

A Day in the Life of a Lion Response Team

Alarm, Alarm! The incessant beeping of the Rover Unit sounded, persistent and not to be ignored. The time, 02:04! Oh no! Alu, a lion ranger, stumbled out of his bedroll and pushed the “Acknowledge” button on the rover unit. The message was clear:

17/05/2022 02:04:05 : Auto Tx
EVT938 (Zone: PurosGanamub) Orutjadja Geofence (ACTIVE) : XPL140 AT 5.7 KM NW : XPL140 17 MAY 04H03
18.857S 13.4573E
Msg Rx Confirmed by Rover : 2022-05-17 02:04:00
Msg Acknowledged by User (ACK) : 2022-05-17

XPL140, an adult female, with her sister presumably, on the prowl in the badlands again. Pack the bedroll and gear! Alu and three community rangers packed quietly and quickly. Quick equipment check, fireworks, spotlight, binoculars. Punch in a go-to request on the Rover Unit:

17/05/2022 02:15:45 : Auto Tx
GOTO Coords : 18.85312S 13.43887E
Msg Rx Confirmed by Rover : 2022-05-17 02:15:50
Msg Acknowledged by User (ACK) : 2022-05-17 02:16:33

At approximately 03:30, the team arrives at the farming settlement, alerts the farmers and residents to their presence and to the presence of the lions. A flurry of quick questions:

- Are all the cattle in the kraals?
- Are all the goats in the kraals?
- Has any farmer shifted kraals during the last day or so?

Not all cattle have been kraaled. There is a shortage of predator-proof kraals in this area, as the lions have only recently ventured into this region. Uncle Joshua had an emergency and has apparently had to go by donkey to Sesfontein and his sheep and cattle are still out in the river!

A team meeting is held, and strategies are considered. It is decided to first run a quick patrol to see if the lions have moved and where exactly they are right now. After only several hundred meters the large eyes reflect in the spotlight. The team returns to the farmstead and starts activities. A set of fireworks, crackers and rockets is set off, clearly making the area unpleasant for the lions. Voices are loud and people move around creating disturbance. The team again deploys by vehicle to check the lions. Success, or a temporary reprieve, they have moved a few kilometers. A fire is lit, and the team settle down near the farmstead for the remainder of the night. The next morning, they head to the river to look for and herd Uncle Joshua’s cattle to safety. A morning message on the Rover Unit confirms that the lions are in the mountains and in a relatively safe environment.

Drought in Kunene Region

Prolonged drought in Kunene has led to a dramatic decline in prey species. This has had a major impact on lions and other predators, and many have been forced to move to areas outside their natural territories. The drought has killed many livestock, making the impact of a single loss a cow or goat a very serious event for a farmer.



Cattle being herded and gathered out of danger area

Although the 2021/22 rain season has been good, it will take a few years for the prey species numbers to recover. Already, significant foaling in Hartmann's zebra and lambing in springbok has been seen in many areas. It will also take some time before relief is felt by the desert lions. In response to the decline in prey numbers, lion numbers have also decreased as expected. However, the predator population remains genetically sound and viable.

Early Warning System

The Early Warning System has become an important tool in lion conservation. It was started and developed around 2016 and has evolved into a sophisticated tool for conservation practitioners. While having many components, it essentially comprises two different elements:

- The first is a system of towers placed strategically at locations in hotspot areas. When a lion fitted with a collar comes within 1 to 2 km of the tower, it triggers the tower to set off a siren and a series of lights alerting the farmer to the direction and approximate distance of the collared animal. A message is also sent to the main server which then sends SMS messages to key community members and lion rangers.
- The second component is a system of geofenced areas with satellite collars which sends SMS messages to key community members and conservation practitioners when a "virtual" fence is crossed by a collared predator.

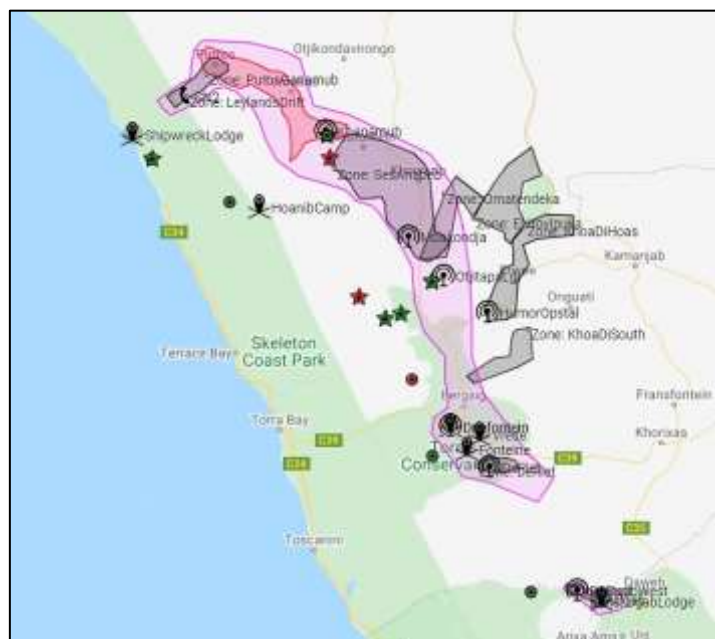


Early Warning Tower being erected

The system has been designed to be flexible and be tweaked to changing situations. Towers can be moved to new hotspot areas in a matter of hours. Geofences can be redrawn or moved within a day. The Rover Units in the vehicles of the Lion Response Team serves as a GPS and an alarm, as well as a two-way SMS communication in remote areas.

In the eight months period from June 2021 to February 2022, there were 136 incidents reported by the Early Warning System. Of these, 106 were physically responded to, a high response rate of 77%. The remainder were all monitored on the system to assess if they were actual incidents or if they would develop into serious problems.

The operating system and the response activities are rather expensive to keep operational. However, can one attach a value to such an iconic sub-population of lions in the north-west? The desert lion population remains an important international conservation species and its preservation is a success measure of our local conservation efforts and policies. The species has also become tremendously important to local tourism. Although expensive, the system makes it possible for farmers who eke out a living on very marginal land, to secure their livestock and share their landscapes with lions.



Geofenced areas and EWS Tower distribution