



**ZAMBEZI DELTA ECOLOGY**  
**HOLISTIC ECOSYSTEM RESEARCH PROJECT**



**LION REPORT**  
**MARCH 2020**

# TWENTY FOUR LIONS

## | UNPRECEDENTED TIMES |

In just a few months, the world has been completely shaken up by the rapid spread and deadly effect of the COVID-19 virus. Everyone in the world is feeling the effect of this pandemic in some way and we will probably continue to feel the effects for months to come. Despite all this, it is essential that protected areas still monitor their animals and have anti-poaching units patrolling the area.

By keeping everyone updated about the progress of the Twenty Four Lions reintroduction project, we hope to share some good news during this challenging time. This month we have decided to focus on our larger prides and exciting new additions to the rapidly growing lion population. In August 2018, we reintroduced 24 lions and today, almost 20 months later, the population has grown to 53 individuals. Although the cubs born in the Zambezi Delta have yet to reach adulthood, we believe it is just a matter of time until that happens.

One issue often associated with reintroducing lions is their extensive post-release movement and lack of establishment at the release site. After the lions were released into the Delta, some displayed initial exploratory movement, but based on regular tracking and analysis of GPS collar data, all lions have since established permanent ranges.

Mary and Dan Cabela of the Cabela Family Foundation are the backbone of this incredible project and without their continuous support, the Delta would still be devoid of this iconic apex predator.

# QUEENS OF THE DELTA

## MAKALALI LIONS

The six Makalali lions (aged 3.5 to 8 years old) introduced from South Africa took advantage of their new home and started mating and producing offspring almost immediately! Today, the Makalali females have given birth to a total of 18 cubs (average litter size = 3 cubs). These lionesses have clearly done an excellent job in ensuring growth in the lion population which is an essential component in evaluating the success of a reintroduction project.

Lions are social carnivores. They form prides of up to 21 females with their dependent offspring and prides may split into smaller groups due to various factors. After the release, the six related Makalali lions split into two groups, four (Mak Pride) and two (Sirtracks Pride). There was another split in the Mak Pride at the end of 2019 (which may be temporary), as one female moved to the northern part of the pride's range to give birth to two cubs. Additionally, the Mak Pride female with the oldest cubs (MAK-F001) was recently seen mating again with the Mozambican male. Below is a picture of eight of the nine Mak Pride cubs, ranging between 13 and 14 months old.



# LATEST ADDITIONS

## KARONGWE PRIDE

What a rollercoaster ride it has been for the Karongwe Pride. KAR-F001 (also known as Snared Lady) was caught in wire snares on two separate occasions, but we were able to dart and treat her as well as monitor her recovery on both occasions. On the other hand, her partner (KAR-F002, also known as Amanada) gave birth to a single cub in August 2019, but lost the cub to natural causes. Despite all this, they have persevered and given birth to four cubs between them. Additionally, both females have become very relaxed with the presence of the helicopter, which is great for monitoring and checking their body conditions.

Figures: right is KAR-F001 with her cub and below is KAR-F002 with her three cubs.



# LION MOVEMENTS

MARCH 2020

Below is a map of the lion spatial data for March 2020. Pride movements are indicated by GPS fixes (points) and male coalition area usage is indicated by home ranges (polygons). As is clear from the map, male coalitions have clearly defined territorial boundaries with zero overlap between them. Male coalitions each occupy three prides, although the majority of their time is spent with one or two prides. The Moz Male spends the majority of his time with the Tembe Pride, while the Tswalu Coalition moves between the Mkuze and Karongwe Prides. All prides without adult male occupation currently have cubs.

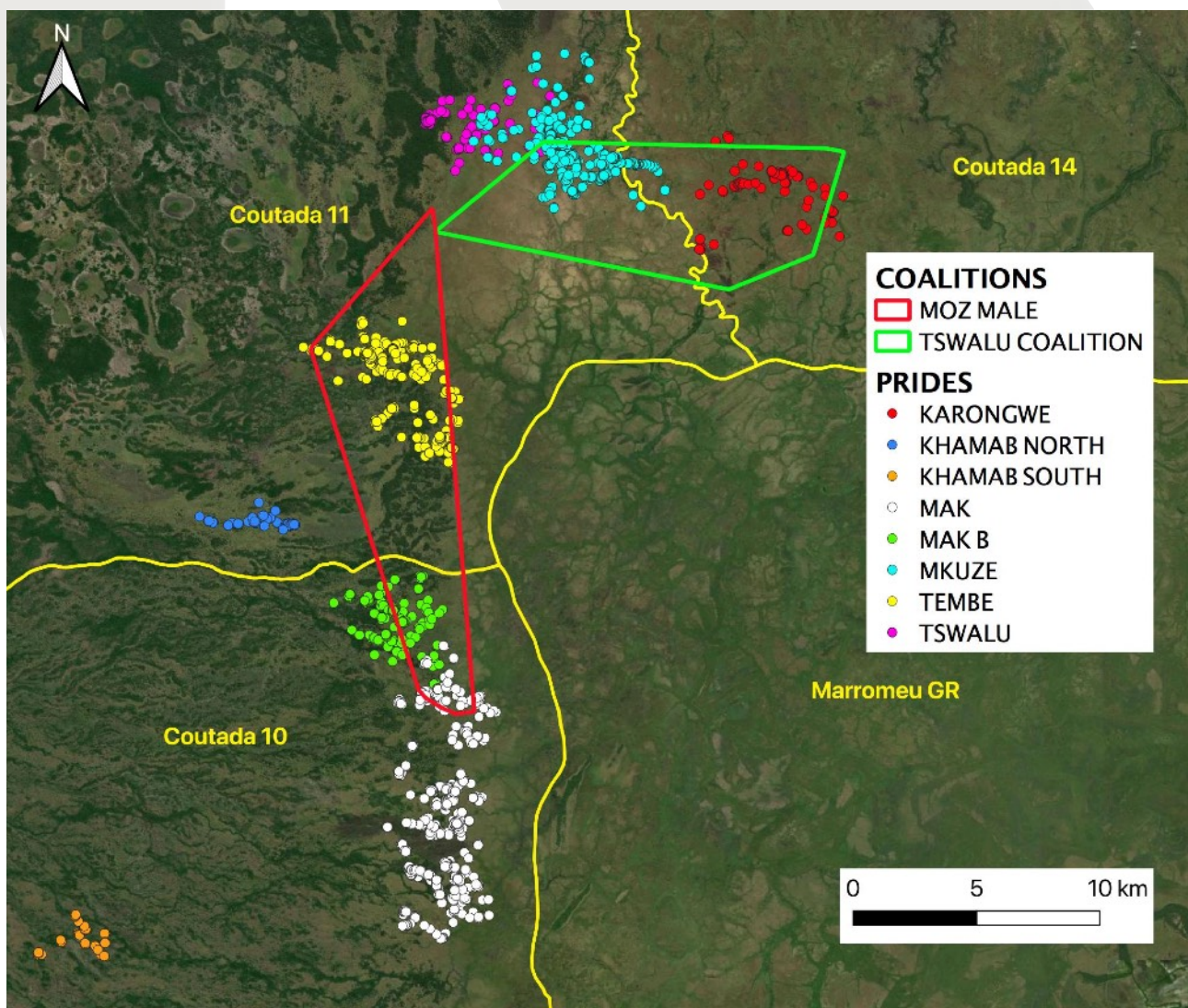
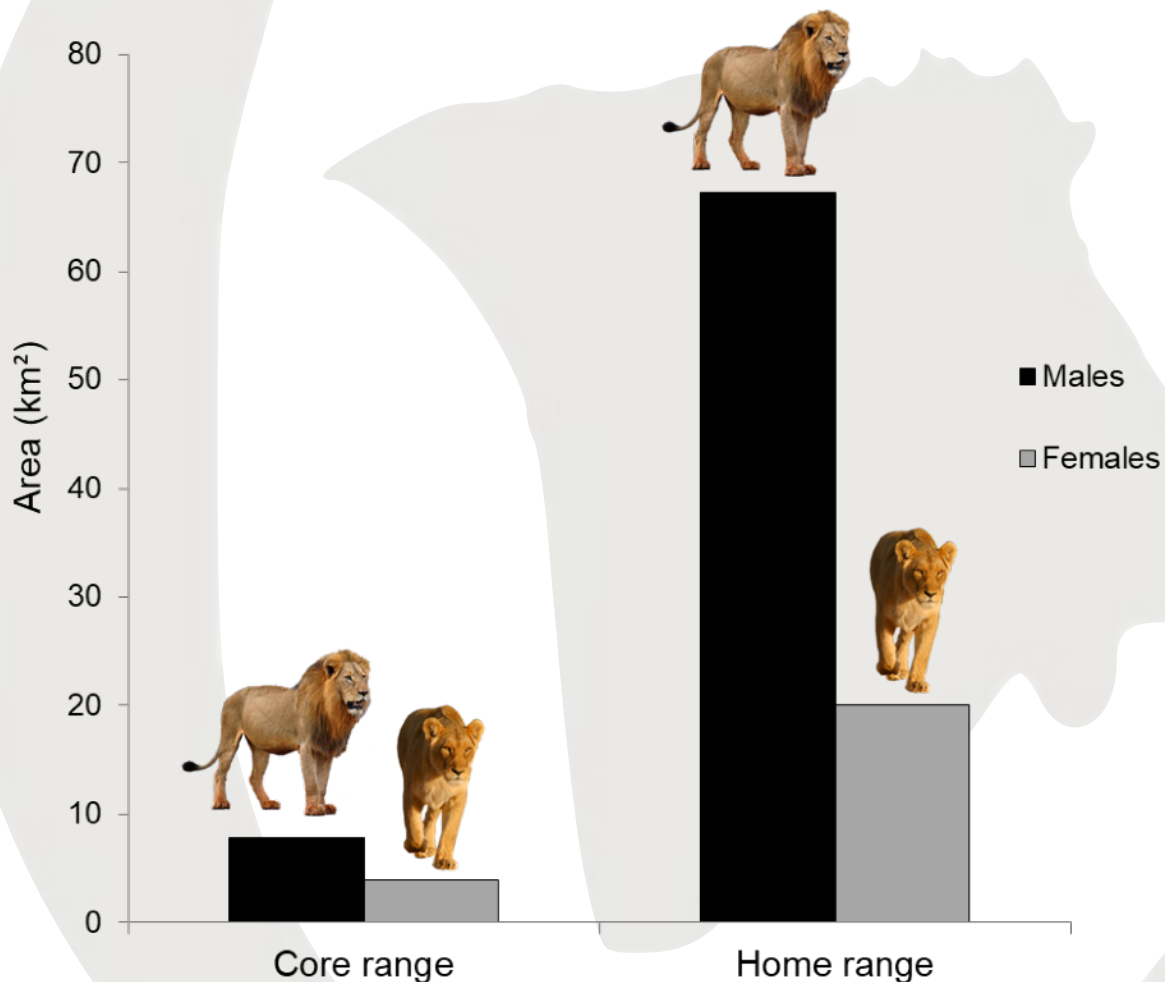


Figure 1. Spatial data for lions in the Zambezi Delta for March 2020.

As seen from Figure 2 and Table 1, male lions had larger core areas and more than three times the home range area size compared to females in March. Compared to last month, lion range usage was similar, with only slight decreases, except for male home ranges, which increased slightly. It must be noted that these calculations are only 1-month ranges, and although it likely covers a large proportion of their total range, it should not be viewed as their total range usage.



**Figure 2.** Core and home range comparison for males and females in March 2020.

**Table 1.** Comparison of core and home ranges for males and females between February and March 2020.

Sex	Core range		Home range	
	February	March	February	March
Males	15.1	7.8	61.1	67.3
Females	6.0	3.9	24.2	20.0



#24LIONS