




**Follow us on Social Media**

 **Africa Geographic**  
Like Page | 834k likes

Follow @africageo | 23K followers

 677k

**Posts of the Week**

Sign up to receive our online magazine and most popular blog posts via email

Email Address

## Caracal hit by car on M3 – provides insight into conservation

Posted on 21 July, 2015 by [Guest Blogger](#) in [Conservation](#) — 2 Comments

Posted: July 21, 2015

 Like  2k   28  

Written by: [Laurel E.K. Sieries](#), Biologist at the [Cape Leopard Trust](#)

On 17 April 2015 we captured and collared a young male caracal, Jasper (aka “TMC08”) as part of the [Urban Caracal Project](#) which aims to research the effects of urbanisation on the behaviour and genetic health of the caracal population in the Cape Peninsula. We estimated his age to be between 1-2 years, which is the age that young caracals attempt to disperse. Dispersal occurs when individuals, often young males, move away from the area where they were born to find their own territory, where they are able to procure prey and mates as they establish themselves.



Jasper looking bright-eyed at the time of his capture.

Remaining wildlife habitat in the Cape Peninsula maybe completely isolated by urbanisation and through the study of caracals in the peninsula we are investigating whether any wildlife corridors that bridge the peninsula to more connected habitat outside of Cape Town exist. However our prediction is grim – there may little-to-no area

suitable for wildlife to travel “out” of the peninsula to larger, connected areas where they may find unoccupied habitat to establish their own territories.

Given his age, and the location of his capture, I made a prediction while fitting him with the radio-collar: “Jasper will be hit by a car within a matter of months.”



Jasper relaxes in his capture cage at the time of his humane capture in April.

Jasper regularly crossed the M3, and his crossings were even highlighted on talk radio in Cape Town, in a Sunday Times article, and on Facebook where he was very popular and viewed by thousands of people.

In line with my predictions, on 14 July 2015, at 11:30am, Jasper was hit by a car on the M3 near Newlands Forest. He was hit on the southbound lane, trying to cross from the fragmented habitat east of the freeway to travel back towards Table Mountain National Park. The driver reported that Jasper suddenly tried to quickly cross the highly trafficked road, taking him completely by surprise, and collision was unavoidable.



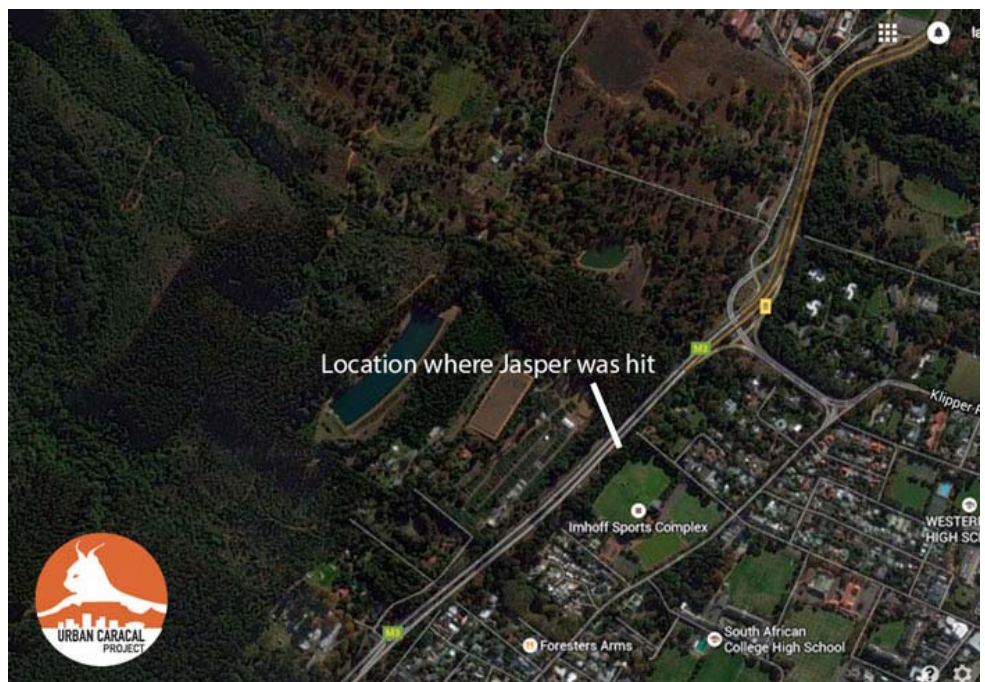
Jasper sustained significant injuries that likely caused instant death.

Five different people reported Jasper's death, including the person who hit Jasper. Three called within 15 minutes of the incident. The rapid community response afforded us the opportunity to immediately go into action to recover the body of the caracal, and document the location and circumstances of Jasper's death.

Our next critical step was to assess the "damage" and collect samples that can be used to understand if there were any factors that increased Jasper's vulnerability to being hit by a car (i.e. rat poison, exposure or disease). We performed a necropsy (the animal version of an autopsy) to collect samples from major organs and blood samples. We also took body measurements to assess his body condition and whether, as a young male, he rapidly grew in the last three months. We also collected his teeth so that we may be able to send them to a lab for "exact" aging because we are unable to do that based on tooth wear alone. We will use the blood and liver samples for disease and pesticide exposure testing.

Our findings were that he sustained major fractures to his head and hindquarters, suggesting that his death was immediate and he did not suffer as a result of the accident. Pesticide and disease testing take months once samples are sent to a lab, but there was no evidence of abnormalities that led us to believe that exposure to either contributed to his death. However, during my bobcat study in California, I found evidence that recent, yet low level, exposure to rat poisons may increase bobcat likelihood of being hit by cars, and the same may be true for Cape Town caracals.

So why was Jasper crossing the M3? The most likely reason is that, as a young male caracal at dispersal age, he was trying to find a new unoccupied territory, but the areas east of the M3 offer little habitat for caracals. So in regularly crossing, he seemed to be "exploring" different areas that could offer space for him. We have also documented that at least three other adult males (Laduma, Ratel and Oryx) use the same area in direct overlap with Jasper, and so Jasper may have been trying to avoid encountering, and potential conflict, with these older males.

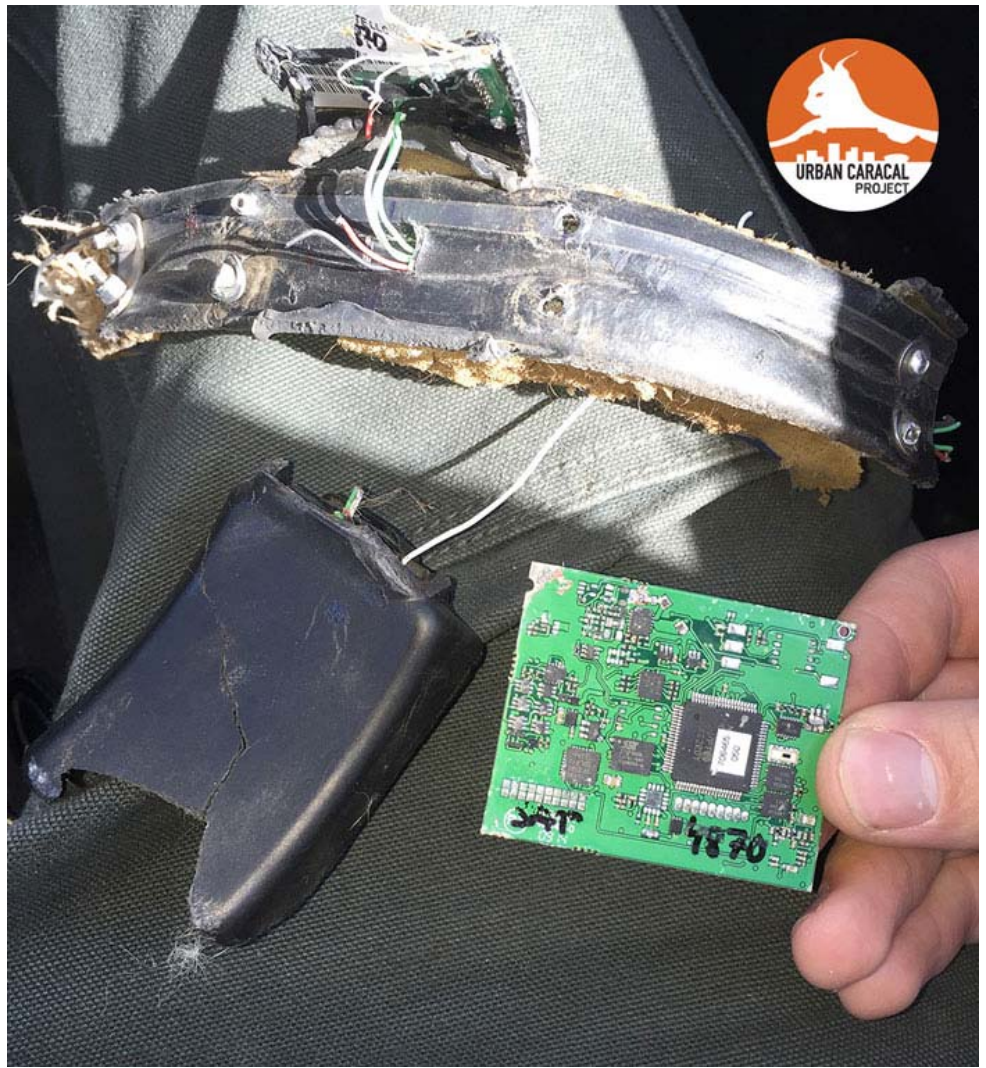


A map showing where we recovered Jasper's body and where he was hit by the car.

Vehicle collision, thus far, has been the most frequent source of mortality that we've observed for caracals in this study. The loss of a radio-collared caracal helps to confirm this finding. Only by radio-collaring these elusive wild cats do we have the ability to investigate the frequency of death due to other causes because often wild animals die in areas unseen by humans. So by radio-collaring the caracals, we are interested in other potential sources of mortality that we may be able to document if they die deep in the bush, but so far, we have primarily documented death by vehicle collision. The study is in its early stages, but given the degree of habitat fragmentation, the major roads that fragment Table Mountain National Park, and the isolation of the park by extensive and dense urbanisation, our findings thus far are not surprising. To persist in Table Mountain National Park caracals must travel across roads to find sufficient prey and potential mates, and so in this need, they are vulnerable to vehicle collision.

Some positives have come from Jasper's death. One positive is the data that we collected and it is very interesting to us that he attempted this crossing during the day! Carnivores like caracals are known for being active at night, but we have been observing interesting daytime movement patterns. Most importantly, however, is that these data highlight that the implementation of wildlife corridors in rapidly urbanising cities, even beyond Cape Town, may be critical for the long-term persistence of even those species, such as caracals, that are relatively adaptable to urbanisation. In documenting unfortunate deaths such as Jasper's, we contribute to the pool of evidence that wildlife corridors, particularly across major roads and through dense urban areas, are critical for wildlife conservation.

But most surprising and rewarding to me was the number of people that called to report Jasper's death. So, I want to commend the citizens that called to report the death as soon as they were able – without the quick action, we may not have been able to recover his body. And because Jasper's radio-collar was destroyed when he was hit, we would not have known if his collar suddenly stopped functioning and Jasper was alive still, or if he was hit by a car and the collar destroyed. So, this quick action by numerous people shows that we have great community support, but also that the community thinks that the work we are doing is worthwhile. We are also getting the word out sufficiently that we are establishing ourselves as resources for people to call and report these incidents, which means getting the community involved in a way that increases our productivity and ability to collect important data relevant to conservation.



Jasper's destroyed radio collar

This support helps fuel the project for me, because the project presents significant daily struggles. I am struggling greatly to funding to buy a sufficient number of radio-collars, I still have not found stable, financially viable, accommodations for our interns that are paying their own way, we need another bakkie for the interns to drive and now with Jasper's death, we are actually "down" a radio-collar (and therefore R30,000) because it was destroyed by the car that hit Jasper. However, with increased recognition of our work, hopefully we will become more competitive in our grant-writing efforts, but also find community members able to provide some financial support for the project.

If you are one of those community members, please visit [our Support page](#). Any amount helps!

Like 2k G+1 28

Don't miss out! Get our 'Top Blogs of the Week' newsletter sent to your mail box each week. [Sign up now!](#)