

Where science feeds action, leopards win

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The Muniyawana Leopard Research Project at &Beyond Phinda Private Game Reserve in KwaZulu-Natal began in April 2002, and has been instrumental in the long-term conservation of local leopard populations. Guided by Dr. Luke Hunter and Guy Balme from Panthera, the research is the most comprehensive study on leopards ever conducted, specifically in terms of the length of study, the number of leopards collared and the outputs generated from the research. Since inception, 64 leopards have been collared (the highest recorded in previous studies was 31), over 13,000 locations logged and more than 1,600 direct leopard observations made. Credit: Photo by Chris Sperka/Panthera.org

Researchers from the field in South Africa demonstrate that threatened big cats truly can be saved through strategic and science-based conservation practices, according to a study published this week in the scientific journal *Biological Conservation*.

The study was led by researchers from Panthera, the leading wild cat [conservation](#) organization, and the University of KwaZulu-Natal. After 6 years of meticulous fieldwork on the leopards in the Phinda Private Game Reserve in South Africa's KwaZulu-Natal province, they were able to confirm the [leopard](#) population bounced back following the launch of a major conservation program.

When the study began, leopards were vulnerable to high levels of both legal and illegal hunting in areas adjacent to reserves in South Africa. Foreign trophy hunters are legally allowed to shoot a controlled quota of leopards each year, while farmers in the area persecute them because of the threat they posed to [livestock](#) and wild game. Between 2002 and 2005, the team tracked 26 leopards and found that 23 of them wound up dead.



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"Many of those leopards were killed by humans and by 2005 we realized that the numbers dying at the hands of people were too high to sustain," said Guy Balme, a researcher from Panthera and the study's lead author. "We designed a conservation plan meant to reduce the worst of the problems in the hopes of bringing the leopards back."

The plan included reducing the numbers of leopards legally hunted in the area. Luke Hunter, Panthera's Executive Director explained, "Before 2005, over 90% of the province's legal quota for leopard hunting came from around Phinda and the adjacent Mkhuze Game Reserve. We never sought to reduce the quota, but we argued that it needed to be distributed more fairly to avoid having all the hunts in one population."

As a result, new regulations were enacted in 2006 that dispersed the hunting pressure across the province. The changes also recommended a ban on hunting female leopards and young animals- both of which were killed regularly by sport hunters prior to 2006- and a comprehensive plan that helped farmers avoid problems with leopards to reduce the reasons why leopards were killed.

By 2008, the evidence collected proved the plan was working. Compared to the pre-2005 era, leopards lived longer, people killed fewer, and the population grew. As an unexpected consequence, females conceived more often and raised more cubs. Balme believes that the constant turnover in leopards being killed by people put the population in chaos. "Male leopards don't help raise cubs, but they do provide essential security for 'their' females, protecting them from new males which routinely kill their predecessors' cubs to improve their mating opportunities. With constant killing of resident males, females were trapped in a cycle where residents were not around long enough for the cubs to be raised." Reducing the number of leopards killed helped to re-establish stability in the population so that females had a safe window in which to raise their cubs.

One of the few examples citing scientific proof, this study demonstrated conservation of big cats works. "As conservationists, we can no longer afford to continue with the same feel-good projects and ideas unless we can show success- or if not, understand why they fail," says Hunter, "Simply carrying on the same path without evaluating whether the cats are better off is not conservation. We have to be able to produce hard results for what we do."

The study's collaborators included &Beyond, the ecotourism organization that manages Phinda and offers specialized leopard safaris based on the conservation project, as well as Ezemvelo KwaZulu-Natal Wildlife, the provincial authority who were responsible for enacting the essential changes in policy. The project is planned to continue through 2012.

More information: www.panthera.org/

Source: Panthera

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