

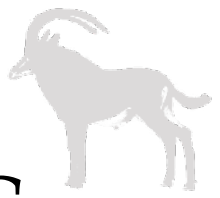


ZAMBEZI DELTA ECOLOGY

HOLISTIC ECOSYSTEM RESEARCH PROJECT



LION REPORT
MAY 2020



TWENTY FOUR LIONS

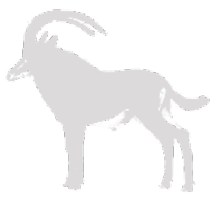
| CONSERVATION NEVER RESTS |

As we sit and wait upon the global pandemic to loosen its grip on the world, it is important to highlight that conservation efforts have not ceased. During this challenging time, there have been three core aspects to the successful wildlife conservation in the Zambezi Delta:

- (1) Funding and support,
- (2) Monitoring, and
- (3) Anti-poaching

The funding and support provided by the Cabela Family Foundation has been instrumental in monitoring the reintroduced lions. In just under two years, the lion population has increased from 24 to 52 individuals, and we have been able to document this thanks to regular aerial support and satellite GPS collars. The lions are also protected by a dedicated anti-poaching unit that effectively patrols the delta, removing any potential threat to lions and other wildlife, thus protecting all wildlife in the ecosystem.





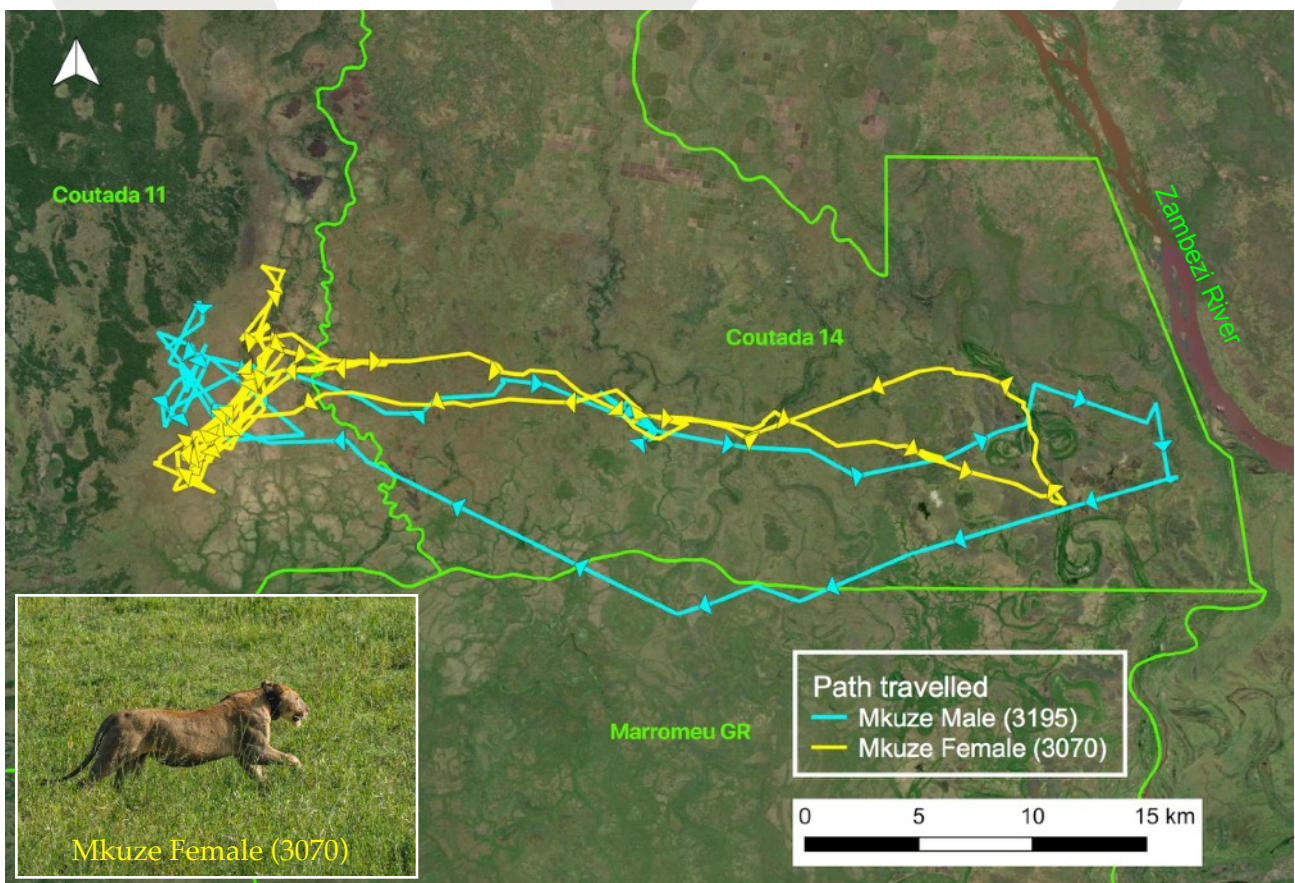
LIONESS ON A MISSION

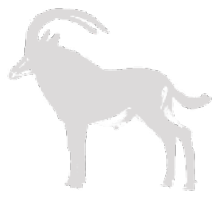
| THE MKUZE MARATHON |

The Mkuze Pride female (collar: 3070) is a lone female residing on the Coutada 11 side of the Salome River. Recently, we witnessed some unusual movement from this female. On 6 May, she moved into Coutada 14, and continued moving east for several days. She eventually stopped about 8km before the Zambezi River and completed the loop by returning to her usual area in Coutada 11. In total, she travelled over 80km in 12 days, at an average of 7km per day. During the entire month she covered a total area of 286km²!

We are unsure of what triggered this unusual movement. She could be pregnant and searching for a place to have her cubs as similar (but less drastic) movement was observed with two other females weeks before giving birth to cubs. However, we still need to confirm whether this is the case.

Interestingly, in September 2019, the Mkuze Pride male (collar: 3195) also traversed across Coutada 14 and turned around about 2km before the Zambezi River. Perhaps she was just trying to retrace her brother's footsteps. See map below indicating the movement of both individuals.





WHAT'S ON THE MENU?

RECORDING LION KILLS

Food is a basic necessity for survival. In the Zambezi Delta, we record the prey that are killed by lions to determine (1) which prey species are most important to the lions, (2) how the importance of prey species in lion diet might change over time as pride sizes increase, and (3) whether different prides prefer different prey species. Furthermore, by evaluating the predation impact on prey populations, we are better able to understand this relationship and ultimately make informed management decisions relating to both predator and prey populations as well as the entire ecosystem.

Based on an early assessment, the most consumed species was warthog, making up almost half the lion's diet (49.4%), indicating a strong selection for this species. This is likely due to several factors. (1) Lion

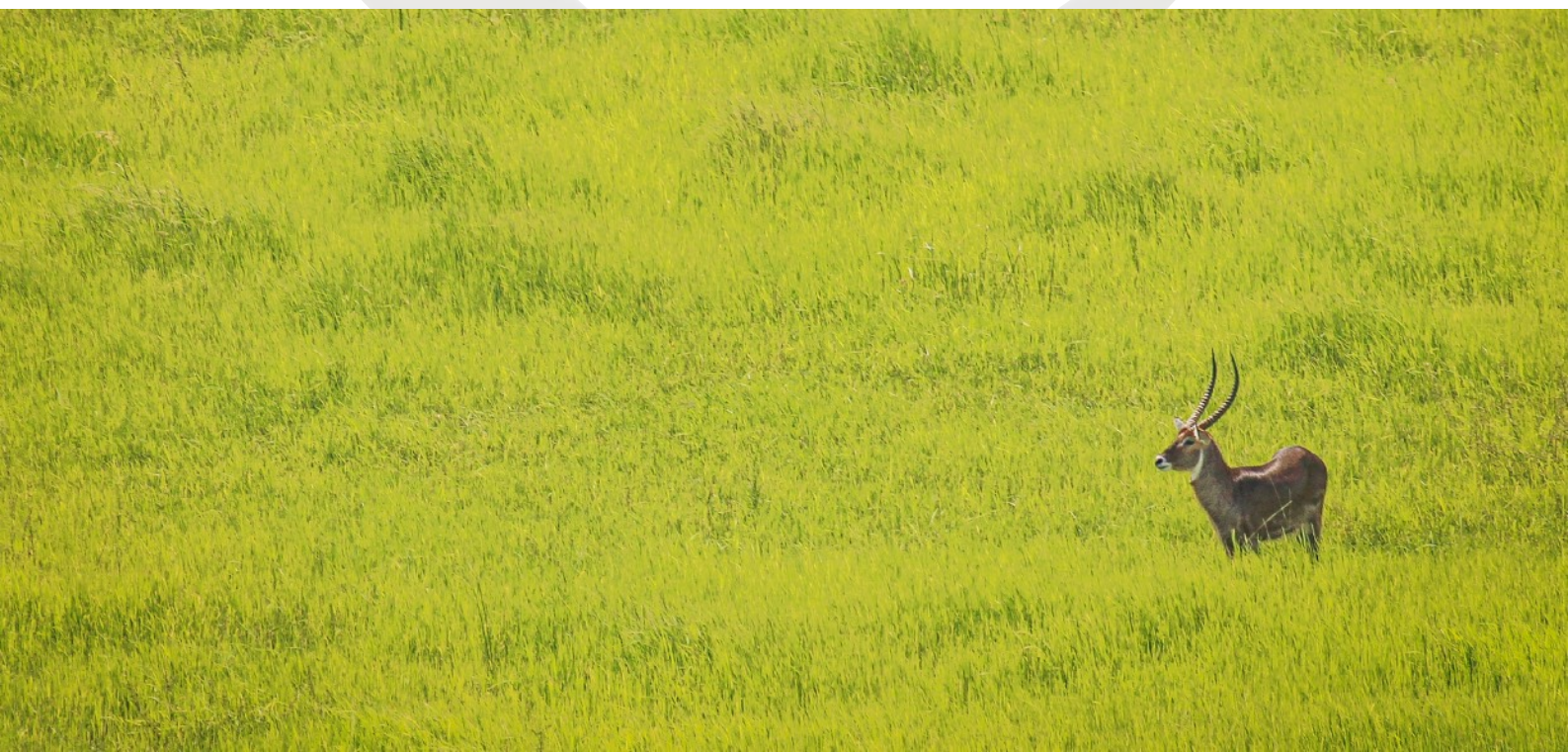


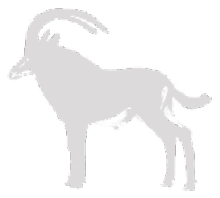


prides are still relatively small and would rather catch smaller, less dangerous prey. (2) Warthogs are relatively easy to catch, particularly as they lack height for vigilance in tall grass. (3) Lions ambush warthogs as they are leaving their burrows in the morning or at night when they come back to their burrows. Many warthog burrows are located along the edge of the floodplain, which is exactly where lions spend the majority of their time.

Table 1. Prey species consumed by lions and the percentage contribution to lion diet during an initial dietary assessment.

Common Name	Scientific Name	Kills (%)
African buffalo	<i>Syncerus caffer</i>	1.2
Bushbuck	<i>Tragelaphus scriptus</i>	1.2
Bushpig	<i>Potamochoerus larvatus</i>	3.5
Eland	<i>Taurotragus oryx</i>	4.7
Lichtenstein's hartebeest	<i>Alcelaphus lichtensteinii</i>	9.4
Reedbuck	<i>Redunca arundinum</i>	15.3
Sable	<i>Hippotragus niger</i>	9.4
Warthog	<i>Phacocochoerus africanus</i>	49.4
Waterbuck	<i>Kobus ellipsiprymnus</i>	4.7
Zebra	<i>Equus quagga</i>	1.2

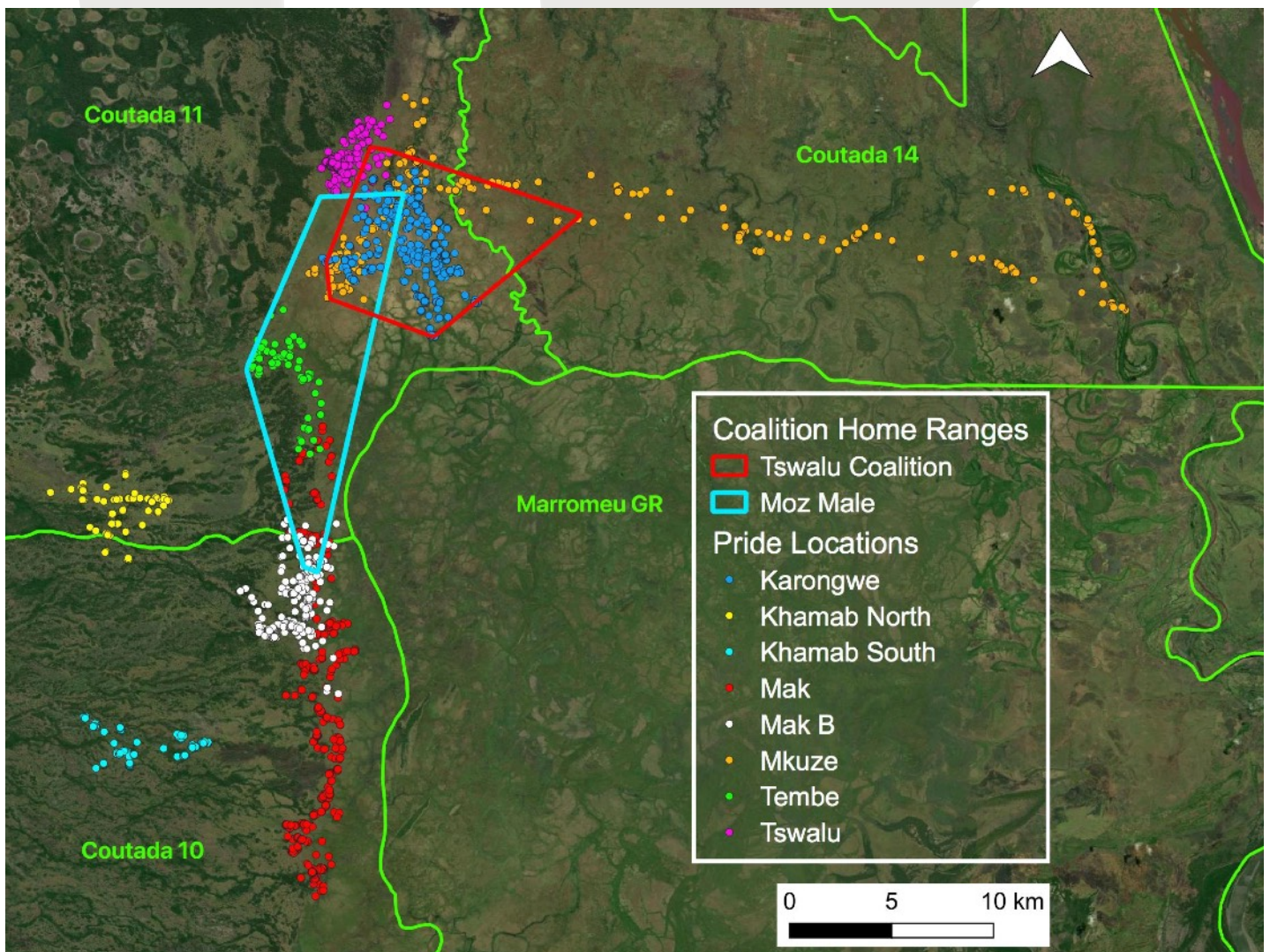




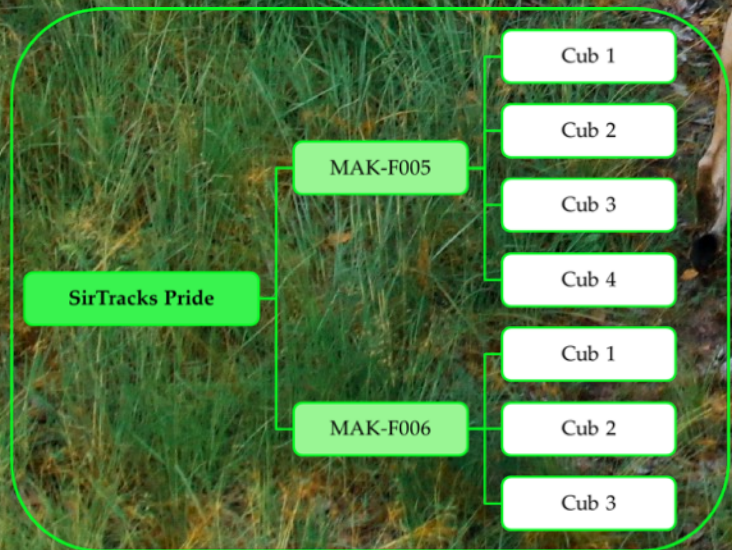
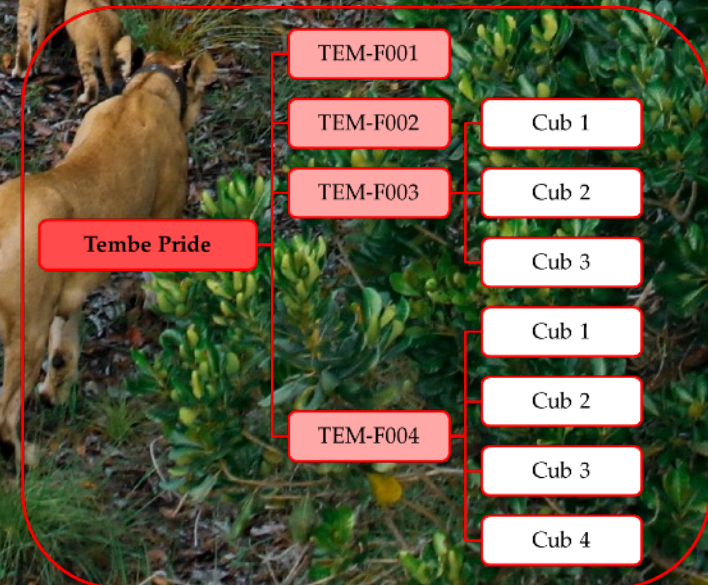
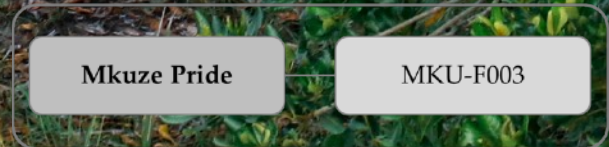
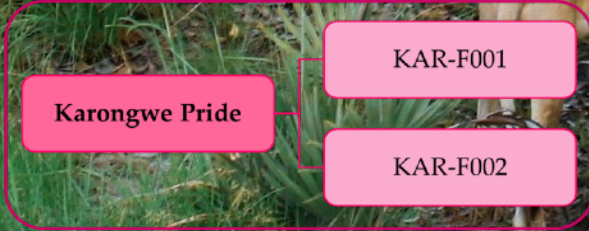
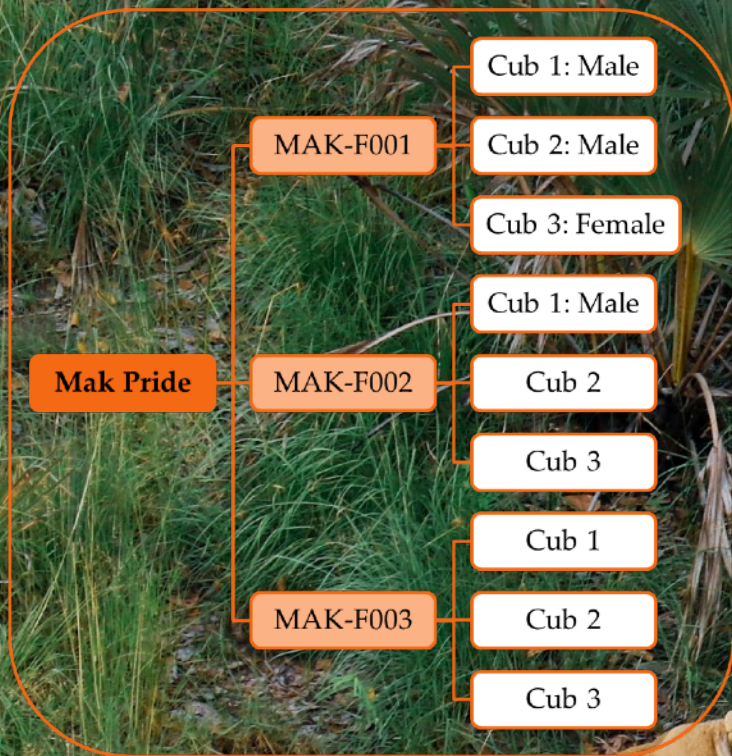
LION MOVEMENTS

MAY 2020

The map below shows all pride locations and all coalition home ranges for May 2020. Lion home range size was 26.6 km², excluding the roaming behaviour of the Mkuze Pride female. Compared to previous months, the Karongwe Pride has shifted their range from Coutada 14 to Coutada 11, while the Mak Pride displayed a notable expansion of their range northwards. The dominant males remained consistently with their 'main' prides and patrolled an average area of 70km² this month. Interestingly, on 22 May, the Moz Male had a brief encounter (about 6 hours) with the Mkuze Pride female. This encounter occurred within the Tswalu Coalition range and even though at the time the Tswalu males were patrolling their range boundaries, no encounter with them and the Moz male took place.



LION FAMILY TREES





#24LIONS