

Predators costing SA over R2-billion livestock and wildlife losses

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By Heather Dugmore

Predators like the black-backed jackal are costing South Africa more than R1.3-billion per year in livestock losses of sheep and goats. The annual loss of cattle to jackal is more than R380-million and a similar situation of huge losses applies to antelope on wildlife ranches. This equates to losses of over R2-billion per year.

This is according to extensive surveys conducted over the past decade by Professor HO de Waal and postgraduate colleagues from the Department of Animal, Wildlife and Grassland Sciences from the University of the Free State.

In an attempt to reduce these unsustainable losses, and their associated risks to food security and biodiversity, many South African farmers have been lethally targeting jackal and other predators such as caracal.

Yet the jackal population is more resilient than ever.

“There is always the risk of management interventions developing unexpected and adverse outcomes – and even increasing the problem. This is what is happening with our on-farm black-backed jackal populations control measures,” says top South African zoologist and conservation ecologist, Professor Graham Kerley, from Nelson Mandela Metropolitan University (NMMU) in the Eastern Cape.

“The jackal females on farms breed younger and have more offspring at a younger age as a compensatory response to lethal management. The same response is not happening on nature reserves.”

In 2015 Kerley co-authored an article published in the prestigious Journal of Applied Ecology, based on two years of jackal research (October 2011 – October 2013) in three conservation areas - Karoo National Park, Mountain Zebra National Park and Addo Elephant National Park - and on wildlife and livestock farms adjacent to these Eastern Cape reserves.

This research is based on a sample size of over 500 jackal. It is the first time the response of jackal to lethal management has been rigorously quantified in South Africa, and it strongly indicates that killing jackal is not effective, without improving other management measures, notably fencing and hands-on management.

The research paper is titled: '*Compensatory life-history responses of a mesopredator may undermine carnivore management efforts*', and Kerley's co-authors are Liaan Minnie (a PhD student at NMMU being supervised by Kerley) and Dr Angela Gaylard from the South African National Parks' Scientific Services Division.

"On the farms where jackal are hunted we found that about 70% of 1-2-year-old females that have only just left their parents at 11 months, are already breeding. The average age of the jackal population on farms where they are hunted is under five years," Kerley explains.

"On the reserves, by comparison, only about 20% of this age group is breeding. On average, it takes jackal populations on reserves three years longer to achieve the same level of reproduction that jackals on farms are showing."

Jackal females can live to 7 years+, producing an average of 3-3.5 pups per year.

Research suggests that young female jackals on reserves are socially constrained from breeding in the natural territorially-maintained hierarchy, and will only breed when they can acquire enough food resources to get their body condition up to reproductive form.

Farmers who do not hunt jackal together with absent farmers, weekend farmers and nature reserves are often blamed for creating breeding grounds for jackal. However, as Kerley points out: "Sheep and goat farmers in particular need to appreciate that they are contributing to the problem by creating attractive habitats for the predators with lots of food. By hunting the predators they are also contributing to the compensatory response pattern of younger predators breeding."

Instead of pointing fingers, Kerley says what is important is that all participants come together to understand what is happening with the jackal and other predator populations, such as caracal and leopard, on both conservation areas and on farms, and to work together towards more effective, collective management approaches.

He says the research needs to be expanded throughout South Africa to start understanding key issues such as the genetic structure and movement of jackal around the landscape. Liaan Minnie has already completed extensive research on the genetics, diet and population structure of the jackal for his PhD through NMMU, which he is currently preparing for publication.

Prof de Waal adds: “We have created a serious imbalance of predators like black-backed jackal and caracal and if we do not address this problem at a national scale, not only will we lose more farmers and put food security even more at risk, we will see an increase in condemned methods of predator control such as poisoning. South Africa urgently needs a formal, state-driven system to manage predation and employ best practices at a national level to achieve this.

“If a farmer is constantly battling against predation, it creates a financial burden on the farmer and a socio-economic burden on the state as it results in farm losses and job losses. This is unsustainable for South Africa.”

De Waal says the insufficient political will being shown from government’s side in support of South Africa’s livestock farmers and wildlife ranchers is “very worrying”.

“Drought, livestock theft and predation are the three biggest threats to farmers, and government is not showing anything near the kind of response and support for farmers that it should, and that is par for the course in other countries.

“In the absence of government leadership in this regard, the livestock and wildlife industries have founded the Predation Management Forum (PMF) and are currently trying to source finances to establish a Predation Management Information Centre,” de Waal continues.

“It will be based at a university because of the depth of scientific support required to understand the problem and initiate a coordinated best practice response at a national level. The envisaged Centre will also actively lobby the participation of Departments of Agriculture and Environmental Affairs.”

Kerley and de Waal agree that in the meantime all farmers need to focus on appropriate fencing and increasing their hands-on stock management

as a matter of urgency. “The more frequent contact that farmers and farmworkers have with livestock the lower the losses. Human presence on farms definitely plays an important role in predator management,” says de Waal.

Proactive farmers are achieving success with this approach. Justin Kingwill, a 36-year-old farmer from Graaff-Reinet in the Eastern Cape explains that in order to reduce his loss of lambs from predation by jackals, he erected nine kilometres of 1.8m-high jackal-proof fencing around 2500 hectares, which he patrols twice a week.

“It is working really well. From 70 – 80% weaning of my lambs before the fencing, I am now weaning 120%,” he explains. “While the odd jackal has managed to get through the fence at a river crossing, the patrols have largely eliminated this. Out of 1850 lambs this season I have possibly lost 10.”

The fencing, labour and machinery costs are expensive. It cost Kingwill about R250 000 but he emphasises it is absolutely worth it. “I definitely think that good fencing and diligent patrolling and management of your livestock is the future when it comes to controlling predators. I encourage other farmers to do the same.”

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