

Working Together to Conserve Swaziland's Wildlife Resources

ROBERT McCLEERY

I am working in collaboration with the Swaziland Nation Trust Commission, the University of Swaziland, and All-Out Africa to provide practical research to Swaziland's conservation land managers and to understand how the growing pressures on African savannahs are altering wildlife communities.

As Swaziland's lowveld (dry savannah) becomes increasingly inhospitable to wildlife, the Siphiso valley, running through the heart of the Mlawula Nature Reserve, remains a refuge for the region's biological diversity. The dynamics of wildlife populations in the Siphiso valley, like other Africa savannah systems, are determined by a complex array of interacting biotic and abiotic components. To ensure the long term health of the valley and its wildlife communities, it is imperative that we document and understand how the savannah changes and functions. By monitoring the wildlife communities and biological processes in the Siphiso valley we are beginning to provide valuable information that can be used to make management decisions, not only in Mlawula Nature Reserve but throughout southern Africa. We have recently initiated a long term monitoring program that simultaneously provides data to managers and lends itself to answering complex ecological questions.

In savannah systems, wildlife communities predominantly respond to the production of grass. The factors that drive grass production are rainfall, fire, grazing pressure, and mega-fauna. Our approach to monitoring and research for this project has been to collect both consistent and rigorous data.



We are taking a long term, multi-scaled approach to our efforts in the Siphiso valley. By conducting annual monitoring throughout the valley we will be well positioned to detect and understand when and why wildlife communities change. The information from our program will allow us to understand the influences of poaching, fire, shrub encroachment, and rainfall on small mammals, birds, ungulates, and predators in the Siphiso valley. In the coming years, along with my graduate students and Dr. Monadjem at the University of Swaziland, we are planning on using our monitoring protocol outside of protected areas to understand how different land-uses (grazing, subsistence farming, and development) alter wildlife communities and the ecosystem services they provide.

In addition to our long term monitoring program, we are in various stages of the research process on a number of Swazi-based wildlife studies. We are currently collecting data on the use of trip cameras to identify individual genets, civets, and servals (all mid-sized carnivores). If our methods are successful this technique will allow us to better understand these cryptic mammals.

We are also analyzing data collected over the last 10 years on two rarely study mammals, Egyptian bats and pygmy mice. Finally, we are in the process of publishing our work examining the influences of intensive sugarcane cultivation on wildlife population in and adjacent to plantations in Swaziland.

Our collaborative research efforts in Swaziland have also allowed us to train both aspiring Swazi and American conservation researchers. Each summer I bring a group of University of Florida undergrads on a study abroad program to conduct conservation research in Swaziland. Starting this year our students will be joined by students from the University of Swaziland who will turn their projects into their senior thesis. In the future, as our research and educational activities continue to grow we are looking for ways to develop a permanent research center to accommodate regional and international researchers.

Robert McCleery is assistant professor in the Department of Wildlife Ecology and Conservation and affiliate faculty in the Center for African Studies. Partial funding for this work comes from ALL-Out Africa.