oenanthe palustris</i>	T		1								
<i>Oldenlandia herbacea</i>	H		1							1	
<i>Oldenlandia pumila</i>	H		1								
<i>Olea africana</i>	T		1				1				
<i>Oncoba spinosa</i>	S		1								
<i>Orthosiphon australis</i>	H		1				1	1			
<i>Ouratea bukobensis</i>	S		1								
<i>Oxalis corniculata</i>	H		1			1	1				
<i>Oxalis latifolia</i>	H	W									1
<i>Oxygonum sinuatum</i>	H	W									1
<i>Pachystela brevipes</i>	T		1								
<i>Panicum atrosanguineum</i>	H		1								
<i>Panicum maximum</i>	H		1	1		1	1	1			1

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				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Panicum porphyrrhizos</i>	H		1				1				
<i>Panicum repens</i>	H		1								
<i>Panicum trichocladum</i>	H		1	1		1					
<i>Pappea capensis</i>	T		1				1				
<i>Paspalum scrobiculatum</i>	H		1		1	1	1	1		1	
<i>Paullinia pinnata</i>	S		1	1							
<i>Pentarrhinum insipidum</i>	H		1								
<i>Pentas longiflora</i>	H		1								
<i>Persea americana</i>	T	C									1
<i>Phaseolus vulgaris</i>	H	C						1			1
<i>Phoenix reclinata</i>	T		1	1							
<i>Phyllanthus discoidea</i>	S		1								
<i>Phyllanthus maderaspatensis</i>	H		1								
<i>Phyllanthus niururi</i>	H		1	1			1	1	1	1	1
<i>Phyllanthus nummulariifolius</i>	H		1								
<i>Phyllanthus ovalifolius</i>	S		1								
<i>Physalis peruviana</i>	H			1		1					
<i>Piptadeniastrum africanum</i>	T		1								
<i>Pistacia aethiopica</i>	T		1								
<i>Pisum sativa</i>	H	C									1
<i>Platostoma africanum</i>	H									1	
<i>Plectranthus barbatus</i>	H		1								
<i>Plectranthus laxiflorus</i>	H		1								
<i>Pogononeura biflora</i>	H		1								
<i>Polygala erioptera</i>	H		1								
<i>Polygala polygoniflora</i>	H		1		1			1		1	
<i>Polygala sphenoptera</i>	H		1				1				
<i>Polygonum pulchrum</i>	H		1								
<i>Polygonum setosulum</i>	H		1								
<i>Portulacca oleracea</i>	H	W						1			
<i>Priva cordifolia</i>	H		1								
<i>Pseudarthria hookeri</i>	H		1								
<i>Pseudospondias microcarpa</i>	T		1								
<i>Psychotria kirkii</i>	S		1								
<i>Psychotria megistosticta</i>	S		1								
<i>Psychotria punctata</i>	S		1								
<i>Psychotria succulenta</i>	S		1								
<i>Psydrax subcordata</i>	S		1								
<i>Pteridium aquilinum</i>	H		1								
<i>Pycnospora lutescens</i>	H		1					1			
<i>Rhus natalensis</i>	S		1				1				
<i>Rhus vulgaris</i>	S		1								
<i>Rhynchosia resinosa</i>	H		1				1				
<i>Rytiginia beniensis</i>	S		1				1				

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mburo area			Rubaaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Sansevieria nilotica</i>	H		1								
<i>Schyzachirium platyphyllum</i>	H				1						
<i>Scolopia rhamniphylla</i>	S		1								
<i>Scutia myrtina</i>	S		1								
<i>Senecio discifolius</i>	H	W									1
<i>Setaria homonyma</i>	H		1	1		1	1				
<i>Setaria sphacelata</i>	H		1		1		1			1	
<i>Sida arcuta</i>	S		1						1		
<i>Sida cordata</i>	S		1								
<i>Sida ovata</i>	S		1								
<i>Sida rhomboidea</i>	S		1	1		1	1				1
<i>Smilax anceps</i>	H		1								
<i>Solanecio mannii</i>	T					1					
<i>Solanum anguivi</i>	S	C	1						1		
<i>Solanum incanum</i>	S	W	1				1	1	1	1	
<i>Solanum macrocarpon</i>	H			1							
<i>Solanum tuberosum</i>	H	C									1
<i>Sonchus oleraceus</i>	H		1					1		1	
<i>Sorghastrum stipoides</i>	H				1						
<i>Sorghum arundinaceum</i>	H	C				1					
<i>Spermacoce longiflora</i>	H						1	1		1	1
<i>Spermacoce pusilla</i>	H		1								
<i>Spilanthes mauritiana</i>	H					1	1				
<i>Sporobolus africanus</i>	H		1								
<i>Sporobolus festivus</i>	H		1								
<i>Sporobolus panicoides</i>	H		1							1	
<i>Sporobolus piliferus</i>	H									1	
<i>Sporobolus pyramidalis</i>	H		1		1		1	1		1	1
<i>Sporobolus stapfianus</i>	H		1				1	1		1	
<i>Stephania abyssinica</i>	H		1								
<i>Strychnos aculeata</i>	T		1								
<i>Stylosanthes fruticosa</i>	H		1					1			
<i>Tagetes minuta</i>	H		1				1	1	1		1
<i>Teclea nobilis</i>	T		1								
<i>Tephrosia linearis</i>	H		1		1						
<i>Tephrosia uniflora</i>	H		1								
<i>Teramnus labialis</i>	H		1							1	
<i>Teramnus repens</i>	H										1
<i>Themeda triandra</i>	H		1				1			1	
<i>Thunbergia alata</i>	H					1					
<i>Trifolium baccarinii</i>	H									1	
<i>Triumfetta annua</i>	S		1	1		1	1		1		1
<i>Triumfetta macrophylla</i>	H		1	1							
<i>Uncaria africana</i>	S		1								

SPECIES	LF	C/W	LMNP	Sango Bay area			Lake Mburo area			Rubaaale	
				Woodland	Grassland	Cultivation	Woodland	Grassland	Cultivation	Grassland	Cultivation
<i>Uncaria rubrostipulata</i>	S		1								
<i>Urena lobata</i>	S			1							
<i>Uvariopsis congensis</i>	T		1								
<i>Vangueria apiculata</i>	S		1								
<i>Vangueria madagascariensis</i>	T		1								
<i>Vernonia amygdalina</i>	S								1		
<i>Vernonia schweinfurthii</i>	H		1				1	1		1	
<i>Vernonia smithiana</i>	H		1		1						
<i>Vigna frutescens</i>	H		1								
<i>Vigna luteola</i>	H		1		1						
<i>Vigna membranacea</i>	H		1								
<i>Vigna parkeri</i>	H		1								
<i>Vigna unguiculata</i>	H		1								
<i>Viscum bagashawei</i>	H						1				
<i>Xymalos monospora</i>	S		1								
<i>Zaleya pentandra</i>	H		1								
<i>Zea mays</i>	H	C									1
<i>Ziziphus abyssinica</i>	T		1								
<i>Ziziphus mucronata</i>	T		1								
<i>Zornia pratensis</i>	H		1					1		1	
<i>Zornia setosa</i>	H		1							1	
Totals			322	36	39	47	89	40	30	71	53

Appendix 2. Birds from 17 sites in the three study areas. Data are mean TSC scores for each site where a species was recorded. RD = Red Data species ; R-VU = Regionally vulnerable, R-RR = species of regional responsibility (Bennun & Njoroge 1996) The specialists are forest and forest-related species (FF/F/f) and waterbirds (W/w), both from Wilson (1995); G are grassland specialists (MUIENR, unpublished). A, P: Afrotropical, Palearctic migrants (see text)

A T L A S N O	SPECIES NAME	Britton number	RD	Specialists	SB AREA					LMNP AREA						RUBAAL					
					S1 Phoenix savanna	S2 Marabigambo grassland	S3 Acacia woodland	S4 Kyebe west cultivated	S5 Kyebe East cultivated	L1 Kigarama hills	L2 Rwamuhuku hill	L3 Sanga gate	L4 Kiribwa valley	L5 Rwonyo North	L6 Kiribwa cultivated	R1 Rwaihi hill grassland	R2 Rwaihi terraced cultivated	R3 Rwaihi lower cultivated	R4 Rwentobo hill grassland	R5 Rwentobo lower grassland	R6 Rwentobo cultivated
17	CATTLE EGRET <i>Bubulcus ibis</i>	32		G						0.5	0.6	1.3			0.2				1.6	2.6	
26	BLACK-HEADED HERON <i>Ardea melanocephala</i>	27		w	0.7	1.0	1.3								2.3				0.1		0.3
28	HAMERKOP <i>Scopus umbretta</i>	42		w							0.5	0.1									
30	OPEN-BILLED STORK <i>Anastomus lamelligerus</i>	43		Aw, G						0.3											
32	ABDIM'S STORK <i>Ciconia abdimii</i>	44		A, G						0.1	0.3	0.1									
39	HADADA <i>Bostrychia hagedash</i>	51		w	0.6	0.3	2.8		1		1.2	2.0	0.5	0.6		2.3	1.2	2.9	3.7	3.3	1.9
42	SACRED IBIS <i>Threskiornis aethiopica</i>	54																	2.5	3.8	
51	SPUR-WINGED GOOSE <i>Plectropterus gambensis</i>	79		W							0.3										
57	YELLOW-BILLED DUCK <i>Anas undulata</i>	72		W		0.2															
73	BLACK-SHOULDERED KITE <i>Elanus caeruleus</i>	142		G		1.8															
75	BLACK KITE <i>Milvus migrans</i>	138		pA		0.3					0.6		0.5			1.1	0.6		1.3	0.7	
76	FISH EAGLE <i>Haliaeetus vocifer</i>	137		W			0.3				1.1	0.3	0.5								
88	BATELEUR <i>Terathopus ecaudatus</i>	101		G												0.1					
90	HARRIER HAWK <i>Polyboroides typus</i>	96	R-VU	f					0.1							0.5					
93	AFRICAN MARSH HARRIER <i>Circus ranivorus</i>	95		W	0.3						0.4					0.1					
94	EURASIAN MARSH HARRIER <i>Circus aeruginosus</i>	92																1.1	0.3		
95	GABAR GOSHAWK <i>Micronis gabar</i>	131				0.2															
98	AFRICAN GOSHAWK <i>Accipiter tachiro</i>	111												0.2							
114	AUGUR BUZZARD <i>Buteo rufofuscus</i>	120																	0.3		
119	AFRICAN HAWK EAGLE <i>Hieraetus spilogaster</i>	128			0.3	0.3				0.8				0.4							
122	LONG-CRESTED EAGLE <i>Lophaelus occipitalis</i>	130		f		0.2					0.1										
132	GREY KESTREL <i>Falco ardosiaceus</i>	147								0.1											
142	HELMETED GUINEAFOWL <i>Numida meleagris</i>	190		G		0.4					1.9	0.6									
149	RED-WINGED FRANCOLIN <i>Francolinus levaillantii</i>	176							0.2												0.3
154	CRESTED FRANCOLIN <i>Francolinus sephaena</i>	182									0.4	1.0									
155	SCALY FRANCOLIN <i>Francolinus squamatus</i>	184		F	0.2																
161	RED-NECKED SPURFOWL <i>Francolinus afer</i>	167								0.4	1.6	2.1									
178	BLACK CRAKE <i>Amaurornis flavirostris</i>	201		W	0.2							0.9									
185	GREY-CROWNED CRANE <i>Balearica regulorum</i>	194		G														3.4	3.8		
191	BLACK-BELLIED BUSTARD <i>Eupodotis melanogaster</i>	218																0.3	0.3		
221	WATTLED PLOVER <i>Vanellus senegallus</i>	248		W	0.1	1.0				0.7	0.7			0.1				0.1	0.1		
225	SENEGAL PLOVER <i>Vanellus lugubris</i>	246		A, G		0.5															
248	WOOD-SANDPIPER <i>Tringa glareola</i>	256																0.3	0.3		
268	GREEN PIGEON <i>Treron calva</i>	358		F		0.3	0.3	0.8			0.1	1.5	1.3								
270	TAMBOURINE DOVE <i>Turtur tympanistria</i>	357		F		0.4	0.5	0.8													
271	BLUE-SPOTTED WOOD DOVE <i>Turtur afer</i>	355		f	0.9		3.8	2.6													0.8
273	EMERALD-SPOTTED WOOD DOVE <i>Turtur chalcospilos</i>	356		F						2.2	0.7	1.5	4.0	0.5		0.5	0.7				
281	SPECKLED PIGEON <i>Columba guinea</i>	341																			0.2
283	RED-EYED DOVE <i>Streptopelia semitorquata</i>	350		f	1.3	2.4	1.3	1.5		1.5	2.7	3.0	3.0	0.5	1.3	1.0	0.8	1.4	4.0		
286	RING-NECKED DOVE <i>Streptopelia capicola</i>	346		f	1.1	0.3	1.9	1.3		2.7	1.2	3.7	4.2	3.4	0.5	1.0					0.4
289	LAUGHING DOVE <i>Streptopelia senegalensis</i>	351								0.1	0.1	0.1	1.4	0.8	2.8			0.1			0.5
292	BROWN PARROT <i>Poicephalus meyeri</i>	367						0.2			1.8	2.0	1.1	1.4							
296	GREAT BLUE TURACO <i>Corythaëola cristata</i>	372		F			0.6														
302	ROSS'S TURACO <i>Musophaga rossae</i>	377		F	1.5	1.3	1.5			0.5	0.9	2.9	3.5	0.8							
303	BARE-FACED GO-AWAY BIRD <i>Corythaëoides personata</i>	375	R-RR		0.5					0.2	1.3	1.6		1.1							
305	EASTERN GREY PLANTAIN EATER <i>Crinifer zonurus</i>	376			3.4	0.5	2.2	0.7			0.3	1.0	1.2	0.4							
307	LEVAILLANT'S CUCKOO <i>Oxyphaps levaillantii</i>	394		Af	0.1					0.3	1.0	2.4	0.6				0.3				
309	RED-CHESTED CUCKOO <i>Cuculus solitarius</i>	399		AF		1.8	0.9			0.7	2.0	0.9	1.4		1.0	0.5	1.8				
310	BLACK CUCKOO <i>Cuculus clamosus</i>	396		A/FF								0.4									
312	AFRICAN CUCKOO <i>Cuculus gularis</i>	397		A									0.1								
319	KLAAS' CUCKOO <i>Chrysococcyx klaas</i>	391		f		1.2				0.6	0.5	0.6	0.5	0.5	1.1	0.5				0.8	
320	DIDRIC CUCKOO <i>Chrysococcyx caprius</i>	388								0.5		3.0	1.6	0.8							
323	WHITE-BROWED COUCAL <i>Centropus superciliosus</i>	406			2.3	0.5	2.5	2.2	1.0	3.6	2.6	1.6	4.2	1.5	0.9	0.6	2.7				
326	BLUE-HEADED COUCAL <i>Centropus monachus</i>	404		w	0.5																
358	PALM SWIFT <i>Cypsiurus parvus</i>	452			0.4																
362	EURASIAN SWIFT <i>Apus apus</i>	444		P		0.4															
365	LITTLE SWIFT <i>Apus affinis</i>	443			0.9	0.4	0.3					0.1	0.5								
368	BLUE-NAPED MOUSEBIRD <i>Urocolius macrourus</i>	461								0.1	0.5	0.8	0.3					3.8	0.2	3.2	
369	SPECKLED MOUSEBIRD <i>Colius striatus</i>	459			3.1	1.7	1.6	4.3			2.5	2.6	1.3	2.8	3.6	3.5	3.1				
375	WOODLAND KINGFISHER <i>Halcyon senegalensis</i>	475		A		2.1					1.9	1.8	2.3	0.9							
376	STRIPED KINGFISHER <i>Halcyon chelicuti</i>	472				0.3					3.0		1.0								

[illegible]