Project Update: October 2023

Introduction

The mountain bongo (*Tragelaphus eurycerus isaaci*) is a critically endangered, rare subspecies of antelope which is endemic to the Afromontane forests of Kenya. They are predominantly browsers, however, observation data on their browse selection are varying and their feeding ecology in the wild is not well understood. This study aims to determine spatial and temporal dietary composition, gut microbiota and endoparasite of the species at the Mount Kenya Wildlife Conservancy and the new Mawingu Mountain Bongo Sanctuary. The study will focus on the reintroduced wild population in the newly Mawingu Mountain Bongo Sanctuary for a period of 2 years.

To date, there is scanty dietary ecological data on mountain bongo (Fundi, 2013; Musyoki et al., 2012) despite the species being on the verge of extinction mainly due to poaching, habitat loss, and forest degradation (Prettejohn, 2008, Mwangi, 2010, Faria et al., 2011).

Figure 1: Mountain Bongo at Mount Kenya Wildlife Conservancy

Progress report

The study commenced in January 2023, to date a total of 6,060 focal animal counts have been conducted while 1,652 faecal samples have been collected and analysed. To date a total of 80 different browser plant species have been recorded and identified.

Action point	Timeline	Status	Comment
Focal animal count	January to March 2023	Complete	6061 focal animal counts have been successfully conducted to date. The data has been entered in Microsoft excel.

Collection and analysis of fecal samples	January to March 2023	Complete	A total of 1652 faecal samples have been collected and analysed. Strongylids and coccydia eggs have been identified in the samples collected
Gut Micro biota sample collection	July to September 2023	Complete	Duplicate samples for collected and preserved in absolute ethanol and formalin.
Gut Micro biota sample collection	September to October 2023	On-going	Sample analysis on going. Results to be ready in October 2023.

The table below shows the plants species fed by Mountain Bongo during my field work.

1	*Abutilon mauritanium*	41	*Neonotonia wightii*
2	*Acacia abyssinica*	42	*Ocimum gratissimum*
3	*Acacia tortilis*	43	*Olea africana*
4	*Acalypha racemosa*	44	*Olinia rochetiana*
5	*Achyranthes aspera*	45	*Oxalis griffithi*
6	*Alternantha caracasana*	46	*Panicum monticola*
7	*Amaranthus graecizans*	47	*Passiflora tripatita*
8	*Asparagus falcatus*	48	*Pennisetum clandestinum*
9	*Bidens pilosa*	49	*Pennisetum schimperi*
10	*Caesalpinia decapetala*	50	*Pentas lanceolata*
11	*Carissa spinarum*	51	*Periploca linearlifolia*
12	*Centella asiatica*	52	*Phytolaca dodecandra*
13	*Commelina africana*	53	*Pilogyne scabra*
14	*Commelina bengalensis*	54	*Pittosporum viridiflorum*
15	*Conyza canadiensis*	55	*Plectranthus amboinicus*
16	*Corymbia maculata*	56	*Plectranthus laxiflorus*
17	*Cotoneaster horizontalis*	57	*Podranea ricasoliana*
18	*Cussonia holstii*	58	*Polygonum lapathifolium*
19	*Cynanchum abyssinicum*	59	*Rhamnus prinoides*
20	*Cynodon dactylon*	60	*Rhus natalensis*
21	*Cyperus rigidifolius*	61	*Rhus pyroides*
22	*Cyphostema kilimandscharicum*	62	*Rubia cordifolia*
23	*Dodonea viscosa*	63	*Rubus niveus*
24	*Dovyalis abyssinica*	64	*Salvia officinalis*
25	*Dyschoriste radicans*	65	*Scutia myrtina*
26	*Erythroccoca bongensis*	66	*Senecio hadiensis*
27	*Euclea divinorum*	67	*Senecio inaquidens*
28	*Galinsonga quadriadiata*	68	*Senna capsularis*
29	*Galium aparine*	69	*Sida tenuicarpa*
30	*Hibiscus rosa sinensis*	70	*Solanum aculeastrum*
31	*Hypoestes forskaoli*	71	*Solanum mauense*

32	*Indigofera arrecta*	72	*Solanum mauritanium*
33	*Ipomoea purpurea*	73	*Spermacoce princeae*
34	*Juniperus procera*	74	*Targetes minuta*
35	*Justicia diclipteroides*	75	*Toddalia asiatica*
36	*Lantana trifolia*	76	*Torillis arvenis*
37	*Medicago sativa*	77	*Trichocladus ellipticus*
38	*Maytenus heterophylla*	78	*Urtica massaica*
39	*Microglossa pyrifolia*	79	*Verberna banariensis*
40	*Mikania scandens*	80	*Warbugia ugandensis*

Figure 2: Mountain Bongo browse species pressed for identification and storage.

Training and Knowledge sharing

Five wildlife graduate assistants have benefited from the project training in data collection, and analysis, plant identification, setting camera traps. Four Mount Kenya Wildlife conservancy staff were also benefited from field training in data collection, plant identification, pressing of plant samples.

Twenty Rhino Ark and Bongo surveillance project rangers were trained in Mountain Bongo ecology.

Data from the study has enabled keepers to be able to correctly identify and harvest edible and nutritious plant species for sick bongos and bongo in the animal orphanage.

Figure 3: Group photo participants during field work.

Future plans

- A workshop has been scheduled for December 2023 to share preliminary results for the study, the workshop will target wildlife managers and communities working on recovery of mountain bongo in Kenya.
- Fieldwork will be finalised in the next 4 months.
- To publish three papers in peer reviewed journals.

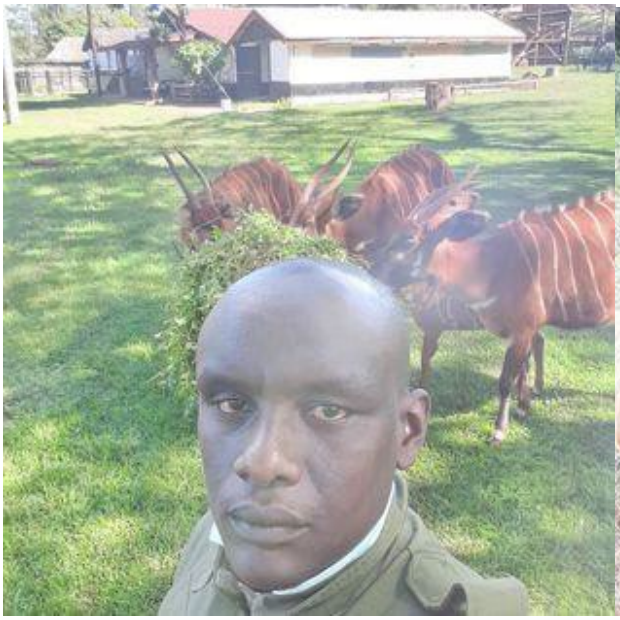

Figure 4: Mountain Bongo feeding on harvested browse from Mount Kenya Forest. **Figure 5:** Samuel Njuki During field work.