

Short communications

Birds of the College of African Wildlife Management, Mweka, Tanzania

The College of African Wildlife Management, Mweka (often simply 'Mweka College'; hereafter 'Mweka') has been an important institution for training wildlife and tourism professionals since the early 1960s. Many students get their first introduction to formal ornithology at Mweka. The objective of this paper is to serve this constituency with a description of the avifauna of the site. The list should also be useful to residents of the area and the many ecotourists who visit Kilimanjaro via Mweka.

Mweka lies on the south slope of Mount Kilimanjaro at about 1400m elevation (3°14'S, 37°19'E, Fig. 1). The site receives about 1700mm of annual rainfall, and has a mean temperature of 18.7°C (<https://en.climate-data.org/africa/tanzania/kilimanjaro/mweka-205889/#temperature-graph>). The Mweka entrance to Kilimanjaro National Park (KNP) is about 2.5km north of campus at 1650m elevation. Forest is protected within KNP, and this montane forest once extended to Mweka. Presently, forest patches persist mostly on steeper slopes. Land use around the Mweka campus includes an adjacent village to the north, small *shambas* (mixed agriculture with bananas, coffee, maize, and vegetables), several larger maize fields and pastures, and coffee agriculture. The largest stream in the area runs along the west border of campus, eventually connecting to the Karanga River. A small swampy area east of campus provided the only standing water within the study area in 2014–2015. In addition to the main road from Moshi to KNP, a network of footpaths provides access beyond campus.

Data presented here derive mainly from observations submitted to eBird (www.ebird.org), with about 80% of the observations during my residency at the college from August 2014 to July 2015. Most observations were from unstructured walks within <1 km from campus. We also mist netted birds on campus several times throughout the year. I compiled all observations through December 2019. These eBird data, including photographs and audio recordings, can be viewed at the eBird hotspot for the College of African Wildlife Management (<https://ebird.org/hotspot/L3028880>). Two other bird lists from Mweka were also considered (Hassan *et al.* 1997, Wambura 2009), as were unpublished observations contributed by Norbert Cordeiro. Data from a variety of sources are aggregated at the Global Biodiversity Information Facility (GBIF; www.GBIF.org) and VertNet (www.vertnet.org), from which I gleaned additional records. Stefan Ferger's contributions to GBIF were especially useful.

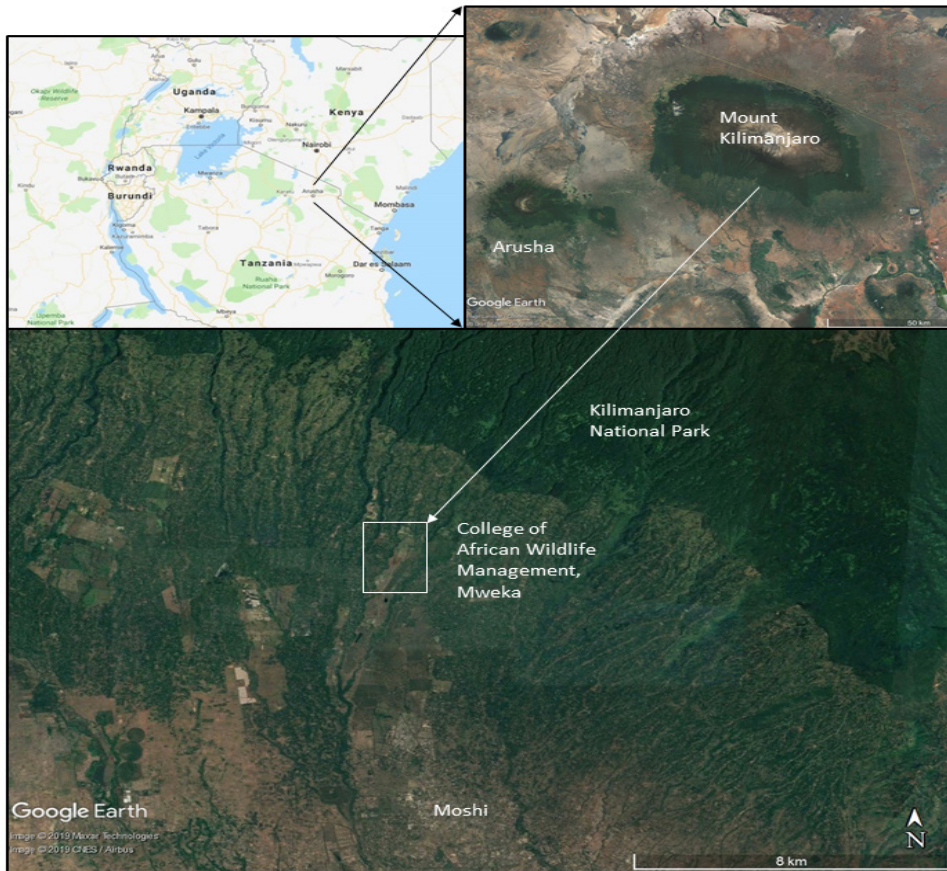


Figure 1. The College of African Wildlife Management, in the village of Mweka, north of Moshi, Tanzania. Protected forest at the border of Kilimanjaro National Park (KNP) appears dark green. The road from Moshi to KNP passes through campus and enters KNP at the Mweka Gate.

Codes in the list (Table 1) provide details for each species. Families, common names, and scientific names follow the International Ornithological Community World Bird Names 9.2 checklist (Gill & Donsker 2019). Taxonomy and family sequences have changed considerably since publication of Stevenson & Fanshawe (2006), the most important field guide for the region. Abundance, habitat, and sociality codes refer to the range of habitats within about 1 km of campus. Abundant species (a) are likely to be found on campus on most outings. Common species (c) can be found regularly, but might occur in more specialized habitat or at a particular time of year. Uncommon species (u) have multiple records, and may pass through in significant numbers, but are not regularly found even in the appropriate habitat or season. Rare species (r) have few records, probably representing mostly wanderers or migrants. Casual or historical species (x) have only historical records or a single recent record in eBird. I used summary resources to assign movement patterns and elevational affinities (e.g., Moreau & Sclater 1935, Moreau & Moreau 1939, Lamprey 1965, Britton 1980, Cordeiro 1994, Zimmerman *et al.* 1996, Dulle *et al.* 2016, Baker 2019). Elevational affinity

indicates species that are at the high or low end of their elevational range at Mweka, based mostly on distribution in the Kilimanjaro region. In general, species with lower affinities do not occur in montane forest, and species with higher affinities are mostly found in montane forest or other montane systems.

Across all data available, 202 species have been recorded at Mweka (Table 1). These include 20 abundant resident species, 45 additional common species, and 67 uncommon and rare species. The 70 casual or historical species (abundance code x) should be viewed as tentative, as most of these have no documentation. The previous lists included some obvious misidentifications that I removed, but there may be identification errors, especially for difficult groups such as *Coturnix* spp. or *Euplectes* spp. in basic plumage. Regardless of their veracity, species with abundance code x are probably not part of the regularly occurring avifauna of Mweka.

Table 1. Birds recorded at the College of African Wildlife Management, Mweka, Tanzania. Plate refers to the plate in Stevenson & Fanshawe (2006). Abundance codes: a=abundant; c=common; u=uncommon; r=rare; x=casual or historical. Habitat codes: a=agriculture; c=campus; f=forest; o=overhead; s=forest streams; w=standing water. Elevational affinities: h=higher elevation; l=lower elevation. Migration: a=Intra-African; pp=Palaeartic passage migrants; pw=Palaeartic winter residents; Sociality: s=small single-species flocks; ss=large single-species flocks; m=mixed-species flocks. See text for more details on classifications.

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
Phasianidae							
Scaly Francolin	<i>Pternistis (Francolinus) squamatus</i>	47	x	f,a	h		s
Hildebrandt's Francolin	<i>Pternistis (Francolinus) hildebrandti</i>	49	c	a			s
Common Quail	<i>Coturnix coturnix</i>	51	x	a	h		
Harlequin Quail	<i>Coturnix delegorguei</i>	51	x	a			
Apodidae							
Scarce Swift	<i>Schoutedenapus myoptilus</i>	109	r	o	h		s,m
African Palm Swift	<i>Cypsiurus parvus</i>	109	c	o	l		s
Alpine Swift	<i>Tachymarptis (Apus) melba</i>	107	r	o	h		s,m
Mottled Swift	<i>Tachymarptis (Apus) aequatorialis</i>	107	r	o			s,ss,m
Common Swift	<i>Apus apus</i>	108	x	o		pp,pw	s,ss,m
Nyanza Swift	<i>Apus niansae</i>	108	x	o			s,ss,m
Little Swift	<i>Apus affinis</i>	107	u	o			ss,m
White-rumped Swift	<i>Apus caffer</i>	107	r	o		a?	s,m
Musophagidae							
Hartlaub's Turaco	<i>Tauraco hartlaubi</i>	92	c	f,s	h		
Otididae							
Black-bellied Bustard	<i>Lissotis (Eupodotis) melanogaster</i>	58	x	a			
Cuculidae							
White-browed Coucal	<i>Centropus superciliosus</i>	98	c	f,c,a			
Green Malkoha	<i>Ceuthmochares australis</i>	97	x	f,c,a	l	a?	
Levaillant's Cuckoo	<i>Clamator (Oxylophus) levaillantii</i>	94	r	f,c		a	
Diederik Cuckoo	<i>Chrysococcyx caprius</i>	97	c	f,c	l		
Klaas's Cuckoo	<i>Chrysococcyx klaas</i>	97	c	f,c			
African Emerald Cuckoo	<i>Chrysococcyx cupreus</i>	97	c	f,c	l		
Black Cuckoo	<i>Cuculus clamosus</i>	96	x	f,c	l	a	

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
Red-chested Cuckoo	<i>Cuculus solitarius</i>	96	c	f,c		a?	
Columbidae							
Speckled Pigeon	<i>Columba guinea</i>	84	x	c			s
African Olive Pigeon	<i>Columba arquatrix</i>	84	c	f,c,a	h		ss
Eastern Bronze-naped Pigeon	<i>Columba delegorguei</i>	83	x	f	h		s
Lemon Dove	<i>Columba (Aplopelia) larvata</i>	87	x	f	h		
Red-eyed Dove	<i>Streptopelia semitorquata</i>	86	a	c,a			
Ring-necked Dove	<i>Streptopelia capicola</i>	86	r	a,c	l		s,ss
Emerald-spotted Wood-Dove	<i>Turtur chalcospilos</i>	85	u	f,c,a	l		
Blue-spotted Wood-Dove	<i>Turtur afer</i>	85	x	f,c,a	l		
Tambourine Dove	<i>Turtur tympanistria</i>	85	c	f,c,a			
African Green-Pigeon	<i>Treron calvus</i>	83	c	f,c			ss
Rallidae							
African Crake	<i>Crex egregia</i>	53	x	a,w	l	a	
Black Crake	<i>Amauornis (Zapornia) flavirostra</i>	54	x	w,a			
Turnicidae							
Common Buttonquail	<i>Turnix sylvaticus</i>	51	x	a	l		
Ciconiidae							
Abdim's Stork	<i>Ciconia abdimii</i>	14	x	a	l	a	ss
White Stork	<i>Ciconia ciconia</i>	13	x	a	h	pp,pw	ss
Marabou Stork	<i>Leptoptilos crumenifer</i>	15	x	c,a	l		s,ss
Threskiornithidae							
African Sacred Ibis	<i>Threskiornis aethiopicus</i>	16	r	a,o	l		s,ss
Hadada Ibis	<i>Bostrychia hagedash</i>	16	a	a,c,f,s			s
Ardeidae							
Grey Heron	<i>Ardea cinerea</i>	12	x	w,s			
Black-headed Heron	<i>Ardea melanocephala</i>	12	u	a,w			
Scopidae							
Hamerkop	<i>Scopus umbretta</i>	13	c	w,s			
Accipitridae							
Black-winged Kite	<i>Elanus caeruleus</i>	24	x	a			
African Harrier-Hawk	<i>Polyboroides typus</i>	34	r	a,f			
Palm-nut Vulture	<i>Gypohierax angolensis</i>	25	r	f,s,o	l		
Crowned Eagle	<i>Stephanoaetus coronatus</i>	40	r	f,o			
Long-crested Eagle	<i>Lophaetus occipitalis</i>	39	x	a,f,c			
Wahlberg's Eagle	<i>Hieraaetus (Aquila) wahlbergi</i>	36	r	c,f	l	a	
African Hawk-Eagle	<i>Aquila (Hieraaetus) spilogaster</i>	38	x	a,f,o	l		
Lizard Buzzard	<i>Kaupifalco monogrammicus</i>	30	r	c,a,f	l		
African Goshawk	<i>Accipiter tachiro</i>	32	u	f,c,a			
Little Sparrowhawk	<i>Accipiter minullus</i>	33	u	f,c			
Rufous-breasted Sparrowhawk	<i>Accipiter rufiventris</i>	32	x	f,c	h		
Black Sparrowhawk	<i>Accipiter melanoleucus</i>	33	u	f,c			
Black Kite	<i>Milvus migrans</i>	24	r	c,a,o	l	pw?	
Common Buzzard	<i>Buteo buteo</i>	35	r	o,a,f		pp,pw	s
Mountain Buzzard	<i>Buteo oreophilus</i>	30	x	o,f	h		
Augur Buzzard	<i>Buteo augur</i>	35	c	c,f,a			

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
Tytonidae							
Western Barn Owl	<i>Tyto alba</i>	99	x	c,a,f			
Strigidae							
Spotted Eagle-Owl	<i>Bubo africanus</i>	101	x	c,f,a			
Verreaux's Eagle-Owl	<i>Bubo lacteus</i>	101	x	c,f			
African Wood Owl	<i>Strix woodfordii</i>	99	r	f,c			
Pearl-spotted Owlet	<i>Glaucidium perlatum</i>	102	x	a,c			
Coliidae							
Speckled Mousebird	<i>Colius striatus</i>	110	a	c,a			ss
Upupidae							
Eurasian Hoopoe	<i>Upupa epops</i>	120	x	a	l	pw?	
Phoeniculidae							
Green Wood Hoopoe	<i>Phoeniculus purpureus</i>	119	x	f,c			s
Bucorvidae							
Southern Ground Hornbill	<i>Bucorvus leadbeateri</i>	125	x	a	l		s
Bucerotidae							
Crowned Hornbill	<i>Lophoceros (Tockus) alboterminatus</i>	122	c	c,f,a			s
Silvery-cheeked Hornbill	<i>Bycanistes brevis</i>	124	a	c,f			s
Coraciidae							
European Roller	<i>Coracias garrulus</i>	118	r	a,c	l	pp,pw	s
Broad-billed Roller	<i>Eurystomus glaucurus</i>	117	x	a,c,f	l	a	
Alcedinidae							
Grey-headed Kingfisher	<i>Halcyon leucocephala</i>	111	r	c,f,a		a?	
Brown-hooded Kingfisher	<i>Halcyon albiventris</i>	111	c	c,f,s,a	l		
Striped Kingfisher	<i>Halcyon chelicuti</i>	111	x	a,c			
African Pygmy Kingfisher	<i>Ispidina picta</i>	113	r	a,f	l	a?	
Malachite Kingfisher	<i>Corythornis (Alcedo) cristatus</i>	113	x	s,w			
Giant Kingfisher	<i>Megaceryle maxima</i>	111	x	s,w			
Meropidae							
Little Bee-eater	<i>Merops pusillus</i>	114	x	a			
Cinnamon-chested Bee-eater	<i>Merops oreobates</i>	114	u	f,c	h		s
Olive Bee-eater	<i>Merops superciliosus</i>	116	x	o	l	a	s,ss
European Bee-eater	<i>Merops apiaster</i>	116	u	o		pp,pw	ss
Lybiidae							
White-eared Barbet	<i>Stactolaema leucotis</i>	127	c	c,f	l		s
Moustached Tinkerbird	<i>Pogoniulus leucomystax</i>	127	r	f,c	h		
Spot-flanked Barbet	<i>Tricholaema lacrymosa</i>	128	x	a,f,c	l		s
Brown-breasted Barbet	<i>Lybius melanopterus</i>	129	c	c,f	l		s
Indicatoridae							
Green-backed Honeybird	<i>Prodotiscus zambesiae</i>	134	u	c,f	l		
Pallid Honeyguide	<i>Indicator meliphilus</i>	133	u	f,c			
Scaly-throated Honeyguide	<i>Indicator variegatus</i>	132	r	f,c,a			m
Greater Honeyguide	<i>Indicator indicator</i>	132	x	c,a,f			
Picidae							
Nubian Woodpecker	<i>Campethera nubica</i>	136	x	a,c,f			
Golden-tailed Woodpecker	<i>Campethera abingoni</i>	136	c	f,c			
Bearded Woodpecker	<i>Chloropicus (Dendropicus) namaquus</i>	138	x	f,c			

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
Cardinal Woodpecker	<i>Dendropicus (Chloropicos) fuscescens</i>	137	r	c,a,f			
Eastern Grey Woodpecker	<i>Dendropicos spodocephalus</i>	138	u	c,f,a			
Falconidae							
African Hobby	<i>Falco cuvierii</i>	43	x	f,c,a		a?	
Platysteiridae							
Chin-spot Batis	<i>Batis molitor</i>	209	c	c,f			s
Black-throated Wattle-eye	<i>Platysteira peltata</i>	211	x	c,f			m
Malaconotidae							
Grey-headed Bushshrike	<i>Malaconotus blanchoti</i>	238	x	f,c,a	l		
Orange-breasted Bushshrike	<i>Chlorophoneus (Malaconotus, Teleophorus) sulfureopectus</i>	238	x	c,a,f			m
Brown-crowned Tchagra	<i>Tchagra australis</i>	237	c	a,c			
Black-backed Puffback	<i>Dryoscopus cubla</i>	236	a	c,a,f			m
Tropical Boubou	<i>Laniarius major</i>	234	a	c,a,f			m
Vangidae							
White-crested Helmetshrike	<i>Prionops plumatus</i>	240	x	c,a			
Campephagidae							
Black Cuckooshrike	<i>Campephaga flava</i>	154	r	c,a,f	l	a?	m
Laniidae							
Red-backed Shrike	<i>Lanius collurio</i>	233	u	a		pp,pw	s
Lesser Grey Shrike	<i>Lanius minor</i>	232	r	a		pp	s
Northern Fiscal	<i>Lanius humeralis</i>	231	a	c,a			
Oriolidae							
African Golden Oriole	<i>Oriolus auratus</i>	244	x	f,c	l	a	m
Black-headed Oriole	<i>Oriolus larvatus</i>	243	u	f,c			m
Monarchidae							
African Paradise Flycatcher	<i>Terpsiphone viridis</i>	212	c	c,f,a			m
Corvidae							
Pied Crow	<i>Corvus albus</i>	242	a	c,a,f			s
White-necked Raven	<i>Corvus albicollis</i>	242	r	f,c,o	h		s
Pycnonotidae							
Dark-capped Bulbul	<i>Pycnonotus tricolor</i>	156	a	c,a,f			s,m
Mountain Greenbul	<i>Arizelocichla (Andropadus) nigriceps</i>	156	r	f,s	h		m
Stripe-faced Greenbul	<i>Arizelocichla striifacies</i>	157	r	f,s	h		m
Little Greenbul	<i>Eurillas (Andropadus) virens</i>	156	c	f,s	l		
Cabanis's Greenbul	<i>Phyllastrephus cabanisi</i>	159	r	f,s	h		s,m
Hirundinidae							
Black Saw-wing	<i>Psalidoprocne pristoptera</i>	148	c	c,f,a	h		s
Banded Martin	<i>Riparia cincta</i>	145	x	a,o			s
Barn Swallow	<i>Hirundo rustica</i>	147	r	c,a,o		pw,pp	ss,m
Wire-tailed Swallow	<i>Hirundo smithii</i>	147	r	c,a,o			s
Rock Martin	<i>Ptyonoprogne (Hirundo) fuligula</i>	145	c	c,f,a,o	h		s
Common House Martin	<i>Delichon urbicum</i>	145	x	o		pp,pw	s,ss,m
Lesser Striped Swallow	<i>Cecropis (Hirundo) abyssinica</i>	146	c	c,a			s
Mosque Swallow	<i>Cecropis (Hirundo) senegalensis</i>	146	r	o			s
Red-rumped Swallow	<i>Cecropis (Hirundo) daurica</i>	146	r	c,a	h		s

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
Phylloscopidae							
Willow Warbler	<i>Phylloscopus trochilus</i>	184	c	c,f,a		pw,pp	m
Brown Woodland Warbler	<i>Phylloscopus umbrovirens</i>	185	u	f,c,a	h		m
Acrocephalidae							
Marsh Warbler	<i>Acrocephalus palustris</i>	179	r	c,a,w		pp	
Mountain Yellow Warbler	<i>Iduna (Chloroptera) similis</i>	178	x	c,f	h		
Eastern Olivaceous Warbler	<i>Iduna (Hippolais) pallida</i>	182	x	c,a	l	pw	
Locustellidae							
River Warbler	<i>Locustella fluviatilis</i>	180	x	s		pw,pp	
Evergreen Forest Warbler	<i>Bradypterus lopezi</i>	181	x	f	h		
Cisticolidae							
Tawny-flanked Prinia	<i>Prinia subflava</i>	198	a	c,a,f			s
Yellow-breasted Apalis	<i>Apalis flavida</i>	200	c	c,f,a			m
Black-headed Apalis	<i>Apalis melanocephala</i>	201	x	f,c			m
Green-backed Camaroptera	<i>Camaroptera brachyura</i>	199	a	c,a,f			m
Leiotherichidae							
Arrow-marked Babbler	<i>Turdoides jardineii</i>	216	c	a,c,f			s
Sylviidae							
African Hill Babbler	<i>Sylvia (Pseudoalcippe) abyssinica</i>	215	r	f,s	h		m
Eurasian Blackcap	<i>Sylvia atricapilla</i>	183	c	c,a,f	h	pw,pp	m,s
Garden Warbler	<i>Sylvia borin</i>	183	c	c,a,f		pw,pp	m,s
Common Whitethroat	<i>Sylvia communis</i>	183	c	c,a,f		pw,pp	m,s
Zosteropidae							
Pale White-eye	<i>Zosterops flavilateralis</i>	220	x	c,f,a	l		s
Broad-ringed White-eye	<i>Zosterops eurycricotus</i>	220	r	c,f,a	h		s,m
Sturnidae							
Violet-backed Starling	<i>Cinnyricinclus leucogaster</i>	249	a	c,f			ss
Red-winged Starling	<i>Onychognathus morio</i>	246	a	c,f			s
Waller's Starling	<i>Onychognathus walleri</i>	246	r	c,f	h		s
Kenrick's Starling	<i>Poeoptera kenricki</i>	245	c	c,f	h		s,m
Turdidae							
Abyssinian Thrush	<i>Turdus abyssinicus</i>	168	x	f,c	h		m
Muscicapidae							
White-browed Scrub-Robin	<i>Cercotrichas leucophrys</i>	176	x	a,c	l		
White-eyed Slaty-Flycatcher	<i>Melaenornis fischeri</i>	204	a	c,f	h		m
Southern Black Flycatcher	<i>Melaenornis pammelaina</i>	204	x	c,f	l		m
Pale Flycatcher	<i>Melaenornis (Bradornis, Agricola) pallidus</i>	206	x	a,c,f			
Spotted Flycatcher	<i>Muscicapa striata</i>	206	r	c,a,f		pw,pp	
Ashy Flycatcher	<i>Muscicapa (Fraseria) caerulescens</i>	206	x	f,c,s	l		
African Dusky Flycatcher	<i>Muscicapa adusta</i>	207	c	c,f,a	h		
Cape Robin-Chat	<i>Cossypha caffra</i>	166	r	f,c,a	h		
Rüppell's Robin-Chat	<i>Cossypha semirufa</i>	166	c	f,c,a	h		
White-browed Robin-Chat	<i>Cossypha heuglini</i>	166	r	c,a			
White-starred Robin	<i>Pogonocichla stellata</i>	163	r	f	h		m
Spotted Palm Thrush	<i>Cichladusa guttata</i>	177	x	c,a	l		
Common Nightingale	<i>Luscinia megarhynchos</i>	175	u	a,c	l	pw,pp	

English name	Scientific name	Plate	Abundance	Habitat	Elevation	Migration	Sociality
African Stonechat	<i>Saxicola torquatus</i>	173	c	a	h		
Nectariniidae							
Collared Sunbird	<i>Hedydipna collaris</i>	229	c	c,a,f			m
Olive Sunbird	<i>Cyanomitra olivacea</i>	226	u	c,f	h		m
Amethyst Sunbird	<i>Chalcomitra (Nectarina) amethystina</i>	225	a	c,f,a			
Bronzy Sunbird	<i>Nectarinia kilimensis</i>	221	c	c,f,a	h		
Malachite Sunbird	<i>Nectarinia famosa</i>	222	x	c,a,f	h		
Eastern Double-collared Sunbird	<i>Cinnyris mediocris</i>	223	r	c,f,a	h		
Beautiful Sunbird	<i>Cinnyris pulchellus</i>	228	x	c,f,a	l		
Variable Sunbird	<i>Cinnyris venustus</i>	229	a	c,a,f			
Passeridae							
House Sparrow	<i>Passer domesticus</i>	251	a	c			s
Kenya Sparrow	<i>Passer rufocinctus</i>	251	r	c,a	h		s
Northern Grey-headed Sparrow	<i>Passer griseus</i>	252	a	c,a			s
Ploceidae							
Thick-billed Weaver	<i>Amblyospiza albifrons</i>	257	x	w,a			s
Baglafecht Weaver	<i>Ploceus baglafecht</i>	257	a	c,f,a	h		
Spectacled Weaver	<i>Ploceus ocularis</i>	256	c	c,f,a			m
Village Weaver	<i>Ploceus cucullatus</i>	255	x	c,a,o			s
Chestnut Weaver	<i>Ploceus rubiginosus</i>	257	r	a	l		ss
Red-headed Weaver	<i>Anaplectes rubriceps</i>	263	c	c,f,a	l		
Red-billed Quelea	<i>Quelea quelea</i>	263	x	a			ss
Southern Red Bishop	<i>Euplectes orix</i>	268	x	a,o	l		s
Yellow Bishop	<i>Euplectes capensis</i>	267	c	a,c			s
White-winged Widowbird	<i>Euplectes albonotatus</i>	267	x	a,c,w	l		s,m
Estrildidae							
Red-billed Firefinch	<i>Lagonosticta senegala</i>	275	c	c,a			s
African Firefinch	<i>Lagonosticta rubricata</i>	275	u	c,a,f			s
Red-cheeked Cordon-bleu	<i>Uraeginthus bengalus</i>	274	r	a,c			s
Yellow-bellied Waxbill	<i>Coccyzygia (Estrilda) quartinia</i>	276	x	a,c	h		s,m
Common Waxbill	<i>Estrilda astrild</i>	276	r	a,c,w			s,ss,m
Bronze Mannikin	<i>Lonchura (Spermestes) cucullata</i>	279	c	c,a			ss,m
Black-and-white Mannikin	<i>Lonchura (Spermestes) bicolor</i>	279	c	c,a,f			ss,m
Viduidae							
Village Indigobird	<i>Vidua chalybeata</i>	281	u	a,c			s,m
Pin-tailed Whydah	<i>Vidua macroura</i>	280	r	a,c			s,m
Motacillidae							
Grey Wagtail	<i>Motacilla cinerea</i>	149	r	s		pw,pp	
Mountain Wagtail	<i>Motacilla clara</i>	149	x	s,f	h		
African Pied Wagtail	<i>Motacilla aguimp</i>	149	a	c,a,s			
Tree Pipit	<i>Anthus trivialis</i>	153	r	a	h	pp,pw	s
Fringillidae							
Southern Citril	<i>Crithagra (Serinus) hyposticta</i>	283	c	a,c			s
Yellow-fronted Canary	<i>Crithagra (Serinus) mozambica</i>	282	c	a,c			s
Thick-billed Seedeater	<i>Crithagra (Serinus) burtoni</i>	282	r	a,c,f	h		s
Emberizidae							
Golden-breasted Bunting	<i>Emberiza flaviventris</i>	286	r	a			

Campus was the most frequently used habitat, indicated for 101 species (excluding abundance code x). Forest and agricultural areas were used by many species, often in combination with campus habitat. The limited aquatic habitat was important for multiple species, with streams and the riparian corridor providing key habitat for forest species such as Hartlaub's Turaco *Tauraco hartlaubi*, African Hill Babbler *Sylvia abyssinica*, and multiple greenbuls. The overhead habitat category included species found well above even the tallest trees, often in transit. As expected, these species included mostly swifts, swallows, raptors, and migrating bee-eaters.

Elevational affinities were meaningful for 53 species, again excluding species with abundance code x. Mweka hosted more species from higher elevation (32), than from lower elevation (21). The species at the lower end of their elevational distribution were mostly birds associated with montane forest (26 of 32 with habitat code f). Some of the most common resident species at Mweka, including Hartlaub's Turaco, Rüppell's Robin-Chat *Cossypha semirufa*, African Dusky Flycatcher *Muscicapa adusta*, White-eyed Slaty-Flycatcher *Meleaornis fischeri*, Kenrick's Starling *Poeoptera kenricki*, and Bronzy Sunbird *Nectarinia kilimensis*, do not occur much lower on Kilimanjaro. Species nearing their upper elevational limits at Mweka also included forest species, such as Diederik Cuckoo *Chrysococcyx caprius*, African Emerald Cuckoo *C. cupreus*, and Little Greenbul *Eurillas virens*, as well as species using agricultural habitats.

Mweka's avifauna includes a mix of resident and migratory species. About 22 species are Palaearctic migrants, including mostly passerines. Four of these are common species at Mweka during the northern winter (Willow Warbler *Phylloscopus trochilus*, Eurasian Blackcap *Sylvia atricapilla*, Garden Warbler *S. borin*, and Common White-throat *S. communis*). Most Palaearctic migrants are probably also passage migrants through Mweka, although only Lesser Grey Shrike *Lanius minor* and Marsh Warbler *Acrocephalus palustris* have a winter distribution entirely south of northern Tanzania.

Intra-African migrants include 15 species, mostly non-passerines. Conspicuous large-scale patterns are only evident for seven species, including two that come to our region in their non-breeding season (Abdim's Stork *Ciconia abdimii*, African Golden Oriole *Oriolus auratus*), and five that come to the area to breed (Levaillant's Cuckoo *Clamator levaillantii*, Black Cuckoo *Cuculus clamosus*, African Crake *Crex egregia*, Olive Bee-eater *Merops superciliosus*, and Broad-billed Roller *Eurystomus glaucurus*). Seven species are reported to include individuals or populations that migrate, but their status at Mweka is not clear (migration status a?). Other species make local movements that sometimes bring them to Mweka (e.g. Chestnut Weaver *Ploceus rubiginosus* and Red-billed Quelea *Quelea quelea*). With more data some of these patterns may become predictable, such as movements down the mountain in the cold months of June–August or use of ploughed fields in the rainy season.

Although the avifauna of Kilimanjaro has been well described (e.g. Moreau & Sclater 1935, Moreau & Moreau 1939), the focus has been on the montane avifauna, mostly at higher elevation, rather than making a more complete assessment at a site below the extensive protected forests of KNP. With the emerging importance of climate change as a driver of distribution shifts up tropical mountains (Freeman & Freeman 2014; Dulle *et al.* 2016), even semi-quantitative information like this list from Mweka may be useful for designing more comprehensive studies or providing future ornithologists with a point of comparison.

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