REPORT ON THE NIASSA TAITA FALCON SURVEY OF NOVEMBER 2021

Taita Falcon near Mariri. Photo by Claire Spottiswoode.

Prepared for:
The Peregrine Fund, Wildlife Conservation Society and the Mozambican Government

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Background

The Taita Falcon, *Falco fasciinucha*, is listed as Vulnerable on the IUCN Red List of Threatened Species (BirdLife International 2020). However, an accurate assessment of their conservation status is currently hampered by a deficiency in information on their population size, trend and distribution. While this information is still lacking, Taita Falcons are considered to be one of Africa's rarest raptor species and they occur sporadically from southern Ethiopia to north-eastern South Africa (Fig. 1, BirdLife International 2020). There are scattered records of small populations in Uganda (Möller 1989), Zimbabwe (Benson & Smithers 1958, Dowsett 1983, Hustler 1989; Hartley 1995, 2000, Weaver et al. 2002) and South Africa (Jenkins et al. 2008). Other records consist of unverified reports of single birds or historical records of a few nest sites in Kenya (Thomsett 1998), Malawi (Hunter et al. 1979), Tanzania, Zambia and Mozambique (Hartley 1995, BirdLife International 2020).

The recent disappearance of breeding Taita Falcons in Batoka Gorge, Zimbabwe (Jenkins et al. 2019), has highlighted the urgent need for further research to fill the above-mentioned knowledge gap and accurately assess the risk of extinction for the species. The Batoka Gorge system has long been the most prominent and well-known Taita Falcon population (Jenkins et al. 2019) but researchers working on the species have long suspected that, based on historical breeding records, Niassa Special Reserve (NSR) in northern Mozambique may harbour a significant population (A. Jenkins pers comm). The historical nest sites were opportunistically recorded near areas of higher human activity, i.e., Mbatamila Operational Headquarters, Mariri Environmental and Skills Training Centre and the Lugenda Wilderness Camp. While the Niassa area is not currently considered to be within the Taita Falcon range, the habitat at this location, a Miombo woodland dominated landscape dotted with inselbergs, was suspected to be ideal for the species. Taita Falcons nest on cliffs overlooking woodland, from which they hunt small avian prey.

Given the reported declines of studied Tatia Falcon populations in both Batoka Gorge and in Blyde River Canyon, South African, BirdLife South Africa hosted a Taita Falcon Conservation Workshop to identify strategic conservation priorities for this species. During this workshop, determining whether any strongholds for the species remained was identified as a top priority. NSR was considered to be the most likely area where a substantial population could be discovered. BirdLife South Africa consequently petitioned the Peregrine Fund to provide the necessary funding to conduct a Taita Falcon survey in NSR. They generously agreed and provided funding for a team of six researchers to visit the reserve and conduct the survey.

Aim

The aim of the survey was to increase our understanding of the population numbers and conservation status of Taita Falcons. The primary aim was to establish whether NSR was a stronghold for Taita Falcons through:

1) determining a minimum population estimate for the reserve, and
2) identifying any threats to the persistence of this population.

Methods

Study species

The Taita Falcon is a small raptor (25-28cm, 220-300g) with a patchy distribution from southern Ethiopia to South Africa. Current estimates are that fewer than 500 breeding pairs remain. The species exclusively occurs on escarpments, inselbergs and river gorges overlooking dense woodland or bushland. They are monogamous cliff-nesters with long-term pair-bonding. Nests consist of

scrapes in either potholes or sheltered ledges, where 2-4 eggs are laid between August and October. The incubation period is around 34 days, followed by a 42-day pre-fledging period. Inter-nest distances have been recorded to be 4.6 km in Batoka Gorge, Zimbabwe.

Photo: Two Taita Falcons. Photo by R. Hartley.

Study area

NSR is one of Africa's largest protected areas at 42,300 km^2. NSR is also connected via corridors to Selous Game Reserve (55,000 km2) in southern Tanzania and Quirimbas National Park (7,506 km2) on the eastern border of northern Mozambique. Together this forms one of Africa's largest remaining contiguous wilderness areas. NSR is dominated by extensive unbroken miombo woodland, and the landscape is dotted with iconic inselbergs. The reserve lacks an extensive road network and given the large distances concerned, helicopters are required to access most areas.

A helicopter was present at Mbatamila Headquarters due to an ongoing elephant collaring operation. It was thus logistically practical for the survey team to be stationed at Mbatamila Headquarters during the survey. The survey commenced immediately after the collaring operation had been completed and the helicopter became available. This period coincided with the tail end of the breeding season of the falcons. This was an opportune time as we reasoned that the birds would be more conspicuous during this time due to increased territorial behaviour and the presence of dependent chicks.

Pre-survey preparation

Inselbergs surrounding Mbatamila were identified and visually examined in Google Earth and an initial three-tier grading of their suitability for Taita Falcons was assigned to each inselberg. The assessment of the suitability of an inselberg was based on the perceived presence of large sheer cliff faces surrounded by intact woodland (Figure 1). To maximise the cost-effectiveness of our survey and keep flight time low, we mostly focussed our search effort on inselbergs within a 75 km radius of Mbatamila (Figure 1).

At the start of the survey, three team members conducted a scouting mission via a fixed-wing aircraft of as many inselbergs as possible given flight-time constraints. Thus during the scouting mission we were able to visually assess cliff-faces and ground-truth and update the suitability of most of the inselbergs identified via Google Earth (Figure 1 & 2). This activity was exceedingly useful

in correcting initial impressions of inselbergs and in identifying cliffs with signs of falcon activity (most notably excrement-stained ledges, known as whitewash, and nesting structures).

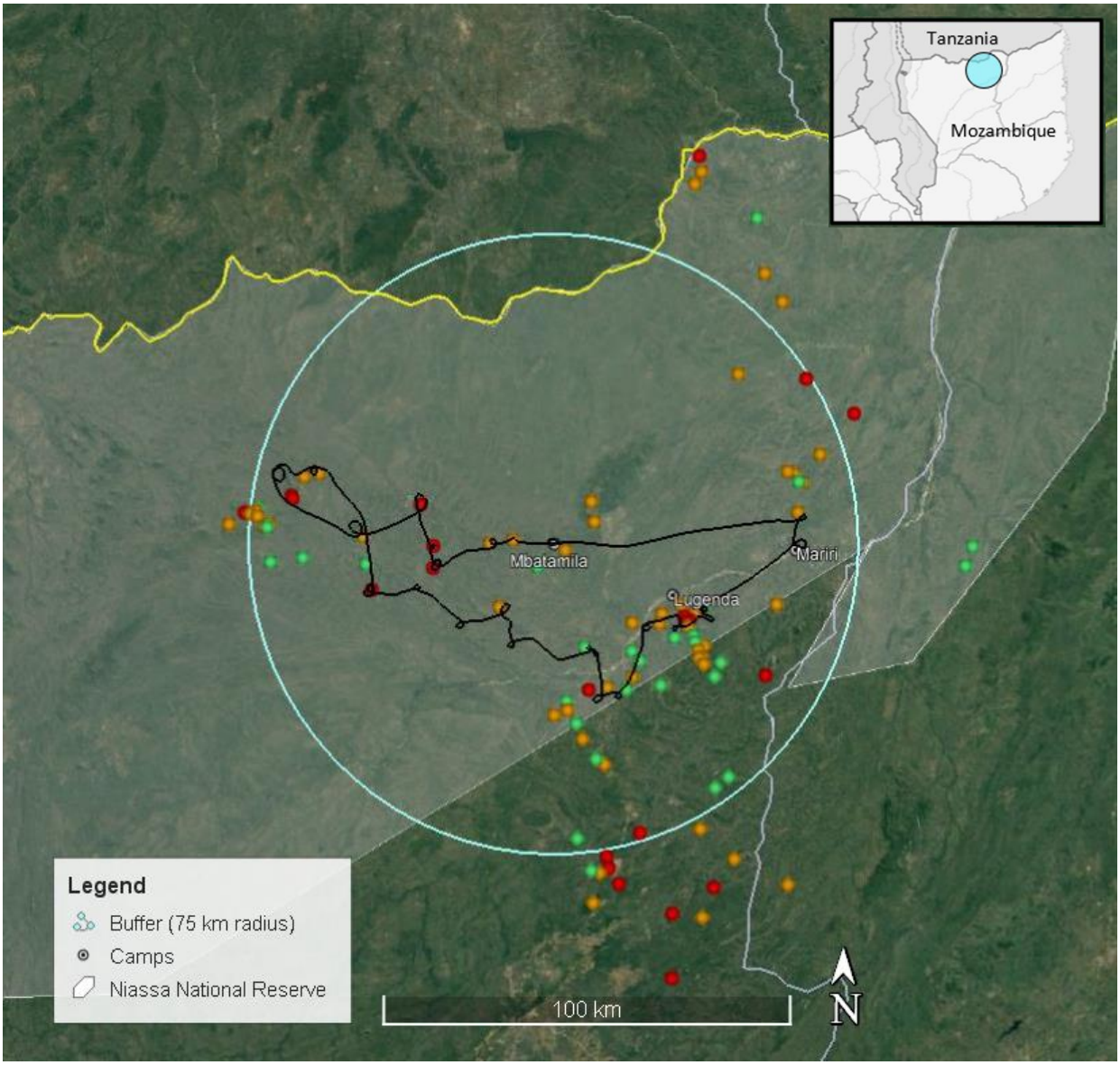

Figure 1: Inselbergs and their associated grading with regards to their visually judged suitability for Taita Falcons through Google Earth. The red inselbergs are the ones judged to have the highest suitability, followed by orange and then green. The blue perimeters indicate the 75 km radius buffer around Mbatamila (where the helicopter was stationed). The black line indicates the flight path of the fixed-wing aircraft during the scouting mission after which the suitability gradings of inselbergs were updated.

Figure 2: The inselberg littered landscape of Niassa Special Reserve, observed during the scouting mission. Photo by Christiaan W. Brink.

Survey

The survey team was comprised of six raptor biologists (Christiaan W. Brink, Andrew Jenkins, Anthony van Zyl, Neil Deacon, David Allan and Kyle S. Walker), all but one with previous experience in Taita Falcon surveying at other locations. The survey was composed of seven full days of surveying between the 16th and 24th of November 2021. The survey entailed two to three-man survey teams being ferried to inselbergs and surveying the cliffs for Taita Falcons with spotting scopes and binoculars (Figure 3 & 4). The primary mode of transport was the helicopter, but motor vehicles were also used to access some inselbergs by road. Surveys were broken up into morning (roughly 05:30 to 12:30) and afternoon sessions (roughly 15:00 to 17:30).

The inselbergs which were classified as having the highest suitability for Taita Falcons after the scouting mission were prioritised. Upon approach to an inselberg the surveyors used information from the scouting mission and visual assessment while in the helicopter (in most cases the team was flown around inselbergs for assessment before being dropped), vehicle or on foot, to decide which cliff face to survey. This was based on which cliff face showed the most signs of falcon activity or looked the most promising with regards to height and having suitable nesting and roosting ledges.

After being dropped off the team would move to the best vantage point on foot and the cliff would be scanned for Taita Falcons. If multiple promising rock faces were present on an inselberg, surveyors shifted between them once one had been satisfactorily explored. Surveyors also shifted to new inselbergs once they had reached a conclusion regarding the presence of Taita Falcons at a given inselberg. This conclusion was reached when:

1) Taita Falcons were observed at the site, especially if breeding could be confirmed
2) The cliff was already occupied by other larger falcon species
3) Time ran out with no falcon activity observed

If Taita Falcons were seen at the cliff an attempt was made to determine whether they were breeding at the site through identifying the presence of dependent young or apparent nest sites. Cliffs occupied by Lanner Falcons and Peregrine Falcons were considered unsuitable for Taita Falcons as we assumed that these larger falcon species would displace Taita Falcons from the site.

Figure 3: A member of the team surveying a likely looking cliff site, complete with nesting holes and falcon whitewash. Photo by Christiaan W. Brink.

Figure 4: Anthony van Zyl waiting to approach the helicopter and be ferried back to base. Photo by Christiaan W. Brink.

Results

In total, 34 inselbergs were surveyed (Figure 5, Appendix 1), with 80 hours of search effort (calculated as time spent surveying across all inselbergs) spent across these sites. The average time spent at an inselberg was 2h 11min (range: 15 min -7h 5min). Taita Falcons were present at 14 (41%) of the surveyed inselbergs, and seven pairs were observed to be breeding through the presence of fledged juveniles. In total, 37 Taita Falcons were recorded during the survey, of which 22 were judged to be adults, 14 fledglings (including one bird fledged during the course of the survey) and one bird whose age class could not be determined (Appendix 1). For interest a list of all 178 avian species recorded during the survey has been provided in Appendix 2.

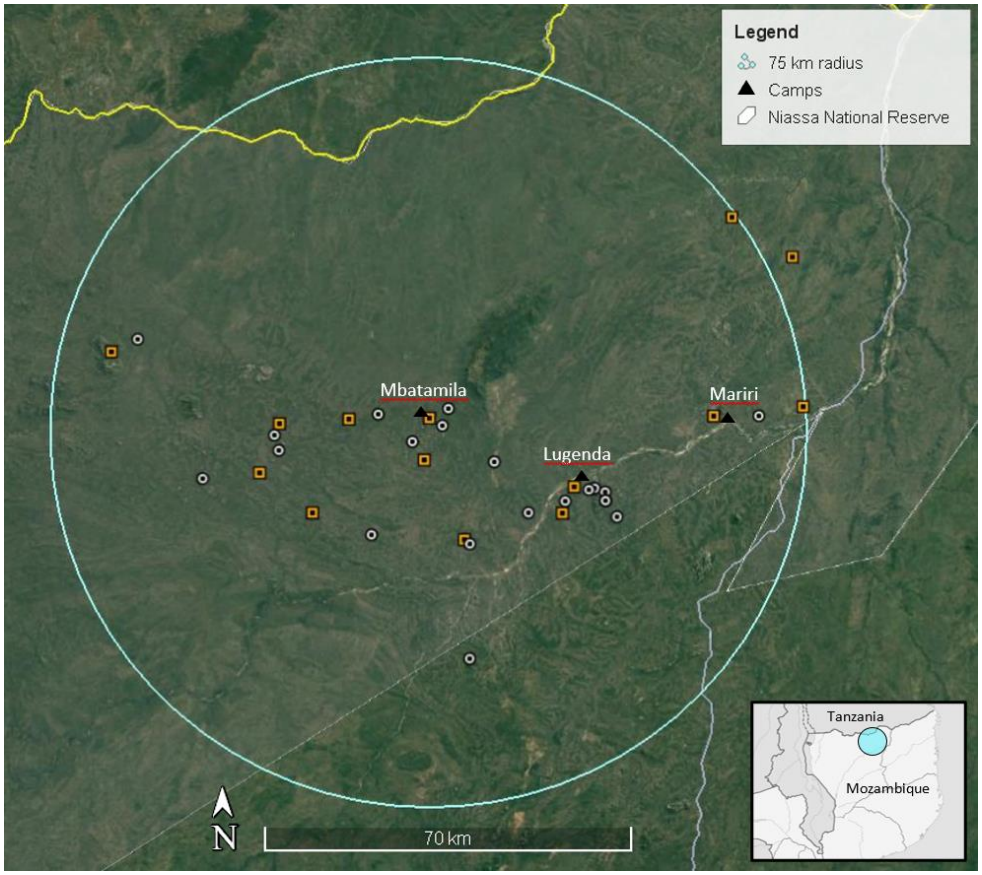

Figure 5: Inselbergs surveyed for Taita Falcons in November 2021. The white circles indicate the inselbergs where no Taita Falcons were observed and the orange squares those where Taita Falcons were present. The 75 km blue buffer around Mbatamila indicates the outer boundary of the survey focus area.

Discussion and recommendations

The Taita Falcon population we recorded in NSR is currently the largest known population in the world. Our survey thus indicates that NSR is a stronghold for the species and should therefore be a key focus area for their conservation. Given these findings we can speculate that the inselberg-strewn woodland of NSR is typical Taita Falcon habitat. This habitat type is prominent across the region, extending north into Tanzania and further south in Mozambique. Taita Falcons have also been observed at the Nampula Airport (Neil Stronach pers. comm). Consequently, it is very likely that there is a much more substantial Taita Falcon population in the region than the minimum population size established by our survey. This may even be the source/core population providing dispersing individuals to the Zimbabwean and South African populations. Given that all observed chicks during the survey had already fledged, our survey may have been slightly late in the breeding season. This means that some of the pairs we detected may have already successfully raised chicks during the year of study prior to the commencement of the survey and the number of breeding birds in our survey results may be underrepresented.

While our findings are very promising for the conservation of the species it does put into sharp focus the potential threats to Taita Falcons present in NSR and in the region. Despite being ascribed as a true wilderness area NSR is not without its suite of anthropogenic threats. There are approximately 40,000 people living in the reserve who largely depend on natural resources for their livelihoods, leading to largely unsustainable natural resource exploitation. Artisanal mining, coal production, poaching, land clearing for agriculture, logging and unmanaged burning all threatens biodiversity in the park (Figure 6). Most of these practices lead to removal and degradation of the park's natural

woodland and signs of this were observed throughout the survey area. This situation is not unique to NSR and woodlands and forest are being lost across Africa (Hansen et al. 2013), a situation that is exacerbated by the socio-economic challenges throughout the continent's developing countries (Ifedolapo et al. 2019).

In South Africa a soon-to-be-published study led by BirdLife South Africa revealed that Taita Falcon occupation was negatively associated with woodland degradation in the Blyde River Canyon. This provides strong management implications for the NSR population, calling for the protection of woodland around inselbergs, especially those known to be occupied by Taita Falcons. The remoteness and vast size of the NSR present obstacles to good law enforcement and governance in the park and therefore effective habitat conservation. The continued habitat loss will in future jeopardise the future of the Taita Falcon habitat in NSR.

Figure 6: Fires litter the landscape of Niassa, likely contributing to habitat degradation (left panel). Extensive woodland clearing occurring in the reserve (right panel). Photos by Christiaan W. Brink

Acknowledgements

Birdlife South Africa would like to thank all the surveyors for volunteering their time, energy and considerable expertise to assist with this survey. Despite some challenging circumstances they persevered with undying enthusiasm. BirdLife South Africa would like to thank the Wildlife Conservation Society team, specifically Willem Krynauw and Peter Trevor, for their extensive contributions and support with regards to logistics and planning. We are grateful to our two guides, George and Kazimero who spent long hours in the field looking after our safety. BirdLife South Africa thanks Gary Allport for his assistance and advise on traveling through Maputo. Lastly and most importantly we would like to thank Rick Watson and the Peregrine Fund for funding this survey, without their support this would not have been possible.

Figure 7: The survey team from left to right: David Allan, Christiaan Willem Brink, Neil Deacon, Kyle Walker, Andrew Jenkins, Anthony van Zyl.

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About BirdLife South Africa and the global BirdLife Partnership

BirdLife South Africa is the only dedicated bird conservation organisation in South Africa. Its focus is the conservation of indigenous birds and their habitats through effective and responsible advocacy, action and education, informed by scientifically-based research and monitoring. BirdLife South Africa is a registered non-profit (001-298 NPO), public benefit organisation (930 004 518), with about 6 000 members in more than 30 bird clubs throughout South Africa.

BirdLife South Africa aims to save species (including through the prevention of extinctions and through keeping common birds common), conserve sites and habitats, encourage ecological sustainability and empower people for positive change. There are two main conservation programmes within BirdLife South Africa: species and habitat conservation. Species conservation is achieved through the Seabird Conservation Programme and the Terrestrial Bird Conservation Programme.

BirdLife South Africa is part of the BirdLife International Partnership, a global network of more than 120 partners, widely recognised as the world's most effective conservation alliance. The BirdLife International strategic approach is based on a pyramid structure with the long-term empowering of people underpinning the immediate and urgent need to conserve sites and habitats, as well as to save species. At the last BirdLife International World Congress in 2013 in Ottawa, Canada, BirdLife

South Africa received a prestigious Partner Award: important global recognition of BirdLife South Africa's work.

BirdLife South Africa has 35 staff members based around South Africa, managed from its head office in Johannesburg. The organisation's finances are audited annually by KPMG.

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Appendix

Appendix 1: Summary of survey findings.

#	Date	Inselberg code	Session	Latitude	Longitude	Transport used	Taita Falcons present	Breeding	Adults	Fledglings	Unknown
1	2021/11/17	Ib_H1	Morning	-12.17829	37.54721	Road	Yes	Yes	2	1	
2	2021/11/17	Ib004	Morning	-12.16589	37.45298	Road					
3	2021/11/17	Ib109	Afternoon	-12.24953	37.66451	Road					
4	2021/11/18	Ib002	Afternoon	-12.22386	37.27335	Helicopter					
5	2021/11/18	Ib006	Morning	-12.17782	37.27479	Helicopter	Yes		2		
6	2021/11/18	Ib101	Afternoon	-12.39424	37.61802	Helicopter					
7	2021/11/18	Ib108	Morning	-12.19828	37.26567	Helicopter					
8	2021/11/19	Ib_M1	Morning	-12.16890	38.06027	Road	Yes		2		
9	2021/11/19	Ib_M2	Afternoon	-12.17155	38.14608	Road					
10	2021/11/19	Ib_M3	Morning	-12.15428	38.23239	Road	Yes	Yes	1	2	
11	2021/11/19	Ib075	Afternoon	-12.26181	37.13973	Helicopter					
12	2021/11/19	Ib102	Morning	-12.33926	37.72994	Helicopter					
13	2021/11/19	Ib106	Afternoon	-12.26530	37.23899	Helicopter	Yes				1
14	2021/11/19	Ib107	Morning	-12.37682	37.44097	Helicopter					
15	2021/11/19	Ib111	Morning	-12.24483	37.53633	Helicopter	Yes		2		
16	2021/11/20	Ib099	Morning	-12.20439	37.52037	Helicopter					
17	2021/11/20	Ib100	Afternoon	-12.18179	37.57243	Road					
18	2021/11/20	Ib104	Morning	-12.02087	37.01496	Helicopter					
19	2021/11/20	Ib201	Morning	-12.04452	36.96655	Helicopter	Yes	Yes	1	3	
20	2021/11/20	Ib202	Afternoon	-12.15338	37.58261	Road					
21	2021/11/21	Ib003	Morning	-12.17235	37.40169	Road	Yes		2		
22	2021/11/22	Ib029	Afternoon	-12.31980	37.86440	Helicopter					
23	2021/11/22	Ib055	Morning	-11.87953	38.22340	Helicopter	Yes		1		
24	2021/11/22	Ib056	Morning	-11.80497	38.11412	Helicopter	Yes	Yes	2	3	

25	2021/11/22	Ib073	Afternoon	-12.59337	37.61475	Helicopter					
26	2021/11/22	Ib110	Morning	-12.38614	37.60837	Helicopter	Yes		2		
27	2021/11/22	Ib204	Morning	-12.33703	37.33464	Helicopter	Yes	Yes	2	2	
28	2021/11/23	Ib_H2	Morning	-12.29495	37.80851	Road	Yes	Yes	2	1	
29	2021/11/23	Ib_L2	Afternoon	-12.30445	37.86423	Road					
30	2021/11/23	Ib_L4	Afternoon	-12.34846	37.88446	Road					
31	2021/11/24	Ib024	Morning	-12.32019	37.79163	Road					
32	2021/11/24	Ib025	Morning	-12.34136	37.78594	Road	Yes	Yes	1	2	
33	2021/11/24	Ib027	Morning	-12.30025	37.83493	Road					
34	2021/11/24	Ib205	Morning	-12.29766	37.84525	Road					
						TOTAL	**14**	**7**	**22**	**14**	**1**

Appendix 2: List of avian species seen during survey.

#	Species primary name	*Species tertiary name*
1	Abbott's Starling	*Poeoptera femoralis*
2	African Barred Owlet	*Glaucidium capense*
3	African Black Swift	*Apus barbatus*
4	African Fish Eagle	*Haliaeetus vocifer*
5	African Golden Oriole	*Oriolus auratus*
6	African Goshawk	*Accipiter tachiro*
7	African Green Pigeon	*Treron calvus*
8	African Grey Hornbill	*Lophoceros nasutus*
9	African Harrier-Hawk	*Polyboroides typus*
10	African Hawk Eagle	*Aquila spilogaster*
11	African Hoopoe	*Upupa africana*
12	African Palm Swift	*Cypsiurus parvus*
13	African Paradise Flycatcher	*Terpsiphone viridis*
14	African Pied Wagtail	*Motacilla aguimp*
15	African Pygmy Kingfisher	*Ispidina picta*
16	African Scops Owl	*Otus senegalensis*
17	African Wood Owl	*Strix woodfordii*
18	Amethyst Sunbird	*Chalcomitra amethystina*
19	Arnot’s Chat	*Myrmecocichla arnotti*
20	Arrow-marked Babbler	*Turdoides jardineii*
21	Ashy Flycatcher	*Muscicapa caerulescens*
22	Augur Buzzard	*Buteo augur*
23	Ayres's Hawk Eagle	*Hieraaetus ayresii*
24	Bohm's Bee-eater	*Merops boehmi*
25	Bohm's Spinetail	*Neafrapus boehmi*
26	Barn Swallow	*Hirundo rustica*
27	Bateleur	*Terathopius ecaudatus*
28	Bearded Scrub Robin	*Cercotrichas quadrivirgata*
29	Bearded Woodpecker	*Chloropicus namaquus*
30	Black Cuckooshrike	*Campephaga flava*
31	Black Swift	*Apus barbatus*
32	Black-backed Puffback	*Dryoscopus cubla*
33	Black-collared Barbet	*Lybius torquatus*
34	Black-crowned Tchagra	*Tchagra senegalus*
35	Black-headed Oriole	*Oriolus larvatus*
36	Blue Waxbill	*Uraeginthus angolensis*
37	Broad-billed Roller	*Eurystomus glaucurus*
38	Brown Snake Eagle	*Circaetus cinereus*
39	Brown-backed Honeybird	*Prodotiscus regulus*
40	Brown-crowned Tchagra	*Tchagra australis*
41	Brown-headed Parrot	*Poicephalus cryptoxanthus*
42	Brown-hooded Kingfisher	*Halcyon albiventris*
43	Brown-throated Martin	*Riparia paludicola*
44	Brubru	*Nilaus afer*
45	Burchell’s Coucal	*Centropus burchellii*

46	Cabanis's Bunting	*Emberiza cabanisi*
47	Cape Turtle Dove	*Streptopelia capicola*
48	Cardinal Woodpecker	*Dendropicos fuscescens*
49	Cinnamon-breasted Tit	*Melaniparus pallidiventris*
50	Collared Sunbird	*Hedydipna collaris*
51	Common (Steppe) Buzzard	*Buteo buteo*
52	Common Greenshank	*Tringa nebularia*
53	Common Sandpiper	*Actitis hypoleucos*
54	Common Scimitarbill	*Rhinopomastus cyanomelas*
55	Coqui Francolin	*Peliperdix coqui*
56	Crested Francolin	*Dendroperdix sephaena*
57	Crested Guineafowl	*Guttera pucherani*
58	Croaking Cisticola	*Cisticola natalensis*
59	Crowned Eagle	*Stephanoaetus coronatus*
60	Crowned Hornbill	*Lophoceros alboterminatus*
61	Dark Chanting Goshawk	*Melierax metabates*
62	Dark-capped Bulbul	*Pycnonotus tricolor*
63	Dickinson’s Kestrel	*Falco dickinsoni*
64	Dwarf Bittern	*Ixobrychus sturmii*
65	Eastern Nicator	*Nicator gularis*
66	Emerald-spotted Wood Dove	*Turtur chalcospilos*
67	Eurasian Golden Oriole	*Oriolus oriolus*
68	Eurasian Hobby	*Falco subbuteo*
69	European Bee-eater	*Merops apiaster*
70	European Honey Buzzard	*Pernis apivorus*
71	Familiar Chat	*Oenanthe familiaris*
72	Fork-tailed Drongo	*Dicrurus adsimilis*
73	Freckled Nightjar	*Caprimulgus tristigma*
74	Golden-breasted Bunting	*Emberiza flaviventris*
75	Golden-tailed Woodpecker	*Campethera abingoni*
76	Greater Blue-eared Starling	*Lamprotornis chalybaeus*
77	Greater Honeyguide	*Indicator indicator*
78	Green Malkoha	*Ceuthmochares australis*
79	Green Wood Hoopoe	*Phoeniculus purpureus*
80	Green-backed Woodpecker	*Campethera cailliautii*
81	Green-winged Pytilia	*Pytilia melba*
82	Grey Tit-Flycatcher	*Myioparus plumbeus*
83	Grey-backed Camaroptera	*Camaroptera brevicaudata*
84	Grey-headed Bushshrike	*Malaconotus blanchoti*
85	Grey-headed Kingfisher	*Halcyon leucocephala*
86	Hadada Ibis	*Bostrychia hagedash*
87	Hamerkop	*Scopus umbretta*
88	Helmeted Guineafowl	*Numida meleagris*
89	Hildebrandt's Spurfowl	*Pternistis hildebrandti*
90	Hooded Vulture	*Necrosyrtes monachus*
91	Horus Swift	*Apus horus*
92	Jameson's Firefinch	*Lagonosticta rhodopareia*
93	Klaas's Cuckoo	*Chrysococcyx klaas*

94	Kurrichane Thrush	*Turdus libonyana*
95	Lanner Falcon	*Falco biarmicus*
96	Lappet-faced Vulture	*Torgos tracheliotos*
97	Lazy Cisticola	*Cisticola aberrans*
98	Lesser Honeyguide	*Indicator minor*
99	Lesser Striped Swallow	*Cecropis abyssinica*
100	Lilac-breasted Roller	*Coracias caudatus*
101	Little Bee-eater	*Merops pusillus*
102	Little Swift	*Apus affinis*
103	Livingstone's Flycatcher	*Erythrocercus livingstonei*
104	Lizard Buzzard	*Kaupifalco monogrammicus*
105	Marabou Stork	*Leptoptilos crumenifer*
106	Martial Eagle	*Polemaetus bellicosus*
107	Mocking Cliff Chat	*Thamnolaea cinnamomeiventris*
108	Mottled Swift	*Tachymarptis aequatorialis*
109	Narina Trogon	*Apaloderma narina*
110	Neddicky	*Cisticola fulvicapilla*
111	Orange-breasted Bushshrike	*Chlorophoneus sulfureopectus*
112	Ovambo Sparrowhawk	*Accipiter ovampensis*
113	Pale Batis	*Batis soror*
114	Pale-billed Hornbill	*Lophoceros pallidirostris*
115	Peregrine Falcon	*Falco peregrinus*
116	Pied Crow	*Corvus albus*
117	Purple-banded Sunbird	*Cinnyris bifasciatus*
118	Purple-crested Turaco	*Tauraco porphyreolophus*
119	Racket-tailed Roller	*Coracias spatulatus*
120	Red-eyed Dove	*Streptopelia semitorquata*
121	Red-faced Mousebird	*Urocolius indicus*
122	Red-headed Quelea	*Quelea erythrops*
123	Red-headed Weaver	*Anaplectes rubriceps*
124	Red-necked Spurfowl	*Pternistis afer*
125	Red-throated Twinspot	*Hypargos niveoguttatus*
126	Red-winged Starling	*Onychognathus morio*
127	Retz's Helmetshrike	*Prionops retzii*
128	Ring-necked Dove	*Streptopelia capicola*
129	Rock Kestrel	*Falco rupicolus*
130	Rock Martin	*Ptyonoprogne fuligula*
131	Scaly-throated Honeyguide	*Indicator variegatus*
132	Scarlet-chested Sunbird	*Chalcomitra senegalensis*
133	Shelley’s Francolin	*Scleroptila shelleyi*
134	Shikra	*Accipiter badius*
135	Southern Banded Snake Eagle	*Circaetus fasciolatus*
136	Southern Black Tit	*Melaniparus niger*
137	Southern Grey-headed Sparrow	*Passer diffusus*
138	Southern White-faced Owl	*Ptilopsis granti*
139	Southern Yellow White-eye	*Zosterops senegalensis*
140	Speckle-throated Woodpecker	*Campethera scriptoricauda*
141	Spectacled Weaver	*Ploceus ocularis*

142	Square-tailed Nightjar	*Caprimulgus fossii*
143	Stierling's Wren-Warbler	*Calamonastes stierlingi*
144	Striped Kingfisher	*Halcyon chelicuti*
145	Striped Pipit	*Anthus lineiventris*
146	Swallow-tailed Bee-eater	*Merops hirundineus*
147	Taita Falcon	*Falco fasciinucha*
148	Tawny-flanked Prinia	*Prinia subflava*
149	Tropical Boubou	*Laniarius major*
150	Trumpeter Hornbill	*Bycanistes bucinator*
151	Verreaux's Eagle	*Aquila verreauxii*
152	Village Weaver	*Ploceus cucullatus*
153	Vincent's Bunting	*Emberiza vincenti*
154	Violet-backed Starling	*Cinnyricinclus leucogaster*
155	Wahlberg's Eagle	*Hieraaetus wahlbergi*
156	Water Thick-knee	*Burhinus vermiculatus*
157	Western Barn Owl	*Tyto alba*
158	Western Violet-backed Sunbird	*Anthreptes longuemarei*
159	White-backed Vulture	*Gyps africanus*
160	White-bellied Sunbird	*Cinnyris talatala*
161	White-breasted Cuckooshrike	*Coracina pectoralis*
162	White-browed Robin-Chat	*Cossypha heuglini*
163	White-browed Scrub Robin	*Cercotrichas leucophrys*
164	White-browed Sparrow-Weaver	*Plocepasser mahali*
165	White-crested Helmetshrike	*Prionops plumatus*
166	White-fronted Plover	*Charadrius marginatus*
167	White-headed Vulture	*Trigonoceps occipitalis*
168	White-necked Raven	*Corvus albicollis*
169	Wire-tailed Swallow	*Hirundo smithii*
170	Wood Pipit	*Anthus nyassae*
171	Wood Sandpiper	*Tringa glareola*
172	Woolly-necked Stork	*Ciconia episcopus*
173	Yellow-bellied Greenbul	*Chlorocichla flaviventris*
174	Yellow-billed Kite	*Milvus aegyptius*
175	Yellow-breasted Apalis	*Apalis flavida*
176	Yellow-fronted Canary	*Crithagra mozambica*
177	Yellow-throated Bush Sparrow	*Gymnoris superciliaris*
178	Yellow-throated Petronia	*Gymnoris superciliaris*